

Appendix E

Stage 1 Archaeological Assessments

**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
HARVIE ROAD IMPROVEMENTS
PART OF LOTS 5-7, CONCESSIONS 12-13
(FORMER TOWNSHIP OF INNISFIL, COUNTY OF SIMCOE)**

ORIGINAL REPORT

Prepared for:

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**Stage 1 Archaeological Assessment
Harvie Road Improvements
Part of Lots 5-7, Concessions 12-13
(Former Township of Innisfil, County of Simcoe)
City of Barrie, Ontario**

EXECUTIVE SUMMARY

ASI was contracted by Hatch Corporation to conduct a Stage 1 Archaeological Assessment (Background Research and Property Inspection) as part of the Harvie Road Improvements Class EA in the City of Barrie. This project involves widening Harvie Road between Essa Road and Highway 400 to connect to future Bryne Drive.

The Stage 1 background study determined that 11 previously registered archaeological sites are located within one kilometre of the Study Area, one of which is within 50 metres. Five of these sites are known ancestral Huron-Wendat villages, of which ossuaries have not been located for four sites. The property inspection determined that parts of the Study Area exhibit archaeological potential and will require Stage 2 assessment.

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

1. Parts of the Study Area exhibit archaeological potential. These lands require Stage 2 archaeological assessment by test pit survey at five metre intervals prior to any proposed impacts to the property;
2. Part of the Study Area has been previously subject to a Stage 2 test pit survey and does not require further assessment;
3. Site BcGw-93, a Late Woodland site, is known to be within 50 metres of the Study Area. The site is located within ASI's Project limits for the New Crossing of Highway 400 at Harvie Road and Big Bay Point Road Project. The site has been subject to Stage 3 assessment and was determined to have further cultural heritage value or interest. BcGw-93 cannot be avoided and protected as part of the detail design for the Highway 400 Project, and will be subject to a comprehensive Stage 4 archaeological salvage excavation by ASI in 2017 (report forthcoming), in accordance with the S & G, Section 4.2;
4. The remainder of the Study Area does not retain archaeological potential on account of deep and extensive land disturbance. These lands do not require Stage 2 survey;
5. Further, five ancestral Huron-Wendat villages, the Molson (BcGw-27), Little (BcGw-15), Little 2 (BcGw-28), Hatinienhwi'skwa'(BcGw-86), and Kha' ahati'nienha' (BcGw-87) sites, for which ossuaries have not been identified, are located within one kilometre of the Study Area. To minimize the risk of impacting an ossuary within the Study Area during the proposed



construction, a licensed archaeologist must be present to monitor the removal of topsoil for all areas within the proposed construction impacts that are within both 1,000 metres from these sites and 300 metres from water; and,

6. Should the proposed work extend beyond the current Study Area, further Stage 1 archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.



PROJECT PERSONNEL

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
PROJECT PERSONNEL	iii
TABLE OF CONTENTS	iv
1.0 PROJECT CONTEXT	1
1.1 Development Context	1
1.2 Historical Context	1
1.2.1 <i>Indigenous Land Use and Settlement</i>	2
1.2.2 <i>Euro-Canadian Land Use: Township Survey and Settlement</i>	4
1.2.3 <i>Historical Map Review</i>	5
1.2.4 <i>Twentieth-Century Mapping Review</i>	6
1.3 Archaeological Context	6
1.3.1 <i>Current Land Use and Field Conditions</i>	7
1.3.2 <i>Geography</i>	7
1.3.3 <i>Previous Archaeological Research</i>	8
2.0 FIELD METHODS: PROPERTY INSPECTION	10
3.0 ANALYSIS AND CONCLUSIONS	10
3.1 Analysis of Archaeological Potential	11
3.2 Analysis of Property Inspection Results	11
3.3 Conclusions	12
4.0 RECOMMENDATIONS	13
5.0 ADVICE ON COMPLIANCE WITH LEGISLATION	14
6.0 REFERENCES CITED	15
7.0 MAPS	19
8.0 IMAGES	26

LIST OF FIGURES

Figure 1: Harvie Road Improvements – Location of the Study Area	20
Figure 2: Harvie Road Improvements Study Area (Approximate Location) Overlaid on the Patent Plan of Innisfil Township	21
Figure 3: Harvie Road Improvements Study Area (Approximate Location) Overlaid on the 1871 Map of the County of Simcoe	22
Figure 4: Harvie Road Improvements Study Area (Approximate Location) Overlaid on the 1878 Illustrated Historical Atlas of the Township of Innisfil	22
Figure 5: Harvie Road Improvements Study Area (Approximate Location) Overlaid on the 1928 NTS Barrie Sheet	23
Figure 6: Harvie Road Improvements Study Area (Approximate Location) Overlaid on the 1986 NTS Barrie Sheet	23
Figure 7: Harvie Road Improvements Study Area - Soil Drainage	24
Figure 8: Harvie Road Improvements Study Area - Surficial Geology	24
Figure 9: Harvie Road Improvements Study Area – Results of the Property Inspection	25



LIST OF PLATES

Plate 1: Southwest view of Harvie Rd at Essa R; Area is disturbed, no Stage 2 required.	26
Plate 2: Northeast view of Harvie Rd at Essa R; Area beyond disturbed ROW retains potential, requires Stage 2 survey.	26
Plate 3: Northeast view of Harvie Rd at Claudio Cres.; Area is no Stage 2 required, no potential.	26
Plate 4: Northeast view of Harvie Rd at Claudio Cres.; Area is disturbed, no Stage 2 required.	26
Plate 5: Northeast view of Harvie Rd at Veterans Dr.; Area beyond disturbed ROW within woodlot retains potential, requires Stage 2 survey.	27
Plate 6: Southwest view of Harvie Rd near Thrushwood Dr.; Area beyond disturbed ROW retains potential, requires Stage 2 survey.	27
Plate 7: South view of Thrushwood Dr.; Area is disturbed, no Stage 2 required.	27
Plate 8: Northeast view of Harvie Rd near Thrushwood Dr.; Area beyond disturbed ROW retains potential, requires Stage 2 survey.	27
Plate 9: Northeast view of Harvie Rd; Area is disturbed, no Stage 2 required.	28
Plate 10: Northeast view of Harvie Rd.; Area beyond disturbed ROW retains potential, requires Stage 2 survey.	28
Plate 11: Northeast view of Harvie Rd.; Area beyond disturbed ROW retains potential, requires Stage 2 survey.	28
Plate 12: Southwest view of Harvie Rd.; Area beyond disturbed ROW retains potential, requires Stage 2 survey.	28
Plate 13: Northeast view of Harvie Rd.; Area beyond disturbed ROW retains potential, will be subject to Stage 2 survey by ASI as part of the Bryne Dr. Extension Project in 2017.	29
Plate 14: North view of Harvie Rd.; Area beyond disturbed ROW and satellite array retains potential, requires Stage 2 survey.	29
Plate 15: Northeast view of Harvie Rd.; Area has been previously assessed by AMAA 2013, no further Stage 2 required.	29
Plate 16: Northeast view of Harvie Rd.; Area beyond disturbed ROW retains potential, requires Stage 2 survey.	29
Plate 17: Southwest view of Harvie Rd. at Highway 400; Area beyond disturbed ROW retains potential, requires Stage 2 survey.	30
Plate 18: Northeast view of Harvie Rd. at Highway 400; Area is disturbed, no Stage 2 required.	30



1.0 PROJECT CONTEXT

Archaeological Services Inc. (ASI) was contracted by Hatch Corporation (Hatch) to conduct a Stage 1 Archaeological Assessment (Background Research and Property Inspection) as part of the Harvie Road Improvements Class EA in the City of Barrie. This project involves widening Harvie Road between Essa Road and Highway 400 to connect to future Bryne Drive (Figure 1).

All activities carried out during this assessment were completed in accordance with the *Ontario Heritage Act* (1990, as amended in 2009) and the 2011 *Standards and Guidelines for Consultant Archaeologists* (S & G), administered by the Ministry of Tourism, Culture and Sport (MTCS).

In the S & G, Section 1, the objectives of a Stage 1 archaeological assessment are discussed as follows:

- To provide information about the history, current land conditions, geography, and previous archaeological fieldwork of the Study Area;
- To evaluate in detail the archaeological potential of the Study Area that can be used, if necessary, to support recommendations for Stage 2 archaeological assessment for all or parts of the Study Area; and,
- To recommend appropriate strategies for Stage 2 archaeological assessment, if necessary.

This report describes the Stage 1 archaeological assessment that was conducted for this project and is organized as follows: Section 1.0 summarizes the background study that was conducted to provide the historical and archaeological contexts for the project Study Area; Section 2.0 addresses the field methods used for the property inspection that was undertaken to document its general environment, current land use history and conditions of the Study Area; Section 3.0 analyses the characteristics of the project Study Area and evaluates its archaeological potential; Section 4.0 provides recommendations; and the remaining sections contain other report information that is required by the S & G, e.g., advice on compliance with legislation, works cited, mapping and photo-documentation.

1.1 Development Context

All work has been undertaken as required by the *Environmental Assessment Act*, RSO (1990) and regulations made under the Act, and are therefore subject to all associated legislation. This project is being conducted in accordance with the Municipal Engineers' Association document *Municipal Class Environmental Assessment* (2000 as amended in 2007, 2011 and 2015).

Authorization to carry out the activities necessary for the completion of the Stage 1 archaeological assessment was granted by Hatch on February 2, 2017.

1.2 Historical Context

The purpose of this section, according to the S & G, Section 7.5.7, Standard 1, is to describe the past and present land use and the settlement history and any other relevant historical information pertaining to the



Study Area. A summary is first presented of the current understanding of the Indigenous land use of the Study Area. This is then followed by a review of the historical Euro-Canadian settlement history.

1.2.1 Indigenous Land Use and Settlement

Southern Ontario has been occupied by human populations since the retreat of the Laurentide glacier approximately 13,000 years before present (BP) (Ferris 2013). Populations at this time would have been highly mobile, inhabiting a boreal-parkland similar to the modern sub-arctic. By approximately 10,000 BP, the environment had progressively warmed (Edwards and Fritz 1988) and populations now occupied less extensive territories (Ellis and Deller 1990).

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

Between 3,000-2,500 BP, populations continued to practice residential mobility and to harvest seasonally available resources, including spawning fish. Exchange and interaction networks broaden at this time (Spence et al. 1990:136, 138) and by approximately 2,000 BP, evidence exists for macro-band camps, focusing on the seasonal harvesting of resources (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 people's diet (Birch and Williamson 2013:13–15). Bands likely retreated to interior camps during the winter. It is generally understood that these populations were Algonquian-speakers during these millennia of settlement and land use.

From approximately 1,000 BP until approximately 300 BP, lifeways became more similar to that described in early historical documents. During the Early Iroquoian phase (AD 1000-1300), the communal site is replaced by the village focused on horticulture. Seasonal disintegration of the community for the exploitation of a wider territory and more varied resource base was still practised (Williamson 1990:317). By the second quarter of the first millennium BP, during the Middle Iroquoian phase (AD 1300-1450), 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 phase (AD 1450-1649) 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. By AD 1600, the Huron-Wendat communities within Simcoe County had formed the Confederation of Nations encountered by the first European explorers and missionaries. In the 1640s, the traditional enmity between the Haudenosaunee and the Huron-Wendat (and their Algonkian allies such as the Nipissing and Odawa) led to the dispersal of the Huron-Wendat.



After the dispersal, the Haudenosaunee established a series of settlements at strategic locations along the trade routes inland from the north shore of Lake Ontario, including Teiaiagon, near the mouth of the Humber River; and Ganestiquiagon, near the mouth of the Rouge River. Their locations near the mouths of the Humber and Rouge Rivers, two branches of the Toronto Carrying Place, strategically linked these settlements with the upper Great Lakes through Lake Simcoe. The west branch of the Carrying Place followed the Humber River valley northward over the drainage divide, skirting the west end of the Oak Ridges Moraine, to the East Branch of the Holland River. Another trail followed the Don River watershed.

Due, in large part, to increased military pressure from the French upon their homelands south of Lake Ontario, the Haudenosaunee abandoned their north shore frontier settlements by the late 1680s, although they did not relinquish their interest in the resources of the area, as they continued to claim the north shore as part of their traditional hunting territory. The territory was immediately occupied or re-occupied by Anishinaabek groups, including the Mississauga, Ojibwa (or Chippewa) and Odawa, who, in the early seventeenth century, occupied the vast area extending from the east shore of Georgian Bay, and the north shore of Lake Huron, to the northeast shore of Lake Superior and into the upper peninsula of Michigan. Individual bands were politically autonomous and numbered several hundred people. Nevertheless, they shared common cultural traditions and relations with one another and the land. These groups were highly mobile, with a subsistence economy based on hunting, fishing, gathering of wild plants, and garden farming. Their movement southward also brought them into conflict with the Haudenosaunee.

Peace was achieved between the Haudenosaunee and the Anishinaabek Nations in August of 1701 when representatives of more than twenty Anishinaabek Nations assembled in Montreal to participate in peace negotiations (Johnston 2004:10). During these negotiations captives were exchanged and the Iroquois and Anishinaabek agreed to live together in peace. Peace between these nations was confirmed again at council held at Lake Superior when the Iroquois delivered a wampum belt to the Anishinaabek Nations.

