

**STAGE 1 ARCHAEOLOGICAL ASSESSMENT OF
5170 AND 5150 NINTH LINE,
PART OF LOT 1, CONCESSION 9 NEW SURVEY,
GEOGRAPHIC TOWNSHIP OF TRAFALGAR, HALTON COUNTY,
CITY OF MISSISSAUGA, REGIONAL MUNICIPALITY OF PEEL, ONTARIO**

ORIGINAL REPORT

Prepared for:

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**STAGE 1 ARCHAEOLOGICAL ASSESSMENT OF
5170 AND 5150 NINTH LINE,
PART OF LOT 1, CONCESSION 9 NEW SURVEY,
GEOGRAPHIC TOWNSHIP OF TRAFALGAR, WENTWORTH COUNTY,
CITY OF MISSISSAUGA, REGIONAL MUNICIPALITY OF PEEL, ONTARIO**

EXECUTIVE SUMMARY

The Stage 1 Archaeological Assessment of 5170 and 5150 Ninth Line, part of Lot 1, Concession 9 New Survey, Geographic Township of Trafalgar, County of Halton, now in the City of Mississauga, Regional Municipality of Peel, has been carried out as part of the proponent's due diligence in advance of a development application. The subject property is approximately five hectares in size.

The Stage 1 assessment entailed consideration of the proximity of previously registered archaeological sites and the original environmental setting of the property, along with nineteenth and twentieth-century settlement trends. This research has concluded that there is potential of encountering pre-contact Indigenous and historical Euro-Canadian historical material within the subject property.

The Stage 1 Archaeological Assessment has determined that 90% of 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

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1.0 PROJECT CONTEXT

ASI was contracted by Derry Britannia Developments Limited to complete a Stage 1 Archaeological Assessment of 5170 and 5150 Ninth Line, part of Lot 1, Concession 9 New Survey, Geographic Township of Trafalgar, County of Halton, now in the City of Mississauga, Regional Municipality of Peel (Figure 1). The subject property is approximately five hectares in size.

1.1 Development Context

This assessment was conducted under the project management of Ms. Beverly Garner and Ms. Jennifer Ley (R376) and under the project direction of Mr. Robb Bhardwaj (MTCS P449-0246-2018). All activities carried out during this assessment were completed as part of the proponent's due diligence in advance of development applications. Assessment activities were completed in accordance with the *Ontario Heritage Act* (Ministry of Culture [MCL] 1990) and the *Standards and Guidelines for Consultant Archaeologists (S & G)* (Ministry of Tourism, Culture [MTC] 2011; now administered by the Ministry of Tourism, Culture, and Sport [MTCS]).

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 July 17, 2018.

1.2 Historical Context

The purpose of this section 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 Indigenous land use of the subject property. This is followed by a review of historic Euro-Canadian settlement history.

Historically, the subject property is located within part of Lot 1, Concession 9 New Survey (NS), in the former Township of Trafalgar, County of Halton. The property is located at 5170 and 5150 Ninth Line and is approximately 420 metres northwest of the intersection of Ninth Line and East Lower Base Line / Eglinton Avenue West. The property is at the western boundary of the City of Mississauga and the Regional Municipality of Peel. The subject property currently comprises a residential parcel, part of a farmstead, fields and greenspace.

1.2.1 Indigenous Overview

Southern Ontario has a cultural history that begins approximately 11,000 years ago and continues to the present. Table 1 provides a general summary of the pre-contact Indigenous settlement of the subject property and surrounding area.



Table 1: Outline of Southern Ontario Prehistory

Period	Archaeological/ Material Culture	Date Range	Lifeways/ Attributes
PALEO-INDIAN			
Early	Gainey, Barnes, Crowfield	9000-8500 BC	Big game hunters
Late	Holcombe, Hi-Lo, lanceolate	8500-7500 BC	Small nomadic groups
ARCHAIC			
Early	Nettling, Bifurcate-base	7800-6000 BC	Nomadic hunters and gatherers
Middle	Kirk, Stanly, Brewerton, Laurentian	6000-2500 BC	Transition to territorial settlements
Late	Lamoka, Genesee, Crawford Knoll, Innes	2500-500 BC	Polished/ground stone tools (small stemmed)
WOODLAND			
Early	Meadowood	800-400 BC	Introduction of pottery
Middle	Point Peninsula, Saugeen	400 BC-AD 800	Incipient horticulture
Transitional		AD 600-900	Introduction of new food crops
Late	Algonkian, Iroquoian	AD 800-1300	Transition to village life and agriculture
	Algonkian, Iroquoian	AD 1300-1400	Establishment of large palisaded villages
	Algonkian, Iroquoian	AD 1400-1600	Tribal differentiation and warfare
HISTORIC			
Early	Huron, Neutral, Petun, Odawa, Ojibwa	AD 1600-1650	Tribal displacements
Late	6 Nations, Ojibway	AD 1650-1800's	
	Euro/Canadian	AD 1800-present	European settlement

1.2.2 Historical Overview

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 extending 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. 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 musquetoos beginning their hostilities against us.” On June 6, while in the vicinities 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. The first wave of settlers included the children of Loyalists, soldiers who served during the War of 1812, and immigrants from England, Scotland and Ireland. Some of 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. 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).

1.2.3 Review of Nineteenth and Twentieth Century Historical Mapping

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

The 1858 *Tremaine Map* indicates the east half of Lot 1 under the ownership of Charles O’Hara (Figure 2). No structures are indicated on the east half of the lot. The subject property fronts onto the historically important concession road of Ninth Line. The nearest stream is indicated more than 500 metres to the west of the subject property.

The 1877 *Historical Atlas* now indicates that the east half of Lot 1 is owned by William O’Hara (Figure 3). A homestead is indicated near the eastern boundary of the subject property. The nearest stream is more than 500 metres to the west.

The early topographic map series clearly shows features such as structures, streams, roads, and woodlots. The 1909 *NTS Sheet Brampton* (Figure 4) indicates the same road system as the nineteenth century maps.



The subject property is cleared of trees, and a brick structure is present between the property and Ninth Line. The nearest stream is located 500 metres to the west.

1.2.4 Review of Aerial Imagery

In order to further assess the previous land use of the subject property, available aerial imagery was reviewed. Figure 5 shows a 1954 image illustrating the majority of the subject property as open fields with a few scattered trees in the northeastern portion of the property (HSCL 1954).

A review of modern Google Earth aerial images shows activity in the southwestern portion of the western parcel where an area of bare ground surface is visible in 2009. By 2013, this is the site of a large cell tower. A smaller tower had been located to the northwest of the large tower but has since been removed (Figure 6).

