

**STAGE 1 ARCHAEOLOGICAL ASSESSMENT OF
6136 NINTH LINE, NUNAN PROPERTY,
PART OF LOT 6, CONCESSION 9, NEW SURVEY
GEOGRAPHIC TOWNSHIP OF TRAFALGAR, HALTON COUNTY
NOW THE CITY OF MISSISSAUGA, REGIONAL MUNICIPALITY OF PEEL**

ORIGINAL REPORT

Prepared for:

Derry Britannia Developments Limited
2360 Bristol Circle
Oakville, ON L6H 6M5
T 905-829-6469
F 905-829-6464

Archaeological Licence #P046 (Clish)
Ministry of Tourism, Culture and Sport PIF# P046-0120-2015
ASI File: 15TS-209

28 January, 2016



Archaeological & Cultural
Heritage Services

528 Bathurst Street Toronto, ONTARIO M5S 2P9
T 416-966-1069 F 416-966-9723 ASIheritage.ca

**STAGE 1 ARCHAEOLOGICAL ASSESSMENT OF
6150 NINTH LINE, NUNAN PROPERTY,
PART OF LOT 6, CONCESSION 9, NEW SURVEY
GEOGRAPHIC TOWNSHIP OF TRAFALGAR, HALTON COUNTY
NOW THE CITY OF MISSISSAUGA, REGIONAL MUNICIPALITY OF PEEL**

EXECUTIVE SUMMARY

ASI was contracted by Derry Britannia Development Limited to undertake a Stage 1 archaeological assessment of 6150 Ninth Line, on part of Lot 6, Concession 9, New Survey, Geographic Township of Trafalgar, Halton County, now in the City of Mississauga, Regional Municipality of Peel. The subject property is approximately five hectares in size. Permission to access the subject property and to carry out all activities necessary for the completion of the assessment was granted by the proponent on October 28, 2015.

The Stage 1 assessment entailed consideration of the proximity of previously registered archaeological sites, the original environmental setting of the property and nineteenth and twentieth-century settlement trends. This research has led to the conclusion that there is potential for the presence of pre-contact Aboriginal and historical Euro-Canadian archaeological resources.

The Stage 1 archaeological assessment has determined that the subject property exhibits archaeological potential. Therefore, a Stage 2 archaeological assessment is required on all undisturbed lands in accordance with the Ministry of Tourism, Culture and Sport's 2011 *Standards and Guidelines for Consultant Archaeologists*.



PROJECT PERSONNEL

<i>Project Manager:</i>	Beverly Garner, Hons. BA Staff Archaeologist & Manager, Stage 1 and 2 Projects, Planning Division
<i>Project Director:</i>	Andrew Clish, BES (PO46) Senior Archaeologist, & Geomatics Specialist
<i>Project Administrator:</i>	Jennifer Ley, Hons. BA (R376) Staff Archaeologist & Assistant Manager of Stage 1 and 2 Projects, Planning Division
<i>Project Archaeologist:</i>	Andrew Clish
<i>Report Preparation:</i>	Caitlin Lacy, Hons. BA (R303) Staff Archaeologist
<i>Graphics:</i>	Jonas Fernandez, MSc (R281) Staff Archaeologist & Geomatics Specialist
<i>Report Reviewer:</i>	Beverly Garner



TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
PROJECT PERSONNEL.....	ii
TABLE OF CONTENTS	1
1.0 PROJECT CONTEXT	3
1.1 Development Context.....	3
1.2 Historical Context	3
1.2.1 <i>Aboriginal Land Use and Settlement</i>	3
1.2.2 <i>Euro-Canadian Land Use: Township Survey and Settlement</i>	5
1.2.3 <i>Review of Nineteenth and Twentieth Century Historical Mapping</i>	7
1.2.4 <i>Review of Historical Archaeological Potential</i>	7
1.3 Archaeological Context	8
1.3.1 <i>Registered Archaeological Sites</i>	8
1.3.2 <i>Previous Archaeological Assessments</i>	9
1.3.3 <i>Physiography</i>	9
1.3.4 <i>Review of Aboriginal Archaeological Potential</i>	9
1.3.5 <i>Existing Conditions</i>	10
2.0 FIELD METHODS	11
2.1 Findings	11
2.2 Inventory of Documentary and Material Record	11
3.0 ANALYSIS AND CONCLUSION	11
4.0 RECOMMENDATIONS	12
5.0 ADVICE ON COMPLIANCE WITH LEGISLATION.....	13
6.0 BIBLIOGRAPHY	13
7.0 PLATES	17
8.0 MAPS	18

List of Tables

Table 1: Registered Archaeological Sites within 1 km of the Subject Property.....	8
Table 2: Outline of Southern Ontario Prehistory	9

List of Plates

Plate 1: View west into agricultural field.....	17
Plate 2: View northwest into open field.....	17
Plate 3: View northwest into former residential lot surrounded by mature trees.....	17
Plate 4: View southwest of pasture surrounding former outbuildings.....	17
Plate 5: View north toward stone foundation.....	17
Plate 6: View south along low-lying wet swale.....	17
Plate 7: View north across pond.....	18
Plate 8: View northeast across pond.....	18



List of Figures

Figure 1: Location of the Subject Property.	19
Figure 2: Subject Property located on the 1858 <i>Tremaine Map of the County of Halton</i>	20
Figure 3: Subject Property located on the 1877 <i>Illustrated Historical Atlas of the County of Halton</i>	20
Figure 4: Subject Property located on the 1909 <i>NTS Sheet Brampton</i>	21
Figure 5: Existing Conditions of the Subject Property.	22
Figure 6: Stage 1 Archaeological Assessment Results.	23
Figure 7: Subject Property overlaid on the 2005 aerial photography.	24
Figure 8: Subject Property overlaid on the 2009 aerial photography.	24
Figure 9: Subject Property overlaid on the 2013 aerial photography.	24



1.0 PROJECT CONTEXT

1.1 Development Context

ASI was contracted by Derry Britannia Developments Limited to undertake a Stage 1 archaeological assessment of 6150 Ninth Line, on part of Lot 6, Concession 9, New Survey, Geographic Township of Trafalgar, Halton County, now in the City of Mississauga, Regional Municipality of Peel (Figure 1). The subject property is approximately five hectares in size.

This assessment was conducted under the project management of Ms. Beverly Garner and project direction of Mr. Andrew Clish (MTCS PIF P046-0120-2015). All activities carried out during this assessment were completed as part of the pre-development approval process. All work was completed in accordance with the *Ontario Heritage Act* and the Ministry of Tourism, Culture and Sport's 2011 *Standards and Guidelines for Consultant Archaeologists (S & G)*.

All work carried out for this assessment is also guided by the *Master Plan of Archaeological Resources of the Regional Municipality of Halton* (ASI 1998, 2008), which provides further refinement with regards to potential buffers surrounding any noted features or characteristics which affect archaeological potential.

Permission to access the subject property and to carry out all activities necessary for the completion of the assessment was granted by the proponent on October 28, 2015.

1.2 Historical Context

The purpose of this section, according to Section 7.5.7 (1) of the S & G, is to describe the past and present land use and the settlement history and any other relevant historical information gathered through the Stage 1 background research. First, a summary is presented of the current understanding of the Aboriginal land use of the subject property. This is followed by a review of the historical Euro-Canadian settlement history.

The subject property is located within Lot 6, Concession 9, New Survey, in the former Township of Trafalgar, Halton County. The subject property currently consists of a rural greenfield setting.

1.2.1 *Aboriginal Land Use and Settlement*

Southern Ontario has been occupied by human populations, if only seasonally, since the retreat of the Laurentide glacier during what is known as the Paleo-Indian period, approximately 11,000 before present (BP) (Ellis and Deller 1990:39-43). Populations at this time would have been highly mobile, inhabiting a boreal-parkland more similar to the modern sub-arctic. By the end of the 11th millennium BP the environment had progressively warmed and populations now occupied less extensive territories (Ellis and Deller 1990:62-63).

