

Ministry of Citizenship and Multiculturalism (MCM)

Archaeology Program Unit
Heritage Branch
Citizenship, Inclusion and Heritage Division
5th Floor, 400 University Ave.
Toronto ON M7A 2R9
Tel.: (705) 571-0035
Email: Teresa.Tremblay@ontario.ca

Ministère des Affaires civiques et du Multiculturalisme (MCM)

Unité des programme d'archéologie
Direction du patrimoine
Division de la citoyenneté, de l'inclusion et du patrimoine
5e étage, 400 ave. University
Toronto ON M7A 2R9
Tél. : (705) 571-0035
Email: Teresa.Tremblay@ontario.ca



Nov 3, 2023

Matthew Muttart (P1208)
Archaeological Consultants Canada
711 - 135 James Hamilton ON L8P 2Z6

RE: Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 1 & 2 Archaeological Assessment Proposed Residential Development Part of Lot 27, Concession 4, City of Pickering, Regional Municipality of Durham, Former Geographic Township of Pickering, Ontario County, Ontario Original Report ", Dated Oct 26, 2023, Filed with MCM Toronto Office on N/A, MCM Project Information Form Number P1208-0206-2023, MCM File Number 0018835

Dear Mr. Muttart:

The above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18, has been entered into the Ontario Public Register of Archaeological Reports without technical review.¹

Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require further information, please do not hesitate to send your inquiry to Archaeology@Ontario.ca

cc. Archaeology Licensing Officer
Alexa-Rae Valente, DG Group
Mimi Lau, City of Pickering

¹In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.



ACC

ARCHAEOLOGICAL
CONSULTANTS CANADA

Stage 1 & 2 Archaeological Assessment

Proposed Residential Development

Part of Lot 27, Concession 4, City of Pickering, Regional Municipality of Durham,
Former Geographic Township of Pickering, Ontario County, Ontario

Original Report

Prepared for:

Ontario Ministry of Citizenship and Multiculturalism

Prepared by:

Archaeological Licensee: Matthew Muttart, M.A., P1208
Archaeological Consultants Canada
PO Box 81045 Ancaster, RPO Fiddlers Green
Hamilton, ON L9G 4X1

PIF#: P1208-0206-2023
Project No. 110-12-23
26 October 2023

EXECUTIVE SUMMARY

Archaeological Consultants Canada (“ACC”) was contracted by the Proponent to conduct a Stage 1 & 2 archaeological assessment for a proposed residential development. The assessment was conducted in the pre-approval phase and was required under the *Planning Act, R.S.O. 1990*. The area of assessment, or the “subject property”, is located on Part of Lot 27, Concession 4, in the City of Pickering, Regional Municipality of Durham, formerly the Geographic Township of Pickering, Ontario County, Ontario (Figure 1). The subject property measures 0.51 hectares (“ha”) in size.

The Ontario Ministry of Citizenship and Multiculturalism (“MCM”) assigned Project Information Form (“PIF”) number P1208-0206-2023 to this project. The property was accessed on October 1, 2023.

Stage 1 background research indicated that the subject property has general archaeological potential due to the following factors:

- The subject property is located within 100 m of Whites Road, an early historical transportation route.
- A farmstead and orchard are illustrated 150 m to the north in 1860 and 1877 historical atlas mapping.
- A secondary water source, a seasonal tributary of Duffins Creek, is located 40 m to the southwest of the subject property.
- A primary water source, a tributary of Duffins Creek, is located just over 300 m to the west of the subject property.
- The OASD lists 31 registered archaeological sites within one km of the subject property, including one Indigenous site located 235 m away.

The visual property inspection determined that the entire 0.51 ha subject property retained archaeological potential and required Stage 2 assessment. 0.25 ha, 49%, of the subject property was ploughed agricultural field and was assessed by means of pedestrian survey at 5 m intervals. 0.26 ha, 51%, of the subject property was greenspace and scrubland that could not be ploughed and was assessed by means of test pit survey at 5 m intervals. No artifacts or other archaeological resources were identified during the Stage 2 property assessment.

The following recommendation is 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.

TABLE OF CONTENTS

Executive Summary	2
Project Personnel	5
1.0 PROJECT CONTEXT	6
1.1 Development Context	6
1.2 Historical Context	7
1.2.1 Background Research	7
1.2.2 A Cultural Chronology for Southern Ontario	7
1.3 Archaeological Context	10
1.3.1 Natural Environment	10
1.3.2 Current Land Use	11
1.3.3 Previous Archaeological Investigations	11
1.3.3.1 Registered Archaeological Sites	11
1.3.3.2 Previous Archaeological Reports	13
1.3.4 Potential for Archaeological Resources	15
2.0 FIELD METHODS	18
3.0 RECORD OF FINDS	20
3.1 Soils	20
3.2 Archaeological Resources	20
3.3 Documentary Record	20
4.0 ANALYSIS AND CONCLUSIONS	21
5.0 RECOMMENDATIONS	22
6.0 ADVICE ON COMPLIANCE WITH LEGISLATION	23
7.0 BIBLIOGRAPHY AND SOURCES	24
8.0 IMAGES	27
9.0 FIGURES	29



LIST OF TABLES

1. General Cultural Chronology for Southern Ontario	8
2. Registered Archaeological Sites within 1 km of the Subject Property	12
3. Inventory of Documentary and Material Record	20

LIST OF FIGURES

1. Location of the Subject Property on a 1:50,000 Scale Topographic Map	
2. Location of the Subject Property on Tremaine's 1860 Map of Ontario County	
3. Location of the Subject Property on J. H. Beers & Co.'s 1877 Illustrated Historical Atlas Map of Pickering Township, Ontario County	
4. Location of the Subject Property on a Map of Ontario County Soils	
5. Current Land Use of the Subject Property	
6. Recent Aerial Imagery of Subject Property Showing Changes in Land Use	
7. Aerial Imagery Showing Previous Archaeological Assessments Conducted within 50 m of the Subject Property	
8. Aerial Imagery Showing the Results of the Stage 1 & 2 Archaeological Assessment, with Image Locations and Directions	



PROJECT PERSONNEL

Project Manager:	Matthew Muttart, M.A., P1208
Professional Licence:	Matthew Muttart, M.A., P1208
Field Director:	Matthew Muttart, M.A., P1208
Report Preparation:	Kristy O’Neal, M.A., P066
Graphics:	Kristy O’Neal, M.A., P066



Stage 1 & 2 Archaeological Assessment

Proposed Residential Development

Part of Lot 27, Concession 4, City of Pickering, Regional Municipality of Durham, Former Geographic Township of Pickering, Ontario County, Ontario

1.0 PROJECT CONTEXT

1.1 Development Context

Archaeological Consultants Canada (“ACC”) was contracted by the Proponent to conduct a Stage 1 & 2 archaeological assessment for a proposed residential development. The assessment was conducted in the pre-approval phase and was required under the *Planning Act, R.S.O. 1990*. The area of assessment, or the “subject property”, is located on Part of Lot 27, Concession 4, in the City of Pickering, Regional Municipality of Durham, formerly the Geographic Township of Pickering, Ontario County, Ontario (Figure 1). The subject property measures 0.51 hectares (“ha”) in size.