In 1763, following the fall of Quebec, New France was transferred to British control at the Treaty of Paris. The British government began to pursue major land purchases to the north of Lake Ontario in the early nineteenth century, the Crown acknowledged the Mississaugas as the owners of the lands between Georgian Bay and Lake Simcoe and entered into negotiations for additional tracts of land as the need arose to facilitate European settlement.

The eighteenth century saw the ethnogenesis in Ontario of the Métis, when Métis people began to identify as a separate group, rather than as extensions of their typically maternal First Nations and paternal European ancestry (Métis National Council n.d.). Living in both Euro-Canadian and Indigenous societies, the Métis acted as agents and subagents in the fur trade but also as surveyors and interpreters. Métis populations were predominantly located north and west of Lake Superior, however, communities were located throughout Ontario (MNC n.d.; Stone and Chaput 1978:607,608). During the early nineteenth century, many Métis families moved towards locales around southern Lake Huron and Georgian Bay, including Kincardine, Owen Sound, Penetanguishene, and Parry Sound (MNC n.d.). By the mid-twentieth century, Indigenous communities, including the Métis, began to advance their rights within Ontario and across Canada, and in 1982, the Métis were federally recognized as one of the distinct Indigenous peoples in Canada. Recent decisions by the Supreme Court of Canada (Supreme Court of Canada 2003, 2016) have reaffirmed that Métis people have full rights as one of the Indigenous people of Canada under subsection 91(24) of the Constitution Act, 1867.



1.2.2 Euro-Canadian Land Use: Township Survey and Settlement

Historically, the Study Area is located in the Former Innisfil Township, County of Simcoe on part of Lots 5-7, Concessions 12-13.

The S & G 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. 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 are also considered to have archaeological potential.

For the Euro-Canadian period, the majority of early nineteenth century farmsteads (i.e., those that are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth century maps) are likely to be located in proximity to water. The development of the network of concession roads and railroads through the course of the nineteenth century frequently influenced the siting of farmsteads and businesses. Accordingly, undisturbed lands within 100 m of an early settlement road are also considered to have potential for the presence of Euro-Canadian archaeological sites.

The first Europeans to arrive in the area were transient merchants and traders from France and England, who followed Indigenous pathways and set up trading posts at strategic locations along the well-traveled river routes. All of these occupations occurred at sites that afforded both natural landfalls and convenient access, by means of the various waterways and overland trails, into the hinterlands. Early transportation routes followed existing Indigenous trails, both along the lakeshore and adjacent to various creeks and rivers (ASI 2006).

Innisfil Township

The Township of Innisfil was surveyed in 1820 and the first settlement began that year. Growth was slow during the first ten years of the township and the first sawmill was not erected until the 1830s and in 1835 a grist mill was constructed. Early settlement focused around Kempenfeldt Bay. By 1843, the first school was constructed and the following year the Innisfil Methodist Congregation built the first church. By 1850, the township had a population of 1,807. Following the connection of the Northern Railway, the township became an important shipping hub for the lumber industry of central Ontario (Mika and Mika 1983:347–349). The community of St. Paul's was established at the corner of Penetanguishene Road (Yonge Street) and Mapleview Drive, and was centered around St. Paul's Anglican Church (established 1851) and a schoolhouse (Andreae 1997). The small community consisted of a cluster of houses, and would have been along the main path of anyone travelling between Toronto and Georgian Bay along Penetanguishene Road.

City of Barrie

The City of Barrie is located at the head of Kempenfeldt Bay on Lake Simcoe and at the junction of a number of major transportation routes, including the Barrie Rail Corridor. Kempenfeldt, east of the bay and now part of the City of Barrie, was an important site during the War of 1812 as it was the starting point of Nine Mile Portage. First established by First Nations prior to the arrival of Europeans, the portage became a strategic military transportation route between Lake Simcoe and Lake Huron. A storehouse was built at this location which also served as a stopping site for traders and settlers. The town of Barrie was named after Commodore Barrie, commander of British warships at Kingston in the early nineteenth century. The



town site was surveyed into town lots in the early 1830s and the first settler to permanently locate in Barrie was a Scottish farmer named Alexander Walker. Other early settlers include David Edgar, Captain Oliver, and John McWatt. The 1830s also saw the establishment of taverns, a general store, a post office, a school house, and a number of churches.

The Toronto, Simcoe and Lake Huron Union Rail Road Company was incorporated in 1844 and in 1850 was renamed the Ontario, Simcoe and Huron Union Rail Road Company. Under this new name, a railway was built connecting Toronto to Newmarket. Opened in 1853, the new line was known as the Ontario, Simcoe and Huron Railway (Andreae 1997). In the 1850s, the Ontario, Simcoe and Huron Railway was constructed through Allandale, which was united with Barrie in 1897. Barrie was incorporated as a town in the early 1850s and as a city more than a century later in 1959 (Mika and Mika 1977:136–139).

Village of Holly

The village of Holly is located in the once densely forested area known as the “Seven Mile Bush” between Allandale and Ninth Line. It was a small settlement with a Methodist church, a store and a blacksmith shop. Early settlers included Campell, Brown (the postmaster and merchant), Srigley, Leslie, Miller, Palling and Little, who named the village after a place in his homeland of England. The small frame Methodist church was built in 1859 on the south half of Lot 3 Concession 12 and held services for over forty years. The first school was built in 1860 at the foot of what was called Little’s Hill, and included students from Allandale. By 1884, the village was growing along the 14th Concession when a sawmill and a tramway to Allandale were built. By 1900 Holly had a population of 200 inhabitants. (Innisfil Township Council 1951:163–164)

1.2.3 Historical Map Review

The 1871 Hogg’s Map of the County of Simcoe (Hogg 1871) and the 1878 Illustrated Atlas of Simcoe County (Miles & Co. 1878) were examined to determine the presence of historic features within the Study Area during the nineteenth century (Figures 2 and 3).

It should be noted, however, 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 regard to the level of detail provided on the maps. Moreover, not every feature of interest would have been within the scope of the atlases.

In addition, the use of historical map sources to reconstruct/predict the location of former features within the modern landscape generally proceeds by using common reference points between the various sources. These sources are then geo-referenced in order to provide the most accurate determination of the location of any property on historic mapping sources. The results of such exercises are often imprecise or even contradictory, as there are numerous potential sources of error inherent in such a process, including the vagaries of map production (both past and present), the need to resolve differences of scale and resolution, and distortions introduced by reproduction of the sources. To a large degree, the significance of such margins of error is dependent on the size of the feature one is attempting to plot, the constancy of reference points, the distances between them, and the consistency with which both they and the target feature are depicted on the period mapping.



Table 1: Nineteenth-century property owner(s) and historical features(s) within or adjacent to the Study Area

		1871		1878	
Con #	Lot #	Property Owner(s)	Historical Feature(s)	Property Owner(s)	Historical Feature(s)
12	5	None	None	Jno Srigley M. Srigley	House (2)
	6	B. Miller J. Harris L. Shrigley S. Miller	None	Jas Whyrts	None
	7	W. Little W. Miller	None	None	None
13	5	N.A. Perkins & Co.	None	None	None
	6	W. C. Little Mrs. Harris	School House None	Jas Whyrts	School House
	7	Jud. Cowan J. Harris J. Strath W.C. Little	None	None	None

According to the 1871 map, there are no structures within the Study Area. The 1878 map illustrates that James Whyrts and M. Srigley had houses set back from the road, adjacent to the Study Area. The Holly-Allandale school is illustrated on the east side of Essa Road in Lot 6, Concession 13.

Figure 2 illustrates that the original crown patents for Lots 6-7, Concession 12 and Lot 6, Concession 13 were granted to George Mitchell.

1.2.4 Twentieth-Century Mapping Review

The 1928 and 1986 National Topographic Series Barrie sheets were examined to determine the extent and nature of development and land uses within the Study Area (Figures 5 and 6). The maps illustrate that the Study Area was located within a rural landscape along the present alignment of Harvie Road, which is shown to continue east across what is now Highway 400, adjacent to five structures, as well as two bridges near the eastern end of the Study Area. By 1986, Highway 400 was constructed, creating the eastern terminus of Harvie Road, and the Study Area was adjacent to 18 structures, including the mid-twentieth century homes along the north side of Harvie Road.

A review of available Google satellite imagery shows that the Study Area has been adjacent to a residential subdivision along Thrushwood Drive and in 2006. Additional residential development occurred at Claudio Crescent between 2009 and 2010, and at the southwest corner of Harvie Road and Veterans Drive between 2011 and 2013. The intersection of Harvie Road and Essa Road was widened and improved between 2015 and 2016.

1.3 Archaeological Context

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



information were consulted to provide information about previous archaeological research: the site record forms for registered sites available online from the MTCS through “Ontario’s Past Portal”; published and unpublished documentary sources; and the files of ASI.

1.3.1 Current Land Use and Field Conditions

A Stage 1 property inspection was conducted on March 30, 2017 that noted the Study Area is located along Harvie Road east of Essa Road, a single lane right-of-way east of the intersection, until it dead-ends at the Highway 400 corridor. The Study Area is surrounded by residential development with some areas of woodlot and meadow.

1.3.2 Geography

In addition to the known archaeological sites, the state of the natural environment is a helpful indicator of archaeological potential. Accordingly, a description of the physiography and soils are briefly discussed for the Study Area.

The S & G stipulates that 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.

Water has been identified as the major determinant of site selection and the presence of potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in Ontario since 5,000 BP (Karrow and Warner 1990:Figure 2.16), 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 modeling of site location.

Other geographic characteristics that can indicate archaeological potential include: elevated topography (eskers, drumlins, large knolls, and 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) are also considered characteristics that indicate archaeological potential (S & G, Section 1.3.1).

The Peterborough Drumlin Field extends from Simcoe County east to Hastings County and is generally characterized by rolling till plains overlying limestone bedrock. The region is approximately 4,532 km² and contains over 3000 drumlins in addition to many other drumlinoid hills and surface flutings (Chapman and Putnam 1984:169). The drumlins are composed of highly calcareous till but there are local differences in composition. The till plains of the regions were formed during the retreat of the Lake Ontario ice lobe of the Laurentide glacier and they indicate directionality of glacial advance and retreat. Till is produced from the advance of continental glacial ice. Soil and rock is carried forward by the ice,



mixed and milled, producing a heterogeneous soil which is characteristic of glaciations (Chapman and Putnam 1984:10, 16).

Soils in the Study Area consist of well drained soils including Dundonald and Tioga sandy loams (Figure 7). Figure 8 depicts surficial geology for the Study Area as underlain by diamicton or till, and ice-contact stratified deposits of sand and gravel, and fine-textured glaciolacustrine deposits of silt (Ontario Geological Survey 2010).

The Study Area is located near Kempenfelt Bay in Lake Simcoe. Lake Simcoe was known to the Huron-Wendat as Ouentironk, or “beautiful water” (Lake Simcoe Region Conservation Authority n.d.). Late seventeenth and early eighteenth century French sources refer to Lake Simcoe as Lac Toronto. The etymology of ‘Toronto’ is debated however it is thought to be derived from the Mohawk word tkaronto which means “where there are trees standing in the water” and may refer to the fish weir at the Narrows between Lake Simcoe and Lake Couchiching (Natural Resources Canada 2007). Lake Simcoe was one of the terminals of the Toronto Carry Place route along the Humber River which was a vital route in fur trade (Williamson 2008:50–52). This passage connected to Lake Ontario at the mouth of the Humber River. Lake Simcoe drains an area of 340,000 ha, subsequently draining into Lake Huron. Lake Simcoe supports a diverse aquatic ecosystem, home to over 50 different species of fish (LSRCA n.d.).

The Study Area is within the Barrie Creeks subwatershed, which is roughly 37.5 square kilometres, with 93% being located within the City of Barrie itself, and approximately 75% of the area in the subwatershed is developed, with small levels of natural heritage features and agriculture (LSRCA 2014).

1.3.3 Previous Archaeological Research

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (OASD) maintained by the MTCS. This database contains archaeological sites registered within the Borden system. Under the Borden system, Canada has been divided into grid blocks based on latitude and longitude. A Borden block is approximately 13 km east to west, and approximately 18.5 km north to south. Each Borden block is referenced by a four-letter designator, and sites within a block are numbered sequentially as they are found. The Study Area under review is located in Borden block BcGw.

According to the OASD, 11 previously registered archaeological sites are located within one kilometre of the Study Area (Ministry of Tourism, Culture and Sport 2016). A summary of the sites is provided below.

Table 2: List of previously registered sites within one kilometre of the Study Area

Borden #	Site Name	Cultural Affiliation	Site Type	Researcher
BcGw-15	Little	Ancestral Huron-Wendat	Village	Hunter 1976; Lennox 1985; Warrick 1985
BcGw-27	Molson	Ancestral Huron-Wendat	Village	Warrick 1985; Lennox 1985, 1987
BcGw-28	Little 2	Ancestral Huron-Wendat	Village	Warrick 1985; Lennox 1985
BcGw-29	Birch	Euro-Canadian; Ancestral Huron-Wendat	Cabin; Village	Warrick 1985; ASI 1989, 1990
BcGw-30	Kennel	Middle Archaic	Camp	Warrick 1985
BcGw-36	Pern	Early Archaic	Findspot	ASI 1989



Borden #	Site Name	Cultural Affiliation	Site Type	Researcher
BcGw-51	Spruce Hollow	Indigenous Pre-Contact	Unknown	Parker 1996
BcGw-52	Poplar	Middle Archaic	Findspot	Poulton 1995
BcGw-86	Hatinienhwi'skwa'	Ancestral Huron Wendat	Village	AMAA 2012,
BcGw-87	Kha' ahati'nienha'	Ancestral Huron Wendat	Village	AMAA 2012, 2016
<i>BcGw-93</i>	<i>N/A</i>	<i>Ancestral Huron Wendat</i>	<i>Settlement</i>	<i>AMAA 2013; ASI 2016, 2017</i>

N.B. sites in *italics* are within the Study Area
AMAA – Andrew Murray Archaeological Associates

The Study Area is located within close proximity to six ancestral Huron-Wendat sites: Little (BcGw-15), Molson site (BcGw-27), Little 2 site (BcGw-28), Birch (BcGw-29), Hatinienhwi'skwa' (BcGw-86), and Kha' ahati'nienha' (BcGw-87). Ossuaries have not been identified for any of these villages except the Birch site (BcGw-29).

