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Stage 2 Archaeological Assessment

Proposed Redevelopment

744 First Avenue, City of Welland, Regional Municipality of Niagara, Part of Lot
227, in the Geographic Township of Thorold, Welland County, Ontario

Original Report

Prepared for:

Ontario Ministry of Citizenship and Multiculturalism

Prepared by:

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PIF# P1208-0253-2023

Project No. 158-02-23

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EXECUTIVE SUMMARY

Archaeological Consultants Canada (“ACC”) was contracted by the Proponent to conduct a Stage 2 archaeological assessment prior to the proposed redevelopment of a 3.88-hectare (“ha”) parcel of land (the “subject property”). The assessment was required under the *Planning Act, R.S.O. 1990*. The subject property is located at 744 First Avenue in the City of Welland, Regional Municipality of Niagara, Ontario (Figure 1). The property was historically located on Part of Lot 227, in the Geographic Township of Thorold, Welland County. The Proponent provided the property limits and verified the subject property defined within this report.

Archaeological Services Inc. (“ASI”) conducted a Stage 1 assessment of a 189-ha parcel of land which included the entirety of the current subject property. The assessment was conducted under PIF P449-0207-2018 (ASI, 2018). ASI determined that the lands within the current subject property retained archaeological potential and required Stage 2 assessment (ASI, 2018: Figure 13).

The Stage 2 assessment was conducted under Professional Archaeological License P1208, held by Matthew Muttart. The fieldwork was directed by Leah Peacock (R1273). The Ontario Ministry of Citizenship and Multiculturalism (“MCM”) assigned Project Information Form (“PIF”) number P1208-0253-2023 to this project. The licensee of ACC received permission from the proponent to access the property and to conduct all required archaeological fieldwork activities including the removal of artifacts, as necessary. The property was accessed on May 27th, 2023.

Background research indicated that the subject property exhibited general archaeological potential due to proximity to a farmstead, an early historical transportation route, a tributary of the Welland River, and to 21 registered archaeological sites.

As no on-site property inspection was conducted during the Stage 1 assessment, a visual inspection was completed during Stage 2 survey. The visual property inspection determined that 1.14 ha, 29%, of the 3.88 ha subject property had been previously disturbed.

The balance of the subject property, 2.71 ha, 71%, was determined to retain archaeological potential and was subject to Stage 2 assessment by means of test pit survey at 5 m intervals as it consisted of greenspace and scrubland that could not be ploughed. No artifacts or other archaeological resources were identified during the Stage 2 property assessment.

The following recommendations are provided for consideration by the Proponent and by the MCM:

1. No artifacts or other archaeological resources were identified during the Stage 2 archaeological assessment. The subject property has now been fully assessed according to the Ontario Ministry of Citizenship and Multiculturalism’s 2011 *Standards and Guidelines for Consultant Archaeologists*. No further archaeological assessment of the property is required.

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PROJECT PERSONNEL

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Stage 2 Archaeological Assessment

Proposed Redevelopment

744 First Avenue, City of Welland, Regional Municipality of Niagara,
Part of Lot 227, in the Geographic Township of Thorold, Welland
County, Ontario

1.0 PROJECT CONTEXT

1.1 Development Context

Archaeological Consultants Canada (“ACC”) was contracted by the Proponent to conduct a Stage 2 archaeological assessment prior to the proposed redevelopment of a 3.88 hectare (“ha”) parcel of land (the “subject property”). The assessment was required under the *Planning Act, R.S.O. 1990*. The subject property is located at 744 First Avenue in the City of Welland, Regional Municipality of Niagara, Ontario (Figure 1). The property was historically located on Part of Lot 227, in the Geographic Township of Thorold, Welland County. The Proponent provided the property limits and verified the subject property defined within this report.

Archaeological Services Inc. (“ASI”) conducted a Stage 1 assessment of a 189-ha parcel of land which included the entirety of the current subject property. The assessment was conducted under PIF P449-0207-2018 (ASI, 2018). ASI determined that the lands within the current subject property retained archaeological potential and required Stage 2 assessment (ASI, 2018: Figure 13).

The objective of a Stage 2 property assessment is to document all archaeological resources present on the property and to make a determination about whether these resources, if present, have cultural heritage value or interest. Archaeological resources consist of artifacts (Indigenous stone tools, pottery and subsistence remains as well as Euro-Canadian objects), subsurface settlement patterns and cultural features (post moulds, trash pits, privies, and wells), and sites (temporary camps and special purpose activity areas, plus more permanent settlements such as villages, homesteads, grist mills and industrial structures). If any archaeological resources are present that exhibit cultural heritage value or interest, a Stage 2 survey will determine whether these resources require further assessment and, if necessary, recommend appropriate Stage 3 strategies for identified archaeological sites.

The Stage 2 assessment was conducted under Professional Archaeological License P1208, held by Matthew Muttart. The fieldwork was directed by Leah Peacock (R1273). The Ontario Ministry of Citizenship and Multiculturalism (“MCM”) assigned Project Information Form (“PIF”) number P1208-0253-2023 to this project. The licensee of ACC received permission from the proponent to access the property and to conduct all required archaeological fieldwork activities including the removal of artifacts, as necessary. The property was accessed on May 27th, 2023.

All fieldwork and reporting were completed using MCM’s 2011 *Standards and Guidelines for Consultant Archaeologists*. This report documents the research, the field methods and results,

and the conclusions and recommendations based on the Stage 2 archaeological assessment. All documents and records related to this project will be curated at the offices of Archaeological Consultants Canada, in accordance with subsection 66(1) of the *Ontario Heritage Act*.

1.2 Historical Context

1.2.1 Background Research

Stage 1 background research was previously conducted by ASI (2018). This research was conducted to determine the potential for finding and identifying archaeological resources including sites within the current subject property and to determine the necessity of conducting a Stage 2 survey. This is done by reviewing geographic, archaeological, and historical data for the property and the surrounding area. The background research was conducted to:

- amass all the readily available information on any previous archaeological surveys in the area.
- determine the locations of any registered and unregistered sites within and around the subject property.
- develop an historical framework for assigning levels of potential significance to any new sites discovered during fieldwork.

The following sections summarize the findings from ASI's (2021) Stage 1 assessment report. When applicable, ACC has updated the previous findings with new information to conform to the 2011 *Standards and Guidelines for Consultant Archaeologists* (MCM, 2011).