1.2.5 Review of Historical Archaeological Potential

The S & G, Section 1.3.1 stipulates that areas of early Euro-Canadian 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. No such historical locations are known in the vicinity of the subject property (Brown 2018).

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 historical transportation route are also considered to have potential for the presence of Euro-Canadian archaeological sites.

The S & G also defines buffers of 300 metres around registered historical sites or designated properties, areas of early historic settlement, and locations identified through local knowledge or informants (MTC 2011). There are no historical archaeological sites or other locations in the vicinity of the subject property.

The *Master Plan of Archaeological Resources of the Regional Municipality of Halton* considers a similar suite of criteria (ASI 1998, 2008). There is potential for historical sites within 50-100 metres of historical features, settlement centres, and transportation routes. Homestead/farmstead locations are likely captured by the model's buffer within 200 metres of water sources. The nearest historical site, AjGw-260, is 300 metres distant (see Section 1.3.1).

Given the proximity to the historically important transportation corridor of present-day Ninth Line, the presence of a settlement feature in the vicinity and the proximity to a registered historical site, there is the



potential of encountering nineteenth-century historical material within the subject property, depending on the degree of more 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, surficial geology, 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 MTCS; 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 MTCS. 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.

Eleven archaeological sites have been registered within a one km radius of the subject property (MTCS 2018). A summary of the registered sites is presented in Table 1 below. The six pre-contact Indigenous sites include a Middle Woodland findspot and a Late Archaic campsite and an undetermined campsite. The remaining pre-contact sites are undetermined isolated finds. Four of the five post-contact Euro-Canadian sites are homesteads, and the remaining site is a midden. The sole site situated within 300 metres of the subject property is the Johnston Roger Homestead (AjGw-260). The site is discussed further in Section 1.3.2 below.

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

Borden No.	Name	Temporal/ Cultural Affiliation	Type	Researcher
AjGw-24	Cold	Undetermined pre-contact	Findspot	1975
AjGw-236	Churchill Meadows 5	Post-contact	Homestead	MIA 1995
AjGw-237	Churchill Meadows 6	Post-contact	Homestead	MIA 1995
AjGw-244	Churchill Meadows 13	Post-contact	Homestead	MIA 1995
AjGw-245	Churchill Meadows 14	Undetermined pre-contact	Findspot	MIA 1995
AjGw-246	Churchill Meadows 15	Undetermined pre-contact	Findspot	MIA 1995
AjGw-254	Laneway	Post-contact	Midden	MHCI 1996
*AjGw-260	Johnston Rogers Homestead	Post-contact	Homestead, midden	MHCI 1997
AjGw-281	Herrnberger	Woodland, Middle	Findspot	MHCI 1996
AjGw-282	Evans	Undetermined pre-contact	Camp/campsite	MHCI 1996
AjGw-283	Barrington	Archaic, Late	Camp/campsite	MHCI 1996

*Site within 300 metres of subject property; MIA = Museum of Indian Archaeology, now the Museum of Ontario Archaeology; MHCI = Mayer Heritage Consultants Inc.



1.3.2 Previous Assessments

The Stage 2 Archaeological Assessments of various sections of Highway 407 right-of-way were conducted in 1996 under a series of PIFs granted to MHCI. One of the sites identified in the right-of-way is the Johnston Rogers Homestead (AjGw-260). The historical site was identified and defined by test pit survey and by 12 one metre square test units over an area approximately 80 metres by 25 metres (MCHI 1999e: PIF 96-070). Subsequent Stage 4 investigations in 1996 entailed the block excavation of a 66 square metres and mechanical topsoil removal (MCHI 1997: no PIF available). In total, more than 13,000 artifacts were recovered, and the site was identified as a homestead and midden. No further assessment was recommended. The Highway 407 project reports and mapping were not available for review, but the report references are included in Section 6.0.

On the northeast side of Ninth Line, Stage 2 Archaeological Assessment of the Churchill Meadows Secondary Plan area conducted under PIF 95-014-12 (MIA 1997). The assessment identified no archaeological sites within 100 metres of the subject property and no Woodland villages within 200 metres. The project report was not available for review, but the report is included in Section 6.0.

1.3.3 Physiography

The subject property is situated within the Iroquois Plain physiographic region which is a lowland region bordering Lake Ontario. The region is characteristically flat and formed by lacustrine deposits laid down by the inundation of Lake Iroquois, a body of water that existed during the late Pleistocene. This region extends from the Trent River, around the western part of Lake Ontario, to the Niagara River, spanning a distance of approximately 300 km (Chapman and Putnam 1984:190). The old shorelines of Lake Iroquois include cliffs, bars, beaches and boulder pavements. The old sandbars in this region are good aquifers that supply water to farms and villages. The gravel bars are quarried for road and building material, while the clays of the old lake bed have been used for the manufacture of bricks (Chapman and Putnam 1984:196). This narrow strip is densely inhabited because of its proximity to Lake Ontario and its climatic influences, as well as its favourable soil conditions. The subject property is located within an area of till moraine, situated approximately five km west of an old shoreline and 11 km west of the current Lake Ontario shoreline.

Soils on the subject property are imperfectly drained Chinguacousy clay loam, formed on a parent material of clay loam till (Gillespie et al 1970).

The subject property is situated within the Credit River watershed and the sub-watershed of Sawmill Creek, a Credit River tributary (Credit Valley Conservation 2018).

1.3.4 Review of Pre-contact Archaeological Potential

The S & G, Section 1.3.1 stipulates that undisturbed lands within 300 metres of primary water sources (lakes, rivers, streams, creeks, etc.), secondary water sources (intermittent streams and creeks, springs, marshes, swamps, etc.), 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, etc.), as well as accessible or inaccessible shorelines (high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh, etc.) 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.

Several mapping sources were reviewed to determine the nearest source of water to the subject property. The historical mapping indicates no water sources within 500 metres of the subject property (Figures 2-4). However, a seasonal east-west swale is currently located on the subject property leading into a series of three dugout ponds along the west property boundary. This swale, when compared to recent mapping suggests that it is an extension of Glen Erin Brook, which terminates on the east side of Ninth Line, approximately 470 metres to the southeast (Figure 1).

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. None of these special features are known to be located within the immediate vicinity of the subject property.

The S & G Section 1.4.1, Standard 1 also defines buffers of 300 metres around registered pre-contact sites. In addition, based on current modelling, there is a high potential for ossuary locations within 1000 metres around Late Woodland villages and within 300 metres of a water source.