The objective of a Stage 1 background study is to provide information about the subject property’s geography, history, previous archaeological fieldwork, and current land conditions. A Stage 1 study evaluates the subject property’s archaeological potential in order to recommend appropriate strategies for the Stage 2 survey.

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 1 & 2 assessment was conducted under Professional Archaeological License P1208, held by Matthew Muttart, who also directed fieldwork for the project. The Ontario Ministry of Citizenship and Multiculturalism (“MCM”) assigned Project Information Form (“PIF”) number P1208-0206-2023 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 October 1, 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 1 & 2 archaeological assessment. All documents and records related to this project will be curated at the offices of ACC, 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 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.

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 would have 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* 10,000 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	SW Ontario Iroquois	Wolf Phase	600-450	
		Historic Neutral	450-350	tribal warfare
	European Contact	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 subject property was historically located within Part of Lot 27, Concession 4, in the Geographic Township of Pickering, County of Durham. In 1791, the provinces of Lower Canada and Upper Canada were created from the former province of Quebec by a British parliamentary act. Colonel John Graves Simcoe was appointed as the Lieutenant Governor of Upper Canada and was tasked with governing and directing its settlement, as well as establishing a constitutional government based on Britain's model (Coyne et al, 1895).

Ontario County was established in 1853 as a way for local governments to establish their own judicial and municipal functions. The county encompassed the eastern half of York which included the townships of Pickering, Brock, Mara, Rama, Reach, Scott, Thorah, Whitby and Uxbridge. In 1974, Ontario County and twenty-one other local municipalities were amalgamated into the Regional Municipality of Durham.

Pickering Township was first surveyed in 1791 by Augustus Jones, the Deputy Provincial Land Surveyor. At the time of survey an Irish bachelor by the name of Mike Duffin was the only European occupant in the region. Duffin was a trapper and fisherman, after whom the village of Duffin's Creek (later Pickering) was named. The first land patent, for a 4,800-acre block of land, was granted to Mayor John Smith, a former officer during the American Revolutionary War and commanding officer in both Detroit and Niagara. By 1793 Kingston Road was opened and served as a horse path extending east from Dundas Street and in 1799 a rough roadway had been constructed between Duffin's Creek and Port Hope. These early roads made the Township more accessible to prospective settlers. The first settlers in the area occupied their land holdings by 1798. The eastern portion of the township was largely occupied by Loyalists, Quakers, and former soldiers from the American Revolutionary War. Irish colonists occupied many of the smaller settlements throughout the township (Mika & Mika, 1977).

The most affluent settlement within Pickering Township was the city of Pickering, formerly known as the Village of Duffin's Creek. Duffin's Creek was a small community settled in 1807 around the local creek which flows into Lake Ontario. The small population caused the village to struggle in its early days, which hindered the ability for residents to open local stores and establish businesses. In 1825 the population of the township had grown to 800 due to the establishment of three sawmills and the shipbuilding industry at the mouth of the Rouge River.

By 1860, Duffin's Creek boasted a grist mill, a brewery, a tannery, taverns, shoemakers, tailors, blacksmiths, and a wagon maker. Duffin's Creek, referred to as Pickering from the late 1860s, obtained rail connections when the Grand Trunk Railway opened a line between Oshawa and Toronto in 1856

The nearest historic community to the subject property was the hamlet of Whitevale, situated 4 kilometres ("km") to the west. Whitevale was established as early as 1820, when John Major built his first sawmill (Wood, 1911). During its early development, the community was often referred to as Major or Majorville after John Major and his family. When Major's sawmill was purchased by Truman P. White around 1855, the hamlet was renamed Whitevale. White built a grist mill, a cooperage, a tanning factory, and a woolen mill during the 1850s and 1860s. White also contributed financially to the construction of the Whitevale School in 1865, which replaced an earlier 1842 schoolhouse located on Lot 27, Concession 5. Whitevale Church was opened in 1854, and Donald McPhee opened the first general store in 1855. The village post office was established on September 1, 1861, with Thomas Burton as the first postmaster (Carter, 1984:702). By 1886 the population of Whitevale had grown to about 300 (Carter, 1984:702).

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 19th century. Tremaines' 1860 *Map of Ontario County, Canada West* lists Thomas Stephenson as the owner of the lands within the subject property at that time (Figure 2). Stephenson's property was identified as "The Grange", and a farmstead is illustrated within Stephenson's land 150 m northwest of the subject property along Whitevale Road. Whites Road, an early concession road is shown 30 metres ("m") to the east. The nearest community shown on the map is Major (now Whitevale),

J. H. Beers & Co.'s 1877 map of Pickering Township in the *Illustrated Historical Atlas of Ontario County* also lists Thomas Stephenson as the owner of the lands within the subject property at that time (Figure 3). A farmstead is illustrated within Stephenson's land 150 m northwest of the subject property along Whitevale Road. Whites Road, an early concession road is shown 30 metres ("m") to the east. The nearest community shown on the map is Whitevale,

While no structures are shown within the subject property on the historical atlas mapping, this does not necessarily mean that one or more additional 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 property is located within 100 m of an early historical road, Whites Road, there is the potential of encountering 19th century historical sites within the subject property, depending on the degree of recent land disturbances.

1.3 Archaeological Context

1.3.1 Natural Environment

The subject property is located within the South Slope physiographic region (Chapman and Putnam, 1984:113). This region includes the southern strip of the Peel Plain and the southern



slope of the Oak Ridges Moraine (Chapman and Putnam 1984:172). The South Slope lies across limestone made up of the Verulam and Lindsay Formations and shales made up of the Georgian Bay and Queenston Formations. The region contains a variety of soils, some of which are excellent for agriculture. The physiographic landform is dominated by drumlinized till plains (MDNM, 2007).