1.2.2 A Cultural Chronology for Southern Ontario

Over their thousands of years of occupation in the general region, Indigenous peoples have left behind, to a greater or lesser degree, physical evidence of their lifeway activities and settlements at many locations. Based upon a published synthesis of Indigenous cultural occupations (Wright, 1968). Table 1 is a general outline of the cultural history of southern Ontario that is applicable to the subject property. Ellis and Ferris (1990) provide greater detail of the distinctive characteristics of each time period and cultural group.

It is likely that Ontario was occupied soon after the retreat of the Ice Age glaciers. The earliest known human occupation in the area was during the Paleoindian period (between 12,000 and 9,500 years ago) wherein small groups of nomadic peoples hunted big game such as caribou in a cool sub-arctic climate. Sites are typically found near glacial features such as the shorelines of glacial lakes or kettle ponds which allowed access to the low-lying environments favoured by the caribou and other wildlife. These people were few and their small, temporary campsites are relatively rare. Paleoindian sites are recognized by the presence of distinctive artifacts such as fluted projectile points, beaked scrapers, and gravers and by the preference for light colored cherts, such as Collingwood chert. The Paleoindian Period is divided into two sub-periods, Early Paleoindian, and Late Paleoindian.

People during the Archaic period (*circa* 10,00 to 500 years ago) were still primarily nomadic hunters, but they adapted to a more temperate climate. Groups were dispersed during winter

months and converged around watercourses from the spring to fall in large fishing campsites. The Archaic period is characterized by the appearance of ground stone tools, notched, or stemmed projectile points. The Archaic Period is divided into three sub-periods, Early, Middle and Late Archaic. During the Archaic Period, groups began to establish territorial settlements and introduce burial ceremonialism. There is a marked increase in the number and size of sites, especially during the Late Archaic period.

Table 1: General Cultural Chronology for Southern Ontario

PERIOD	SUBDIVISION I	SUBDIVISION II	YEARS BEFORE PRESENT	COMMENTS
PALEOINDIAN	Early Paleoindian	Fluted Point Horizon	12,000-10,500	big game hunters
	Late Paleoindian	Holcombe & Hi-Lo Horizons	10,500-9,500	small nomadic groups
ARCHAIC	Early Archaic	Side Notched Horizon	10,000-9,700	nomadic hunters and gatherers
		Corner-Notched Horizon	9,700-8,900	
		Bifurcate Horizon	8,900-8,000	
	Middle Archaic	Middle Archaic I/Stemmed Horizon	8,000-5,500	territorial settlements
		Middle Archaic II	5,500-4,500	polished ground stone tools
	Late Archaic	Narrow Point Horizon	4,500-3,500	
		Broad Point Horizon	4,000-3,500	
		Small Point Horizon (including Haldimand and Glacial Kame Complexes)	3,500-2,800	burial ceremonialism
WOODLAND	Early Woodland	Meadowood Complex	2,900-2,400	introduction of pottery
		Middlesex Complex	2,500-2,000	
	Middle Woodland	SW Ontario: Saugeen	2,300-1,500	long distance trade networks
		Western Basin: Couture	2,300-1,500	
	Transitional Woodland	SW Ontario:		
		Princess Point	1,500/1,400-1,200	incipient agriculture
		Western Basin:		
	Late Woodland: Ontario Iroquois Tradition	Riviere au Vase	1500/1400-1200/1100	
		Early: Glen Meyer	1200/100-750/700	transition to village life
		Middle I: Uren	720/700-710/670	large villages with palisades
		Middle II: Middleport	710/670-670/600	wide distribution of ceramic styles
	Late Woodland: Western Basin Tradition	Late: Neutral	600-450	
Younge Phase		1200/1100-800		
Springwells Phase		800-600		
HISTORIC	European Contact	Wolf Phase	600-450	
		Historic Neutral	450-350	tribal warfare
		Initial Contact	380-300	tribal displacement
		European Settlement	200 >	European settlement
		First Nations Resettlement	200 >	

(Compiled from Adams, 1994, Ellis *et al.*, 1990, Wright, 1968)

The Woodland period is distinguished by the introduction of pottery vessels for storage and cooking. Sites of the Woodland period (*circa* 3000 to 400 years ago) are usually the most



numerous because the population levels in southern Ontario had significantly increased, especially along the shores of Lakes Erie and Ontario. The Woodland Period is also marked by the establishment of complex long distance trading networks. The Woodland Period is divided into three sub-periods, Early, Middle and Late Woodland. During the Late Woodland Period, there is increasing sedentarism and the establishment of horticulture, a reliance on tribal warfare, and the introduction of semi-permanent villages with large protective palisades. The Late Woodland period also envelops the emergence of Iroquoian tribes and confederacies.

The historic period (from A.D. 1650 to 1900) begins with the arrival of Euro-Canadian groups. While North America had been visited by Europeans on an increasing scale since the end of the fifteenth century, it was not until the voyages of Jacques Cartier in the 1530s that Europeans visited Ontario Iroquoians in their home territories. Sites of this period document European exploration, trade, and the displacement and devastation of native groups caused by warfare and infectious disease. The most common sites of this period include Euro-Canadian homesteads, industries, churches, schools, and cemeteries.

The earliest recorded European visitor to the area is Father Louis Hennepin, who explored the area as a missionary in 1678. He is best known for publishing an account of his travels, which include the first written description of Niagara Falls, published in 1689 (Page, 1876).

The subject property was historically located on Part of Lot 227 in the Geographic Township of Thorold, Welland County. Welland County was formed in 1851, when land from the southern section of Lincoln County broke away (Mika & Mika, 1983). The county was named after the Welland River, which, in turn, was named by John Graves Simcoe after a stream in Lincolnshire, England (Middleton & Landon, 1927). The townships in this county were among the earliest settlements in Upper Canada and were predominantly made up of United Empire Loyalists who came to the area after the American Revolutionary War (Carter, 1984). The building of the first Welland Canal in the 1820s also helped stimulate the growth of settlement in the area (Mika & Mika, 1983).

The first township survey was conducted by August Jones in 1788, when Thorold Township was known simply as “Township No.9”. Jones was then employed to devise plans for the settlement and an inventory of items of “public utility” such as waterfalls, minerals, quarries, and quality timber (Fraser 1906:346, 388-389, 426-427). The first settlers in Thorold Township arrived between 1784 and 1787. Again, most of these settlers were United Empire Loyalists that had wintered in the Niagara region during the American Revolutionary War. During the War of 1812, militia were raised from the township to help defend the Niagara Peninsula which was in American hands from May to June 1813 (Thompson, 1898). It was during this period that Laura Secord made her famous trek from Queenston to the headquarters of Lieutenant Fitzgibbon at the DeCew house (Thompson, 1898).