The *Master Plan of Archaeological Resources of the Regional Municipality of Halton* (ASI 1998, 2008), considers a similar suite of criteria and the model defines buffer zones extending 200 metres from any water source, 200 metres from a registered Late Woodland village, or 100 metres from any other pre-contact archaeological site as acceptable characterizations of pre-contact archaeological site potential within Halton Region. There are no sites meeting these criteria in the vicinity of the subject property.

In view of the general proximity to a water source, which may in part be present on the subject property, there is the potential for the identification of Indigenous sites, depending on the degree of later developments or soil alterations.

1.3.5 Subject Property Description

The subject property is approximately 5 hectares in size and is situated on the margin of an area of suburban development (Figure 7). The property is bounded on the northeast by Ninth Line and on the southwest by the Highway 407 right-of-way. To the northwest is a woodlot and a field. To the south is a residential property and greenspace.

The subject property currently comprises two parcels: a portion of a farmstead and fields at 5170 Ninth Line and a residential property at 5150 Ninth Line. The western parcel includes a barn, a communications tower, two garden plots, ponds, field, and meadow with scattered trees, with a gravel lane providing access to Ninth Line through the adjacent property. The eastern portion of the subject property is the residential parcel at 5150 Ninth Line which includes a brick house and a large shed. The area to the south



and east of the residence includes scattered mature oak trees as well as meadow. The terrain is level in the southwestern portion of the property but gently undulating across the centre where a seasonal swale extends in a southeasterly direction.

2.0 FIELD METHODS

A Stage 1 property inspection was conducted on August 24 and 28, 2018 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. Robb Bhardwaj (P449). The weather conditions and lighting were appropriate for the completion of fieldwork as they permitted good visibility of the land features.

The property inspection was conducted means of a visual review of the subject property that involved random spot-checking across all accessible portions of the property. The strategy is consistent with S & G, Section 1.2 Property Inspection, Standard 1. Photo locations and field observations have been compiled on project mapping (Figure 8). Representative photos documenting the field conditions during the Stage 1 property inspection are presented in Section 7.0 of this report.

2.1 Findings

The eastern parcel at 5150 Ninth Line includes a brick house and a large shed, both fronting on Ninth Line (Plates 1-2). Areas of pavement are located around the buildings and to the southeast of the existing laneway from the road, a second paved access is present (Plate 3).

The western parcel at 5170 Ninth Line includes a large cinder block barn with a gravel access lane on the east side (Plate 4). A gravel lane provides access from the property to the north to the communications tower at the south end of the parcel (Plate 5). An area with gravel cover is located to the northwest of the existing communications tower and is the former location of an earlier tower (Plate 6). A large earthen mound was noted in the northeastern corner of the western parcel (Plate 7). Three dugout ponds are also present along the southwestern boundary of the subject property.

The footprints of the extant structures, the gravel and paved areas and lanes, the earthen mound, the dugout ponds, and the communications tower pads are considered to have no archaeological potential. According to S & G, Section 2.1, Standard 2b, the disturbances noted at these locations are considered too deep and extensive to warrant further survey. The disturbed areas account for approximately 10% of the subject property.

The remaining lands comprise the lawn and landscaping surrounding the residence at 5150 Ninth Line, two garden plots, a grove of mature oaks, fields, and meadow with scattered trees and scrub. (Plates 9-11). The remaining 90% of the subject property is found to contain the potential for encountering archaeological remains.

2.2 Inventory of Documentary and Material Record

The documentation and materials related to this project will be curated by ASI 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 Tourism, Culture and Sport, and any other legitimate interest groups.

3.0 ANALYSIS AND CONCLUSIONS

ASI was contracted by Derry Britannia Developments Limited to undertake a Stage 1 Archaeological Assessment of 5170 and 5150 Ninth Line, part of Lot 1, Concession 9 NS, in the Geographic Township of Trafalgar, County of Halton, now in the City of Mississauga, Regional Municipality of Peel. The overall size of the subject property is five hectares.

The Stage 1 background assessment determined that eleven archaeological sites have been registered within one km of the subject property. Historical mapping indicates the historical transportation corridor of Ninth Line, and a nineteenth century residence and orchard are illustrated in the vicinity of the subject property. Based on a review of the general physiography of the subject property, including a water source in the general vicinity, there is the potential for the presence of pre-contact Indigenous and historical Euro-Canadian archaeological resources.

The Stage 1 field review resulted in the determination that approximately 10% of the subject property lacks archaeological potential. The balance of the subject property, approximately 90%, is found to contain the potential for encountering archaeological resources.

4.0 RECOMMENDATIONS

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

1. Prior to any land-disturbing activities within the subject property, a Stage 2 Archaeological Assessment must be conducted in accordance with the S & G.
 - 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 S & G.
 - b. The balance of the Stage 2 archaeological assessment must be carried out on all 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 S & G.

NOTWITHSTANDING the results and recommendations presented in this study, ASI 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 and Sport should be immediately notified.

5.0 LEGISLATION COMPLIANCE ADVICE

ASI advises compliance with the following legislation:

- This report is submitted to the Minister of Tourism and Culture and Sport as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, RSO 2005, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological field work and report recommendations ensure the conservation, preservation and protection of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism and 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 field work or protection remain subject to Section 48(1) of the Ontario Heritage Act and may not be altered, nor may artifacts be removed from them, except by a person holding an archaeological license.

6.0 BIBLIOGRAPHY

ASI (Archaeological Services Inc.)

- 1998 The Master Plan of Archaeological Resources of the Regional Municipality of Halton, Technical Report. ASI: Toronto.



- 2008 Master Plan of Archaeological Resources of the Regional Municipality of Halton, 2008 Update.
- Armstrong, F.H.
1985 *Handbook of Upper Canadian Chronology*. Dundurn Press, Toronto.
- Boulton, D'A.
1805 *Sketch of His Majesty's Province of Upper Canada*. C. Rickaby, London (reprinted in Toronto by the Baxter Publishing Company, 1961).
- Bristol, Richard
1819 Diary Trafalgar, 26 April-10 June 1819. In *Survey Diaries and Notes*. Archives of Ontario, RG1 CB1, box 39, microfilm MS924 reel 26.
- Brown, A.
2018 Ontario's Historical Plaques. <http://www.ontarioplaques.com/Menu_Map.html>
- Chapman, L.J. and D.F. Putman
1984 *The Physiography of Southern Ontario*. Second Edition. University of Toronto Press, Toronto.
- Credit Valley Conservation
2018 Sub-Watershed Map 1,2,3,4; and Regulation Mapping. <https://cvc.ca/wp-content/uploads/2012/06/Sub1234_Final-_20120604.pdf> and <https://cvc.ca/regmap-files/CVC_ScreeningTool_20160111_final.html>
- DMD (Department of Militia and Defence)
1909 *NTS Sheet Brampton*.
- Gillespie, J.E., R.E. Wicklund and M. Miller
1970 The Soils of Halton County. *The Ontario Soil Survey Report* No. 43. Canada Department of Agriculture, Ottawa and Ontario Department of Agriculture, Toronto.
- Google Earth Pro
2018 2004 - 2017 aerial imagery. Accessed September 19, 2018.
- HSCL (Hunting Survey Corporation Limited)
1954 Digital Aerial Photographs. Southern Ontario 1954. Accessed September 18, 2018 at University of Toronto Map & Data Library, <maps.library.utoronto.ca/data/on/AP_1954/index.html>
- Mathews, H.C.
1953 *Oakville and the Sixteen*. University of Toronto Press. Toronto. Reprinted 1971.
- MHCI (Mayer Heritage Consultants Inc.)
1999a Canadian Highways International Constructors, Archaeological Assessments (Stages 2, 3 & 4), Highway 407 ROW Properties (Volume 4). [MTCS PIF 96-008. Lic 1996-01]