The *Soil Survey of Ontario County* (Olding et al, 1956) indicates that the dominant surface soil type of the subject property is Woburn loam (Figure 4). Woburn loam is characterized as a grey-brown Podzolic calcareous brown loam with imperfect drainage and rolling to slightly 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, among others, 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, and any resource areas are considered to have archaeological potential. The nearest water source is a seasonal tributary of Duffins Creek that runs 40 m to the southwest of the subject property. The nearest permanent water source is a tributary of Duffins Creek located 325 m to the west of the subject property.

1.3.2 Current Land Use

Figure 5 shows the current land use of the subject property. The northern portion of the subject property consists of greenspace and scrub trees. The southern portion of the subject property consists of ploughed agricultural field. The property is surrounded by rural agricultural land.

Recent aerial imagery indicates that a residential home with a pool and driveway once stood on the greenspace, and that the house was surrounded by mature trees (see Figure 6). By 2018 it appears the house was demolished and by 2021 the mature trees had been removed.

Fieldwork for the project was completed on October 1, 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 AIGs Borden block.

According to the OASD, there are no previously registered archaeological sites within the subject property. Thirty-one sites have been registered within one km of the subject property (MCM, 2023a). One site, AIGs-20 is located 235 m from the subject property, no other sites are located within 300 m of the subject property. Therefore, Stage 2 field methods should not be affected by the proximity of previously registered sites. Twenty-one registered sites are of Indigenous cultural affiliation. Sites date from the Paleoindian to the Late Woodland period and include campsites, cabins, and findspots. Seven sites are of Euro-Canadian cultural affiliation and include homesteads and sites of unknown type. Three sites do not have cultural affiliation listed.

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	SITE TYPE	STATUS
AIGs-20	Vaxvick	Archaic	Indigenous	findspot	unknown
AIGs-105	Bowden	Archaic	Indigenous	camp/campsite	unknown
AIGs-287	Spruce Ridge	Woodland, Late	Iroquoian	cabin	unknown
AIGs-289	William Turner	Post-Contact	Euro-Canadian	homestead	unknown
AIGs-290	Whitevale Road	Post-Contact	Euro-Canadian	homestead	unknown
AIGs-292	Major	Post-Contact	Euro-Canadian	homestead	unknown
AIGs-294	Wills	Archaic, Late	Indigenous	findspot	unknown
AIGs-297	Spittal	Pre-Contact	Indigenous	findspot	unknown
AIGs-298	Beckett	Pre-Contact	Indigenous	camp/campsite	unknown
AIGs-299	Hunter	Archaic, Middle	Indigenous	findspot	unknown
AIGs-300	Hunter II	Archaic, Middle	Indigenous	findspot	unknown
AIGs-301	Hunter III	Woodland, Late	Iroquoian	findspot	unknown
AIGs-309	Covent	unknown	unknown	unknown	unknown

REG. #	NAME	TIME PERIOD	CULTURAL AFFILIATION	SITE TYPE	STATUS
AlGs-310	Small Pond	Woodland, Late	Iroquoian	findspot	unknown
AlGs-319	Spruce Ridge II	Woodland, Late	Iroquoian	cabin	unknown
AlGs-320	Spruce Ridge III	Woodland, Late	Iroquoian	findspot	unknown
AlGs-321	Spruce Ridge IV	Woodland, Late	Iroquoian	camp/campsite	unknown
AlGs-323	Marquis	Paleo-Indian, Late	Indigenous	findspot	unknown
AlGs-324	Marquis II	Archaic, Early	Indigenous	findspot	unknown
AlGs-325	Marquis III	Archaic, Late	Indigenous	findspot	unknown
AlGs-330	Second Last	Archaic, Late	Indigenous	findspot	unknown
AlGs-332	Subtelyny	Pre-Contact	Indigenous	camp/campsite	unknown
AlGs-338	Last	Woodland, Late	Iroquoian	findspot	unknown
AlGs-339	Gerry	Woodland, Late	unknown	camp/campsite, short term	No further CHVI
AlGs-340	Frederick Smith	Post-Contact	Euro-Canadian	homestead	unknown
AlGs-363	Desson	Archaic, Middle	Indigenous	findspot	unknown
AlGs-413	AlGs-413-H3	Post-Contact	Euro-Canadian	unknown	unknown
AlGs-415	AlGs-415-H6	Post-Contact	Euro-Canadian	unknown	unknown
AlGs-448	AlGs-448-P2	Archaic, Middle	Indigenous	unknown	unknown
AlGs-481	Location 1	Other	unknown	homestead	Further CHVI
AlGs-498	Albright Site	Post-Contact	Euro-Canadian	homestead	Further CHVI

As noted above, the nearest site to the subject property is AlGs-20, the Vaxvick site. Located 235 m from the subject property, the site was registered as an Archaic findspot. The site was originally registered as a result of interviews with local residents that were conducted by Victor Konrad and William Ross in the 1970's (Konrad & Ross, 1974). The site, as reported by the informant, consisted of a single projectile point. A Stage 2 assessment was conducted by Archaeological Assessments Ltd. ("AAL") in 2004 and no additional artifacts were documented, and AAL recommended no additional fieldwork was required at the site (MCM, 2023a).

1.3.3.2 Previous Archaeological Reports

A review of archaeological reports within the *Public Register of Archaeological Reports* indicated that there are six archaeological reports detailing previous archaeological fieldwork within the subject property or within 50 m of the subject property filed with the MCM at the time this report was written. Reports were searched based on registered site information, historic lots and concessions, and nearby streets. Figure 7 shows the location of relevant assessments in relation to the current subject property.

An Archaeological Survey for the North Pickering Project. Victor Konrad and William Ross, report dated 1974.

York University, under Victor Konrad and William Ross, recorded numerous sites within North Pickering as part of resource inventories of the area (Konrad, 1973, Konrad & Ross, 1973a-d, 1974). The aim of these projects was to confirm the location of previously reported sites, to register these sites in the OASD, and to document any new sites in areas of occurring or

imminent development. The projects assessed the condition and cultural affiliation of each site and made recommendations regarding site preservation. One of these projects documented sites near the current subject property through resident and farmer interviews. Site AIGs-20, discussed above, was registered through this survey (Konrad & Ross, 1974).

Interim Waste Authority, Durham Landfill Site Search EA Document IV. Volume 3, Step 6, Appendix B. M. M. Dillon Limited, report dated 1995. License 1993-041.

M. M. Dillon Limited conducted archaeological resource assessments for potential landfill sites, one of which included survey of the eastern portion of the current subject property and surrounding lands to the north and south. No sites were registered as a result of the assessment of the lands within and surrounding the current subject property (M. M. Dillon Limited, 1995).