By 1817, the township had a population of 830 and most of the land was cleared and a network of roads had been built, along with four sawmills and a grist mill to support the growing lumber and farming industries (Mika & Mika, 1983). By 1846, almost half of the land within the Township of Thorold had been cleared and was under cultivation. The opening of the Welland Canal in 1826 was a major stimulus to the township, and the population expanded from 830 in 1817 to 2,284 in 1846. By 1849, the Thorold Township had a population of 3,695 (Carter,

1984). In 1879, the Niagara, St. Catharines and Toronto Railway was extended through the township drawing major steel and heavy manufacturing companies to the area (Mika & Mika, 1983).

In 1829, the Welland Canal was constructed. A wooden aqueduct carried the canal over the Welland River, and as a result, the settlement of Aqueduct developed. The Township of Welland derives its name from William Hamilton Merritt of the Welland Canal Company, responsible for the construction of the stone successor of the wooden aqueduct. The town of Aqueduct was then renamed Merrittsville, which would, in 1858, be renamed once again as the Village of Welland (Mika and Mika 1983:614, 616). Welland was later incorporated as a town on January 1, 1878, and as a city in July of 1917).

Historically, the nearest community to the subject property was Port Robinson, located 3.4 kilometres (“km”) to the northeast. Port Robinson was the original terminus of the Welland Canal, where it joined the Welland River. Prior to 1824, when construction of the canal commenced, there was only one resident in the area. Once construction began, a large number of Irish immigrants employed on the canal erected shanty homes along the banks of the canal. A village began to form at the south end of the canal and when the canal opened in 1829, Port Robinson became a port of entry (Mika & Mika, 1983:242). The opening of the canal also brought prosperity to the village, with construction of shipyards and steamboats, as well as inns and taverns catering to boat passengers and stagecoach travelers stopping at the port.

A post office was established in Port Robinson on April 6th, 1835. The community was named after Chief Justice Sir John Beverly Robinson, a member of the First Canal Company (Carter, 1984:947). In the 1840s the locals called the town the Junction. For a brief time, the town was also called Port Beverly, also after the Chief Justice. The town had a population of 300 by 1846, and 800 by 1866 (Carter, 1984:947).

A fire in 1886 destroyed much of Port Robinson’s business and industrial areas, many of which were never rebuilt. Recent developments also contributed to the decline of the community. In 1966 an entire village street was expropriated to widen the Welland Canal and to construct a bypass route. In 1974, the steel bridge across the canal in Port Robinson was demolished by the ship *Steelton* (Michael, 1979).

Historical records and mapping were examined for evidence of early Euro-Canadian occupation within and near the subject property. Figures 2 and 3 represent the Euro-Canadian settlement in and around the current subject property in the late nineteenth century.

Tremaine’s 1862 *Map of the Counties of Lincoln and Welland, Canada West* indicates that Joseph Goodwillie occupied Lot 227 at that time (Figure 2). No structures are shown within the subject property or the remainder of the lot. The subject property is located directly east of First Avenue, a historic concession road. H.R. Page and Co.’s 1876 *Illustrated Historical Atlas of the Counties of Lincoln and Welland, Ontario* indicates that Orin Bemis owned the west half of Lot 227 (Figure 3). While no structures are shown within the subject property, a farmstead and orchard are shown fronting Quaker Road along the southern boundary of the lot, 250 metres (“m”) outside the subject property limits. The subject property is still shown located directly east of First Avenue, a historic concession road.

While no structures are shown within the subject property on historic mapping, it does not necessarily mean that one or more structures were not present at that time, earlier or later. Not all features of interest were mapped systematically on the Ontario series of historical maps and atlases, given that they were financed by subscription, and subscribers were given preference regarding the level of detail provided on the maps. Given that the subject property fronts a historic concession road there is the potential for nineteenth century buildings to be present, depending on the level of disturbance.

1.3 Archaeological Context

1.3.1 Natural Environment

The subject property lies within the Haldimand Clay Plain physiographic region of southern Ontario. This area is made up of a series of parallel belts that were once submerged in Lake Warren. The highest ground adjoins the Niagara Escarpment. The main part of Welland County is characterized by level topography and poor drainage and several square miles are covered in peat bogs. The dominant physiographic landform in the area is sand plain (MDNM, 2007).

The *Soils of the Regional Municipality of Niagara* (Kingston and Presant, 1989) indicates that the dominant surface soil type within the subject property is Beverly lacustrine silty clay (Figure 4). This soil is characterized as having loamy textures over silty clay, with imperfect drainage and irregular very gently sloping topography.

Water has been identified as the major determinant of site selection and the presence of potable water is the single most important resource necessary for any extended human occupation or settlement. Primary water sources include lakes, rivers, creeks, and streams. Secondary water sources include intermittent streams, creeks, springs, marshes, and swamps. Past water sources, such as raised beach ridges, relic water channels, and glacial shorelines are also considered to have archaeological potential. Swamps and marshes are also important as resource extraction areas. The nearest water source is located within the subject property. The nearest water source is a tributary of the Welland River that runs 80 m to the south. The Welland River is located approximately 2 km to the east.

1.3.2 Current Land Use

The subject property currently consists of recently graded areas surrounded by scrubland (Figure 5). A 2021 aerial image shows that the subject property formerly consisted of scrubland in the north with a residential house, shed and driveway in the southern half. The southeast portion of the subject property consisted of marshland and a pond (Figure 6). The subject property is surrounded by rural agricultural lands and forest.

Figure 5 shows the current land use of the subject property. Fieldwork for the project was conducted on May 27th, 2023.

1.3.3 Previous Archaeological Investigations

1.3.3.1 Registered Archaeological Sites

Previously registered archaeological sites can be used to indicate archaeological potential. To determine if any previous assessments have yielded archaeological sites, either within or

surrounding the current subject property, two main sources were consulted. These include the *Ontario Archaeological Sites Database* (“OASD”) and the *Public Register of Archaeological Reports*, both of which are maintained by MCM.

The OASD contains archaeological sites registered within the Borden system (Borden, 1952). The Borden system divides Canada into 13 km by 18.5 km blocks based on longitude and latitude. Each Borden block is designated with a four-letter label and sites identified within the block are numbered sequentially as they are registered. The subject property is located within the *ALGv* Borden block.