- 1999b Canadian Highways International Constructors, Archaeological Assessment (Stages 2, 3 & 4), New Connection Methodist Church AjGw-252), Highway 407 Detour Property S1-46. [MTCS PIF 96-035. Lic 1996-01]
- 1999c Canadian Highways International Constructors, Archaeological Assessment (Stages 2 & 3), Laneway Site (AjGw-254), Highway 407 ROW Properties S1-27 & S1-28. MTCS PIF 96-043. Lic 1996-01]
- 1999d Canadian Highways International Constructors, Archaeological Assessment (Stages 2, 3 & 4), "J. McM." Site (AjGw-253), Highway 407 ROW Property S2-2. [MTCS PIF 96-064-1996]
- 1999e Canadian Highways International Constructors, Archaeological Assessment (Stages 2 & 3), Johnston Rogers Homestead (AjGw-360), Highway 407 ROW Property S1-26. [MTCS PIF 96-070. Lic 1996-01]
- 1999f Canadian Highways International Constructors, Archaeological Assessment (Stages 2, 3 & 4) John Bussell Homestead (AjGw-268), Highway 407 ROW Property S2-20. [MTCS PIF 96-073. Lic 1996-01]
- 1997 "Archaeological Assessment (Stage 4), Johnston Rogers Homestead (AjGw-260), Highway 407 ROW Property S1-26". 1996 [MTCS 1996 PIF not available]

Ministry of Consumer Services

- 2002 *Funeral, Burial and Cremation Services Act.*

MCL (Ministry of Culture, now Ministry of Tourism, Culture and Sport)

- 1990 Ontario Heritage Act.

Ministry of Municipal Affairs

- 1990 *The Planning Act*, R.S.O. 1990, c. P.13.

MTC/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.
- 2018 Sites within a 1 km Radius of the Project Provided from the Ontario Archaeological Sites Database. <<http://www.pastport.mtc.gov.on.ca>>

MIA (Museum of Indian Archaeology, now London Museum of Archaeology)

- 1997 Archaeological Assessment of Draft Plans of Sub. 21T-94-025, 21T-94033 & 21T-94-34, "Churchill Meadows Secondary Plan Area", City of Mississauga, R.M. of Peel (Erin Mills Neighbourhoods 402, 403, 404N, 404, 405, 406, 407 & 408) & Stage 3 Investigations at 3 Sites AjGw-235, 237, 240. [MTCS PIF 95-014-12]

Smith, W.H.

- 1846 Smith's Canadian Gazetteer. H. & W. Rowsell, Toronto.
- 1851 Canada: Past, Present and Future Being a Historical, Geographical, Geological and Statistical Account of Canada West (volume II). Thomas Maclear, Toronto.



TRCA (Toronto Region Conservation Authority)

2018 Flood Plain Viewer. <<https://trca.ca/conservation/flood-risk-management/flood-plain-map-viewer/#map>>

Tremaine, G.C.

1858 *Tremaine's Map of the County of Halton, Ont.* George C. Tremaine, Toronto.

Walker & Miles, Toronto.

1877 *Illustrated Historical Atlas of the County of Halton, Ont.* Toronto.

7.0 IMAGES



Plate 1: View to northeast of extant house in landscaped residential lot at 5150 Ninth Line.



Plate 3: View to northwest across front of 5150 Ninth Line. Former paved street access in foreground.



Plate 2: View to south of large shed and adjacent pavement.



Plate 4: View to north, large barn with adjacent gravelled areas at 5170 Ninth Line.



Plate 5: View to south, gravelled access road to communications tower.



Plate 6: View to northeast, gravelled former communications tower base within field.



Plate 7: View to northeast, earthen mound in northeastern corner of west parcel.



Plate 8: View to northeast, three dugout ponds along northwestern boundary of subject property.



Plate 9: View to southwest, garden plot. At far right, meadow with scattered trees.