From the 10th to the first half of the 6th millennia BP the Great Lakes' basins experienced low-water levels and so it is likely that many sites which would have been located on those former shorelines are now submerged beneath Lake Ontario. This period produces the earliest evidence of heavy wood working tools and is indicative of greater investment of labour in felling trees for fuel, to build shelter, or to produce crafts and is ultimately indicative of prolonged seasonal residency at sites. By the 8th millennium



BP evidence exists for polished stone implements and worked native copper. The latter's source from the north shore of Lake Superior is evidence of extensive exchange networks. By the middle of the 5th millennium BP, during the Late Archaic (4500 BP-3000 BP) period the earliest evidence exists at this time of fish weirs and cemeteries, indicative of increased social organization and investment of labour into social infrastructure, increased procurement of food, and establishing territories (Brown 1995:13; Ellis *et al.* 1990; Ellis *et al.* 2009; *cf.* Sauer 1952).

The settlement and subsistence systems of the Early Woodland (1000 BC-400 BC) period are not entirely clear. Populations continued a semi-permanent existence and exploited seasonally available resources, and the harvesting of spawning fish continued to be an important part of their subsistence. Evidence still exists for extensive and complex exchange networks (Spence *et al.* 1990:136, 138). By the second millennium BP in the Middle Woodland (400 BC-AD 1000) period evidence exists for *macro-band* camps, focussing on the seasonal exploitation of resources such as spawning fish and wild rice (Spence *et al.* 1990:155, 164). It is also during this period that maize was first introduced into southern Ontario, though it would have only supplemented Middle Woodland people's diet (Birch and Williamson 2013: 13-15). Bands likely retreated to interior camps during the winter.

The advent of Iroquoian culture occurs during the Late Woodland (AD 1000-AD 1649) period though full expression of Iroquoian culture is not recognised archaeologically until the fourteenth century AD. During the Early Iroquoian (AD 1000-AD 1300) phase, the communal site is replaced by the village focussed on horticulture. Seasonal disintegration of the community for the exploitation of a wider territory and more varied resource base was still practised (Williamson 1990:317). By the second quarter of the first millennium BP, during the Middle Iroquoian (AD 1300-AD 1450) phase, this episodic community disintegration was no longer practised and populations now communally occupied sites throughout the year (Dodd *et al.* 1990:343). In the Late Iroquoian (AD 1450-AD 1649) phase this process continued with the coalescence of these small villages into larger communities (Birch and Williamson 2013). Through this process, the socio-political organization of the First Nations, as described historically by the French and English explorers who first visited southern Ontario, was developed.

The first record of a European visit to southern Ontario was made in 1615 by Samuel de Champlain, who reported that a group of Iroquoian-speaking people situated between the New York Iroquois and the Huron-Wendat were at peace and remained "la nation neutre". In subsequent years the French visited and traded among the Neutral, but the first documented visit was not until 1626, when the Recollet missionary Joseph de la Roche Daillon recorded his visit to the villages of the Attiwandaron, whose name in the Huron-Wendat language meant "those who speak a slightly different tongue" (the Neutral apparently referred to the Huron-Wendat by the same term). Like the Huron-Wendat, Petun and New York Iroquois, the Neutral people were settled village agriculturalists. The Neutral territory included discrete settlement clusters in the lower Grand River, Fairchild-Big Creek, Upper Twenty Mile Creek, Spencer-Bronte Creek drainages, Milton, Grimsby, Eastern Niagara Escarpment and Onondaga Escarpment areas. The subject property is situated near the upper drainage of Sixteen Mile Creek and the documented Milton settlement cluster (Lennox and Fitzgerald 1990: Figure 13.3). The Milton settlement cluster has documented occupation from the Glass Bead 1 period (AD 1580-AD 1600) (e.g. McClellahan site: Reid and Conway 1976) until the Glass Bead 3 Period (AD 1650-AD 1680) (e.g. McCarthy site: Reid and Conway 1976).

Between 1647 and 1651, the Neutral were decimated by epidemics and ultimately dispersed by the New York Iroquois, who subsequently settled along strategic trade routes on the north shore of Lake Ontario for a brief period during the mid seventeenth-century. One French explorer who is known to have entered the Burlington Bay area during this period was Rene-Robert Cavalier de La Salle, who left Montreal with a flotilla of nine canoes and eventually reached the head of Lake Ontario in September of 1669. After landing, de La Salle's group travelled to the Seneca village of Tinaouataoua, the exact location of which is open to speculation (ASI 2005:13-14).



Compared to settlements of the New York Iroquois the “Iroquois du Nord” occupation of the landscape was less intensive. Only seven villages are identified by the early historic cartographers on the north shore and they are documented as considerably smaller than those in New York State. The populations were agriculturalists, growing maize, pumpkins and squash. These settlements also played the important alternate role of serving as stopovers and bases for New York Iroquois travelling to the north shore for the annual beaver hunt (Konrad 1974).

Beginning in the mid-late seventeenth century, the Mississaugas began to replace the Seneca as the controlling Aboriginal group along the north shore of Lake Ontario since the Iroquois confederacy had overstretched their territory between the 1650s and 1670s (Williamson 2008). The Iroquois could not hold the region and agreed to form an alliance with the Mississauga peoples and share hunting territories with them (Williamson 2008). The Mississaugas traded with both the British and the French in order to have wider access to European materials at better prices, and used their strategic position on the Humber to act as trade intermediaries between the British and tribes in the north. By 1805, the lands from Burlington Bay to the Etobicoke River north of Eglinton Avenue were known as the ‘Mississague Tract’ (Boulton 1805: 48; Heritage Mississauga 2012: 18). The Mississaugas were also granted one mile (approximately 1.6 km) on either side of the Credit River, Twelve Mile Creek and Sixteen Mile Creek. In 1818, the remainder of the Mississauga Tract was acquired by the Crown excluding the lands tracts flanking the Credit River, Twelve Mile Creek and Sixteen Mile Creek. In 1820, the remainder of Mississauga land was surrendered except approximately 81 hectares (ha) along the Credit River (Heritage Mississauga 2012:18).

In 1825-26, the Credit Indian Village was established as an agricultural community and Methodist mission near present day Port Credit (Heritage Mississauga 2009; MNCFN n.d.). By 1840 the village was under significant pressure from Euro-Canadian settlement that plans began to relocate the settlement. In 1847 the Credit Mississaugas were made a land offer by the Six Nations Iroquois Council to relocate at Grand River. In 1847, 266 Mississaugas settled at New Credit, approximately 23 km southwest of Brantford. In 1848 a mission of the Methodist Church was established there by Rev. William Ryerson (WICEC 1985).

1.2.2 Euro-Canadian Land Use: Township Survey and Settlement

Township of Trafalgar

While other lands in the “Golden Horseshoe” at the western end of Lake Ontario were acquired by the British government for settlement by the United Empire Loyalist refugees during the 1780’s, Halton County (including Trafalgar Township) remained in the hands of the native Mississaugas until August 1805, when the lands were acquired under the terms of the Mississauga Purchase (Armstrong 1985:148). D’Arcy Boulton in 1805 (1961:48) noted that “the tract between the Tobicoake and the head of the lake is frequented only by wandering tribes of Missassagues.” The concessions lying on either side of Dundas Street were formally surveyed in 1806, and are known as the Old Survey. Additional lands were purchased from the Mississaugas in 1818 extended the boundaries of Trafalgar Township, and this portion of the Township became known as the New Survey.

Dundas Street, the baseline survey road in Trafalgar Township had been surveyed in 1793, as a military road connecting Lake Ontario, Lake Erie, Lake St. Clair and Lake Huron, as well as a road to aid Loyalist settlement and deter expansionist claims in Upper Canada. After the two concessions south of Dundas St. were opened up, two new east-west concession line access roads, the Upper Middle Road and the Lower Middle Road, were surveyed. These early east-west roads were later complemented in 1832, by the Lakeshore Road, which was constructed nearby and parallel to an aboriginal pathway skirting Lake



Ontario. The concession roads of the 1806 survey, and the line roads running perpendicular, blocked out the township in areas a mile and quarter square with five 200-acre lots to a square. Between every five lots ran a line road (Mathews 1953:45).