According to the OASD, 21 sites have been registered within one km of the subject property (MCM, 2023a). There are no sites within the current subject property, but two sites, AgGt-315 and AgGt-316 are located within 300 m of the current subject property. The absence of additional registered sites may not necessarily be an accurate indication of cultural occupation in an area, but rather it may reflect the lack of systematic archaeological surveys in this area. Sites include Indigenous findspots, scatters and a camp, and Euro-Canadian homesteads and refuse deposits.

Table 2 lists the sites within 1 km along with the current Cultural Heritage Value or Interest (“CHVI”) for each site. CHVI is a term used by MCM and consultant archaeologists to describe archaeological resources that meet one or more criteria that recommend further fieldwork in MCM’s Standards and Guidelines for Consultant Archaeologists. Under the *Ontario Heritage Act* and its regulations, archaeological resources that have been determined to possess CHVI are protected as archaeological sites under Section 48 of the act. Information in Table 2 is provided by MCM through the OASD (MCM, 2023a).

Information concerning specific site locations is protected by provincial policy and is not fully subject to the *Freedom of Information Act*. The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to all media capable of conveying location, including maps, drawings, or textual descriptions of a site location. MCM 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.

Table 2: Registered Archaeological Sites within 1 km of the Subject Property

REG. #	NAME	TIME PERIOD	CULTURAL AFFILIATION	TYPE	STATUS
AgGt-83	Round	Post-Contact	Euro-Canadian	homestead	unknown
AgGt-262	-	Paleo-Indian	Indigenous	camp/campsite	Further CHVI
AgGt-263	-	Pre-Contact	Indigenous	unknown	No Further CHVI
AgGt-296	-	Post-Contact	unknown	refuse/deposit	Further CHVI
AgGt-297	-	Woodland, Late	Indigenous	findspot	No Further CHVI
AgGt-298	-	Woodland, Early	Indigenous	findspot	No Further CHVI
AgGt-300	-	Pre-Contact	Indigenous	scatter	Further CHVI
AgGt-301	-	Archaic, Middle	Indigenous	scatter	Further CHVI
AgGt-302	-	Archaic, Late	Indigenous	scatter	Further CHVI
AgGt-303	-	Pre-Contact	Indigenous	scatter	Further CHVI



REG. #	NAME	TIME PERIOD	CULTURAL AFFILIATION	TYPE	STATUS
AgGt-305	-	Archaic, Late	Indigenous	scatter	Further CHVI
AgGt-306	-	Pre-Contact	Indigenous	scatter	Further CHVI
AgGt-307	-	Pre-Contact	Indigenous	scatter	Further CHVI
AgGt-311	-	Pre-Contact	Indigenous	scatter	Further CHVI
AgGt-312	-	Pre-Contact	Indigenous	scatter	Further CHVI
AgGt-315	-	Woodland, Early	Indigenous	findspot	No Further CHVI
AgGt-316	-	Archaic, Late	Indigenous	findspot	No Further CHVI
AgGt-317	-	Archaic, Middle	Indigenous	findspot	No Further CHVI
AgGt-318	-	Pre-Contact	Indigenous	scatter	No Further CHVI
AgGt-320	-	Post-Contact	Euro-Canadian	farmstead	Further CHVI
AgGt-321	-	Post-Contact	Euro-Canadian	farmstead	Further CHVI
AgGt-322	-	Post-Contact	Euro-Canadian	agricultural	Further CHVI

Two of the 21 registered archaeological sites are located within 300 m of the subject property (MCM, 2023a). A summary of each of these sites is provided below.

- Archaeological site AgGt-315 is located 175 m from the current subject property. The site consists of a single Indigenous artifact, an Early Woodland Meadowood type projectile point. The site has no further CHVI (ASI, 2023).
- Archaeological site AgGt-316 is located 225 m from the subject property. The site consists of a single Indigenous artifact, a Late Archaic Normanskill type projectile point. The site has no further CHVI (ASI, 2023).

1.3.3.2 Previous Archaeological Reports

A review of archaeological reports within the *Public Register of Archaeological Reports* indicated that there is one archaeological report detailing previous archaeological fieldwork within the subject property. One additional report detailing fieldwork within 50 m of the subject property have been filed with the MCM at the time this report was written (MCM, 2023b). Reports were searched through the register based on site information, historic lots and concessions, communities, and nearby streets. A summary of each of these reports is provided below. Figure 7 shows the location of these assessments in relation to the current subject property.

Stage 1 Archaeological Assessment of the Northwest Welland Secondary Plan, Part of Lots 174, 175, 176, 226, 227, 228, 233, 234, 235 AND 236, Geographic Township of Thorold, Welland County, City of Welland, Regional Municipality of Niagara. Archaeological Services Inc., report dated July 10th, 2018. PIF P449-0207-2018.

ASI conducted Stage 1 background research of a 189-ha parcel of land for the Northwest Welland Secondary Plan. Their project area included the entirety of the current subject property. ASI determined that 187.4 ha of the assessed lands retained archaeological potential. The entirety of the current subject property was determined to retain archaeological potential and require Stage 2 assessment (ASI, 2018: Figure 13). Figure 8 shows the results of ASI's Stage 1 assessment within the current subject property.

Stage 1 and 2 Archaeological Assessment of Land North of Quaker Road, Lot 228, Former Geographic Township of Thorold, County of Welland, Now in the Cities of Welland and Thorold, Regional Municipality of Niagara. Archaeological Services Inc., report dated May 9th, 2023. PIF P398-0103-2021.

ASI conducted a Stage 1 & 2 archaeological assessment of a 40-ha parcel of land west of the current subject property. Six Indigenous sites were identified during Stage 2 assessment, including two non-diagnostic findspots and four sites registered into the OASD as AgGt-315, AgGt-316, AgGt-317, and AgGt-318. None of the sites retained CHVI and no further fieldwork was recommended for the property (ASI, 2023).

1.3.4 Potential for Archaeological Resources

Archaeological potential is defined as the likelihood of finding archaeological sites within a subject property. For planning purposes, determining archaeological potential provides a preliminary indication that significant sites might be found within the subject property, and consequently, that it may be necessary to allocate time and resources for archaeological survey and mitigation.

The framework for assigning levels of potential archaeological significance is drawn from provincial guidelines found in the *Standards and Guidelines for Consultant Archaeologists* (MCM, 2011: Sections 1.3.1 and 1.3.2). The following are features or characteristics that can indicate archaeological potential:

- previously identified archaeological sites
- water sources (It is important to distinguish types of water and shoreline, and to distinguish natural from artificial water sources, as these features affect site locations and types to varying degrees.)
 - primary water sources (e.g., lakes, rivers, streams, creeks)
 - secondary water sources (e.g., intermittent streams and creeks, springs, marshes, swamps)
 - features indicating past water sources (e.g., 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, cobble beaches)
 - accessible or inaccessible shoreline (e.g., high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh)
- elevated topography (e.g., eskers, drumlins, large knolls, plateaus)
- pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground
- distinctive land formation that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings.