Archaeological Potential Study for the Seaton Land, Township of Pickering, Regional Municipality of Durham, Ontario. Jackie Dolling, report dated 2003.

Jackie Dolling conducted background research for 3,035 ha area in North Pickering identified as the Seaton Land. This research included the entirety of the current subject property. Dolling concluded that the Seaton Lands exhibited moderate to high potential for archaeological sites and the lands were recommended for Stage 2 assessment (Dolling, 2003).

The Stage 2-3 Archaeological Assessment of Block F, Part of Lots 23, 24, 25, 26, 27 & 28, Con 4, Seaton Lands, City of Pickering, RM of Durham AAS 04-06. Archaeological Assessments Ltd., report dated 2005. PIF P013-091.

AAL conducted Stage 2 and 3 assessments of an approximate 220 ha portion of the Seaton Land as part of an Environmental Assessment. The survey was conducted on lands within 50 m to the west and south of the current subject property. Seven new archaeological sites and two previously registered sites were documented during the Stage 2 assessment. None of these sites are within 300 m of the current subject property. Three of the sites were subject to Stage 3 assessment with no additional fieldwork recommended upon completion of the assessment (AAL, 2005a).

Stage 1 Archaeological Assessment (Background Study and Property Inspection), Central Pickering Development Plan (DPDP), Regional Servicing Class Environmental Assessment (EA), City of Pickering, Regional Municipality of Durham, Ontario. Archaeological Services Inc., report dated May 7, 2013. PIFs P264-107-2010 and P094-146-2011.

Archaeological Services Inc. (“ASI”) conducted a Stage 1 assessment as part of proposed servicing of lands encompassing the 3,035-ha area identified as the Seaton Lands. The Stage 1 assessment consisted largely of background research and included the entirety of the current subject property, which was determined to retain archaeological potential. A property inspection was conducted for preliminary road alignments. As part of the property inspection, an area directly to the east of the current subject property was subject to visual inspection. ASI determined that the area was previously disturbed and required no additional assessment (ASI, 2013: Figure 7-1).

Stage 2 Archaeological (Property) Assessment, Central Pickering Development Plan, Class Environmental Assessment for Regional Servicing, City of Pickering, Regional Municipality of Durham, Ontario. Archaeological Services Inc., report dated October 17, 2014. PIF P094-147-2011.

ASI conducted a Stage 2 assessment of the current subject property for a proposed construction of new roads, widening of certain existing roads, and the installation of water and sanitation mains and pumping stations. A total of 298 ha were assessed as part of ASI's study. ASI determined that 238 ha had been previously assessed, and 60 ha, divided into a number of parcels, remained to be assessed. One of these land parcels is located directly to the north of the current subject property. No archaeological resources were documented in this parcel (ASI, 2014: Figure 6). Whites Road, located within 50 m of the current subject property, was also visually assessed during this study and was found to be entirely disturbed (ASI, 2014: Figure 6).

1.3.4 Potential for Archaeological Resources

Archaeological potential is defined as the likelihood of finding archaeological sites within a subject area. For planning purposes, determining archaeological potential provides a preliminary indication that significant sites might be found within the subject area, 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 comprised of land that is suitable for human habitation and agriculture. It is located within 100 m of Whites Road, an early concession road. A farmstead is shown 150 m from the property in 1860 and 1877 historical maps. Seven Euro-Canadian archeological sites have been registered within one km of the subject property.



Several factors can be used to assess the potential for recovery of Indigenous archaeological resources on a property. The subject property is comprised of land that is suitable for human habitation. A seasonal stream, a secondary water source, is located 40 m to the southwest of the subject property. Duffins Creek, a primary water source, is located just over 300 m to the west. Twenty-one Indigenous archaeological sites have been registered within one km of the subject property, including an Archaic findspot located 235 m from the subject property.

Previous Stage 1 background assessments conducted on a large tract of land identified as the Seaton Lands, have determined archaeological potential for the subject property (Dolling, 2003, ASI, 2013). Neither assessment conducted a visual property inspection of the current subject property as part of their research, however.

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



2.0 FIELD METHODS

The subject property measures 0.51 ha. Stage 1 visual inspection and Stage 2 property assessment were conducted concurrently on October 1, 2023, with advance permission to enter the subject property obtained from the Proponent. Weather conditions during the assessment were excellent, with clear skies and a maximum daily high temperature of 21 degrees Celsius.

The assessment of the subject property 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 project area 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. At the time of the assessment, the subject property consisted of scrub and greenspace in the northern portion and agricultural field in the southern portion. While aerial imagery indicates that there was a structure on the property at one time, there was no visual evidence of this disturbance. There were no areas of steeply sloping topography or low-lying and permanently wet areas present in the project area. Therefore, visual property inspection indicated that the entire subject property has archaeological potential and requires Stage 2 property survey.

0.25 ha, 49 percent (“%”), of the subject property consists of agricultural field that was assessed by means of pedestrian survey at 5 m intervals. The fields had been recently ploughed, with direction provided to the contractor undertaking the ploughing that the ploughing should be deep enough to provide total topsoil exposure, but not deeper than previous ploughing. The ploughed lands were weathered by several light rains to improve the visibility of archaeological resources. At least 80% of the ground surface was visible, meeting conditions for field visibility.

Greenspace and scrubland accounts for 0.26 ha, 51%, of the subject property. As the greenspace and scrub areas could not be ploughed, Stage 2 archaeological assessment was conducted by test pit survey 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. Some test pits exhibited moderate disturbance; however, 5 m intervals were maintained during the test pit assessment. 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 either pedestrian survey or test pit survey.

There were no weather, ground, or lighting conditions detrimental to the recovery of artifacts. As such, it is confirmed that the assessment met Section 1.2 Standard 2 and Section 2.1 Standard 3 of the *Standards and Guidelines for Consultant Archaeologists* regarding weather and lighting.

The entirety of the subject property was assessed. Results of the Stage 2 assessment are shown in Figure 8. Images of the assessment are shown in Section 8.0.



3.0 RECORD OF FINDS

3.1 Soils

Surface soils within the ploughed agricultural fields consisted of medium brown loam. Test pits contained approximately 20 to 50 centimetres of medium brown loam above dark yellow to orange loam subsoil. Moderate disturbance was observed in the test pitted soils; however, it did not impact assessment intervals.

3.2 Archaeological Resources

No artifacts or other archaeological resources were recovered during the Stage 1 & 2 archaeological assessment of the subject property.