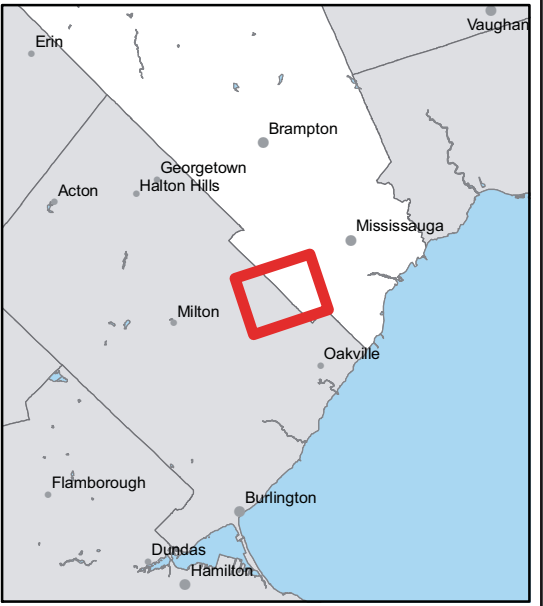
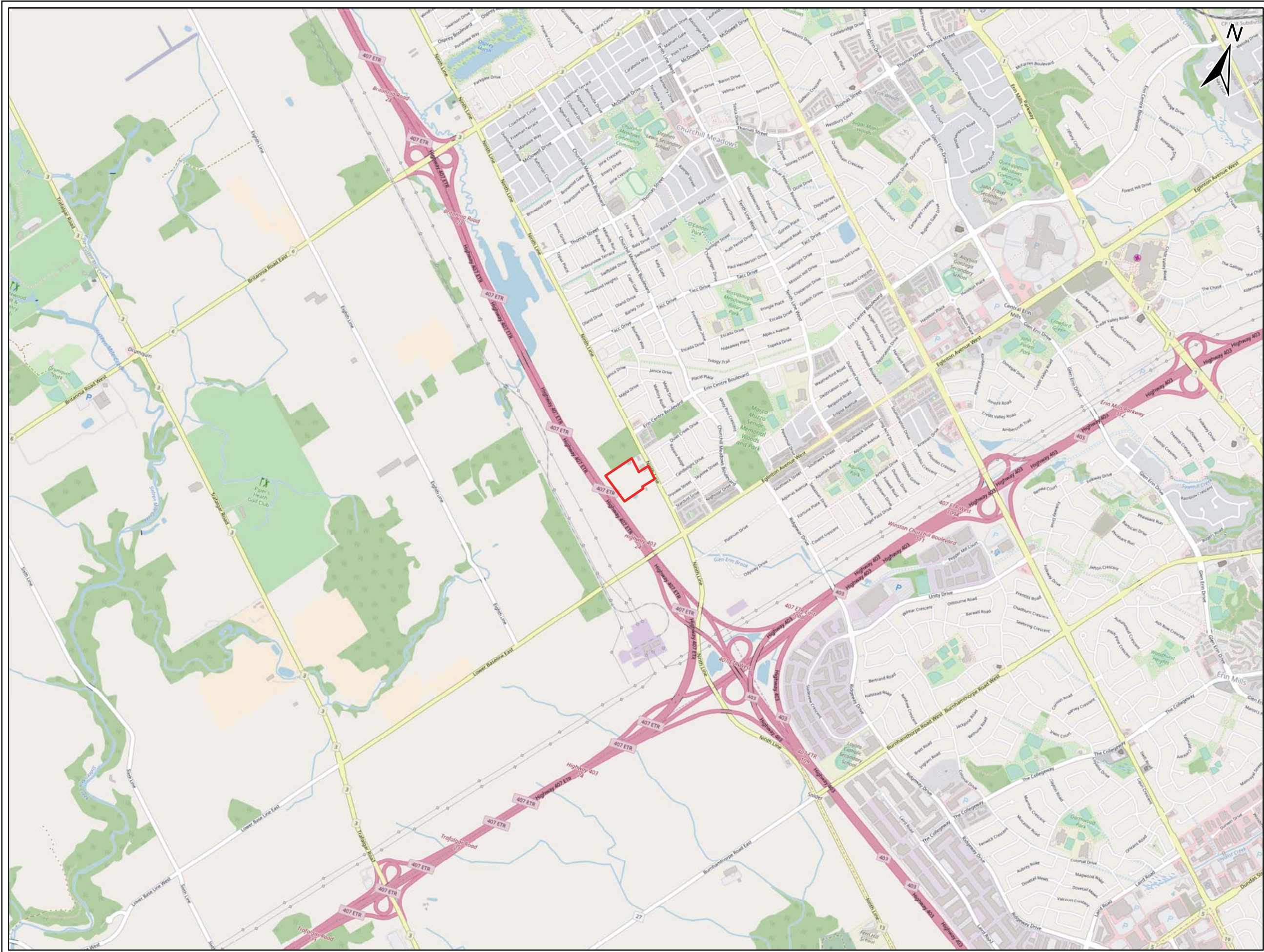
Plate 10: View to northeast, treed lawn fronting Ninth Line.




Plate 11: View to northwest, meadow in southern portion of property. Communications tower - background left.

8.0 MAPS

See following pages for detailed assessment mapping and figures.