- resource areas, including:
 - food or medicinal plants (e.g., migratory routes, spawning areas, prairie)
 - scarce raw materials (e.g., quartz, copper, ochre or outcrops of chert)
 - early Euro-Canadian industry (e.g., fur trade, logging, prospecting, mining)
- areas of early Euro-Canadian settlement. These include places of early military or pioneer settlement (e.g., pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches and cemeteries. There may be commemorative markers of their history, such as local provincial, or federal monuments or heritage parks
- early historical transportation routes (e.g., trails, passes, roads, railways, portages)
- property listed on a municipal register or designated under the *Ontario Heritage Act* or that is in a federal, provincial, or municipal historic landmark site
- property that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations

Archaeological potential can be determined not to be present for either the entire property or parts of it when the area under consideration has been subject to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources. This is commonly referred to as “disturbed” or “disturbance” and may include:

- quarrying
- major landscaping involving grading below topsoil
- building footprints
- sewage and infrastructure development
- activities such as agricultural cultivation, gardening, minor grading and landscaping do not necessarily affect archaeological potential.

Several factors can be used to assess the potential for recovery of Euro-Canadian archaeological resources on a property. The subject property is largely comprised of well-drained land that is suitable for human habitation and agriculture. Historic mapping shows a farmstead and orchard within 300 m to the south of the subject property (Page, 1876; see Figure 3). The subject property is also located adjacent to an early historical transportation route, First Avenue, directly to the west. There are four previously registered Euro-Canadian sites within one km of the subject property (Table 2).

Several factors can be used to assess the potential for recovery of Indigenous archaeological resources on a property. The subject property is largely comprised of well-drained land that is suitable for human habitation. A tributary of the Welland River runs 80 m to the south of the subject property. There are 17 registered Indigenous sites within one km of the subject property, including two findspots, AgGt-315 and AgGt-316, located within 300 m (Table 2).



Given the above, background archival research indicates that all previously undisturbed portions of the subject property exhibit archaeological potential for the discovery of both pre/post-contact Indigenous and Euro-Canadian archaeological resources; therefore, a Stage 2 archaeological assessment is required.



2.0 FIELD METHODS

The subject property measures 3.88 ha. Stage 2 property assessment was conducted on May 27th, 2023, with advance permission to enter the subject property obtained from the Proponent. Weather conditions during the assessment were excellent, with variable skies and a maximum daily temperature of 17 degrees Celsius. There were no weather, ground, or lighting conditions detrimental to the recovery of artifacts. As such, it is confirmed that the assessment met Section 2.1 Standard 3 of the *Standards and Guidelines for Consultant Archaeologists* regarding weather and lighting.

As no visual property inspection was completed as part of the Stage 1 assessment of the subject property conducted by ASI (2018), the Stage 2 survey began with an on-site property inspection to gain first-hand knowledge of the geography, topography, and current condition of the property. The entirety of the property was accessible and was inspected. Appropriate photographic documentation was taken during the visual inspection. Coverage of the property was sufficient to identify the presence or absence of features of archaeological potential, meeting the requirements of Section 1.2 Standard 1 of the *Standards and Guidelines for Consultant Archaeologists*.

Areas of low to no archaeological potential include lands that have been previously disturbed, lands that have steeply sloping topography, and lands that are low-lying and permanently wet. The visual property inspection determined that there are no steeply sloping areas within the subject property. While a permanently wet pond and marsh were observed on recent aerial mapping, the visual inspection confirmed that the pond has been filled in and the marsh has been partially filled with soil and debris and are now disturbed. Disturbance was also caused by construction of a former residence, outbuilding, and driveway as well as the recent demolition of these buildings (see Figures 5 and 6). These lands were determined to have been intensively and extensively disturbed by major landscaping activities involving grading below topsoil. Disturbance accounts for 1.14 ha, 29 percent (“%”), of the subject property.

The remainder of the subject property, 2.74 ha, 71%, retained archaeological potential and was recommended for Stage 2 archaeological assessment. The area that retained archaeological potential consisted of greenspace around the former residence and pond area and scrubland. As these areas could not be ploughed, Stage 2 archaeological assessment was conducted by test pit survey at 5 m intervals in accordance with Section 2.1.2 of the *Standards and Guidelines for Consultant Archaeologists*. Each test pit was dug by hand and was 30 centimetres in diameter and was dug to at least five centimetres into the subsoil. Test pits were examined for stratigraphy, cultural features, or evidence of fill. Test pits were dug to within 1 m of all disturbances. All soil was screened through 6-millimetre mesh to maximize the potential for artifact recovery. Appropriate photographic documentation was taken, and all test pits were backfilled upon completion. As no artifacts were observed, no intensified survey was completed during the test pit survey.

The entirety of the subject property was assessed. Results of the Stage 2 assessment are shown on Figure 9. Images of the assessment are shown in Section 8.0.

3.0 RECORD OF FINDS

3.1 Soils

The topsoil in the test pits ranged from approximately 20 to 45 cm in depth and consisted of grey-brown silty clay over dark brown-grey loam over a yellow silty clay subsoil.

3.2 Archaeological Resources

No artifacts or other archaeological resources were recovered during the Stage 2 archaeological assessment.

3.3 Documentary Record

All fieldwork-related activities were documented and kept, including field notes and observations and detailed maps. Appropriate photographic records were kept of the assessment, and all pictures were recorded in a photo log.

A detailed list of field records is presented in Table 3. All digital items have been duplicated and all paper items have been scanned and stored as digital documents. All items are housed in the corporate offices of ACC.

Under Section 6 of Regulation 881 of the *Ontario Heritage Act*, ACC will keep in safekeeping all objects of archaeological significance that are found under the authority of the license and all field records that are made in the course of the work authorized by the license, except where the objects and records are donated to His Majesty the King in right of Ontario or are directed to be deposited in a public institution under subsection 66 (1) of the Act.