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 excavation, 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	110-12-23	
Licensee	Matthew Muttart	
MCM PIF number	P1208-0206-2023	
DOCUMENT/MATERIAL	NUMBER	DESCRIPTION
field notes & photo logs	1	pages (paper, with digital copies)
maps	1	sketch map of the subject property
	1	aerial imagery of the subject property
photos	4	digital format



4.0 ANALYSIS AND CONCLUSIONS

Stage 1 background research indicated that the subject property has general archaeological potential due to the following factors:

- The subject property is located within 100 m of Whites Road, an early historical transportation route.
- A farmstead and orchard are illustrated 150 m to the north in 1860 and 1877 historical atlas mapping.
- A secondary water source, a seasonal tributary of Duffins Creek, is located 40 m to the southwest of the subject property.
- A primary water source, a tributary of Duffins Creek, is located just over 300 m to the west of the subject property.
- The OASD lists 31 registered archaeological sites within one km of the subject property, including one Indigenous site located 235 m away.

The visual property inspection determined that the entire 0.51 ha subject property retained archaeological potential and required Stage 2 assessment. 0.25 ha, 49%, of the subject property was ploughed agricultural field and was assessed by means of pedestrian survey at 5 m intervals. 0.26 ha, 51%, of the subject property was greenspace and scrubland that could not be ploughed and was assessed by means of test pit survey at 5 m intervals.

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 recommendation is 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, Burials Unit, at the Ministry of Public and Business Service Delivery.

7.0 BIBLIOGRAPHY AND SOURCES

Adams, Nick

1994 *Field Manual for Avocational Archaeologists in Ontario*. Publication No.16,
Ontario Archaeological Society Inc.

Borden, Charles E.

1952 A Uniform Site Designation Scheme for Canada. *Anthropology in British Columbia*, No.
3, 44-48.

Carter, Floreen Ellen

1984 *Place Names of Ontario*. Phelps Publishing Company, London.

Chapman, Lyman John and Donald F. Putnam

1984 The Physiography of Southern Ontario (Third Edition). *Ontario Geological Survey
Special Volume 2*. Ontario Ministry of Natural Resources, Toronto.

Coyne, James, C.O. Ermatinger, K.W. McKay

1895 *Historical Sketches of the County of Elgin*. Elgin Historical and Scientific Institute, St.
Thomas.

Ellis, Chris & Neal Ferris

1990 *The Archaeology of Southern Ontario to A.D. 1650*. Occasional Publication No.
5. London Chapter, Ontario Archaeological Society Inc.

Energy, Mines and Resources Canada

1994 *Map 30-M/14, Markham*, 1:50,000 scale National Topographic System map.

J. H. Beers & Co.

1877 *Illustrated Historical Atlas of the County of Ontario, Ontario*. Gorrell, Craig & Co,
Toronto.

Konrad, V.A.

1973 *The Archaeological Resources of the Metropolitan Planning Area: Inventory and
Prospect*. York University, Department of Geography, Discussion Paper 10.

Konrad, V.A., and W. Ross

1973a *Archaeological Survey and Testing in the North Pickering Community*, Report #1.
Report on file, MCM, Toronto.

1973b *Archaeological Survey and Testing in the North Pickering Community*, Report #2.
Report on file, MCM, Toronto.

1973c *Archaeological Survey and Testing in the North Pickering Community*, Report #3.
Report on file, MCM, Toronto.



Konrad, V.A., and W. Ross

1973d *An Archaeological Survey of the North Pickering Community Development Project Area, Final Report*. Report on file, MCM, Toronto.

1974 *An Archaeological Survey for the North Pickering Project*. Ministry of Natural Resources, Historic Sites Branch, Research Report 4, Part 1.

Lucas, George

2004 *Proposed Town of Newcastle*

<https://www.friendsofpresquile.on.ca/speedy/newcastle.html>

[Accessed October 24, 2023]

Mika, Nick and Helma Mika

1977 *Places in Ontario: Their Name Origins and History. Part I, A-E*. Mika Publishing Company, Belleville.

Ministry of Citizenship and Multiculturalism (“MCM”)

2005 *The Heritage Act, R.S.O. 2005*. Queen's Printer, Toronto.

2011 *Standards and Guidelines for Consultant Archaeologists*. Toronto.

2023a Sites within a one km radius of the subject property. Provided from the *Ontario Archaeological Sites Database*.

2023b Archaeological assessments completed within the subject property or within 50 m of the subject property. Provided from the Ontario Public Register of Archaeological Report.

Ministry of Natural Resources and Forestry

2023 Topographic Map, Land Information Ontario

https://www.lioapplications.lrc.gov.on.ca/MakeATopographicMap/index.html?viewer=Make_A_Topographic_Map.MATM&locale=en-CA

[Accessed October 24, 2023]

Ministry of Northern Development and Mines (“MNDM”)

2007 *Physiography of Southern Ontario*. Chapman, L.J. and D.F. Putnam, authors. GIS map data layer distributed by the Ontario Geological Survey as Miscellaneous Release – Data (MRD) 228. Queen’s Printer for Ontario.

<http://www.mndm.gov.on.ca/en/mines-and-minerals/applications/ogsearch>

[Accessed October 24, 2023]

Olding A. B, Wicklund. R. E. and N. R. Richards

1956 *Soil Survey of Ontario County*. Report No. 23 of the Ontario Soil Survey. Ontario Agricultural College, Guelph

Ontario Ministry of Agriculture, Food and Rural Affairs (“OMAFRA”)

2012 *GIS Layers for Soils and Physiography in the Province of Ontario*.

<http://sis.agr.gc.ca/cansis/publications/surveys/on/index.html>.

[Accessed October 24, 2023].



Tremaine, George R. and G.M. Tremaine, publishers
1860 *Tremaine's Map of the County of Durham, Upper Canada.* Geo. C. Tremaine, Toronto.

Village of Newcastle
2016 Newcastle History Historic Village of Newcastle.
<https://villageofnewcastle.ca/community/history/>
[Accessed October 24, 2023].

Wood, William R.
1911 *Past Years in Pickering: Sketches of the History of the Community.*
William Briggs, Toronto.

Wright James V.
1968 *Ontario Prehistory: an eleven thousand-year archaeological outline.*
Archaeological Survey of Canada, National Museums of Canada, Ottawa.



8.0 IMAGES





Image 1: Subject property, showing ploughed agricultural field, facing northwest.



Image 2: Subject property, showing ploughed agricultural field, facing southeast.



Image 3: Subject property, showing scrubland, facing southwest.



Image 4: Typical test pit.