According to the background research, three previous reports detail fieldwork within 50 m of the Study Area.

AMAA (2012) conducted a Stage 1 archaeological assessment for a new crossing over Highway 400 to connect Harvie Road (on the west) and Big Bay Point Road (on the east). The property inspection determined that the majority of the Project Study Area had potential for archaeological resources and it recommended a Stage 2 archaeological assessment be carried out by a licensed archaeologist prior to any construction impacts. The Stage 1 noted the elevated potential for Late Woodland occupations in the Project Study Area, given the location of several Late Woodland sites in the immediate vicinity.

AMAA (2013) conducted a follow up Stage 2 survey in 2013. The Project Study Area comprised 11.15 hectares, of which 52 percent was subject to Stage 2 assessment through a test pit survey at five metre intervals. The remaining areas were found to not have archaeological potential due to disturbances (39%), low and wet conditions (5%) and steep slopes (4%). Two archaeological sites were identified during the course of the test pit survey. Site 2 was a non-diagnostic lithic findspot; it was not registered and no further intensification of test pits was conducted. BcGw-93 consisted of nine ceramic sherds and two lithic fragments associated with the Late Woodland period. Stage 3 was recommended to further define the limits and nature of the site.

In 2016, ASI (2016) conducted a Stage 3 Site-Specific Assessment of the BcGw-93 site consisting of approximately 116 test units in two loci associated with the site. The north locus is located over 120 metres north of Site BcGw-93, located at Site 2 recovered during the Stage 2 assessment, however no new cultural materials or features were identified and no further assessment of the north locus area was recommended. The south locus of Site BcGw-93 contained nine ceramic artifacts that were consistent with the Stage 2 assessment results. Site BcGw-93 is considered to represent a small Late Woodland period settlement site and is thereby considered to have significant cultural heritage value requiring Stage 4 assessment which ASI will be conducting in 2017. Due to the location of the site within the context of the proposed Harvie Road right-of-way (ROW), avoidance and protection of the archaeological site is not considered a viable option because of the significant engineering constraints associated with the new Highway 400 crossing.



ASI has been retained to conduct the Stage 4 excavation of BcGw-93 within 50 metres of the current Study Area in 2017 as part of the Harvie Road and Big Bay Point Road New Crossing – Highway 400 Project (report forthcoming).

2.0 FIELD METHODS: PROPERTY INSPECTION

A Stage 1 property inspection must adhere to the S & G, Section 1.2, Standards 1-6, which are discussed below. The entire property and its periphery must be inspected. The inspection may be either systematic or random. Coverage must be sufficient to identify the presence or absence of any features of archaeological potential. The inspection must be conducted when weather conditions permit good visibility of land features. Natural landforms and watercourses are to be confirmed if previously identified. Additional features such as elevated topography, relic water channels, glacial shorelines, well-drained soils within heavy soils and slightly elevated areas within low and wet areas should be identified and documented, if present. Features affecting assessment strategies should be identified and documented such as woodlots, bogs or other permanently wet areas, areas of steeper grade than indicated on topographic mapping, areas of overgrown vegetation, areas of heavy soil, and recent land disturbance such as grading, fill deposits and vegetation clearing. The inspection should also identify and document structures and built features that will affect assessment strategies, such as heritage structures or landscapes, cairns, monuments or plaques, and cemeteries.

The Stage 1 archaeological assessment property inspection was conducted under the field direction of Peter Carruthers (P163) of ASI, on March 30, 2017, in order to gain first-hand knowledge of the geography, topography, and current conditions and to evaluate and map archaeological potential of the Study Area. It was a visual inspection only and did not include excavation or collection of archaeological resources.

Fieldwork was only conducted when weather conditions were deemed suitable, per S&G Section 2. Previously identified features of archaeological potential were examined; additional features of archaeological potential not visible on mapping were identified and documented as well as any features that will affect assessment strategies. Field observations are compiled onto the existing conditions of the Study Area in Section 7.0 (Figure 9) and associated photographic plates are presented in Section 8.0 (Plates 1-18).

3.0 ANALYSIS AND CONCLUSIONS

The historical and archaeological contexts have been analyzed to help determine the archaeological potential of the Study Area. These data are presented below in Section 3.1. Results of the analysis of the Study Area property inspection are presented in Section 3.2.



3.1 Analysis of Archaeological Potential

The S & G, Section 1.3.1, lists criteria that are indicative of archaeological potential. The Study Area meets the following criteria indicative of archaeological potential:

- Previously identified archaeological sites (see Table 2);
- Proximity to known ancestral Huron-Wendat villages (Little, Little 2, Molson, Hatinienhwi'skwa', and Kha' ahati'nienha' sites)
- Water sources: primary, secondary, or past water source (Barrie Creeks);
- Early historic transportation routes (Harvie Road, Essa Road, Veterans Drive);
- Proximity to early settlements (Holly); and
- Well-drained soils (Dundonald and Tioga sandy loams)

According to the S & G, Section 1.4 Standard 1e, no areas within a property containing locations listed or designated by a municipality can be recommended for exemption from further assessment unless the area can be documented as disturbed. The Municipal Heritage Register was consulted and no properties within the Study Area are Listed or Designated under the Ontario Heritage Act.

These criteria are indicative of potential for the identification of Indigenous and Euro-Canadian archaeological resources, depending on soil conditions and the degree to which soils have been subject to deep disturbance.

3.2 Analysis of Property Inspection Results

The property inspection determined that part of the Study Area exhibits archaeological potential (Plates 2, 5, 6, 8, 10-12, 16, 17; Figure 9: areas highlighted in green). These areas will require Stage 2 archaeological assessment by test pit survey at five metre intervals prior to any development. According to the S & G Section 2.1.2, test pit survey is required on terrain where ploughing is not viable, such as wooded areas, properties where existing landscaping or infrastructure would be damaged, overgrown farmland with heavy brush or rocky pasture, and narrow linear corridors up to 10 metres wide.

Part of the Study Area will be subject to Stage 2 survey as part of the the proposed Bryne Drive extension project by ASI in 2017 within an area approximately 100 metres wide (Figure 9: areas in red).

The property inspection determined that part of the Study Area has been subjected to deep soil disturbance events associated with improvements to Harvie and Essa Road, a public works facility on the north side of Harvie Road east of Thurshwood Drive, and from recent residential subdivision construction. According to the S & G Section 1.3.2 do not retain archaeological potential (Plates 1-14, 16-18; Figure 9: areas highlighted in yellow). Part of the Study Area has been previously assessed and does not require further work (Figure 9: areas in purple). These areas do not require further Stage 2 test pit survey.

It should also be recognized that given the location of three ancestral Huron-Wendat villages within one kilometre of the Study Area there is an increased risk of impacting a potential ossuary. ASI has developed a model for detecting ossuaries in association with Late Woodland village sites such as the Molson (BcGw-27) and Little sites (BcGw-15 and BcGw-28), for which ossuaries have not been identified (ASI 2010, 2012, 2016). Each Late Woodland village for which an ossuary has not yet been located should be buffered by 1,000 metres on those lands that are also within 300 metres of water. Thus, all lands within



the Study Area that are within 1,000 metres of these sites and that are also within 300 metres of water will be monitored by a licensed archaeologist for the presence of an ossuary associated with this village (see *Supplementary Documentation* Figure 2). To minimize the risk of impacting an ossuary within the Study Area during the proposed construction, a licensed archaeologist must be present to monitor the removal of topsoil for all areas within the proposed construction impacts that are within both 1,000 metres from these sites and 300 metres from water (see *Supplementary Documentation* Figure 3). Despite the results of the property inspection, the Harvie Road right-of-way cannot be considered clear of archaeological concern in areas of ossuary potential.

3.3 Conclusions

The Stage 1 background study determined that 11 previously registered archaeological sites are located within one kilometre of the Study Area, one of which is within 50 metres. Five of these sites are known ancestral Huron-Wendat villages, of which ossuaries have not been located for four sites. The property inspection determined that parts of the Study Area exhibit archaeological potential and will require Stage 2 assessment.



4.0 RECOMMENDATIONS

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

1. Parts of the Study Area exhibit archaeological potential. These lands require Stage 2 archaeological assessment by test pit survey at five metre intervals prior to any proposed impacts to the property;
2. Part of the Study Area has been previously subject to a Stage 2 test pit survey and does not require further assessment;
3. Site BcGw-93, a Late Woodland site, is known to be within 50 metres of the Study Area. The site is located within ASI's Project limits for the New Crossing of Highway 400 at Harvie Road and Big Bay Point Road Project. The site has been subject to Stage 3 assessment and was determined to have further cultural heritage value or interest. BcGw-93 cannot be avoided and protected as part of the detail design for the Highway 400 Project, and will be subject to a comprehensive Stage 4 archaeological salvage excavation by ASI in 2017 (report forthcoming), in accordance with the S & G, Section 4.2;
4. The remainder of the Study Area does not retain archaeological potential on account of deep and extensive land disturbance. These lands do not require Stage 2 survey;
5. Further, five ancestral Huron-Wendat villages, the Molson (BcGw-27), Little (BcGw-15), Little 2 (BcGw-28), Hatinienhwi'skwa' (BcGw-86), and Kha' ahati'nienha' (BcGw-87) sites, for which ossuaries have not been identified, are located within one kilometre of the Study Area. To minimize the risk of impacting an ossuary within the Study Area during the proposed construction, a licensed archaeologist must be present to monitor the removal of topsoil for all areas within the proposed construction impacts that are within both 1,000 metres from these sites and 300 metres from water; and,
6. Should the proposed work extend beyond the current Study Area, further Stage 1 archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.

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 MTCS should be immediately notified.



5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

ASI also advises compliance with the following 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 *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.
- 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, nor may artifacts be removed from them, except by a person holding an archaeological license.

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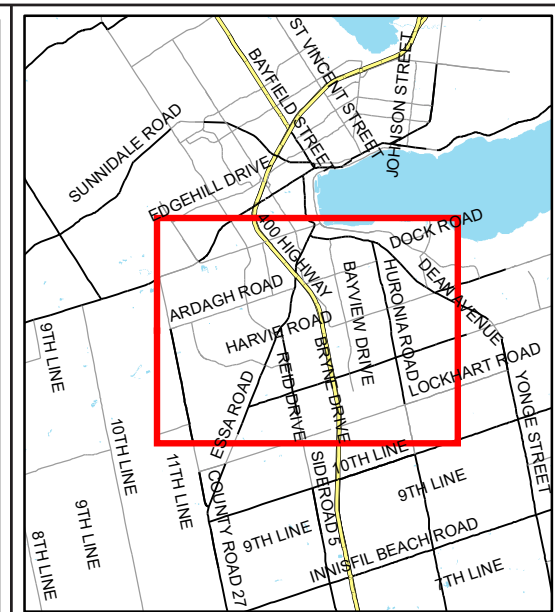
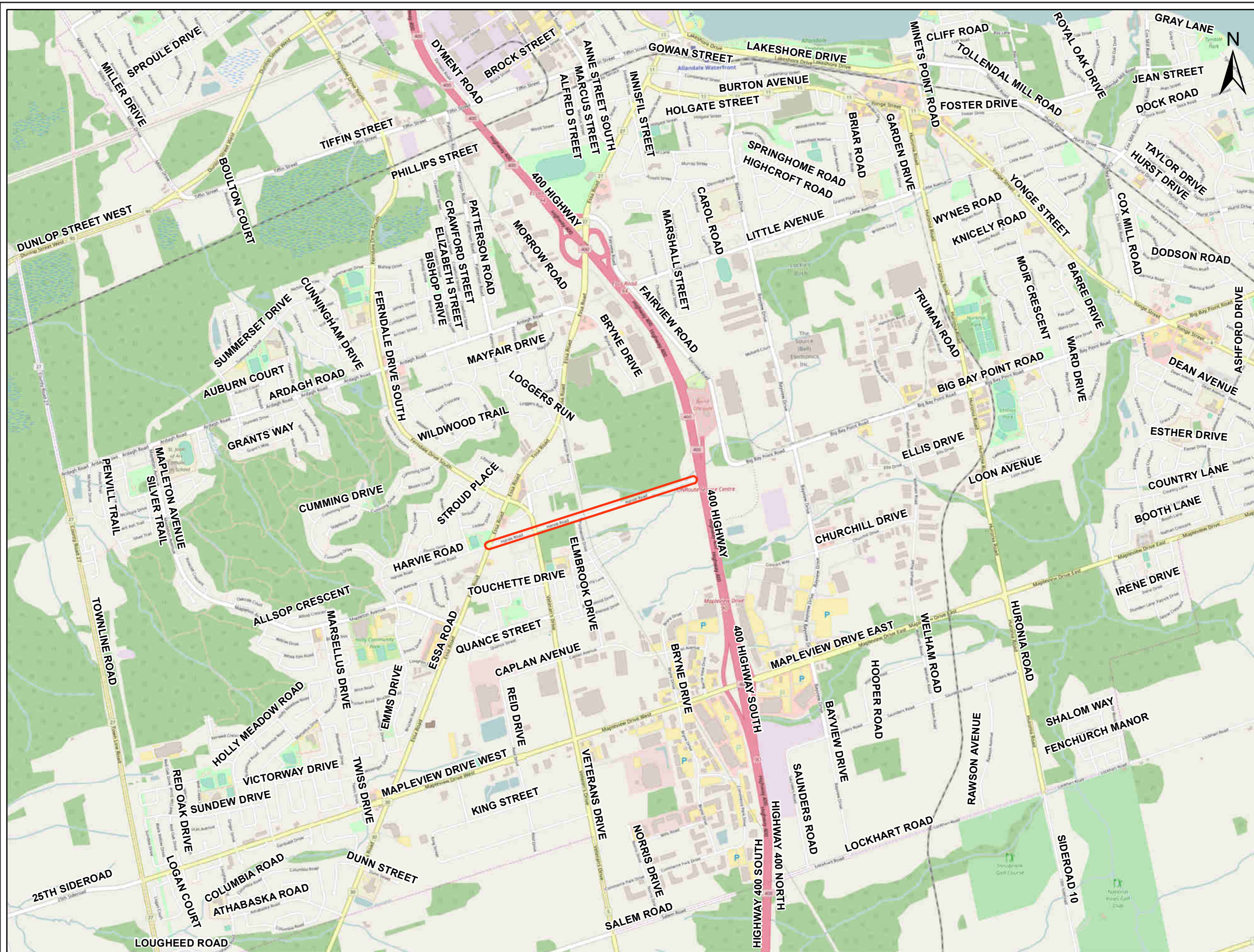
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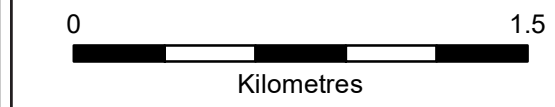
7.0 MAPS