Table 3: Inventory of Documentary and Material Records

PROJECT INFORMATION		
ACC project number	158-02-22	
Licensee	Matthew Muttart	
MCM PIF number	P1208-0253-2023	
DOCUMENT/MATERIAL	NUMBER	DESCRIPTION
field notes& photo logs	3	pages (paper, with digital copies)
maps	1	sketch map of study area
	2	aerial photograph of subject property
photos	22	digital format



4.0 ANALYSIS AND CONCLUSIONS

Background research indicated that the subject property exhibited general archaeological potential for the following reasons:

- A farmstead is illustrated within 300 m of the subject property on 1876 historical mapping (Page, 1876).
- The subject property is directly east of First Avenue, an early historical transportation route.
- A tributary of the Welland River is located 80 m to the south of the subject property.
- There are 21 registered sites located within 1 km of the subject property. Two Indigenous findspots, registered as AgGt-315 and AgGt-316, are located within 300 m of the subject property.

As no on-site property inspection was conducted during the Stage 1 assessment, a visual inspection was completed during Stage 2 survey. The visual property inspection determined that 1.14 ha, 29%, of the 3.88 ha subject property had been previously disturbed.

The balance of the subject property, 2.71 ha, 71%, was determined to retain archaeological potential and was subject to Stage 2 assessment by means of test pit survey at 5 m intervals as it consisted of greenspace and scrubland that could not be ploughed.

No artifacts or other archaeological resources were identified during the Stage 2 property assessment. According to the *Standards and Guidelines for Consultant Archaeologists* (MCM, 2011), the subject property has now been completely assessed and does not require any additional fieldwork.



5.0 RECOMMENDATIONS

Subject to acceptance of the results and approval of the recommendations, MCM is requested to deem this report compliant with ministry requirements for archaeological fieldwork and reporting and to issue a letter accepting this report into the *Ontario Public Register of Archaeological Reports*.

The following recommendations are provided for consideration by the Proponent and by the MCM:

1. No artifacts or other archaeological resources were identified during the Stage 2 archaeological assessment. The subject property has now been fully assessed according to the Ontario Ministry of Citizenship and Multiculturalism's 2011 *Standards and Guidelines for Consultant Archaeologists*. No further archaeological assessment of the property is required.



6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

The following advice on compliance with current legislation is provided for consideration:

- a. This report is submitted to the Minister of Citizenship and Multiculturalism as a condition of licensing in accordance with Part IV of the *Ontario Heritage Act*, R.S.O. 2005, c O.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection, and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Citizenship and Multiculturalism, 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.
- b. 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 a 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 Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
- c. 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*.
- d. The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 requires that any person discovering human remains must notify the local police or coroner and the Registrar of Cemeteries at the Ministry of Government and Consumer Services.

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8.0 IMAGES





Image 1: Disturbed laneway. Facing east.



Image 2: Disturbed laneway and location of demolished house. Facing east.



Image 3: Disturbance in southwest portion of subject property. Facing northeast.



Image 4: Partially filled area of former marsh. Facing northeast.



Image 5: Area of filled in former pond. Facing west.



Image 6: East edge of subject property. Facing north.



Image 7: Disturbance along west edge of subject property. Facing west.



Image 8: Disturbance along west edge of subject property. Facing west.



Image 9: From northwest corner. Facing southeast.



Image 10: Test pit survey in progress. Facing southeast.



Image 11: Test pit survey in progress. Facing west.



Image 12: Typical test pit.

9.0 FIGURES



Figure 1: Location of the Subject Property on a 1:50,000 Scale Topographic Map

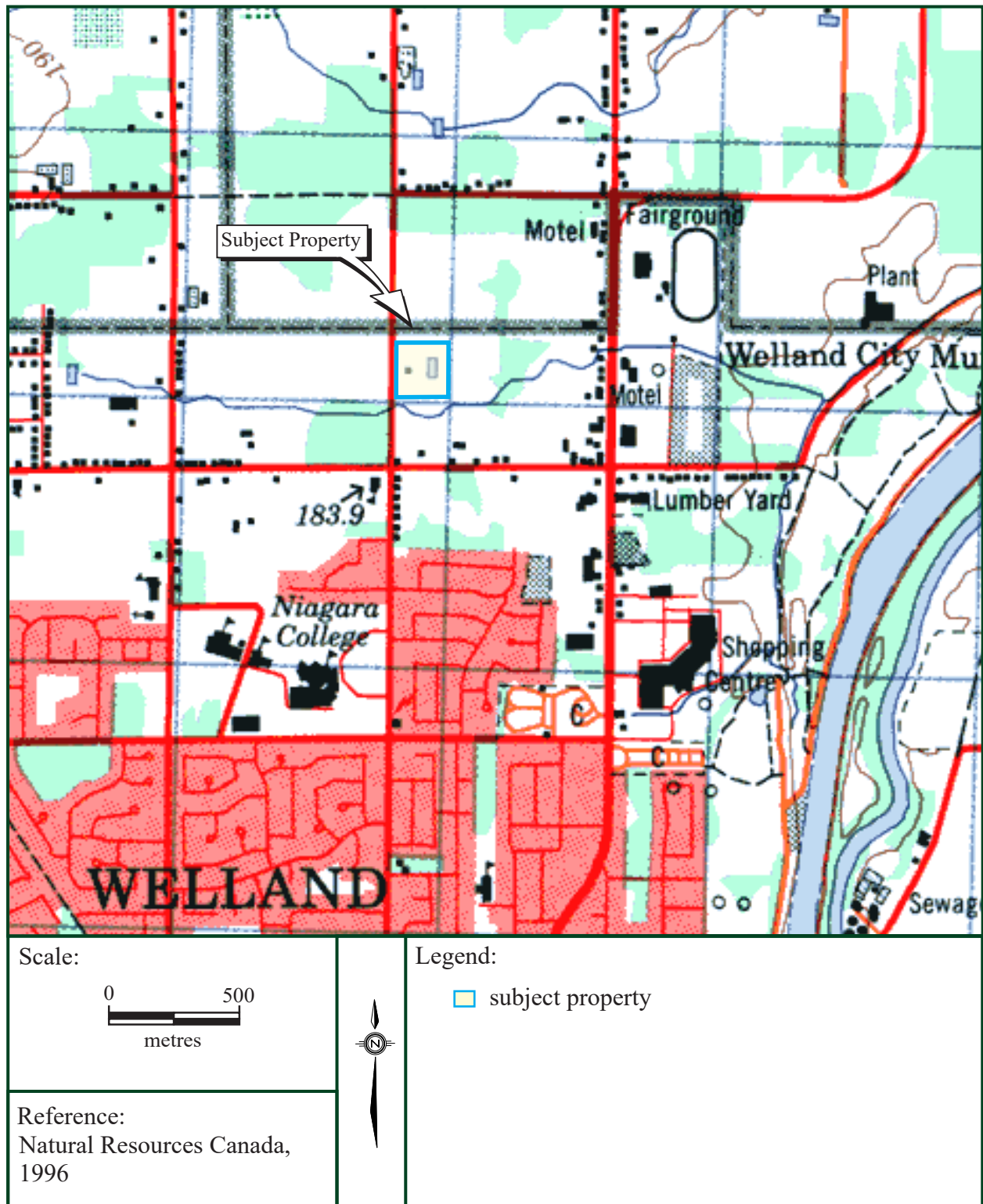


Figure 2: Location of the Subject Property on Tremaines' 1862 Map of the Counties of Lincoln and Welland, Canada West