9.0 FIGURES



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

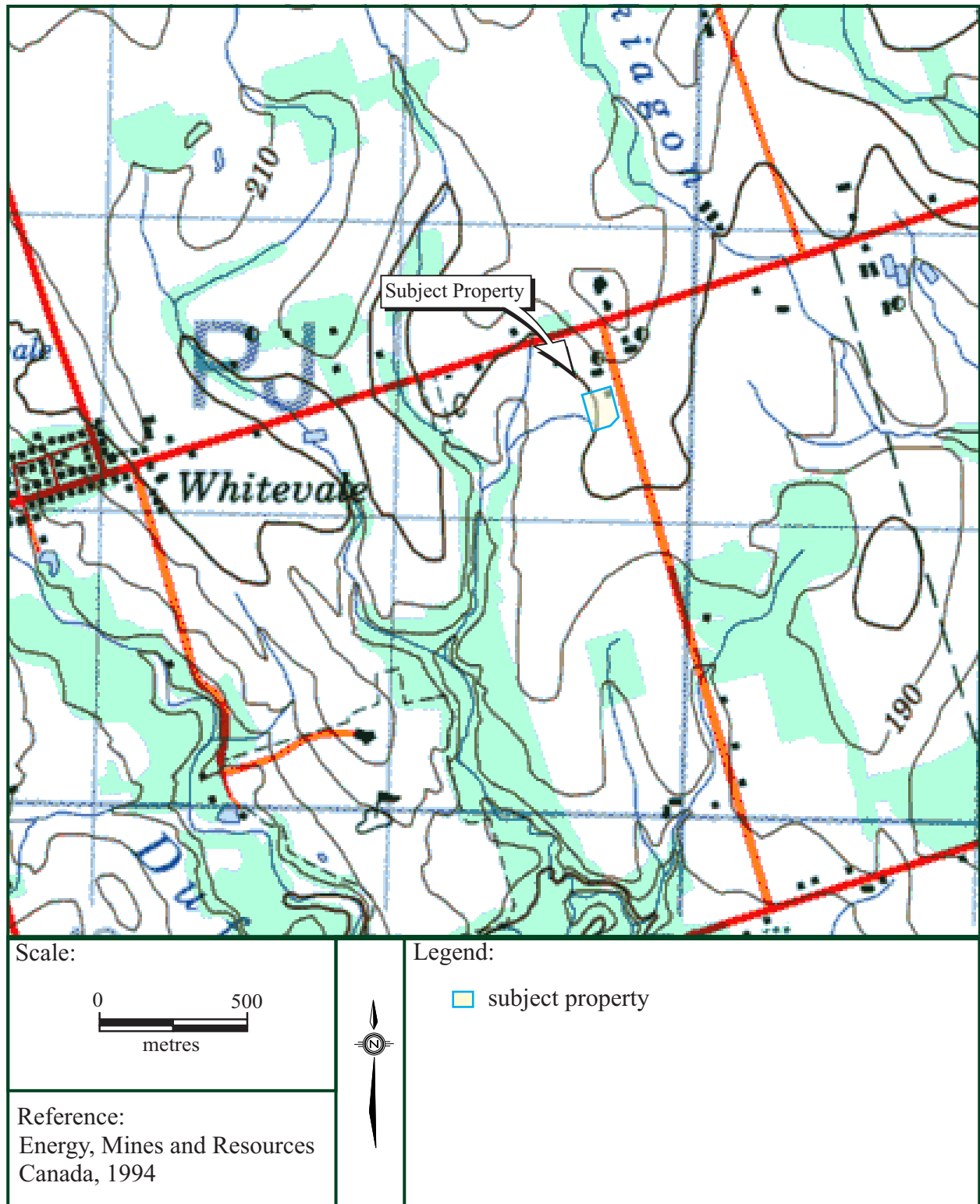


Figure 2: Location of the Subject Property on Tremaine's 1860 Map of Ontario County