— Study Area

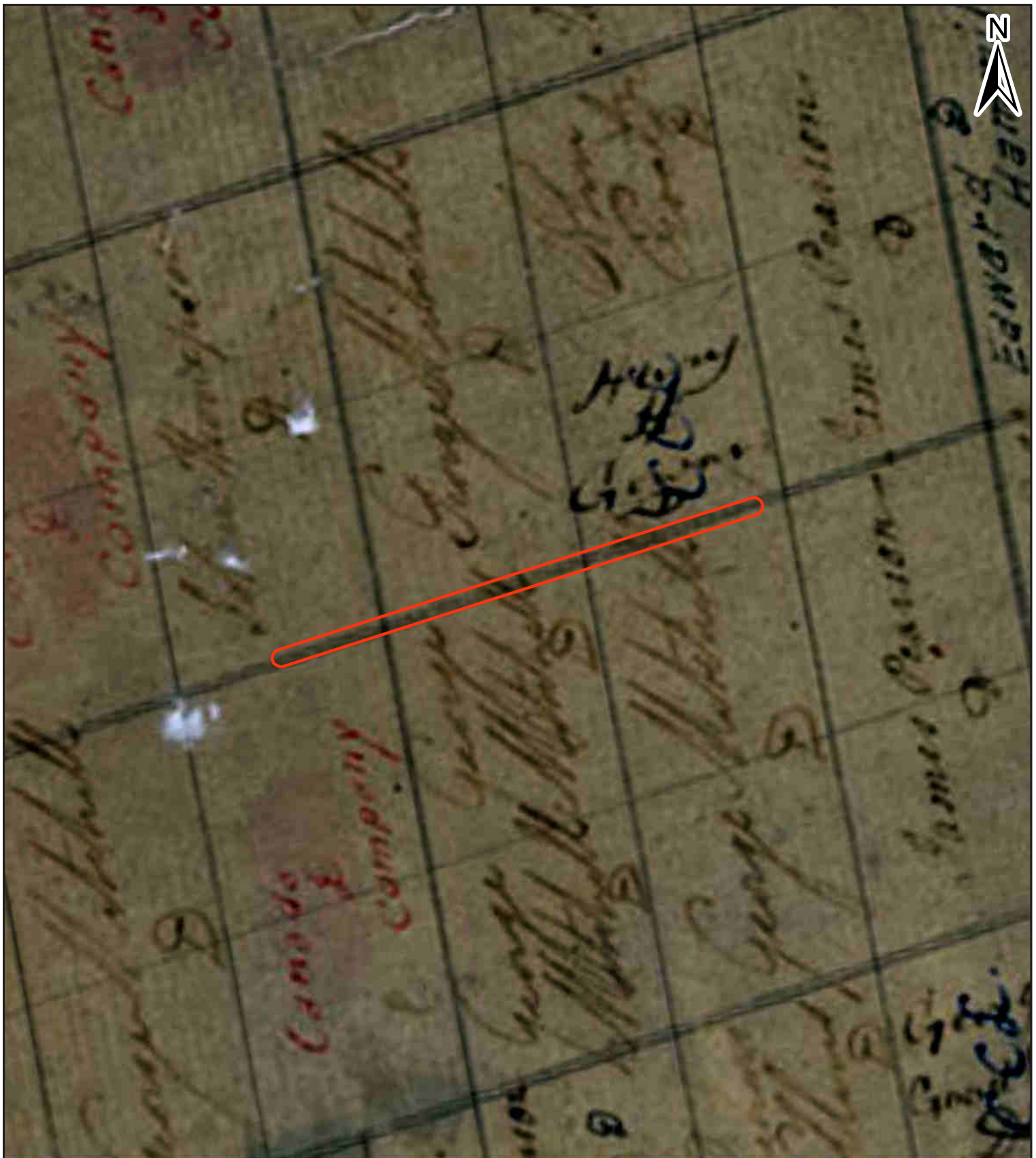
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ASI PROJECT NO.: 16EA-272
 DATE: 4/7/2017
 DRAWN BY: JF
 FILE: 16EA272_fig1

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 528 Bathurst Street Toronto, ONTARIO M5S 2P9
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Figure 1: Location of the Subject Property.



— Harvie Road 25m Buffer



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0 500
Metres

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Figure 2: Harvie Road Improvements Study Area (Approximate Location) Overlaid on the Patent Plan of Innisfil Township

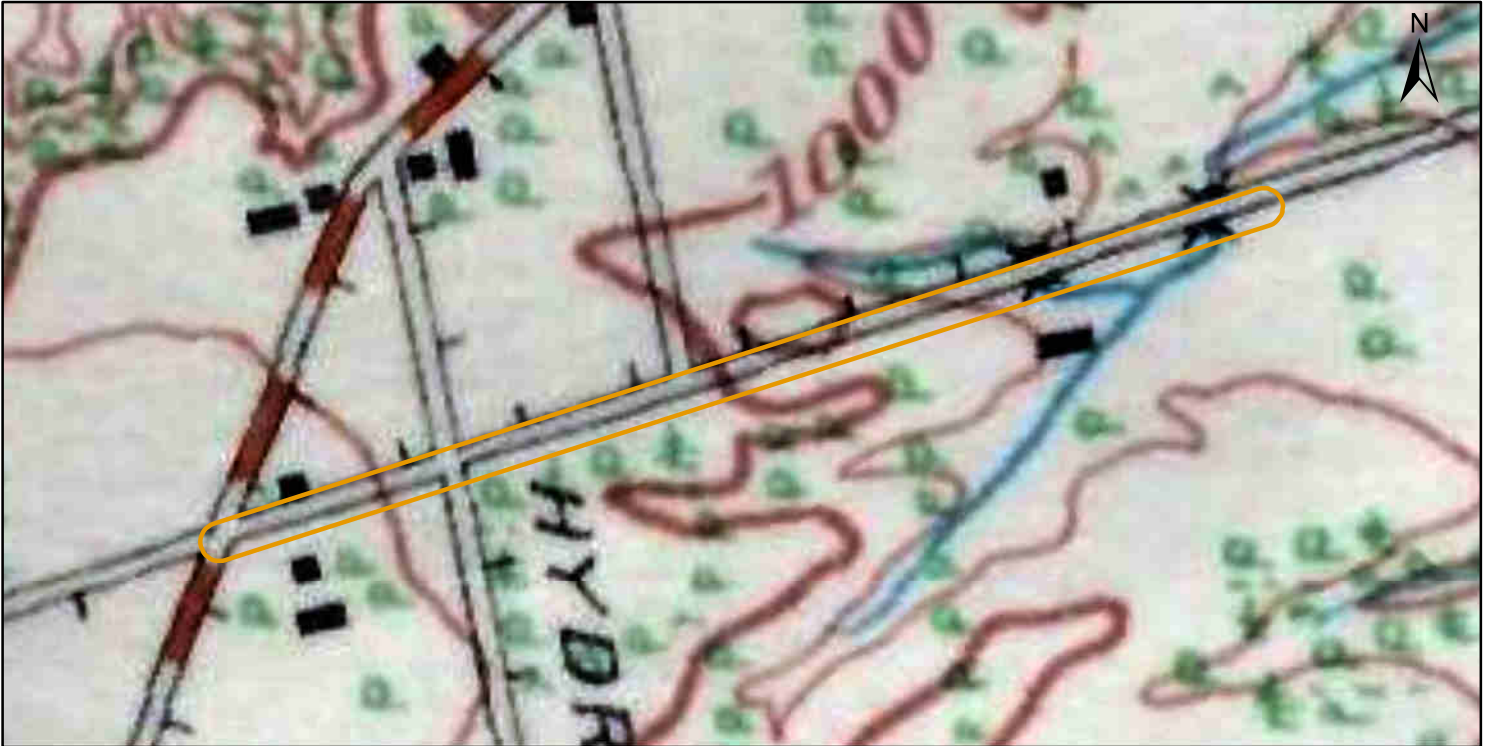


Figure 5: Harvie Road Improvements Study Area (Approximate Location) Overlaid on the 1928 NTS Barrie Sheet



Figure 6: Harvie Road Improvements Study Area (Approximate Location) Overlaid on the 1986 NTS Barrie Sheet




 Archaeological & Cultural Heritage Services 528 Bathurst Street Toronto, ONTARIO M5S 2P9 416-966-1069 F416-966-9723 asih heritage.ca	 Harvie Road 25m Buffer	Base:	0 250  Metres
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Figure 7: Harvie Road Improvements Study Area - Soil Drainage