 Subject Property

BASE: © OpenStreetMap (and) contributors, CC-BY-SA



ASI PROJECT NO.: 18PL-181
DATE: 2018-07-31

DRAWN BY: AB
FILE: 18PL181_Fig1



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

Figure 1: Location of Subject Property

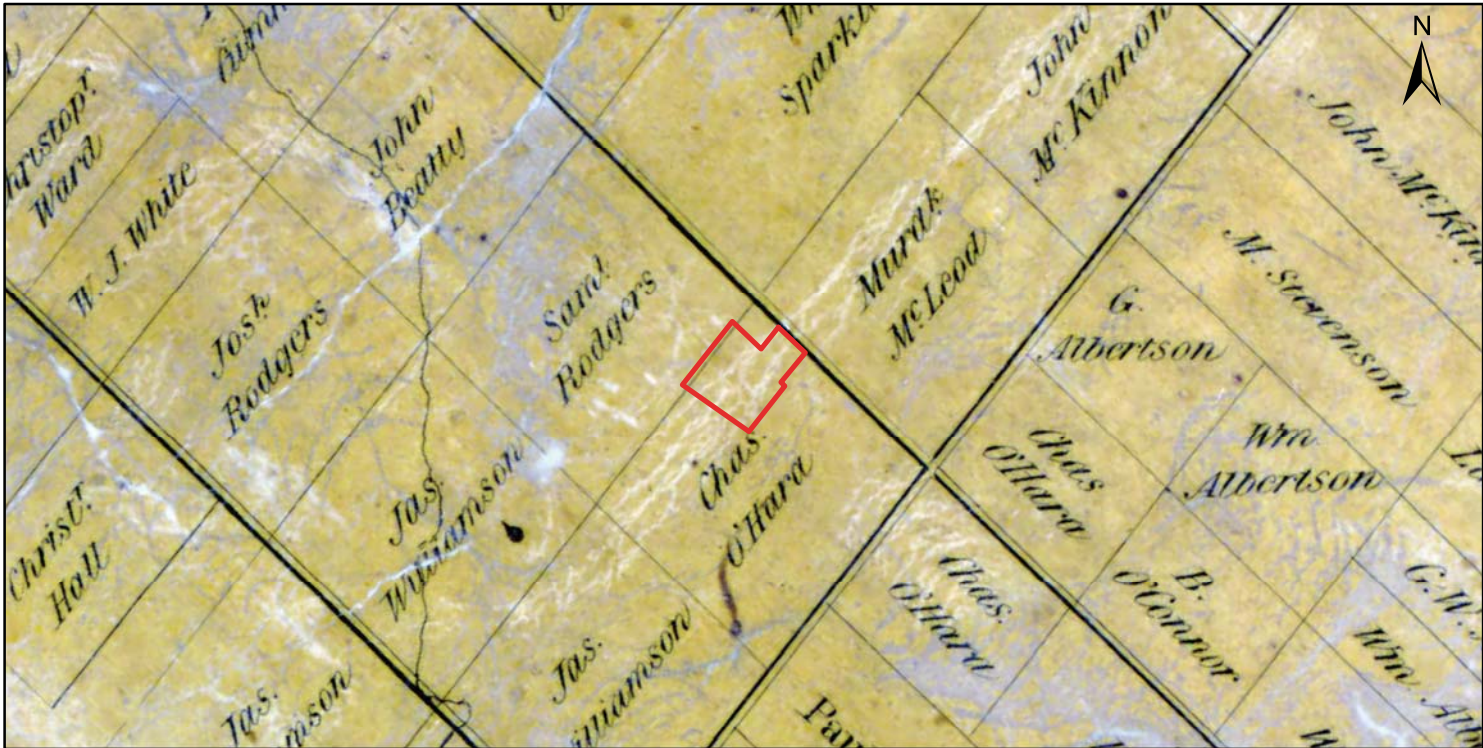


Figure 2: Subject Property located on 1858 Tremaine Map of the County of Halton

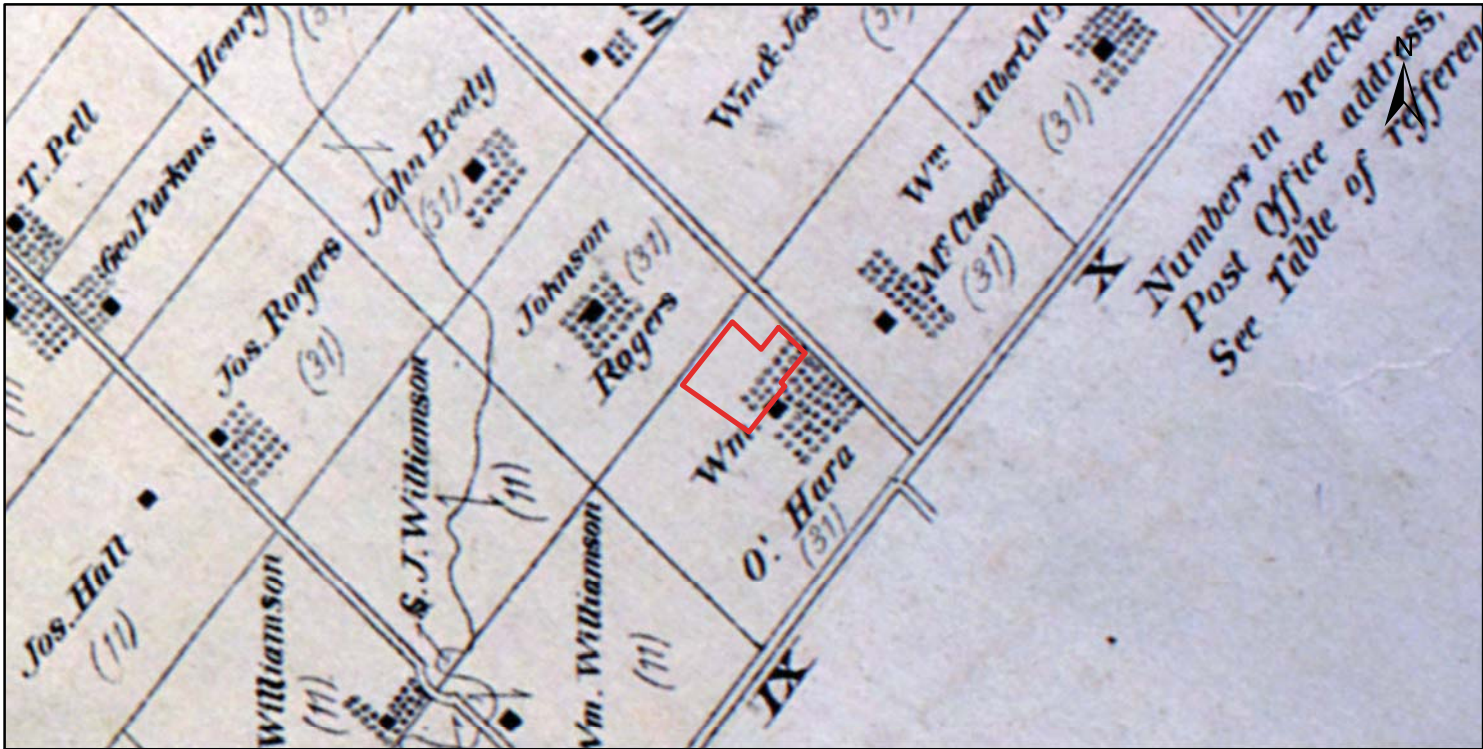
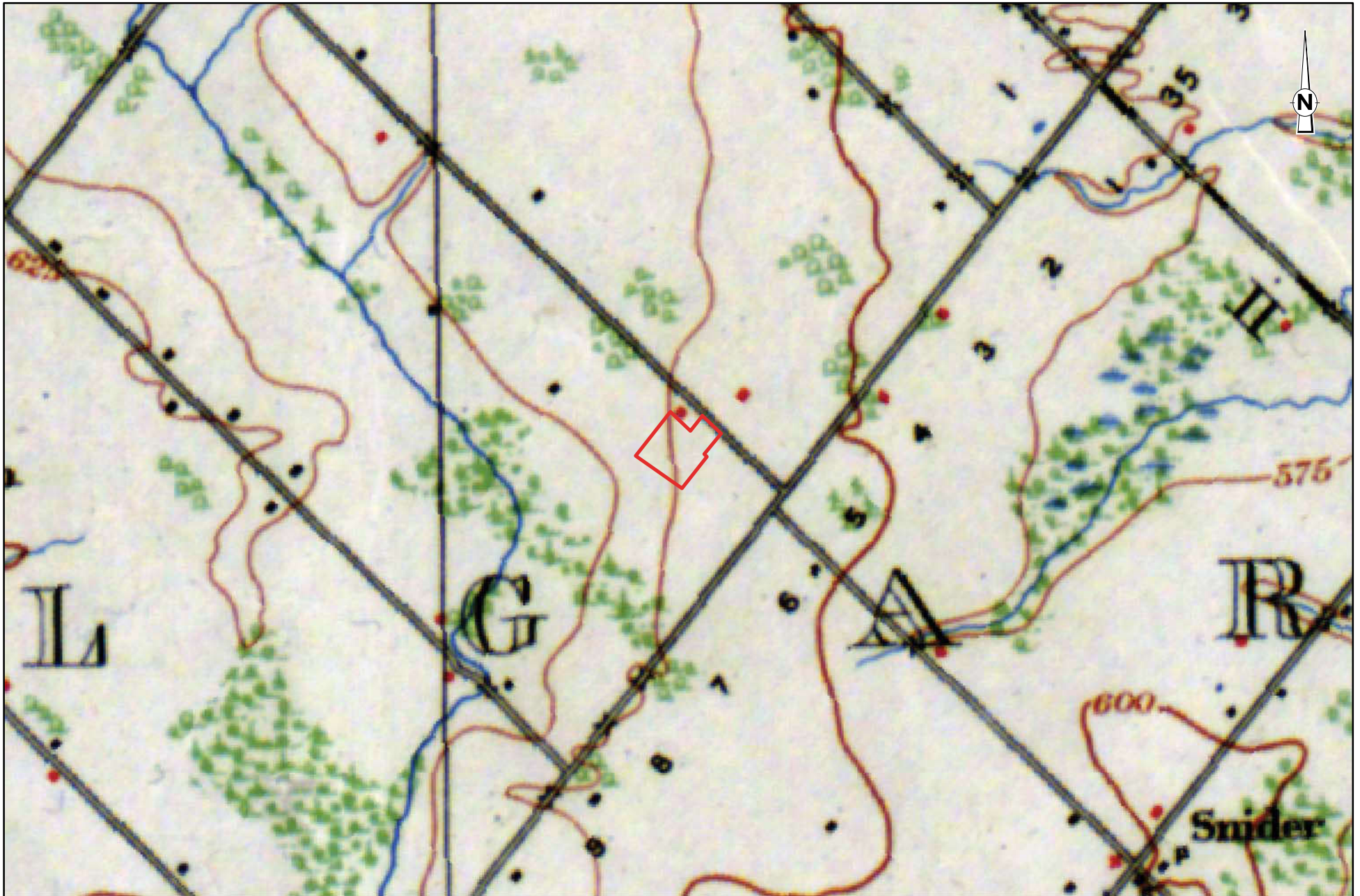
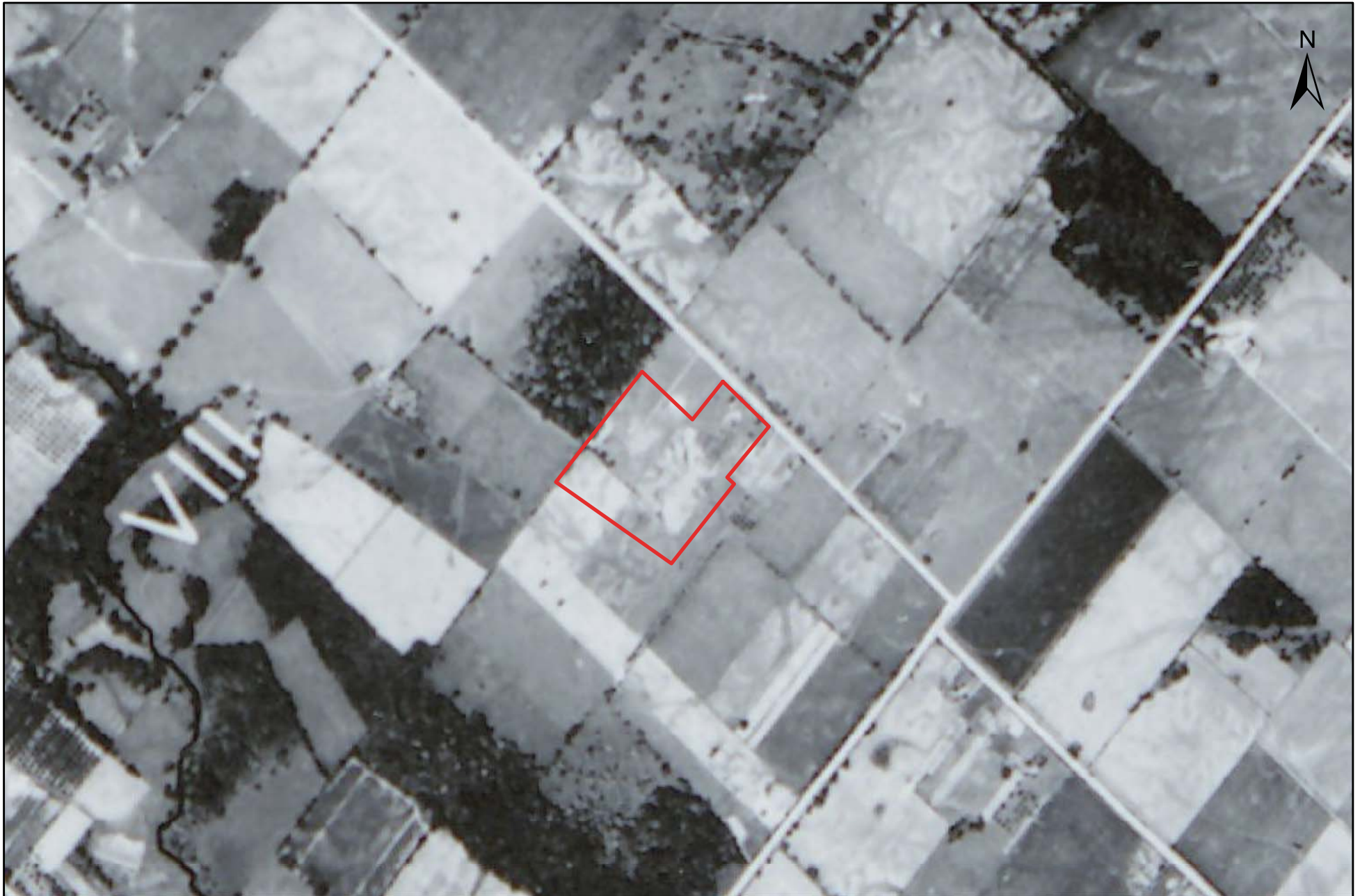


Figure 3: Subject Property located on 1877 Illustrated Historic Atlas of the County of Halton



 <p>Archaeological & Cultural Heritage Services 528 Bathurst Street Toronto, ONTARIO M5S 2P9 416-966-1069 F416-966-9723 asiheritage.ca</p>	 SUBJECT PROPERTY	<p>Base: 1909 NTS Map, Brampton Sheet</p>	<div data-bbox="1543 1372 1963 1437">  </div> <div data-bbox="1522 1477 1984 1526"> <div>ASI PROJECT NO.: 18PL-181 DATE: 2018-07-31</div> <div>DRAWN BY: AB FILE: 18PL181_Hist</div> </div>
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Figure 4: Subject Property Located on the 1909 NTS Sheet Brampton.