Trafalgar was simply known as Township Number 2 when it was first surveyed by Samuel S. Wilmot, and was subsequently renamed Alexander Township in honour of Alexander Grant, who was President and Administrator of the Province of Upper Canada (Mathews 1953:6). Shortly thereafter, when news reached Upper Canada of Lord Nelson's victorious sea battle off the coast of Spain, the names of two townships in the county were changed to Nelson and Trafalgar.

The New Survey of Trafalgar was undertaken by Richard Bristol between April and June 1819. His Survey Diaries and Notes are still extant on microfilm, and we learn from it that the survey of the township proceeded westward from Concession 11 along the Peel County line towards Milton. The crew encountered wet snow "nearly an inch deep" on May 17th, and by May 22 Bristol noted "the musketoes beginning their hostilities against us." On June 6, while in the vicinity of Concessions 1 and 2, the crew was inundated by a thunderstorm: "we necessiated [sic] to grin and bear it...no sleep this night for us," and a few days later "mosquitoes rather too many for us." The survey of Concession 2 was completed between June 5-7, 1819, and Bristol dismissed his men on June 10, 1819. Bristol noted that the timber was primarily elm, beech, maple, white oak, "black ash" and pine.

Trafalgar Township originally formed part of the West Riding of York in the Home District and following 1816, it became part of the Gore District, with Hamilton as the administrative District seat. Although the old Districts of Upper Canada were abolished by legislation in May 1849, the area which was to subsequently become Halton remained as part of the United Counties of Wentworth and Hamilton until it was finally separated and elevated to independent County status by an act of legislature in June 1853.

Smith (1850:261) noted that the settlement of Trafalgar commenced about 1807, and the price for wild land at the time was valued at 7/6- per acre. By 1817, the population had increased to 548, and the township contained one grist mill and four saw mills. The value of land had increased to 22 shillings per acre. In 1846, the township was described as "well settled... containing numerous well cleared and cultivated farms, most which have good orchards" (Smith 1846:198-199). By 1850, the population had increased to 4,513, and the township contained three grist and nineteen saw mills (Smith 1850:261). The timber cover in the township was described as "principally hardwood with a little pine intermixed" (Smith 1850:261).

The earliest families to settle within the township included those of Sovereign, Proudfoot, Katting, Freeman, Post, Biggar, Mulholland, Kenney, Chalmer, Albertson, Chisholms, Sproat, Brown and Hagar.

Nunan's Corners

The subject property is situated in the area that was known as Nunan's Corners or the "Catholic Swamp," named because the area was once covered with giant swamp oak trees and because of the concentration of Irish Catholic families who settled there in the 1820s and 1830s. Early settlers included the McCarron, Nunan, and O'Connor families. William Nunan, originally from County Cork, Ireland, emigrated from the Genesee Valley area of Pennsylvania as a United Empire Loyalist. The original Nunan house, believed to be built around 1822, was destroyed by a fire in 1935. Nunan's Corners also contained a church and cemetery, a general store, and a weaver's shop (Heritage Mississauga 2009b).

The subject property is approximately 40 metres north of St. Peter's Catholic Church and Cemetery, which was first established in 1823, when a log church was constructed on land that had been donated by Don Highland. The original log structure was replaced by a frame church in 1850, and remodelled and



bricked in 1882 (OGS 2014, Heritage Mississauga 2009b). The brick church is now set further back from Ninth Line. Many of the townships early settlers are buried in the cemetery (Heritage Mississauga 2009b).

1.2.3 Review of Nineteenth and Twentieth Century Historical Mapping

Reviews of the 1858 *Tremaine Map of the County of Halton* and the 1877 *Illustrated Historical Atlas of the County of Halton* were completed in order to determine if these sources depict any nineteenth-century Euro-Canadian settlement features that may represent potential historical archaeological sites on the property (Figures 2-3). It should be noted that not all settlement features were depicted systematically in the compilation of these historical map sources, given that they were financed by subscription, and subscribers were given preference with regard to the level of detail provided. Moreover, not every feature of interest from the perspective of archaeological resource management would have been within the scope of these sources.

Historically, the subject property was located on Lot 6, Concession 9, New Survey, in the former Township of Trafalgar, Halton County. The 1858 *Tremaine Map* depicts William Nunan as the owner of this lot. A single Euro-Canadian settlement homestead is illustrated within the subject property. The historically important concession road of present-day Ninth Line flanks the eastern edge of the subject property, and a tributary of East Sixteen Mile Creek bisects the property.

The 1877 *Historical Atlas* indicates Lot 6 is under the ownership of the Estate of William Nunan. No Euro-Canadian settlement features are illustrated within the limits of the subject property. It should be noted that the tributary of East Sixteen Mile Creek is now illustrated outside of the subject property limits. St. Peter's Catholic Church and Cemetery are illustrated south of subject property on the opposite side of the watercourse.

Historic NTS mapping was also reviewed for the presence of historical features. This series of mapping clearly shows features such as roads, structures, streams, elevation, and woodlots. The 1909 mapping indicates that the subject property remained relatively unchanged into the early twentieth century and is similar to that of the 1877 *Historical Atlas*.

1.2.4 Review of Historical Archaeological Potential

The *S & G* (MTC 2011:18) stipulates that areas of early Euro-Canadian settlement, including places of early military pioneer settlement (pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries, are considered to have archaeological potential. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks. Early historical transportation routes (trails, passes, roads, railways, portage routes), properties listed on a municipal register or designated under the *Ontario Heritage Act* or a federal, provincial, or municipal historic landmark or site, and properties that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations are also considered to have archaeological potential.

For the Euro-Canadian period, the majority of early nineteenth century farmsteads (i.e., those which are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth century maps) are likely to be captured by the basic proximity to the water model, since these occupations were subject to similar environmental constraints. An added factor, however, is the development of the



network of concession roads and railroads through the course of the nineteenth century. These transportation routes frequently influenced the siting of farmsteads and businesses. Accordingly, undisturbed lands within 100 metres of an early settlement road are also considered to have potential for the presence of Euro-Canadian archaeological sites.

Given the adjacent historic transportation corridor of Ninth Line and the presence of a nineteenth century homestead within the subject property, there is the potential of encountering nineteenth-century historical sites, dependent on the degree of recent land disturbances.

1.3 Archaeological Context

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

1.3.1 Registered Archaeological Sites

In order that an inventory of archaeological resources could be compiled for the subject property, three sources of information were consulted: the site record forms for registered sites housed at the Ministry of Tourism, Culture and Sport, published and unpublished documentary sources, and the files of ASI.

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (OASD) which is maintained by the Ministry of Tourism, Culture and Sport. This database contains archaeological sites registered within the Borden system. The Borden system was first proposed by Dr. Charles E. Borden and is based on a block of latitude and longitude. Each Borden block measures approximately 13 km east-west by 18.5 km north-south. Each Borden block is referenced by a four-letter designator, and sites within a block are numbered sequentially as they are found. The subject property under review is located within the AjGw Borden block.

While no archaeological sites have been registered within the subject property or in the immediate vicinity, two sites have been registered within a one km radius from the subject property (MTCS 2015). Details concerning the registered sites are summarized in Table 1: Table 2 provides a general outline of Southern Ontario prehistory.

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

Borden #	Name	Cultural Affiliation	Site Type	Researcher
AjGw-223	Break	Late Archaic	Findspot	ASI 1991
AjGw-224	Wheel	Middle Woodland	Findspot	ASI 1991



Table 2: Outline of Southern Ontario Prehistory

Period	Archaeological/ Material Culture	Date Range	Lifeways/ Attributes
PALEO-INDIAN			
Early	Gainey, Barnes, Crowfield	9000-8500 BCE	Big game hunters
Late	Holcombe, Hi-Lo, lanceolate	8500-7500 BCE	Small nomadic groups
ARCHAIC			
Early	Nettling, Bifurcate-base	7800-6000 BCE	Nomadic hunters and gatherers
Middle	Kirk, Stanly, Brewerton, Laurentian	6000-2000 BCE	Transition to territorial settlements
Late	Lamoka, Genesee, Crawford Knoll, Innes	2500-500 BCE	Polished/ground stone tools (small stemmed)
WOODLAND			
Early	Meadowood	800-400 BCE	Introduction of pottery
Middle	Point Peninsula, Saugeen	400 BCE-CE 800	Incipient horticulture
Late	Algonkian, Iroquoian	CE 800-1300	Transition to village life and agriculture
	Algonkian, Iroquoian	CE 1300-1400	Establishment of large palisaded villages
	Algonkian, Iroquoian	CE 1400-1600	Tribal differentiation and warfare
HISTORIC			
Early	Huron, Neutral, Petun, Odawa, Ojibwa	CE 1600-1650	Tribal displacements
Late	Six Nations Iroquois, Ojibwa	CE 1650-1800's	
	Euro/Canadian	CE 1800-present	European settlement

1.3.2 Previous Archaeological Assessments

According to the background research, one archaeological assessment has been conducted within 50 metres of the subject property. This assessment is reviewed below.