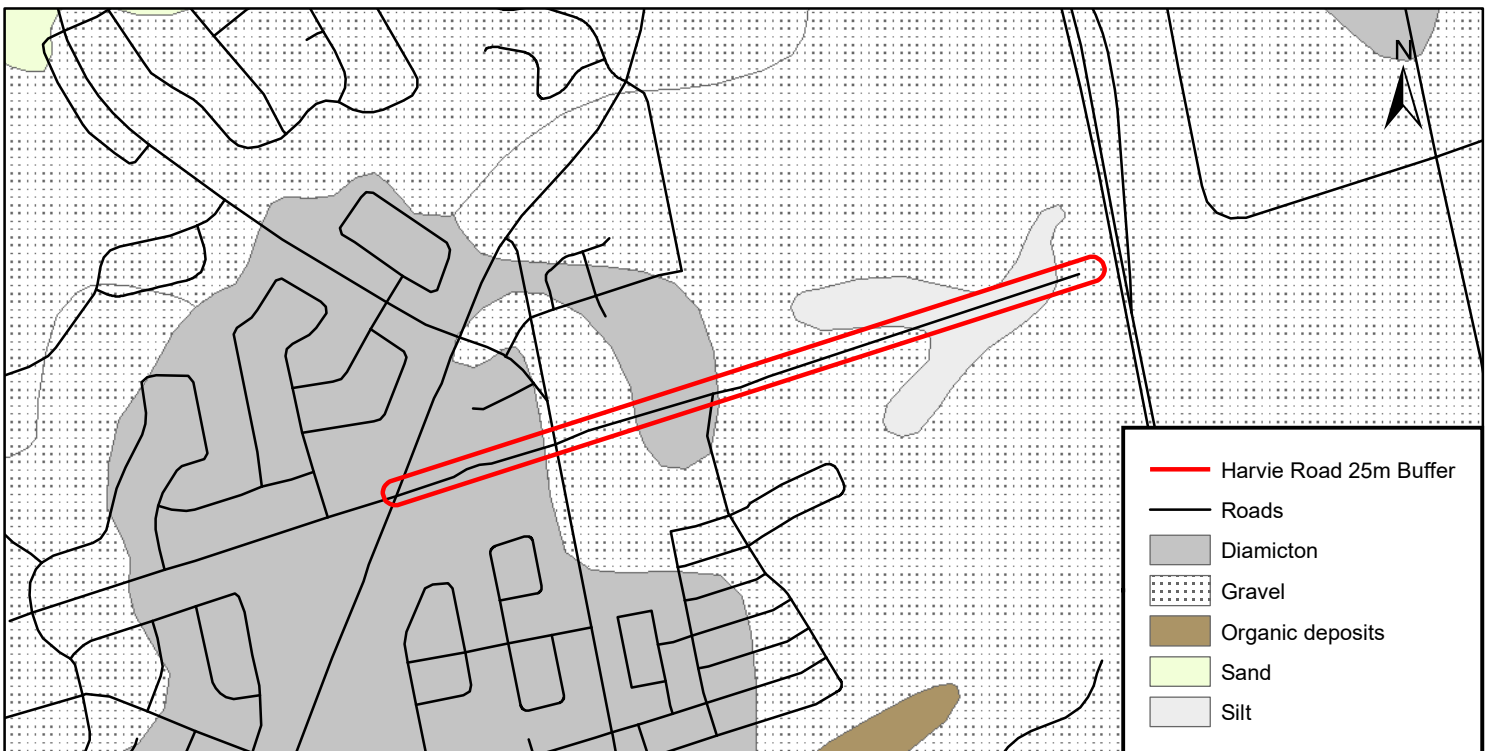
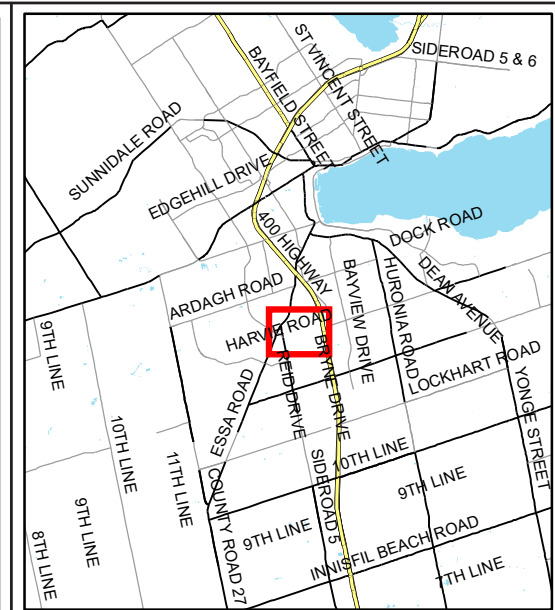
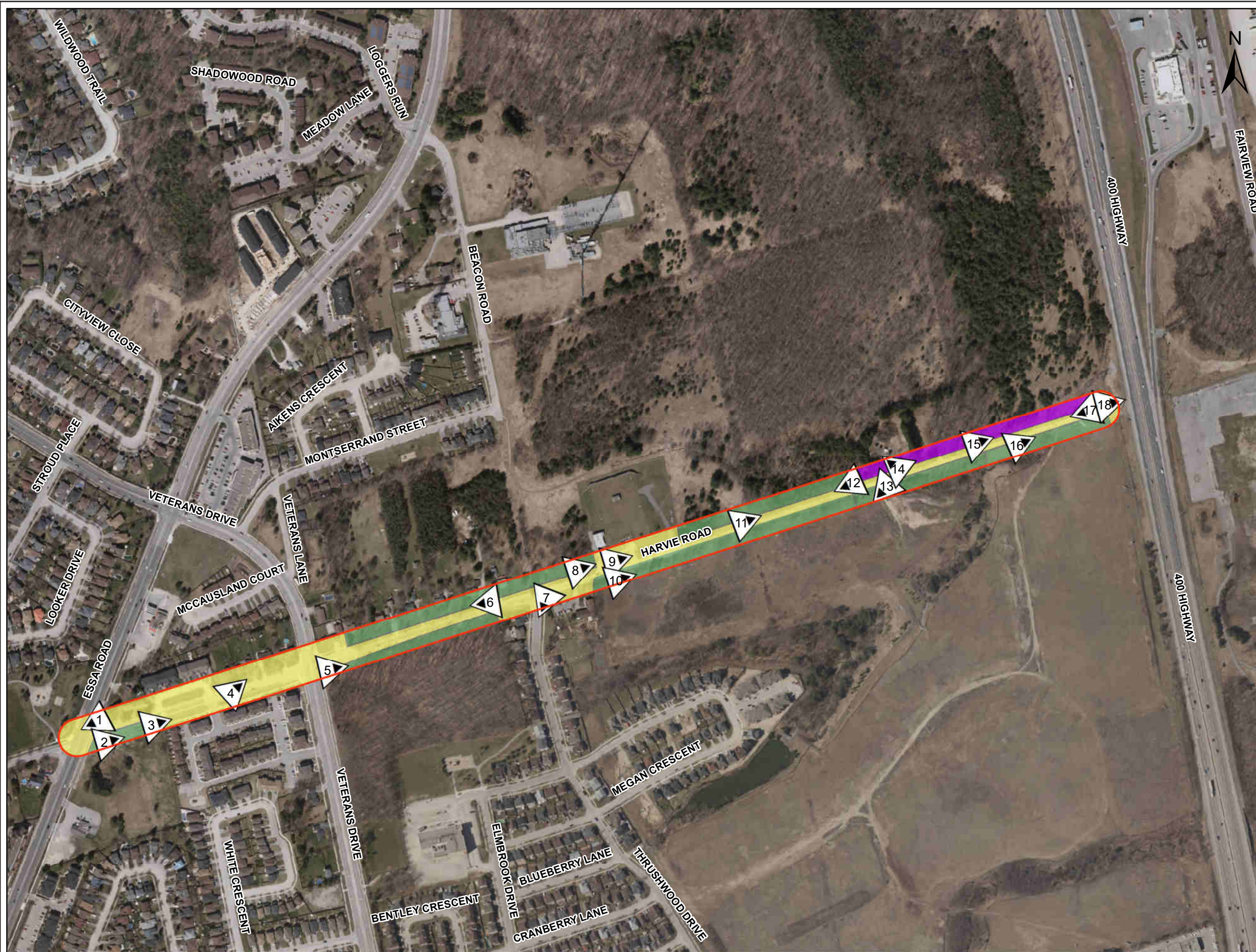
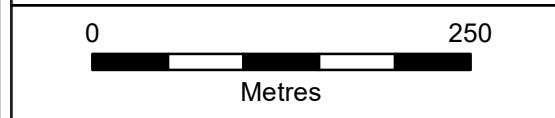


Figure 8: Harvie Road Improvements Study Area - Surficial Geology



- Study
- Photo Location and Direction
- No Potential - Disturbed
- No Potential - Previously Assessed (AMAA 2013)
- Archaeological Potential - Requires Stage 2 Test Pit Survey

BASE:
 (c) OpenStreetMap and contributors,
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Figure 9: Harvie Road Improvements Study Area - Results of the Property Inspection

8.0 IMAGES



Plate 1: Southwest view of Harvie Rd at Essa Rd; Area is disturbed, no Stage 2 required.



Plate 2: Northeast view of Harvie Rd at Essa Rd; Area beyond disturbed ROW lands exhibits potential, requires Stage 2 test pit survey.



Plate 3: Northeast view of Harvie Rd at Claudio Cres.; Area is disturbed, no Stage 2 required, no potential.



Plate 4: Northeast view of Harvie Rd at Claudio Cres.; Area is disturbed, no Stage 2 required.



Plate 5: Northeast view of Harvie Rd at Veterans Dr.; Area beyond disturbed buried utilities within woodlot exhibits potential, requires Stage 2 test pit survey.



Plate 6: Southwest view of Harvie Rd near Thrushwood Dr.; Area beyond disturbed road shoulder exhibits potential, requires Stage 2 test pit survey.



Plate 7: South view of Thrushwood Dr.; Area is disturbed, no Stage 2 required.



Plate 8: Northeast view of Harvie Rd near Thrushwood Dr.; Area beyond road shoulder exhibits potential, requires Stage 2 test pit survey.



Plate 9: Northeast view of Harvie Rd; Area is disturbed, no Stage 2 required.



Plate 10: Northeast view of Harvie Rd.; Area beyond disturbed road shoulder exhibits potential, requires Stage 2 test pit survey.



Plate 11: Northeast view of Harvie Rd.; Area beyond disturbed road shoulder exhibits potential, requires Stage 2 test pit survey.



Plate 12: Southwest view of Harvie Rd.; Area beyond disturbed road shoulder exhibits potential, requires Stage 2 test pit survey.



Plate 13: Northeast view of Harvie Rd.; Area beyond disturbed road shoulder exhibits potential, requires Stage 2 test pit survey.



Plate 14: North view of Harvie Rd.; Area beyond disturbed ROW and satellite array exhibits potential, requires Stage 2 survey.



Plate 15: Northeast view of Harvie Rd.; Area has been previously assessed by AMAA 2013, no further Stage 2 required.



Plate 16: Northeast view of Harvie Rd.; Area beyond disturbed road shoulder exhibits potential, requires Stage 2 survey.



Plate 17: Southwest view of Harvie Rd. at Highway 400; Area beyond disturbed road shoulder exhibits potential, requires Stage 2 survey.



Plate 18: Northeast view of Harvie Rd. at Highway 400; Area is disturbed, no Stage 2 required.

**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
ESSA ROAD IMPROVEMENTS
PART OF LOTS 3-4, CONCESSION 12
(FORMER TOWNSHIP OF INNISFIL, COUNTY OF SIMCOE)
CITY OF BARRIE, ONTARIO**

ORIGINAL REPORT

Prepared for:

Hatch Corporation
2800 Speakman Drive
Mississauga, Ontario
L5K 1B1

Archaeological Licence #P094 (Merritt)
Ministry of Tourism, Culture and Sport PIF# P094-0226-2017
ASI File: 16EA-274

5 May 2017



**Stage 1 Archaeological Assessment
Essa Road Improvements
Part of Lots 3 -4, Concession 12
(Former Township of Innisfil, County of Simcoe)
City of Barrie, Ontario**

EXECUTIVE SUMMARY

ASI was contracted by Hatch Corporation to conduct a Stage 1 Archaeological Assessment (Background Research and Property Inspection) as part of the Essa Road Improvements Class EA in the City of Barrie. This project involves widening Essa Road between Mapleview Drive West and Coughlin Road.

The Stage 1 background study determined that 14 previously registered archaeological sites are located within one kilometre of the Study Area, one of which is within 50 metres of the Study Area. The former Holly Post Office is also known to have been located at the northeast corner of Essa Road and Mapleview Drive West. The property inspection determined that parts of the Study Area exhibit archaeological potential and will require Stage 2 assessment prior to any development.

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

1. The Study Area exhibits archaeological potential. These lands require Stage 2 archaeological assessment by test pit survey at a five metre intervals, where appropriate, prior to any proposed impacts to the property;
2. The Tall Trees Site (BbGw-23) is within 50 metres of the Study Area. The area adjacent to the right-of-way should be subject to Stage 2 test pit survey to determine if the site extends into the Study Area.
3. The former Holly Post Office is known to have been located at the northeast corner of Essa Road and Mapleview Drive West. The area was previously subject to test pit survey by AMICK in 2016, which identified that it has been capped with a deep layer of fill material. There remains potential for deeply buried archaeological deposits below the fill layer associated with the historic post office. These lands should be subject to Stage 2 assessment by mechanical trenching at a maximum of 10 metre intervals within the areas of impact.
4. The remainder of the Study Area does not retain archaeological potential on account of deep and extensive land disturbance. These lands do not require further archaeological assessment; and,
5. Should the proposed work extend beyond the current Study Area, further Stage 1 archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.



PROJECT PERSONNEL

<i>Project Director (Licensee) & Senior Project Manager:</i>	Lisa Merritt, MSc. (PO94) <i>Partner / Director Environmental Assessment Division</i>
<i>Project Manager & Coordinator:</i>	Sarah Jagelewski, Hon. BA (R405) <i>Archaeologist / Assistant Manager Environmental Assessment Division</i>
<i>Field Director:</i>	Peter Carruthers, MA (P163) <i>Senior Associate</i>
<i>Report Preparation:</i>	Eliza Brandy, MA (R1109) <i>Archaeologist / Project Manager Environmental Assessment Division</i>
<i>Graphics:</i>	Jonas Fernandez, MSc (R281) <i>Archaeologist / Assistant Manager - Fleet & Geomatics Specialist Operations Division</i>
<i>Report Reviewer:</i>	Lisa Merritt



TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
PROJECT PERSONNEL	ii
TABLE OF CONTENTS	iii
1.0 PROJECT CONTEXT	1
1.1 Development Context	1
1.2 Historical Context.....	1
1.2.1 <i>Indigenous Land Use and Settlement</i>	2
1.2.2 <i>Euro-Canadian Land Use: Township Survey and Settlement</i>	4
1.2.3 <i>Historical Map Review</i>	5
1.2.4 <i>Twentieth-Century Mapping Review</i>	6
1.3 Archaeological Context.....	6
1.3.1 <i>Current Land Use and Field Conditions</i>	6
1.3.2 <i>Geography</i>	7
1.3.3 <i>Previous Archaeological Research</i>	8
2.0 FIELD METHODS: PROPERTY INSPECTION	9
3.0 ANALYSIS AND CONCLUSIONS	10
3.1 Analysis of Archaeological Potential	10
3.2 Analysis of Property Inspection Results	11
3.3 Conclusions	11
4.0 RECOMMENDATIONS	12
5.0 ADVICE ON COMPLIANCE WITH LEGISLATION	13
6.0 REFERENCES CITED	14
7.0 MAPS	18
8.0 IMAGES	25