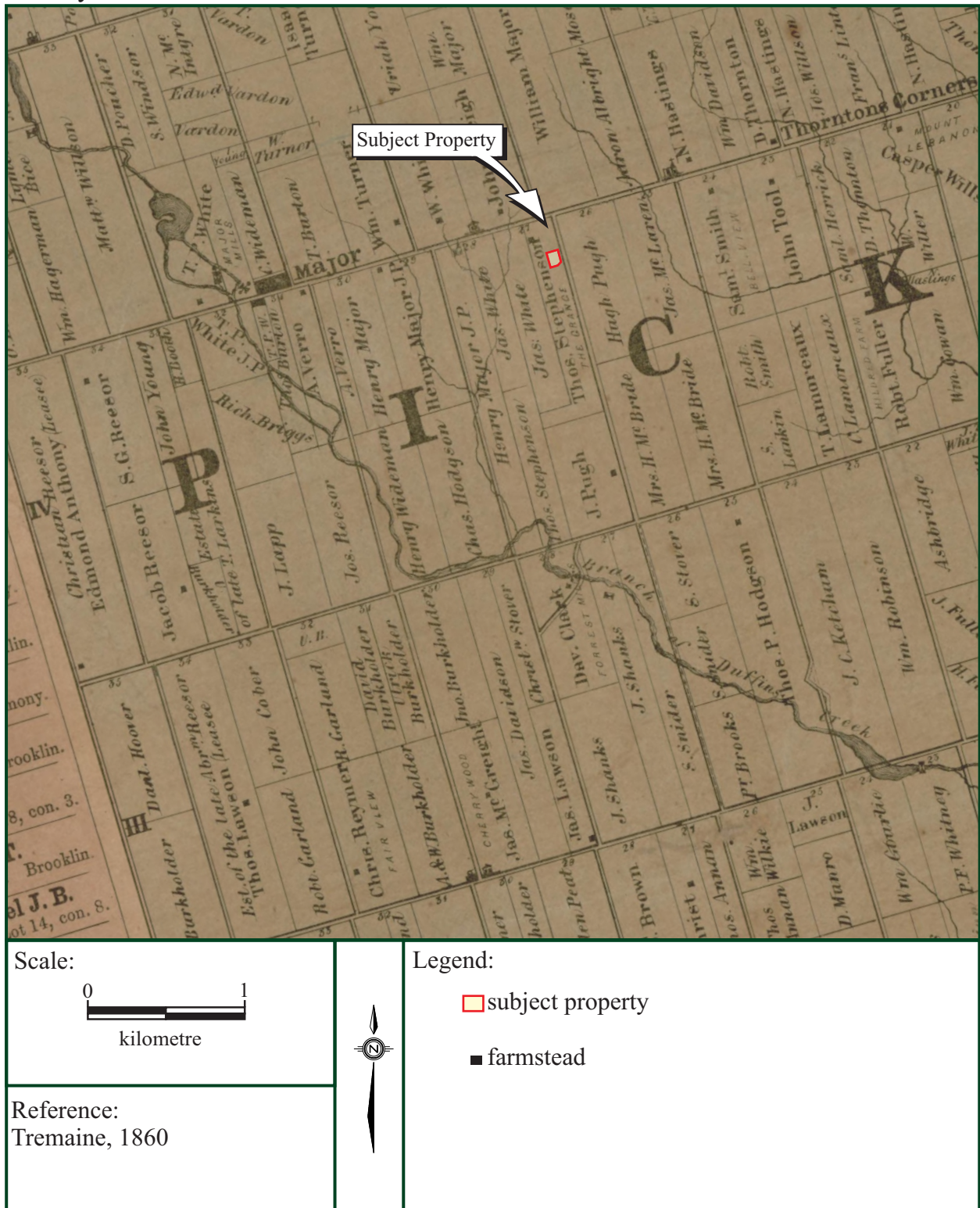


Figure 3: Location of the Subject Property on J. H. Beers & Co.'s 1877 Illustrated Historical Atlas Map of Pickering Township, Ontario County