 <p>Archaeological & Cultural Heritage Services 528 Bathurst Street Toronto, ONTARIO M5S 2P9 416-966-1069 F416-966-9723 asiheritage.ca</p>	 SUBJECT PROPERTY	Base: 1954 Aerial Photography	<div style="text-align: center;">  <p>0 250 Meters</p> </div> <div style="display: flex; justify-content: space-between; font-size: small;"> ASI PROJECT NO.: 18PL-181 DATE: 2018-09-26 DRAWN BY: AB FILE: 18PL181_Hist </div>
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Figure 5: Subject Property located on 1954 aerial image.



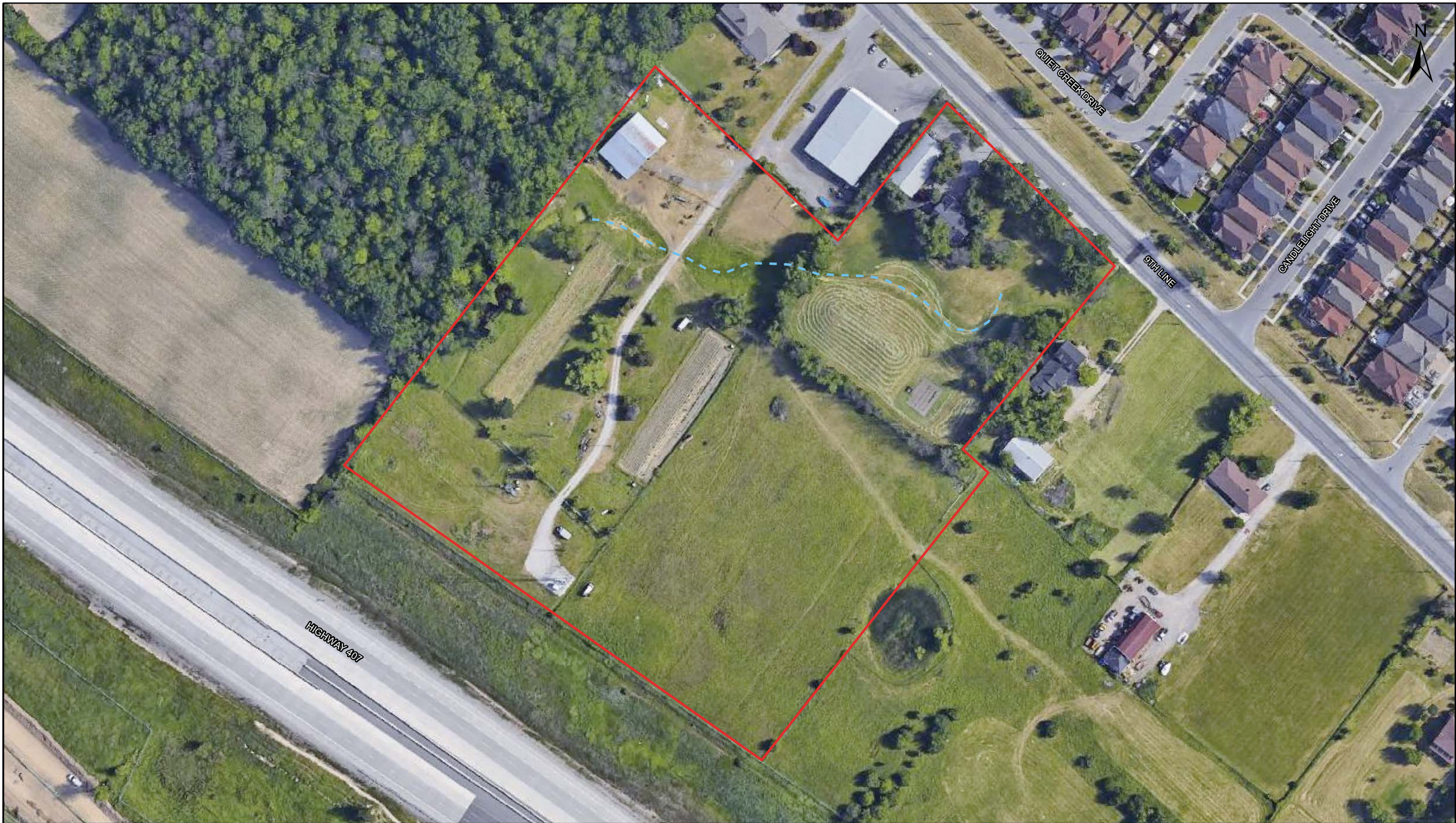
2009



2015

 <p>Archaeological & Cultural Heritage Services 528 Bathurst Street Toronto, ONTARIO M5S 2P9 416-966-1069 F416-966-9723 asiheritage.ca</p>	 SUBJECT PROPERTY	Base: 2009 & 2015 DigitalGlobe	<div> <div>0100</div> <div></div> <div>Metres</div> </div> <div> <div>ASI PROJECT NO.: 18PL-181</div> <div>DATE: 2018-09-26</div> </div> <div> <div>DRAWN BY: AB</div> <div>FILE: 18PL181_Hist_Portrait</div> </div>
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Figure 6: Subject Property on 2009 and 2015 aerial images.



 <p>Archaeological & Cultural Heritage Services 528 Bathurst Street Toronto, ONTARIO M5S 2P9 416-966-1069 416-966-9723 asiheritage.ca</p>	<div> <div style="border: 2px solid red; width: 20px; height: 10px; display: inline-block;"></div> SUBJECT PROPERTY </div> <div> <div style="border-top: 2px dashed blue; width: 20px; height: 10px; display: inline-block;"></div> SEASONAL SWALE </div>	<p>BASE: 2018 Digital Globe, Google Imagery</p>	<div> <div style="display: flex; justify-content: space-between; width: 100%;"> 0 50 </div> <div style="text-align: center;">  <p>Meters</p> </div> </div>
			<div> <div>ASI PROJECT NO.: 18PL-181 DATE: 2018-09-26</div> <div>DRAWN BY: AB FILE: 18PL181_Field</div> </div>

Figure 7: Existing Conditions of Subject Property

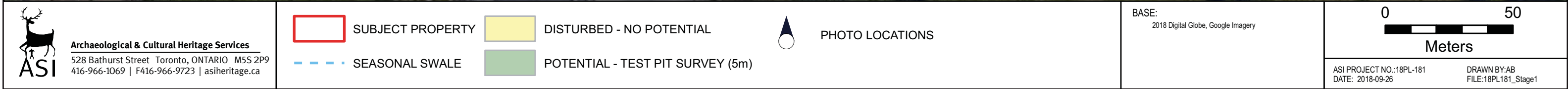


Figure 8: Results of Stage 1 Archaeological Assessment