LIST OF FIGURES

Figure 1: Essa Road Improvements – Location of the Study Area	19
Figure 2: Essa Road Improvements Study Area (Approximate Location) Overlaid on the Patent Plan of Innisfil Township.....	20
Figure 3: Essa Road Improvements Study Area (Approximate Location) Overlaid on the 1871 Map of the County of Simcoe	21
Figure 4: Essa Road Improvements Study Area (Approximate Location) Overlaid on the 1878 Illustrated Historical Atlas of the Township of Innisfil.....	21
Figure 5: Essa Road Improvements Study Area (Approximate Location) Overlaid on the 1928 NTS Barrie Sheet	22
Figure 6: Essa Road Improvements Study Area (Approximate Location) Overlaid on the 1986 NTS Barrie Sheet	22
Figure 7: Essa Road Improvements Study Area– Surficial Geology	23
Figure 8: Essa Road Improvements Study Area – Soil Drainage.....	23
Figure 9: Essa Road Improvements Study Area – Results of the Property Inspection	24



LIST OF PLATES

Plate 1: South view of Essa Rd at Mapleview Dr W.; Area is disturbed, no potential	25
Plate 2: Southwest view of Essa Rd at Mapleview Dr W.; Area is disturbed, no potential	25
Plate 3: West view on Essa Rd; Area beyond disturbed road shoulder exhibits potential, requires Stage 2 test pit survey.	25
Plate 4: Northwest view on Essa Rd.; Area is disturbed, no potential	25
Plate 5: Northeast view on Essa Rd; Area beyond disturbed road shoulder exhibits potential, requires Stage 2 test pit survey.....	26
Plate 6: Southwest view on Essa Rd at Bear Creek; A Area beyond disturbed road shoulder exhibits potential, requires Stage 2 test pit survey.....	26
Plate 7: Northeast view on Essa Rd; Area beyond disturbed road shoulder and buried utilities exhibits potential, requires Stage 2 test pit survey.....	26
Plate 8: Southwest view on Essa Rd; Area east of the fence line exhibits potential, requires Stage 2 survey ..	26
Plate 9: Northeast view on Essa Rd; Area is disturbed, no potential	27
Plate 10: Southeast view on Essa Rd; Area is disturbed, no potential.....	27
Plate 11: Northeast view on Essa Rd; Areas adjacent to disturbed residential driveway and ROW exhibit potential, require Stage 2 survey	27
Plate 12: Southeast view on Essa Rd; Areas adjacent to disturbed residential driveway and ROW exhibit potential, require Stage 2 survey	27
Plate 13: Northeast view on Essa Rd; Area is disturbed, no potential	28
Plate 14: North view on Essa Rd; Area west of fenceline exhibits potential, requires Stage 2 survey	28
Plate 15: West view on Essa Rd at Coughlin Dr.; Area is disturbed, no potential	28
Plate 16: Southwest view on Essa Rd at Coughlin Dr.; Area is disturbed, no potential	28



1.0 PROJECT CONTEXT

Archaeological Services Inc. (ASI) was contracted by Hatch Corporation (Hatch) to conduct a Stage 1 Archaeological Assessment (Background Research and Property Inspection) as part of the Essa Road Improvements Class EA in the City of Barrie. This project involves widening Essa Road between Mapleview Drive West and Coughlin Road (Figure 1).

All activities carried out during this assessment were completed in accordance with the *Ontario Heritage Act* (1990, as amended in 2009) and the 2011 *Standards and Guidelines for Consultant Archaeologists* (S & G), administered by the Ministry of Tourism, Culture and Sport (MTCS).

In the S & G, Section 1, the objectives of a Stage 1 archaeological assessment are discussed as follows:

- To provide information about the history, current land conditions, geography, and previous archaeological fieldwork of the Study Area;
- To evaluate in detail the archaeological potential of the Study Area that can be used, if necessary, to support recommendations for Stage 2 archaeological assessment for all or parts of the Study Area; and,
- To recommend appropriate strategies for Stage 2 archaeological assessment, if necessary.

This report describes the Stage 1 archaeological assessment that was conducted for this project and is organized as follows: Section 1.0 summarizes the background study that was conducted to provide the historical and archaeological contexts for the project Study Area; Section 2.0 addresses the field methods used for the property inspection that was undertaken to document its general environment, current land use history and conditions of the Study Area; Section 3.0 analyses the characteristics of the project Study Area and evaluates its archaeological potential; Section 4.0 provides recommendations; and the remaining sections contain other report information that is required by the S & G, e.g., advice on compliance with legislation, works cited, mapping and photo-documentation.

1.1 Development Context

All work has been undertaken as required by the *Environmental Assessment Act*, RSO (1990) and regulations made under the Act, and are therefore subject to all associated legislation. This project is being conducted in accordance with the Municipal Engineers' Association document *Municipal Class Environmental Assessment* (2000 as amended in 2007, 2011 and 2015).

Authorization to carry out the activities necessary for the completion of the Stage 1 archaeological assessment was granted by Hatch on February 2, 2017.

1.2 Historical Context

The purpose of this section, according to the S & G, Section 7.5.7, Standard 1, is to describe the past and present land use and the settlement history and any other relevant historical information pertaining to the



Study Area. A summary is first presented of the current understanding of the Indigenous land use of the Study Area. This is then followed by a review of the historical Euro-Canadian settlement history.

1.2.1 Indigenous Land Use and Settlement

Southern Ontario has been occupied by human populations since the retreat of the Laurentide glacier approximately 13,000 years before present (BP) (Ferris 2013). Populations at this time would have been highly mobile, inhabiting a boreal-parkland similar to the modern sub-arctic. By approximately 10,000 BP, the environment had progressively warmed (Edwards and Fritz 1988) and populations now occupied less extensive territories (Ellis and Deller 1990).

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

Between 3,000-2,500 BP, populations continued to practice residential mobility and to harvest seasonally available resources, including spawning fish. Exchange and interaction networks broaden at this time (Spence et al. 1990:136, 138) and by approximately 2,000 BP, evidence exists for macro-band camps, focusing on the seasonal harvesting of resources (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 people's diet (Birch and Williamson 2013:13–15). Bands likely retreated to interior camps during the winter. It is generally understood that these populations were Algonquian-speakers during these millennia of settlement and land use.

From approximately 1,000 BP until approximately 300 BP, lifeways became more similar to that described in early historical documents. During the Early Iroquoian phase (AD 1000-1300), the communal site is replaced by the village focused on horticulture. Seasonal disintegration of the community for the exploitation of a wider territory and more varied resource base was still practised (Williamson 1990:317). By the second quarter of the first millennium BP, during the Middle Iroquoian phase (AD 1300-1450), 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 phase (AD 1450-1649) 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. By AD 1600, the Huron-Wendat communities within Simcoe County had formed the Confederation of Nations encountered by the first European explorers and missionaries. In the 1640s, the traditional enmity between the Haudenosaunee and the Huron-Wendat (and their Algonkian allies such as the Nipissing and Odawa) led to the dispersal of the Huron-Wendat.



After the dispersal, the Haudenosaunee established a series of settlements at strategic locations along the trade routes inland from the north shore of Lake Ontario, including Teiaiagon, near the mouth of the Humber River; and Ganestiquiagon, near the mouth of the Rouge River. Their locations near the mouths of the Humber and Rouge Rivers, two branches of the Toronto Carrying Place, strategically linked these settlements with the upper Great Lakes through Lake Simcoe. The west branch of the Carrying Place followed the Humber River valley northward over the drainage divide, skirting the west end of the Oak Ridges Moraine, to the East Branch of the Holland River. Another trail followed the Don River watershed.

Due, in large part, to increased military pressure from the French upon their homelands south of Lake Ontario, the Haudenosaunee abandoned their north shore frontier settlements by the late 1680s, although they did not relinquish their interest in the resources of the area, as they continued to claim the north shore as part of their traditional hunting territory. The territory was immediately occupied or re-occupied by Anishinaabek groups, including the Mississauga, Ojibwa (or Chippewa) and Odawa, who, in the early seventeenth century, occupied the vast area extending from the east shore of Georgian Bay, and the north shore of Lake Huron, to the northeast shore of Lake Superior and into the upper peninsula of Michigan. Individual bands were politically autonomous and numbered several hundred people. Nevertheless, they shared common cultural traditions and relations with one another and the land. These groups were highly mobile, with a subsistence economy based on hunting, fishing, gathering of wild plants, and garden farming. Their movement southward also brought them into conflict with the Haudenosaunee.

Peace was achieved between the Haudenosaunee and the Anishinaabek Nations in August of 1701 when representatives of more than twenty Anishinaabek Nations assembled in Montreal to participate in peace negotiations (Johnston 2004:10). During these negotiations captives were exchanged and the Iroquois and Anishinaabek agreed to live together in peace. Peace between these nations was confirmed again at council held at Lake Superior when the Iroquois delivered a wampum belt to the Anishinaabek Nations.

In 1763, following the fall of Quebec, New France was transferred to British control at the Treaty of Paris. The British government began to pursue major land purchases to the north of Lake Ontario in the early nineteenth century, the Crown acknowledged the Mississaugas as the owners of the lands between Georgian Bay and Lake Simcoe and entered into negotiations for additional tracts of land as the need arose to facilitate European settlement.

The eighteenth century saw the ethnogenesis in Ontario of the Métis, when Métis people began to identify as a separate group, rather than as extensions of their typically maternal First Nations and paternal European ancestry (Métis National Council n.d.). Living in both Euro-Canadian and Indigenous societies, the Métis acted as agents and subagents in the fur trade but also as surveyors and interpreters. Métis populations were predominantly located north and west of Lake Superior, however, communities were located throughout Ontario (MNC n.d.; Stone and Chaput 1978:607,608). During the early nineteenth century, many Métis families moved towards locales around southern Lake Huron and Georgian Bay, including Kincardine, Owen Sound, Penetanguishene, and Parry Sound (MNC n.d.). By the mid-twentieth century, Indigenous communities, including the Métis, began to advance their rights within Ontario and across Canada, and in 1982, the Métis were federally recognized as one of the distinct Indigenous peoples in Canada. Recent decisions by the Supreme Court of Canada (Supreme Court of Canada 2003, 2016) have reaffirmed that Métis people have full rights as one of the Indigenous people of Canada under subsection 91(24) of the Constitution Act, 1867.



1.2.2 Euro-Canadian Land Use: Township Survey and Settlement

Historically, the Study Area is located in the Former Innisfil Township, County of Simcoe on part of Lots 3 -4, Concession 12.

The S & G 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. 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 are also considered to have archaeological potential.

For the Euro-Canadian period, the majority of early nineteenth century farmsteads (i.e., those that are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth century maps) are likely to be located in proximity to water. The development of the network of concession roads and railroads through the course of the nineteenth century frequently influenced the siting of farmsteads and businesses. Accordingly, undisturbed lands within 100 m of an early settlement road are also considered to have potential for the presence of Euro-Canadian archaeological sites.

The first Europeans to arrive in the area were transient merchants and traders from France and England, who followed Indigenous pathways and set up trading posts at strategic locations along the well-traveled river routes. All of these occupations occurred at sites that afforded both natural landfalls and convenient access, by means of the various waterways and overland trails, into the hinterlands. Early transportation routes followed existing Indigenous trails, both along the lakeshore and adjacent to various creeks and rivers (ASI 2006).

Innisfil Township

The Township of Innisfil was surveyed in 1820 and the first settlement began that year. Growth was slow during the first ten years of the township and the first sawmill was not erected until the 1830s and in 1835 a grist mill was constructed. Early settlement focused around Kempenfeldt Bay. By 1843, the first school was constructed and the following year the Innisfil Methodist Congregation built the first church. By 1850, the township had a population of 1,807. Following the connection of the Northern Railway, the township became an important shipping hub for the lumber industry of central Ontario (Mika and Mika 1983:347–349). The community of St. Paul's was established at the corner of Penetanguishene Road (Yonge Street) and Mapleview Drive, and was centered around St. Paul's Anglican Church (established 1851) and a schoolhouse (Andreae 1997). The small community consisted of a cluster of houses, and would have been along the main path of anyone travelling between Toronto and Georgian Bay along Penetanguishene Road.

City of Barrie

The City of Barrie is located at the head of Kempenfelt Bay on Lake Simcoe and at the junction of a number of major transportation routes, including the Barrie Rail Corridor. Kempenfelt, east of the bay and now part of the City of Barrie, was an important site during the War of 1812 as it was the starting point of Nine Mile Portage. First established by First Nations prior to the arrival of Europeans, the portage became a strategic military transportation route between Lake Simcoe and Lake Huron. A storehouse was built at this location which also served as a stopping site for traders and settlers. The town of Barrie was named after Commodore Barrie, commander of British warships at Kingston in the early nineteenth century. The



town site was surveyed into town lots in the early 1830s and the first settler to permanently locate in Barrie was a Scottish farmer named Alexander Walker. Other early settlers include David Edgar, Captain Oliver, and John McWatt. The 1830s also saw the establishment of taverns, a general store, a post office, a school house, and a number of churches.

The Toronto, Simcoe and Lake Huron Union Rail Road Company was incorporated in 1844 and in 1850 was renamed the Ontario, Simcoe and Huron Union Rail Road Company. Under this new name, a railway was built connecting Toronto to Newmarket. Opened in 1853, the new line was known as the Ontario, Simcoe and Huron Railway (Andreae 1997). In the 1850s, the Ontario, Simcoe and Huron Railway was constructed through Allandale, which was united with Barrie in 1897. Barrie was incorporated as a town in the early 1850s and as a city more than a century later in 1959 (Mika and Mika 1977:136–139).