In advance of the completion of the Highway 407 construction a number of archaeological assessments were conducted. In 1996, Mayer Heritage Consultants Inc. (MHCI) was retained to undertake an archaeological assessment for a number of properties along the proposed Highway 407 ROW. This work resulted in the discovery of a number of archaeological sites and findspots, none of which are located within 50 metres of the current subject property.

1.3.3 Physiography

The subject property is located on the gently undulating Peel Plain Physiographic Region of southern Ontario, which is characterized as having level to gently rolling topography with a consistent, gradual slope toward Lake Ontario (Chapman and Putnam 1984:174-197). The Plain is made up of deep deposits of dense limestone and shale-imbued till, often covered by a shallow layer of clay sediment. While the clay soils of the plain may be imperfectly drained, the region is without large swamps or bogs.

Soils are imperfectly drained Chinguacousy clay loam (Gillespie et al 1970 soil map). A south-flowing tributary of East Sixteen Mile Creek is situated just south and east of the subject property.

1.3.4 Review of Aboriginal Archaeological Potential

The *S & G* (MTC 2011:17) stipulates that primary water sources (lakes, rivers, streams, creeks), secondary water sources (intermittent streams and creeks, springs, marshes, swamps), ancient water sources (glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, cobble beaches), as well as accessible or inaccessible shorelines (high bluffs, swamp or marsh



fields by the edge of a lake, sandbars stretching into marsh) are characteristics that indicate archaeological potential.

Potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in south central Ontario after the Pleistocene era, proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most commonly used variables for predictive modelling of site location. A tributary of East Sixteen Mile Creek is situated just south of the subject property.

Other geographic characteristics that can indicate archaeological potential include: elevated topography (eskers, drumlins, large knolls, plateaux), pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground, distinctive land formations 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 (migratory routes, spawning areas, prairie) and scarce raw materials (quartz, copper, ochre, or outcrops of chert) are also considered characteristics that indicate archaeological potential.

This basic potential model has been further refined as part of the *Master Plan of Archaeological Resources of the Regional Municipality of Halton* (ASI 1998, 2008), of which a major component was the development of a predictive model for the distribution of archaeological sites. Predictive modeling involves reconstructing natural and social environments of the past, reconstructing the life ways of various cultural groups that occupied these past environments, then examining relationships between the life ways and the environment in order to predict the locations that may have been the focus of past human activity. By identifying the relationship between known sites and past environments it is possible to select the factors that influenced site selection.

The *Master Plan* research determined that a buffer zone extending 200 metres from any water source constitutes an acceptable characterization of pre-contact archaeological site potential within Halton Region, whether above or below the Escarpment¹. Therefore, given the adjacent tributary of East Sixteen Mile Creek, there is the potential for the identification of pre-contact Aboriginal archaeological remains, depending on the degree of later developments or soil alterations.

1.3.5 Existing Conditions

The subject property is irregularly shaped, and is approximately five hectares in size. It is bound to the east by Ninth Line, to the south by a tributary of East Sixteen Mile Creek, to the west by an agricultural field, and to the north by a residential lot. The subject property is comprised of a mix of lands including agricultural fields, a former residential lot, and former scrub and treed pasture land with evidence of demolished buildings. A partial stone foundation is present on the property. In general, the terrain is level across the entire property.

¹ It should be noted that the subject property was incorporated into the City of Mississauga, Regional Municipality of Peel in 2010.



2.0 FIELD METHODS

The Stage 1 property inspection was conducted on December 3, 2015 under MTCS PIF P046-0119-2015 in order to gain first-hand knowledge of the geography, topography, and current conditions and to evaluate and map archaeological potential of the subject property prior to development. All fieldwork was conducted under the field direction of Mr. Andrew Clish (P046). The weather conditions were appropriate for the completion of fieldwork, consisting of cloudy skies.

The property inspection conducted by means of a visual review of the subject property that involved random spot-checking across all accessible portions of the property. This strategy is consistent with Section 1.2 Property Inspection, Standard 1 of the *S & G*. Photo locations and field observations have been compiled on project mapping (Figure 6). Representative photos documenting the field conditions during the Stage 1 property inspection are presented in Section 7.0 of this report.

2.1 Findings

Approximately three hectares of the subject property is comprised of agricultural fields or lands that have once been ploughed (Plates 1-2). The former residential lot and associated pasture land portion of the property is approximately one hectare in size. The residential area consists of an open area surrounded by mature trees (Plate 3). Remnants of a demolished barn are visible within the pasture land (Plates 4-5). A review of aerial photography from 2005 indicates that a house, garage, and three barns or outbuildings were present on the property (Figure 7). By 2009, two of the outbuildings have been demolished (Figure 8), and by 2013, the barn had been demolished (Figure 9). The house and garage fronting Ninth Line were removed sometime after 2013. A low-lying wet swale cuts through the property with a pond at either end (Plates 6-8).

The Stage 1 archaeological assessment has resulted in areas of the subject property lacking archaeological potential. These areas include the footprints of the demolished buildings. According to 2.1 Property Survey, Standard 2b of the 2011 *S & G*, the disturbances noted at these locations are considered too deep and extensive to warrant further survey. The disturbed areas account for approximately 5% of the subject property. Additional lands lacking any further archaeological potential include the low-lying wet swale and pond areas. According to 2.1 Property Survey, Standard 2a (i) of the 2011 *S & G*, these lands are considered to have no or low potential. The wet area accounts for approximately 15% of the subject property. The remaining 80% of the subject property is found to contain the potential for encountering archaeological resources.

2.2 Inventory of Documentary and Material Record

The documentation and materials related to this project will be curated by Archaeological Services Inc. until such a time that arrangements for their ultimate transfer to Her Majesty the Queen in right of Ontario, or other public institution, can be made to the satisfaction of the project owner(s), the Ontario Ministry of Culture, Tourism, and Sport, and any other legitimate interest groups.

3.0 ANALYSIS AND CONCLUSION

ASI was contracted by Derry Britannia Developments Limited to undertake a Stage 1 archaeological assessment of 6150 Ninth Line, on part of Lot 6, Concession 9, New Survey, Geographic Township of



Trafalgar, Halton County, now in the City of Mississauga, Regional Municipality of Peel. The subject property is approximately five hectares in size.

The Stage 1 background assessment determined that two archaeological sites have been registered within one km of the subject property. Historic mapping indicates an adjacent historic transportation corridor of Ninth Line and a farm house are illustrated within the limits of the subject property. Based on a review of the general physiography of the subject property and the presence of Euro-Canadian settlement, the subject property encompasses an area that exhibits potential for the presence of Aboriginal and historical Euro-Canadian archaeological resources.

The review of the historical mapping identified an early nineteenth century church and cemetery to the south of the subject property. While cemetery markers are located to the north of the existing church, there is however, a distance of 40 metres from the treeline demarking the limit of the cemetery and the current subject property. Most importantly within this 40 metre distance is the tributary of the East Sixteen Mile Creek. Given the watercourse is between the subject property and the cemetery, no further research on the cemetery is required.

The Stage 1 field review resulted in the determination that approximately 20% of the subject property lacks archaeological potential. These areas include footprints of the demolished buildings, and the low-lying wet swale and pond areas. The balance of the subject property, approximately 80%, is found to contain the potential for encountering archaeological resources and will require a Stage 2 archaeological assessment.