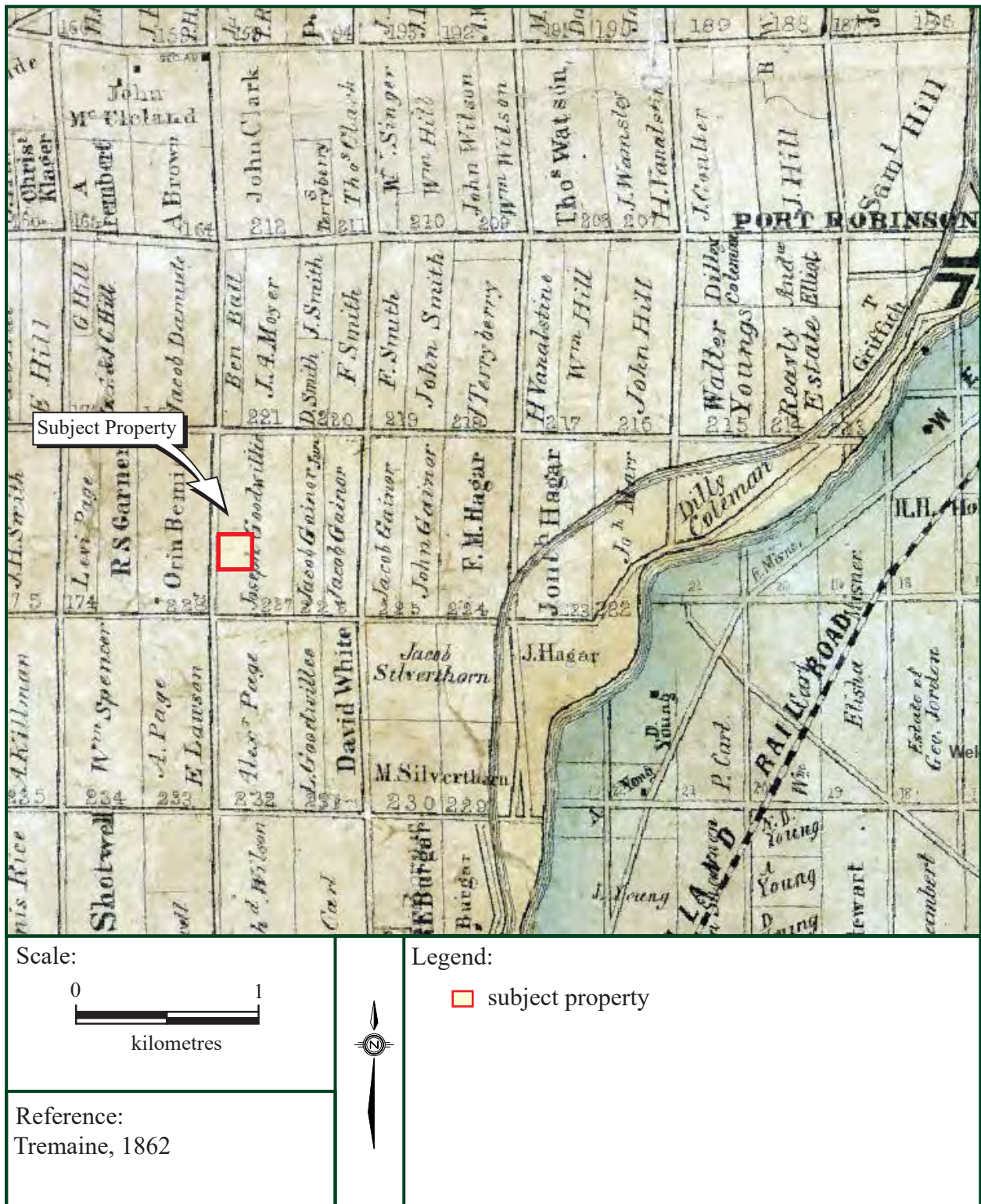


Figure 3: Location of the Subject Property on H. R. Page & Co.'s 1876 Illustrated Historical Atlas Map of Thorold Township, Counties of Lincoln and Welland