Village of Holly

The village of Holly is located in the once densely forested area known as the “Seven Mile Bush” between Allandale and Ninth Line. It was a small settlement with a Methodist church, a store and a blacksmith shop. Early settlers included Campell, Brown (the postmaster and merchant), Srigley, Leslie, Miller, Palling and Little, who named the village after a place in his homeland of England. The small frame Methodist church was built in 1859 on the south half of Lot 3 Concession 12 and held services for over forty years. The first school was built in 1860 at the foot of what was called Little’s Hill, and included students from Allandale. By 1884, the village was growing along the 14th Concession when a sawmill and a tramway to Allandale were built. By 1900 Holly had a population of 200 inhabitants. (Innisfil Township Council 1951:163–164).

1.2.3 Historical Map Review

The 1871 Hogg’s Map of the County of Simcoe (Hogg 1871) and the 1878 Illustrated Atlas of Simcoe County (Miles & Co. 1878) were examined to determine the presence of historic features within the Study Area during the nineteenth century (Figures 3 and 4).

It should be noted, however, 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 regard to the level of detail provided on the maps. Moreover, not every feature of interest would have been within the scope of the atlases.

In addition, the use of historical map sources to reconstruct/predict the location of former features within the modern landscape generally proceeds by using common reference points between the various sources. These sources are then geo-referenced in order to provide the most accurate determination of the location of any property on historic mapping sources. The results of such exercises are often imprecise or even contradictory, as there are numerous potential sources of error inherent in such a process, including the vagaries of map production (both past and present), the need to resolve differences of scale and resolution, and distortions introduced by reproduction of the sources. To a large degree, the significance of such margins of error is dependent on the size of the feature one is attempting to plot, the constancy of reference points, the distances between them, and the consistency with which both they and the target feature are depicted on the period mapping.



Table 1: Nineteenth-century property owner(s) and historical features(s) within or adjacent to the Study Area

		1871		1878	
Con #	Lot #	Property Owner(s)	Historical Feature(s)	Property Owner(s)	Historical Feature(s)
12	3	R. Black J. Brown	None Church	Jas. Brown	House Church
	4	D. Comiskey N. Dyer C. Dyer	None	None	Holly Post Office

According to the 1871 map, the church at Essa Road and Mapleview Drive West is the only structure illustrated within the Study Area. The 1878 map also illustrates the church on the west side of Essa Road, as well as the Holly village post office on the east side of the road.

The original crown patent for Lot 4 was originally granted to George Mitchell, while no name was listed on Lot 3 (Figure 2).

1.2.4 Twentieth-Century Mapping Review

The 1928 and 1986 National Topographic Series Barrie sheets were examined to determine the extent and nature of development and land uses within the Study Area (Figures 5 and 6). The maps illustrate that the Study Area was located within a rural landscape along the present alignment of Essa Road. In 1928, it was adjacent to six structures. By 1986, it was adjacent to approximately 12 structures, and a campground on the west side of the road.

A review of available Google satellite imagery shows that the Study Area has been adjacent to a residential subdivision to the west and agricultural fields to the east in 2006. The Holy Spirit Parish church was constructed to the east of Essa Road in 2011 and the Shoppers Drug Mart at the intersection of Mapleview Drive West and Essa Road was built between 2009 and 2011.

1.3 Archaeological Context

This section provides background research pertaining to previous archaeological fieldwork conducted within and in the vicinity of the Study Area, its environmental characteristics (including drainage, soils or surficial geology and topography, etc.), and current land use and field conditions. Three sources of information were consulted to provide information about previous archaeological research: the site record forms for registered sites available online from the MTCS through “Ontario’s Past Portal”; published and unpublished documentary sources; and the files of ASI.

1.3.1 Current Land Use and Field Conditions

A Stage 1 property inspection was conducted on March 30, 2017 that noted the Study Area is located along Essa Road, a two lane right-of-way (ROW), between Mapleview Drive West and Coughlin Road. The Study Area is surrounded by a residential subdivision and commercial development, with agricultural fields adjacent to the southeastern side of the Study Area. There is a drainage ditch running along both sides of the road. Bear Creek crosses under the ROW just north of Mapleview Drive West.



1.3.2 Geography

In addition to the known archaeological sites, the state of the natural environment is a helpful indicator of archaeological potential. Accordingly, a description of the physiography and soils are briefly discussed for the Study Area.

The S & G stipulates that 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.

Water has been identified as the major determinant of site selection and the presence of potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in Ontario since 5,000 BP (Karrow and Warner 1990:Figure 2.16), 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 modeling of site location.

Other geographic characteristics that can indicate archaeological potential include: elevated topography (eskers, drumlins, large knolls, and 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) are also considered characteristics that indicate archaeological potential (S & G, Section 1.3.1).

The Peterborough Drumlin Field extends from Simcoe County east to Hastings County and is generally characterized by rolling till plains overlying limestone bedrock. The region is approximately 4,532 km² and contains over 3000 drumlins in addition to many other drumlinoid hills and surface flutings (Chapman and Putnam 1984:169). The drumlins are composed of highly calcareous till but there are local differences in composition. The till plains of the regions were formed during the retreat of the Lake Ontario ice lobe of the Laurentide glacier and they indicate directionality of glacial advance and retreat. Till is produced from the advance of continental glacial ice. Soil and rock is carried forward by the ice, mixed and milled, producing a heterogeneous soil which is characteristic of glaciations (Chapman and Putnam 1984:10, 16).

Figure 7 depicts surficial geology for the Study Area. The surficial geology mapping demonstrates that the Study Area is underlain by stone-poor, carbonate-derived silty to sandy till, with minor ice-contact stratified deposits (Ontario Geological Survey 2010). Soils in the Study Area consist of Sargent gravelly sandy loam, a pale brown calcareous outwash gravel with good drainage (Figure 8).

The Study Area is located near Kempenfelt Bay in Lake Simcoe. Lake Simcoe was known to the Huron-Wendat as Ouentironk, or “beautiful water” (Lake Simcoe Region Conservation Authority n.d.). Late seventeenth and early eighteenth century French sources refer to Lake Simcoe as Lac Toronto. The etymology of ‘Toronto’ is debated however it is thought to be derived from the Mohawk word tkaronto which means “where there are trees standing in the water” and may refer to the fish weir at the Narrows



between Lake Simcoe and Lake Couchiching (Natural Resources Canada 2007). Lake Simcoe was one of the terminals of the Toronto Carry Place route along the Humber River which was a vital route in fur trade (Williamson 2008:50–52). This passage connected to Lake Ontario at the mouth of the Humber River. Lake Simcoe drains an area of 340,000 ha, subsequently draining into Lake Huron. Lake Simcoe supports a diverse aquatic ecosystem, home to over 50 different species of fish (LSRCA n.d.).

The Study Area is within the Middle Nottawasaga River subwatershed along a tributary of Bear Creek. Bear Creek emerges as a spring-fed series of streams along the steep slopes of the Algonquin Bluffs south of Ardagh Road in Barrie which converge before entering a series of wetlands that extend into Essa Township. The creek flows west, over the dam at the Utopia Conservation Area, into the Nottawasaga River in Angus. (Nottawasaga Valley Conservation Authority 2013)

1.3.3 Previous Archaeological Research

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (OASD) maintained by the MTCS. This database contains archaeological sites registered within the Borden system. Under the Borden system, Canada has been divided into grid blocks based on latitude and longitude. A Borden block is approximately 13 km east to west, and approximately 18.5 km north to south. Each Borden block is referenced by a four-letter designator, and sites within a block are numbered sequentially as they are found. The Study Area under review is located in Borden block *BcGw* and *BbGw*.

According to the OASD, 14 previously registered archaeological sites are located within one kilometre of the Study Area, one of which is within 50 metres of the Study Area (Ministry of Tourism, Culture and Sport 2016). A summary of the sites is provided below.

Table 2: List of previously registered sites within one kilometre of the Study Area

Borden #	Site Name	Cultural Affiliation	Site Type	Researcher
BcGw-30	Kennel	Middle Archaic	Camp	Warrick 1985
BcGw-36	Pern	Early Archaic	Findspot	ASI 1989
BcGw-49	Coral	Early Archaic	Findspot	ASI 1992
BcGw-51	Spruce Hollow	Indigenous Pre-Contact	Unknown	Parker 1996; Poulton, n.d.; AMICK, n.d.
BcGw-52	Poplar	Middle Archaic	Findspot	Poulton 1995
BcGw-55	Wellington	Late Woodland	Village	MPP 1991; ASI 1992
BcGw-56	R.Black Site	Euro-Canadian	Homestead	ASI 1992, 2010
BcGw-57	Little Holly	Late Woodland	Camp	ASI 1992
BbGw-5	Dykstra	Late Woodland	Unknown	Warrick 1985
BbGw-6	IF 1	Indigenous Pre-Contact	Findspot	Warrick 1985
BbGw-7	IF 2	Indigenous Pre-Contact	Findspot	Warrick 1985
BbGw-23	Talls Trees	Euro-Canadian	Homestead	MPA 1991
BbGw-22	James Brown	Euro-Canadian	Church/Chapel, Homestead	ASI 1992, 1994



BbGw-29	Timothy	Late Archaic	Findspot	Sutton 2002
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N.B. – sites in **bold** are within 50m of the study area
 MPA – Mayer, Poulton & Associates Limited

According to the background research, four previous reports detail fieldwork within 50 m of the Study Area.

According to the OASD, Mayer, Poulton and Associates Limited (1991) conducted an archaeological assessment of lands within the proposed Tall Trees residential subdivision on part of Lot 3, Concession 12 west of Essa Road and north of Mapleview Drive West. During the course of the assessment, the Tall Trees site (BbGw-23) was located within 50 metres of the current Study Area. Material associated with a nineteenth-century Euro-Canadian homestead (126 artifacts) was found within an area 18 metres by 15 metres within the proposed subdivision lands adjacent to Essa Road.

AMICK Consultants Limited (2015a) conducted a Stage 1-2 archaeological assessment of the property to the northeast of the intersection of Mapleview Drive West and Essa Road on part of Lots 3 and 4, Concession 12. The Stage 2 in 2013 consisted of test pit and pedestrian survey at five metre intervals. The northeast corner of Essa Road and Mapleview Drive was noted to be at a significantly higher elevation than the surrounding field areas and was composed entirely of fill material. The area has been artificially raised to be at grade with the two roadways at this intersection. No archaeological resources were encountered during the Stage 2 assessment, however the former Holly Post Office was located at the northeast corner of Essa Road and Mapleview Drive, beneath the area subject to test pit survey, also underneath the fill material. There remains potential for archaeological deposits associated with this historic post office to be identified below the fill layer. The report was recommended that heavy equipment monitoring be conducted by a licensed archaeologist during any excavation or grading work conducted in this area.

AMICK Consultants Limited (2015b) conducted a Stage 1-2 archaeological assessment ahead of the Salem North subdivision development on part of Lots 2 & 3, Concession 11. Stage 2 occurred in 2007 and 2011 which consisted of test pit survey at five metre intervals. No archaeological materials were identified within 50 metres of the current study area south of the intersection of Essa Road and Mapleview Drive West. The property is considered cleared of any further archaeological concern.

AMICK Consultants Limited (2016) conducted a Stage 1-2 archaeological assessment ahead of development of the properties at 594 and 622 Essa Road, Lot 4, Concession 12. The Stage 2 in 2014 consisted of test pit and pedestrian survey at five metre intervals. No archaeological resources were encountered and no further archaeological assessment of the study area outside the commercial topsoil area was warranted. Pedestrian survey was recommended on the area outlined once the existing topsoil piles were removed and the area returned to grade.

2.0 FIELD METHODS: PROPERTY INSPECTION

A Stage 1 property inspection must adhere to the S & G, Section 1.2, Standards 1-6, which are discussed below. The entire property and its periphery must be inspected. The inspection may be either systematic or random. Coverage must be sufficient to identify the presence or absence of any features of archaeological potential. The inspection must be conducted when weather conditions permit good visibility of land features. Natural landforms and watercourses are to be confirmed if previously identified. Additional features such as elevated topography, relic water channels, glacial shorelines, well-



drained soils within heavy soils and slightly elevated areas within low and wet areas should be identified and documented, if present. Features affecting assessment strategies should be identified and documented such as woodlots, bogs or other permanently wet areas, areas of steeper grade than indicated on topographic mapping, areas of overgrown vegetation, areas of heavy soil, and recent land disturbance such as grading, fill deposits and vegetation clearing. The inspection should also identify and document structures and built features that will affect assessment strategies, such as heritage structures or landscapes, cairns, monuments or plaques, and cemeteries.

The Stage 1 archaeological assessment property inspection was conducted under the field direction of Peter Carruthers (P163) of ASI, on March 30, 2017, in order to gain first-hand knowledge of the geography, topography, and current conditions and to evaluate and map archaeological potential of the Study Area. It was a visual inspection only and did not include excavation or collection of archaeological resources.

Fieldwork was only conducted when weather conditions were deemed suitable, per S&G Section 2. Previously identified features of archaeological potential were examined; additional features of archaeological potential not visible on mapping were identified and documented as well as any features that will affect assessment strategies. Field observations are compiled onto the existing conditions of the Study Area in Section 7.0 (Figure 9) and associated photographic plates are presented in Section 8.0 (Plates 1-16).

3.0 ANALYSIS AND CONCLUSIONS

The historical and archaeological contexts have been analyzed to help determine the archaeological potential of the Study Area. These data are presented below in Section 3.1. Results of the analysis of the Study Area property inspection are presented in Section 3.2.