4.0 RECOMMENDATIONS

In light of these results, the following recommendations are made:

1. Prior to any land-disturbing activities within the subject property, a Stage 2 archaeological assessment must be conducted in accordance with the Ministry of Tourism, Culture and Sport's 2011 *Standards and Guidelines for Consultant Archaeologists*.
 - a. The Stage 2 archaeological assessment must be carried out on all agricultural or open lands within the subject property by means of a pedestrian survey. The fields must be ploughed in advance of survey and allowed to weather for at least one substantial rainfall. Ploughing must be deep enough to provide total topsoil exposure, but not deeper than previous ploughing. The pedestrian survey should be completed at five metre transect intervals as outlined in the 2011 *Standards and Guidelines for Consultant Archaeologists*.
 - b. The balance of the Stage 2 archaeological assessment must be carried out on all undisturbed treed and scrub lands within the subject property by means of a test pit survey. All test pits should be excavated at least five cm into sterile subsoil, with all soils being screened through six mm mesh to facilitate artifact recovery. All test pits should be at least 30 cm in diameter and backfilled upon completion. Test pits should be excavated within one metre of all built structures. Test pits should be excavated at five metre transect intervals as outlined in the 2011 *Standards and Guidelines for Consultant Archaeologists*.

NOTWITHSTANDING the results and recommendations presented in this study, Archaeological Services Inc. notes that no archaeological assessment, no matter how thorough or carefully completed, can necessarily predict, account for, or identify every form of isolated or deeply buried archaeological



deposit. In the event that archaeological remains are found during subsequent construction activities, the consultant archaeologist, approval authority, and the Cultural Programs Unit of the Ministry of Tourism Culture should be immediately notified.

5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

- This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, RSO 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological field work and report recommendations ensure the conservation, preservation and protection of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sport, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.
- It is an offence under Sections 48 and 69 of the Ontario Heritage Act for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological field work on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the Ontario Heritage Act.
- Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the Ontario Heritage Act.
- The Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33, requires that any person discovering or having knowledge of a burial site shall immediately notify the police or coroner. It is recommended that the Registrar of Cemeteries at the Ministry of Consumer Services is also immediately notified.
- Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the Ontario Heritage Act and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.

6.0 BIBLIOGRAPHY

ASI

- 1998 *The Master Plan of Archaeological Resources for the Regional Municipality of Halton.* Report prepared for the Regional Municipality of Halton, and on file at ASI.
- 2008 *Master Plan of Archaeological Resources of the Regional Municipality of Halton, 2008 Update.* ASI: Toronto.



- Armstrong, F.H.
1985 *Handbook of Upper Canadian Chronology*. Toronto: Dundurn Press.
- Boulton, D'A.
1805 *Sketch of His Majesty's Province of Upper Canada*. Toronto: Baxter Publishing Company (Reprinted 1961).
- Birch, J. and R. F. Williamson
2013 *The Mantle Site: An Archaeological History of an Ancestral Wendat Community*. Lanham: Rowman & Littlefield Publishers Inc.
- Brown, J.
1995 On Mortuary Analysis – with Special Reference to the Saxe-Binford Research Program. In: *Regional Approaches to Mortuary Analysis*, edited by L. A. Beck. New York: Plenum Press, pp. 3-23.
- Chapman, L.J. and D.F. Putman
1984 *The Physiography of Southern Ontario*. Second Edition. University of Toronto Press, Toronto.
- (DMD) Department of Militia and Defence
1909 NTS Sheet Brampton.
- Dodd, C.F., D.R. Poulton, P.A. Lennox, D.G. Smith and G.A. Warrick.
1990 The Middle Ontario Iroquoian Stage. In: *The Archaeology of Southern Ontario to A.D. 1650*. Edited by: C.J. Ellis and N. Ferris. Occasional Publication of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc., pp. 321-360.
- Ellis, C.J. and D.B. Deller
1990 Paleo-Indians. In: *The Archaeology of Southern Ontario to A.D. 1650*. Edited by: C.J. Ellis and N. Ferris. Occasional Publication of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc., pp. 37-64.
- Ellis, C.J., I.T. Kenyon and M.W. Spence
1990 The Archaic. In: *The Archaeology of Southern Ontario to A.D. 1650*. Edited by: C.J. Ellis and N. Ferris. Occasional Publication of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc., pp. 65-124.
- Ellis, C. J., P. A. Timmins and H. Martelle
2009 At the Crossroads and Periphery: The Archaic Archaeological Record of Southern Ontario. In: *Archaic Societies: Diversity and Complexity across the Midcontinent*. Edited by: T.E. Emerson, D.L. McElrath and A.C. Fortier. Albany, New York: State University of New York Press, pp. 787-837.
- Gillespie, J.E., R.E. Wicklund and M.H. Miller
1971 *The Soils of Halton County*. Report No. 43 of the Ontario Soil Survey. Ottawa: Department of Agriculture.
- Heritage Mississauga
2009a *Port Credit*. Website: <http://www.heritagemississauga.com/page/Port-Credit>



- 2009b *The Catholic Swamp*. Website: <http://www.heritagemississauga.com/page/Catholic-Swamp>
- 2012 *Heritage Guide: Mississauga*. Heritage Mississauga: Mississauga. Website: <http://www.heritagemississauga.com/assets/Heritage%20Guide%20-%20Final%20-%202012.pdf>
- Konrad, V.A.
1974 *Iroquois Villages on the North Shore of Lake Ontario, 1665-1687*. Paper Presented at the Fall Meeting of the Ontario Historical Geographers. November 9, 1974, Carleton University, Ottawa, Ontario.
- Lennox, P.A. and W.R. Fitzgerald
1990 The Culture History and Archaeology of the Neutral Iroquoians. In: *The Archaeology of Southern Ontario to A.D. 1650*. Edited by: C.J. Ellis and N. Ferris. Occasional Publication of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc., pp. 405-456.
- Mathews, H. C.
1971 *Oakville and the Sixteen*. Toronto: University of Toronto Press.
- (MHCI) Mayer Heritage Consultants Inc.
1996a Archaeological Assessment (Stages 2, 3 and 4), "J. McM." Homestead (ajGw-253), Highway 407 ROW Property S2-2. Report on file at MTCS.
1996b "Archaeological Assessment (Stages 2, 3 and 4) John Bussell Site (AjGw-268) Highway 407 ROW Property S2-20. Report on file at MTCS.
- Ministry of Consumer Services
2002 *Funeral, Burial and Cremation Services Act*
- Ministry of Culture
2005 *Ontario Heritage Act*
- (MTCS) Ministry of Tourism and Culture, now the Ministry of Tourism, Culture and Sport
2011 *Standards and Guidelines for Consultant Archaeologists*. Cultural Programs Branch, Archaeology and Planning Unit. Toronto.
2015 Sites within a 1 km Radius of the Project, Ontario Archaeological Sites Database, December 17, 2015.
- (MNCFN) Mississaugas of the New Credit First Nation
n.d. *History*. Website: http://www.newcreditfirstnation.com/index.php?option=com_content&view=article&id=16&Itemid=17
- (OGS) Ontario Genealogical Society, Halton-Peel Branch
2014 St. Peter's Catholic Church & Cemetery, Mississauga. Website: <http://www.haltonpeel.ogs.on.ca/h/tr14.htm>



- Pope, J. H.
1877 *Illustrated historical atlas of the county of Halton, Ont.* Walker & Miles, Toronto.
- Rayburn, A.
1997 *Place Names of Ontario.* Toronto: University of Toronto Press.
- Reid, C. and T. Conway
1976 The McClellahan Ossuary: A Study in Data Retrieval from a Looted, Early Historic Site. *Ontario Archaeology*, 26:31-45.
- Sauer, C. O.
1952 *Agricultural Origins and Dispersal.* American Geographical Society.
- Smith, W.H.
1846 *Smith's Canadian Gazetteer.* Toronto: H. & W. Rowsell.
- 1850 *Canada: Past, Present and Future Being a Historical, Geographical, Geological and Statistical Account of Canada West (volume II).* Thomas Maclear, Toronto.
- Spence, M. W., R. H. Pihl and C. Murphy
1990 Cultural Complexes of the Early and Middle Woodland Periods. In: *The Archaeology of Southern Ontario to A.D. 1650.* Edited by: C.J. Ellis and N. Ferris. Occasional Publication of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc., pp. 125-170.
- Tremaine, G.C.
1858 *Tremaine's Map of the County of Halton, Ont.* Toronto: Tremaine Map Establishment.
- Williamson, R. F.
1990 The Early Iroquoian Period of Southern Ontario. In: *The Archaeology of Southern Ontario to A.D. 1650.* Edited by: C.J. Ellis and N. Ferris. Occasional Publication of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc., pp. 291-320.
- 2008 *Toronto: An Illustrated History of its First 12,000 Years.* Toronto: James Lorimer & Co.
- Woodland Indian Cultural Education Centre (WICEC)
1985 *Mississaugas of New Credit Reserve: Community Profile.* Website:
<http://www.casbrant.ca/files/upload/Mississaugas%20of%20the%20New2.pdf>



7.0 PLATES



Plate 1: View west into agricultural field.