Figure 4: Location of the Subject Property on a Map of Ontario County Soils

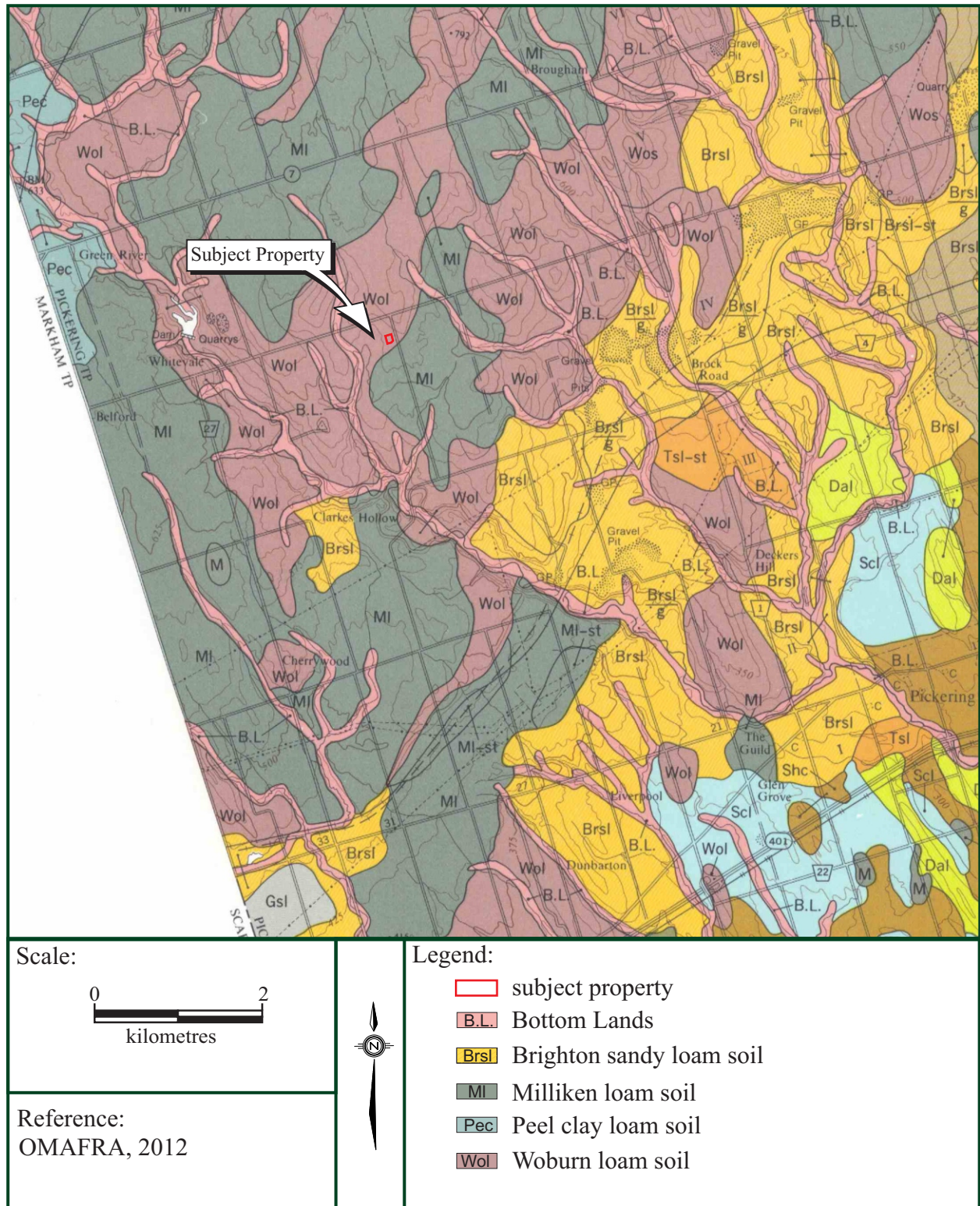


Figure 5: Current Land Use of the Subject Property

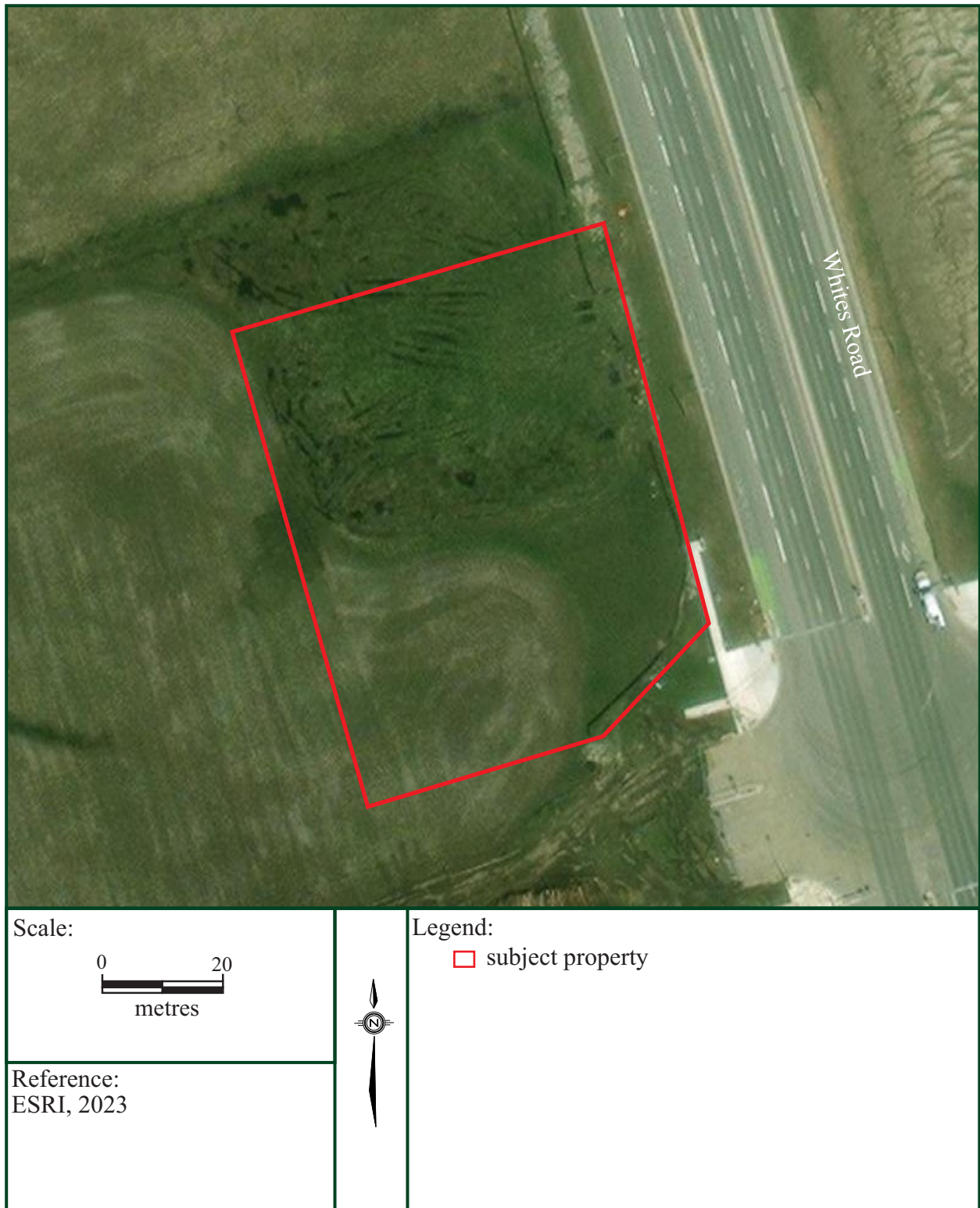


Figure 6: Recent Aerial Imagery of Subject Property Showing Changes in Land Use



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

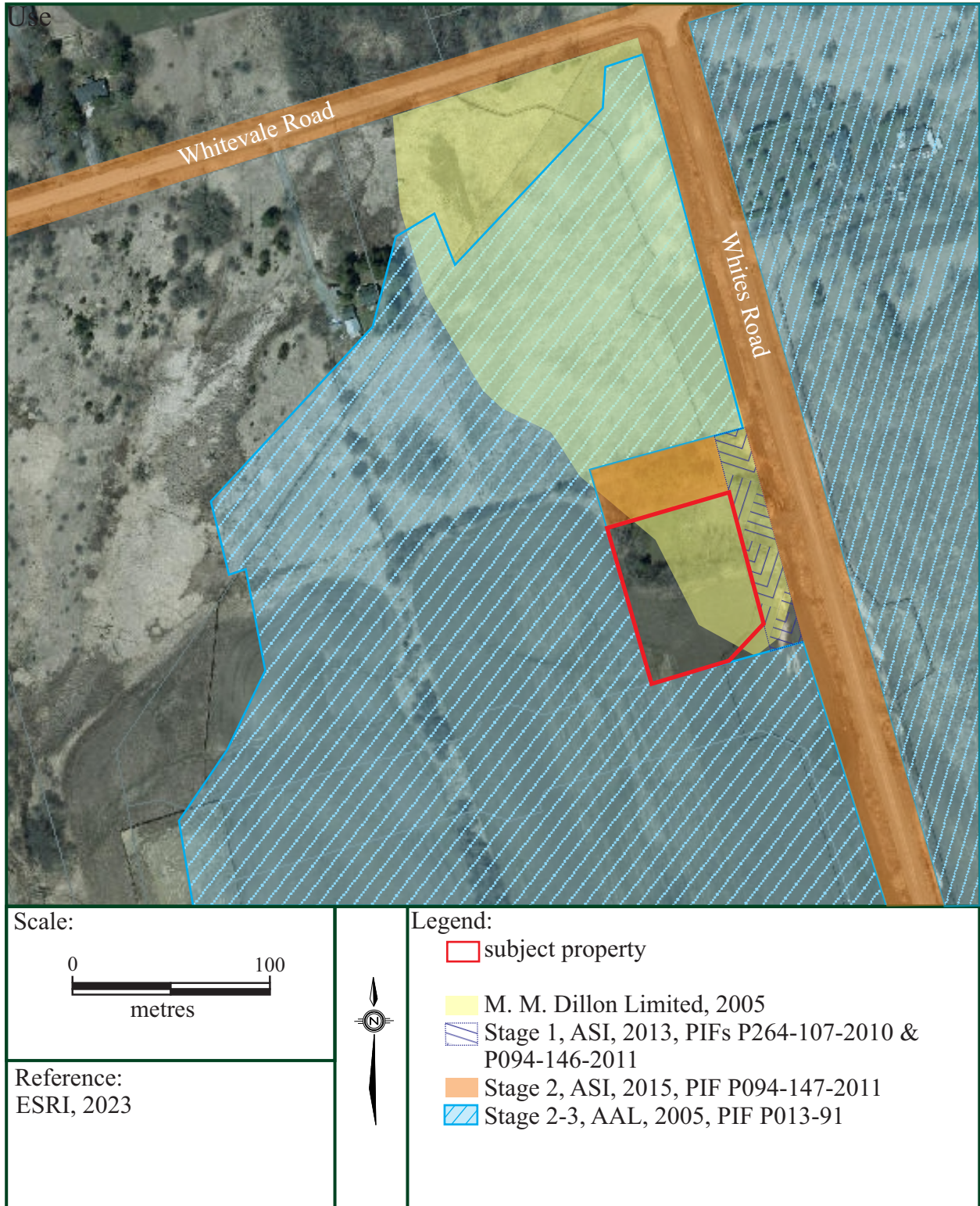


Figure 8: Aerial Imagery Showing the Results of the Stage 1 & 2 Archaeological Assessment, with Image Locations and Directions