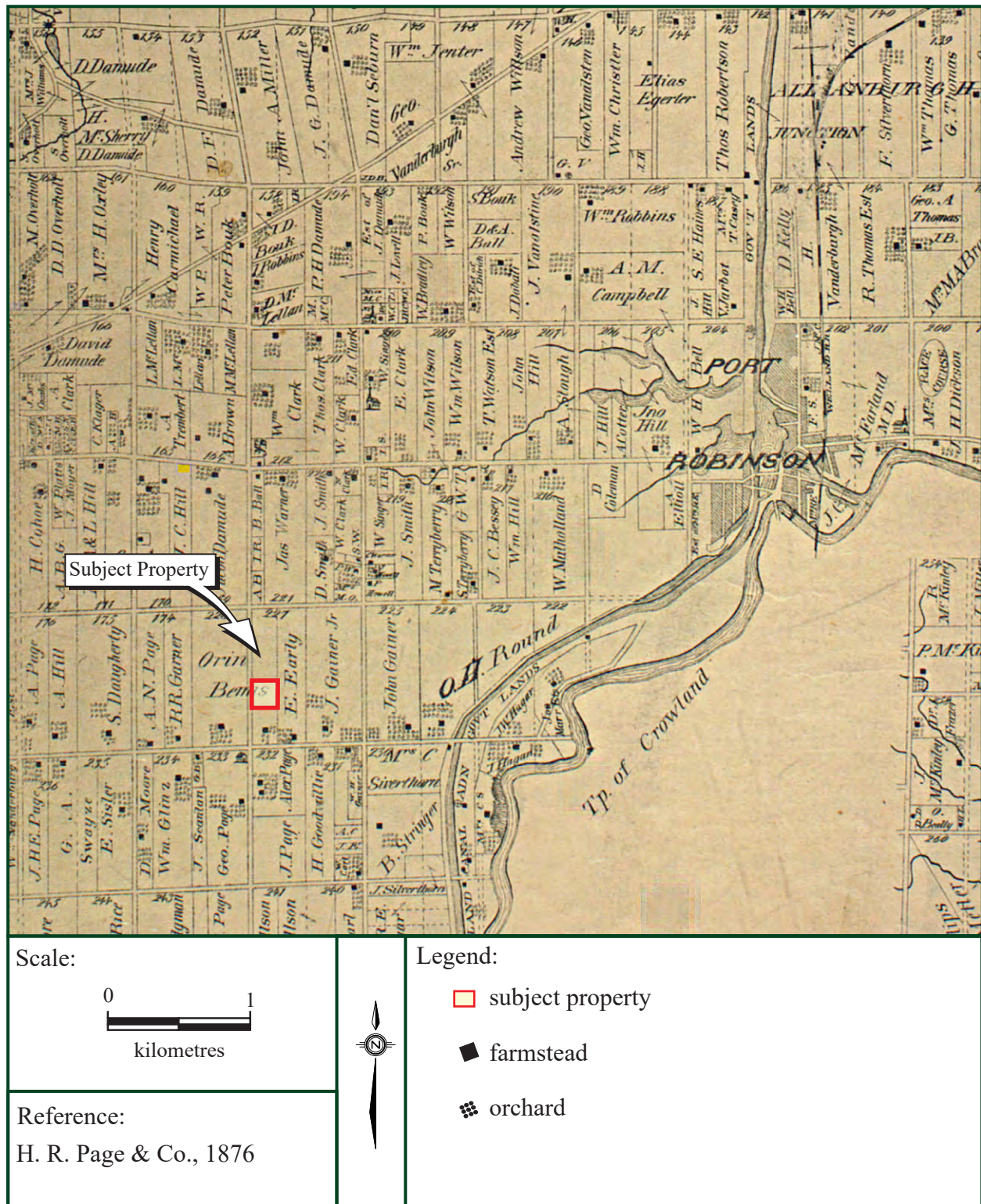


Figure 5: Current Land Use of the Subject Property



Figure 6: Location of the Subject Property on 2021 Aerial Imagery



Figure 7: Map Showing Previous Archaeological Assessments Conducted within 50 m of the Subject Property

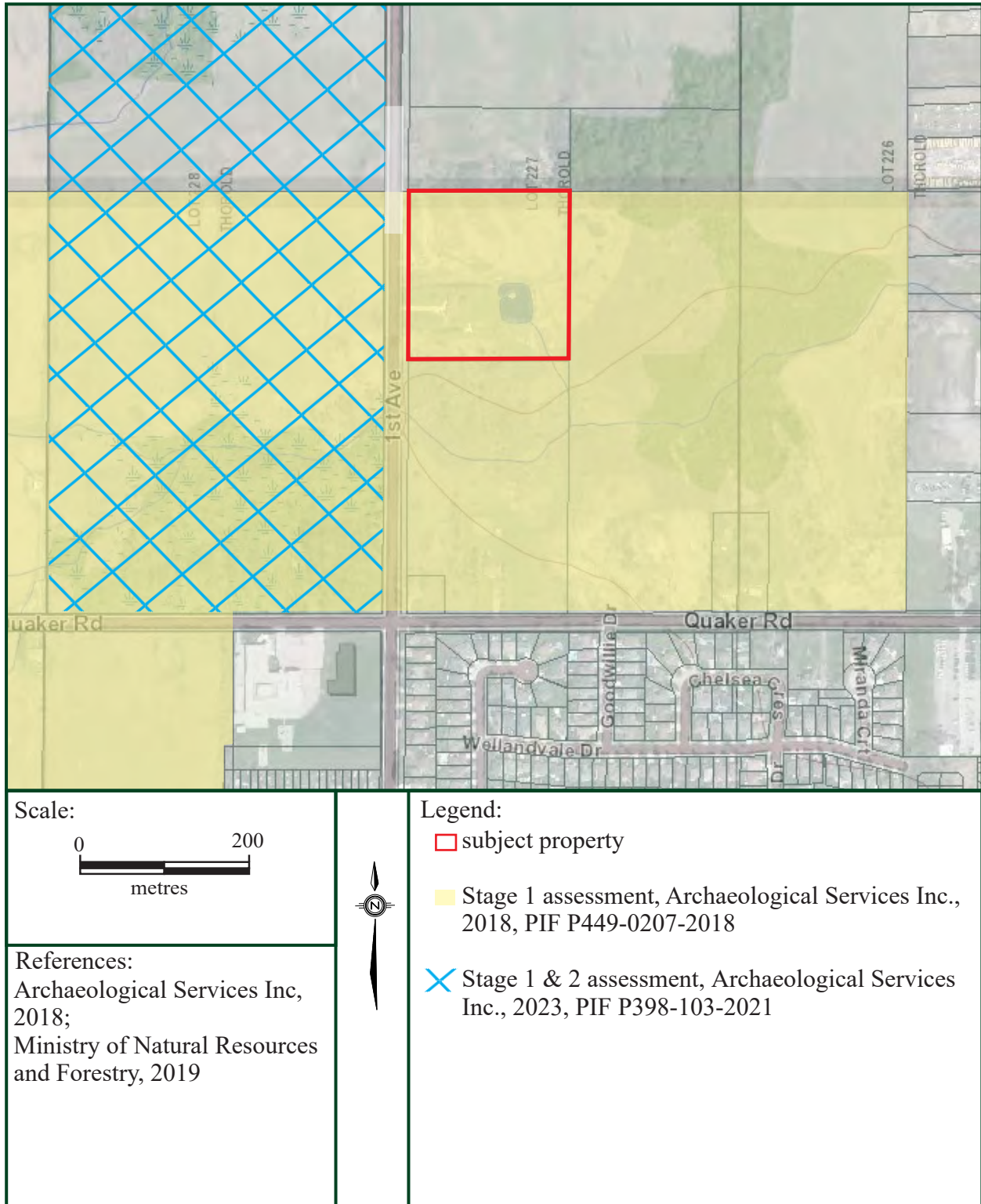


Figure 8: Aerial Image Showing the Results of Archaeological Services Inc.'s Stage 1 Archaeological Assessment of the Subject Property



Figure 9: Aerial Image Showing the Results of the Current Stage 2 Archaeological Assessment of the Subject Property, with Image Locations and Directions