Plate 2: View northwest into open field.



Plate 3: View northwest into former residential lot surrounded by mature trees.



Plate 4: View southwest of pasture surrounding former outbuildings.



Plate 5: View north toward stone foundation.



Plate 6: View south along low-lying wet swale.



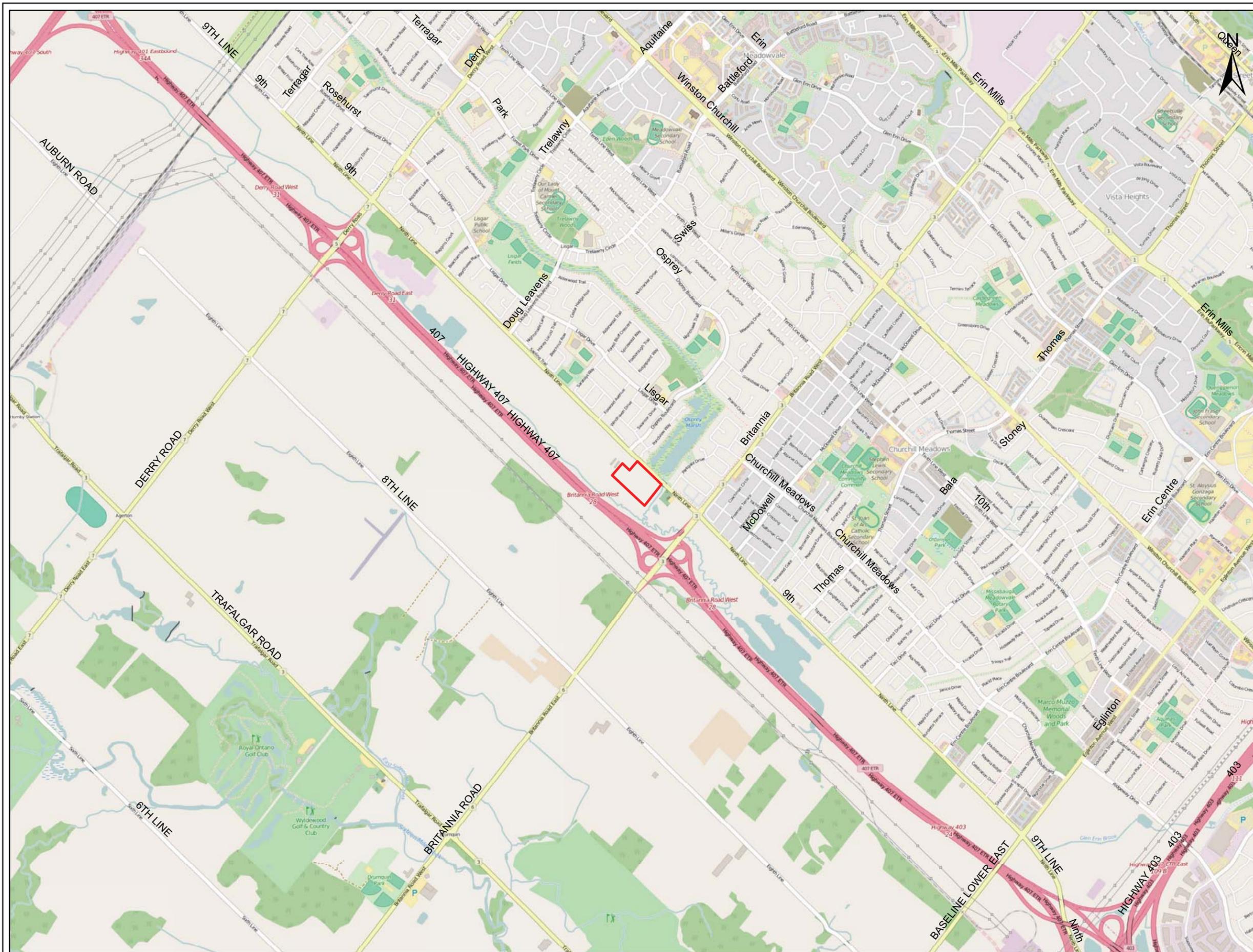
Plate 7: View north across pond.



Plate 8: View northeast across pond.

8.0 MAPS

See the following pages for detailed assessment maps and figures.



 Subject_Property

BASE:
 (c) OpenStreetMap and contributors,
 Creative Commons-Share Alike
 License (CC-BY-SA)



ASI PROJECT NO.: 15TS-206
 DATE: 11/12/2015
 DRAWN BY: JF
 FILE: 15TS209_fig1

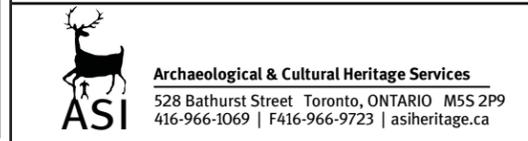


Figure 1: Location of the Subject Property.

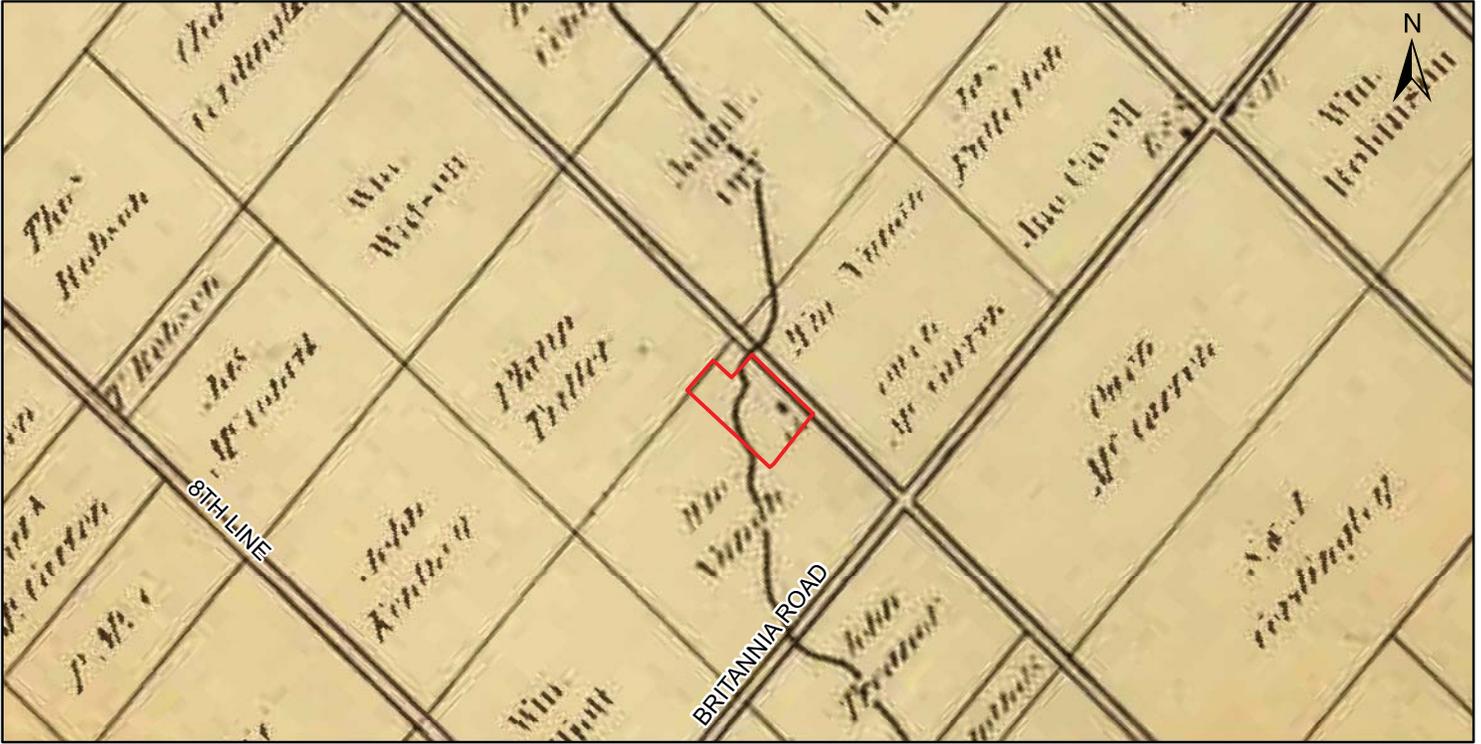
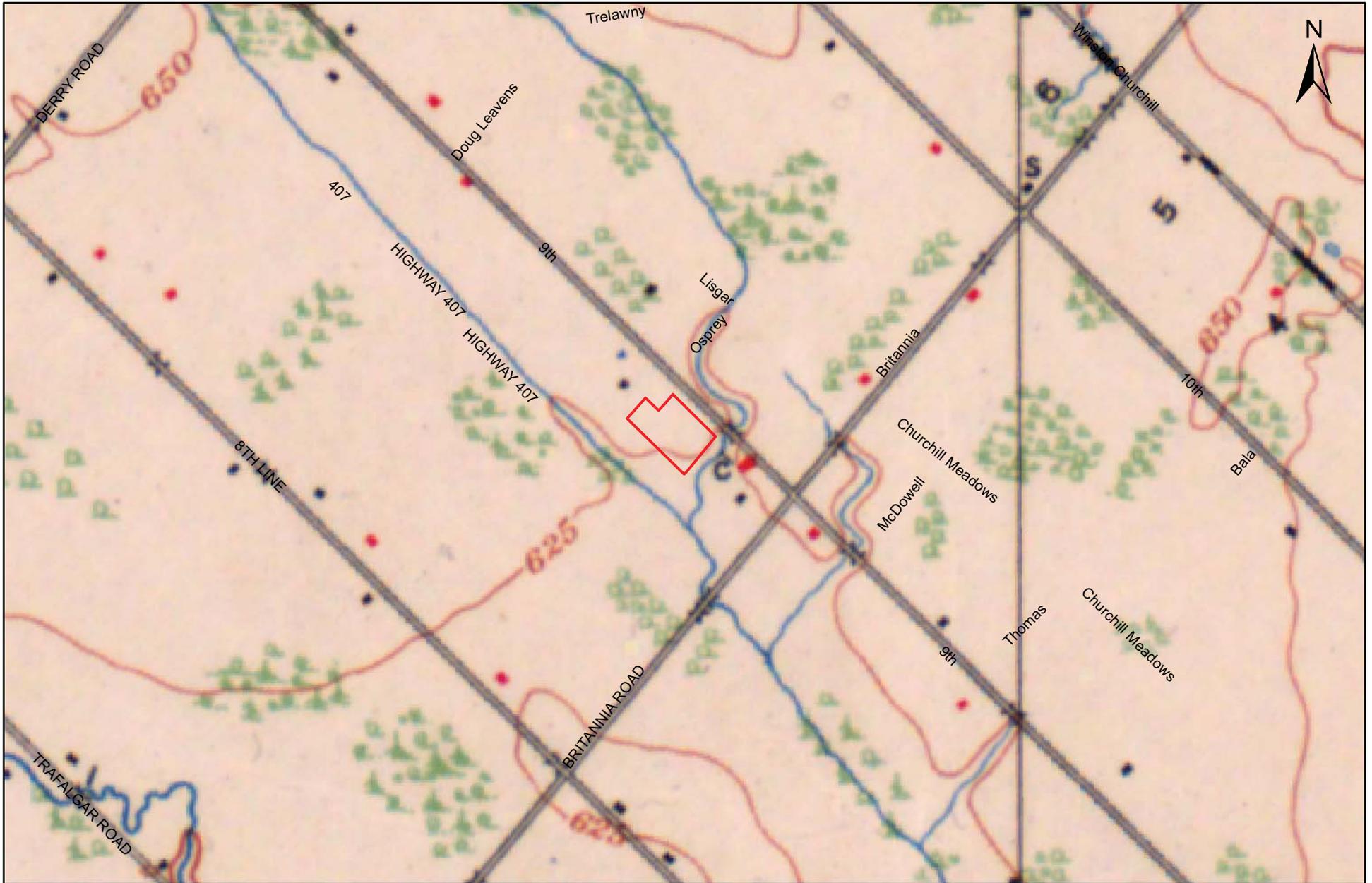


Figure 2: Subject Property located on the 1858 Tremain Map of the County of Halton



Figure 3: Subject Property located on the 1877 Illustrated Historical Atlas of the County of Halton

 <p>Archaeological & Cultural Heritage Services 528 Bathurst Street Toronto, ONTARIO M5S 2P9 416-966-1069 F416-966-9723 asih heritage.ca</p>	 Subject Property	<p>Base: 1859 Tremain Map of the County of Halton 1877 Illustrated Historical Atlas of the County of Peel</p>	<p>0 500 Metres</p> <p>ASI PROJECT NO.: 15TS-209 DRAWN BY: JF DATE: 11/17/2015 FILE: 15TS209_fig2_3_hist</p>
--	--	---	--




Archaeological & Cultural Heritage Services
 528 Bathurst Street Toronto, ONTARIO M5S 2P9
 416-966-1069 | F416-966-9723 | asiheritage.ca

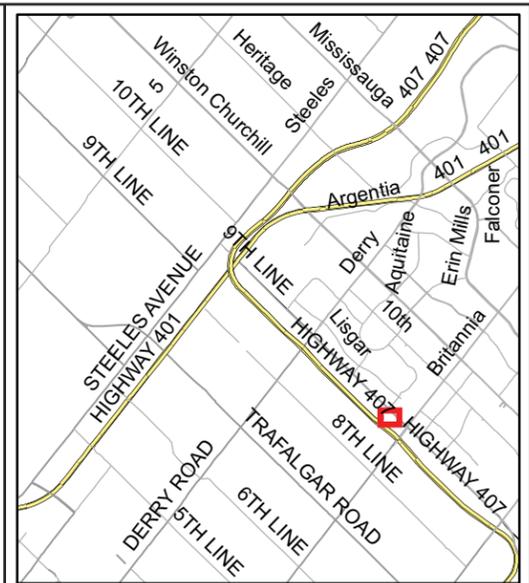
 Subject Property

Base:
 NTS Brampton - 1909

0  1
 Kilometres

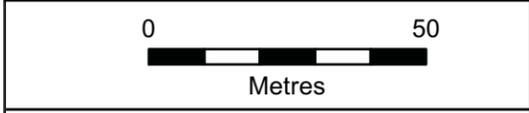
ASI PROJECT NO.: 15TS-205 DRAWN BY: JF
 DATE: 11/16/2015 FILE: 15TS209_fig4_hist

Figure 4: Subject Property located on the 1909 NTS Sheet Brampton



 Subject_Property

BASE:
 (c) OpenStreetMap and contributors,
 Creative Commons-Share Alike
 License (CC-BY-SA)



ASI PROJECT NO.: 15TS-205 DRAWN BY: JF
 DATE: 11/13/2015 FILE: 15TS209_fig5_existing



Figure 5: Existing conditions of the Subject Property.

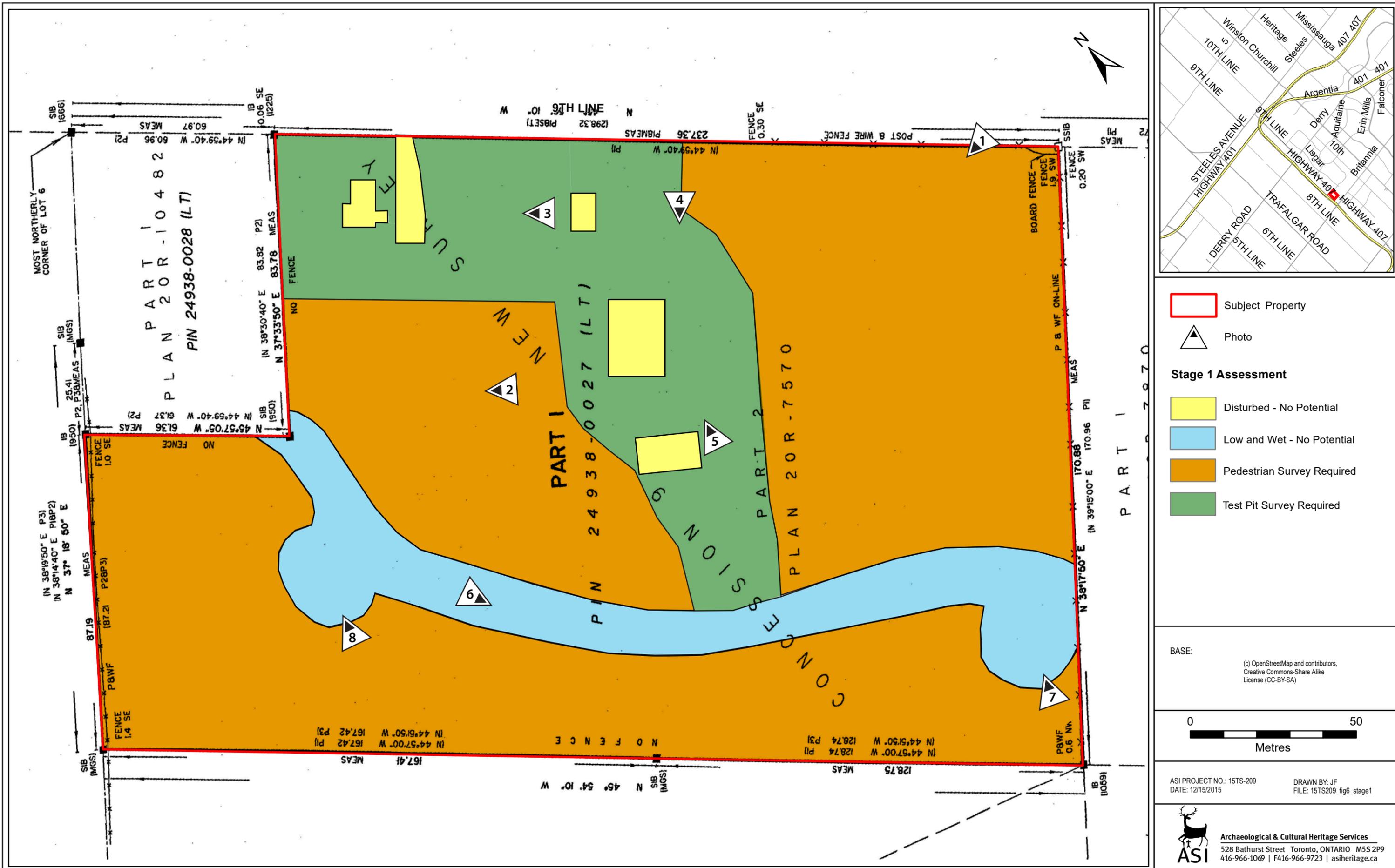


Figure 6: Stage 1 Archaeological Assessment Results



Figure 7: Subject property overlaid on the 2009 aerial photography



Figure 8: Subject property overlaid on the 2009 aerial photography

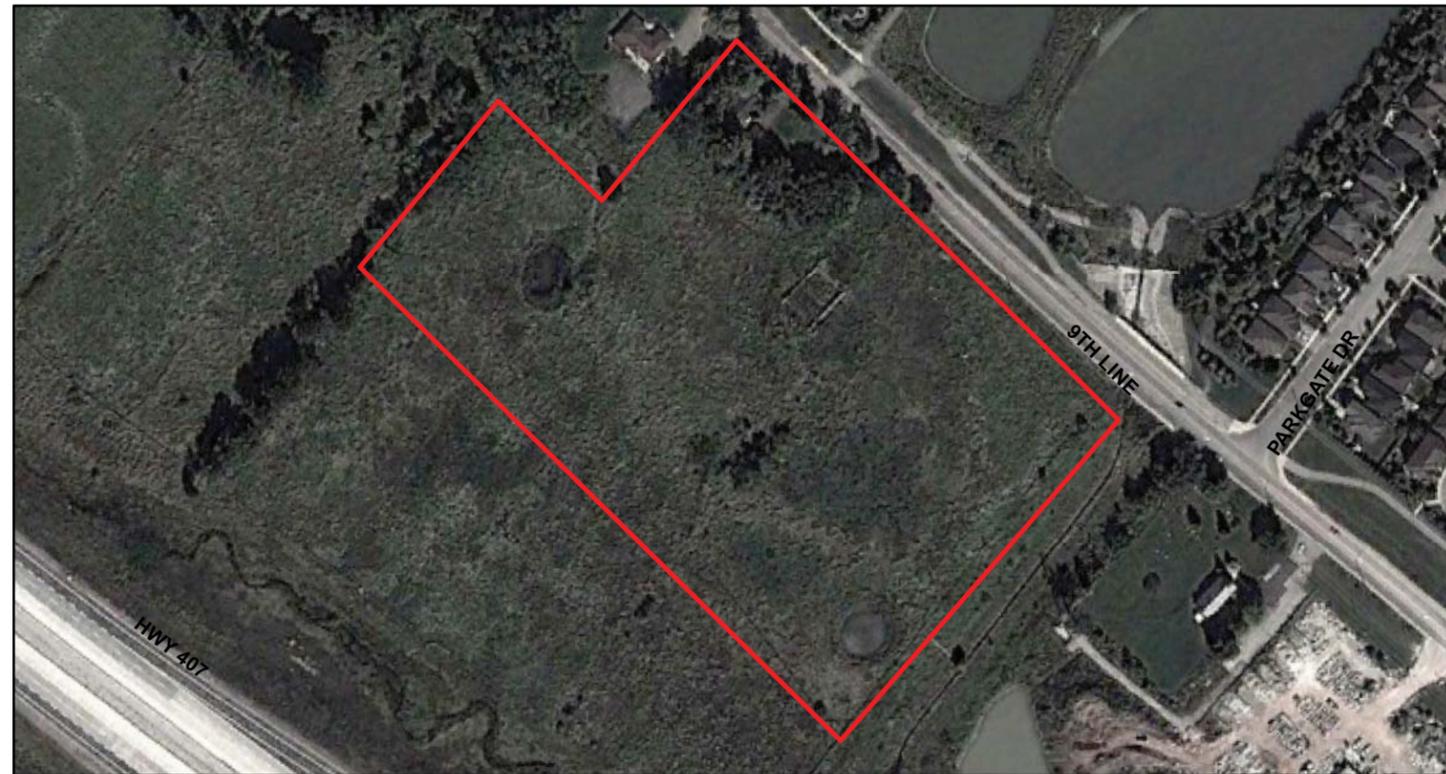


Figure 9: Subject property overlaid on the 2013 aerial photography

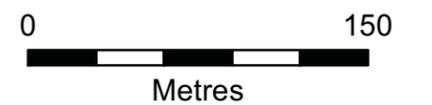


Archaeological & Cultural Heritage Services
 528 Bathurst Street Toronto, ONTARIO M5S 2P9
 416-966-1069 | F416-966-9723 | asiheritage.ca

 Subject Property

BASE:

Datum and Projection
 NAD 83
 UTM Zone 17T



ASI PROJECT NO.: 15TS-209
 DATE: 1/5/2016

DRAWN BY: JF
 FILE: 15TS209_fig7_8_9_google