3.1 Analysis of Archaeological Potential

The S & G, Section 1.3.1, lists criteria that are indicative of archaeological potential. The Study Area meets the following criteria indicative of archaeological potential:

- Previously identified archaeological sites (see Table 2);
- Water sources: primary, secondary, or past water source (Bear Creek);
- Early historic transportation routes (Major Mackenzie Drive, Essa Road);
- Proximity to early settlements (Holly); and
- Well-drained soils (Sargent gravelly sandy loam)

According to the S & G, Section 1.4 Standard 1e, no areas within a property containing locations listed or designated by a municipality can be recommended for exemption from further assessment unless the area can be documented as disturbed. The Municipal Heritage Register was consulted and no properties within the Study Area are Listed or Designated under the Ontario Heritage Act.

These criteria are indicative of potential for the identification of Indigenous and Euro-Canadian archaeological resources, depending on soil conditions and the degree to which soils have been subject to deep disturbance.



3.2 Analysis of Property Inspection Results

The property inspection determined that part of the Study Area exhibit archaeological potential (Plates 3, 6, 7, 14; Figure 8: areas highlighted in green). These areas will require Stage 2 test pit survey at five metre intervals, prior to any development. According to the S & G Section 2.1.2, test pit survey is required on terrain where ploughing is not viable, such as wooded areas, properties where existing landscaping or infrastructure would be damaged, overgrown farmland with heavy brush or rocky pasture, and narrow linear corridors up to 10 metres wide.

Part of the Study Area has been previously assessed and does not require further work. However, a portion of the Study Area northeast of the intersection of Mapleview Avenue and Essa Road was noted by AMICK (2015a) to have been artificially raised to be at grade with the two roadways at this intersection at the location of the former Holly Post Office. There remains potential for archaeological deposits associated with the historic post office to be identified below this fill layer. According to the S & G Section 2.1.7, Standard 3, this area will require Stage 2 mechanical trenching at a maximum of 10 metre intervals prior to any development to remove the artificial fill and identify any archaeological resources. Testing should be carried out using a backhoe equipped with a smooth bucket to sample any deeply buried soil horizons and sample any subsurface features that may be present. Additional hand exposure/excavation of significant archaeological features or deposits may be required as part of this process. Should Stage 2 excavation result in the delineation of archaeological resources, appropriate mitigative measures must be identified. Mitigative options include: protection and avoidance; further test or full-scale salvage excavation; archaeological monitoring of construction activities; or a combination of such approaches.

The remainder of the Study Area has been subjected to deep soil disturbance events associated with the construction of the existing ROW, as well as commercial, industrial and residential development to the east and west of the road, and according to the S & G Section 1.3.2 do not retain archaeological potential (Plates 1-16; Figure 9: areas highlighted in yellow). These areas do not require further survey.

3.3 Conclusions

The Stage 1 background study determined that 14 previously registered archaeological sites are located within one kilometre of the Study Area, one of which is within 50 metres of the Study Area. The former Holly Post Office is also known to have been located at the northeast corner of Essa Road and Mapleview Drive West. The property inspection determined that parts of the Study Area exhibit archaeological potential and will require Stage 2 assessment prior to any development.



4.0 RECOMMENDATIONS

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

1. The Study Area exhibits archaeological potential. These lands require Stage 2 archaeological assessment by test pit survey at a five metre intervals, where appropriate, prior to any proposed impacts to the property;
2. The Tall Trees Site (BbGw-23) is within 50 metres of the Study Area. The area adjacent to the right-of-way should be subject to Stage 2 test pit survey to determine if the site extends into the Study Area.
3. The former Holly Post Office is known to have been located at the northeast corner of Essa Road and Mapleview Drive West. The area was previously subject to test pit survey by AMICK in 2016, which identified that it has been capped with a deep layer of fill material. There remains potential for deeply buried archaeological deposits below the fill layer associated with the historic post office. These lands should be subject to Stage 2 assessment by mechanical trenching at a maximum of 10 metre intervals within the areas of impact.
4. The remainder of the Study Area does not retain archaeological potential on account of deep and extensive land disturbance. These lands do not require further archaeological assessment; and,
5. Should the proposed work extend beyond the current Study Area, further Stage 1 archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.

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 MTCS should be immediately notified.



5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

ASI also advises compliance with the following 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 *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.
- 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, nor may artifacts be removed from them, except by a person holding an archaeological license.



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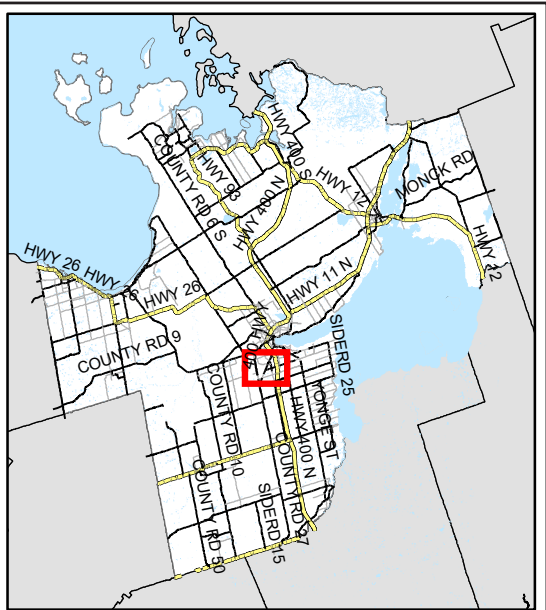
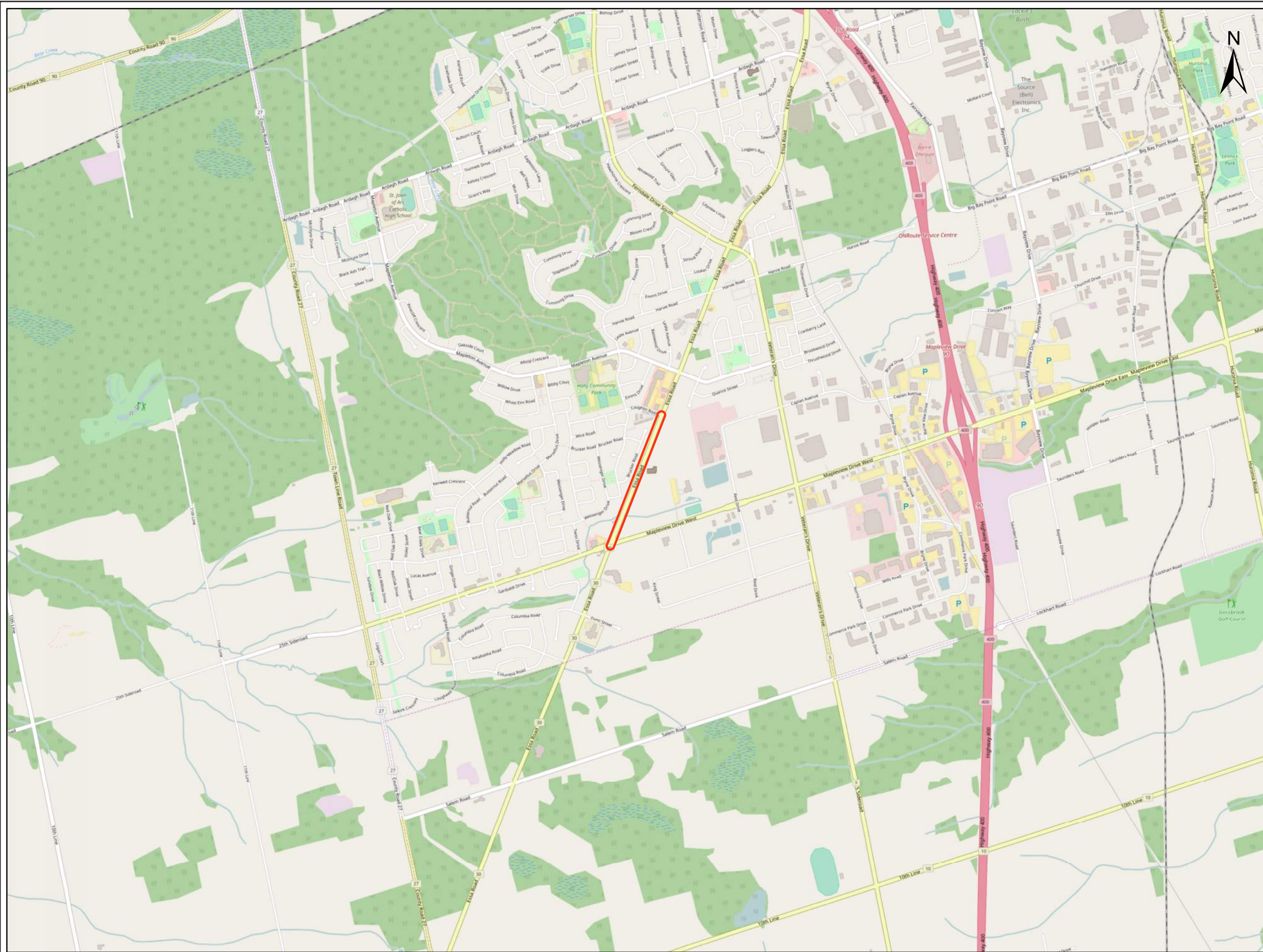
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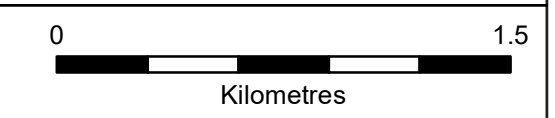
7.0 MAPS





— Study Area

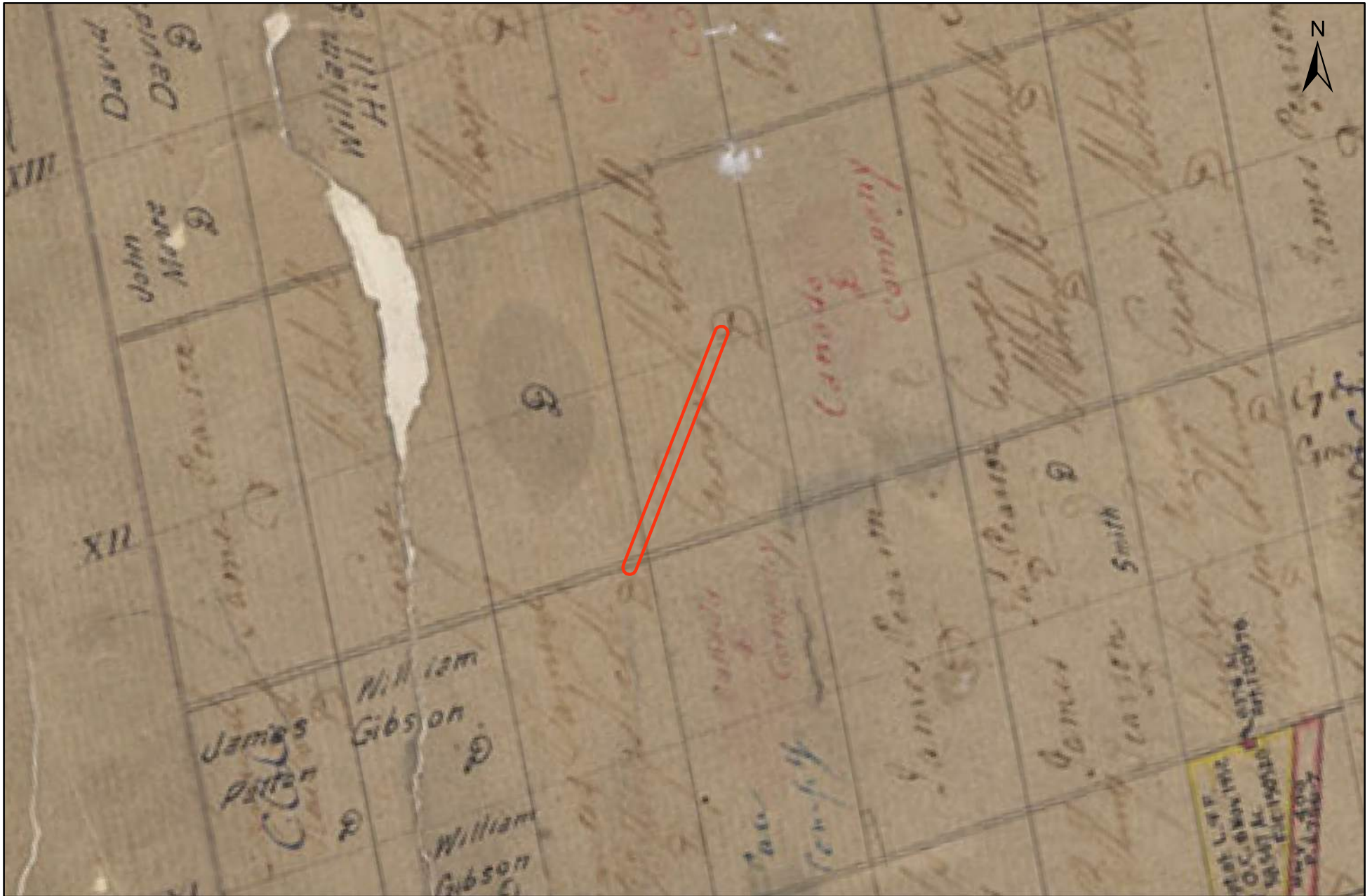
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 DATE: 4/5/2017
 DRAWN BY: JF
 FILE: 16EA274_fig1

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Figure 1: Essa Road Improvements - Location of the Study Area




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 Study Area

Base:
 Patent Plan of Innisfil Township

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Figure 2: Essa Road Improvements Study Area (Approximate Location) Overlaid on the Patent Plan of Innisfil Township

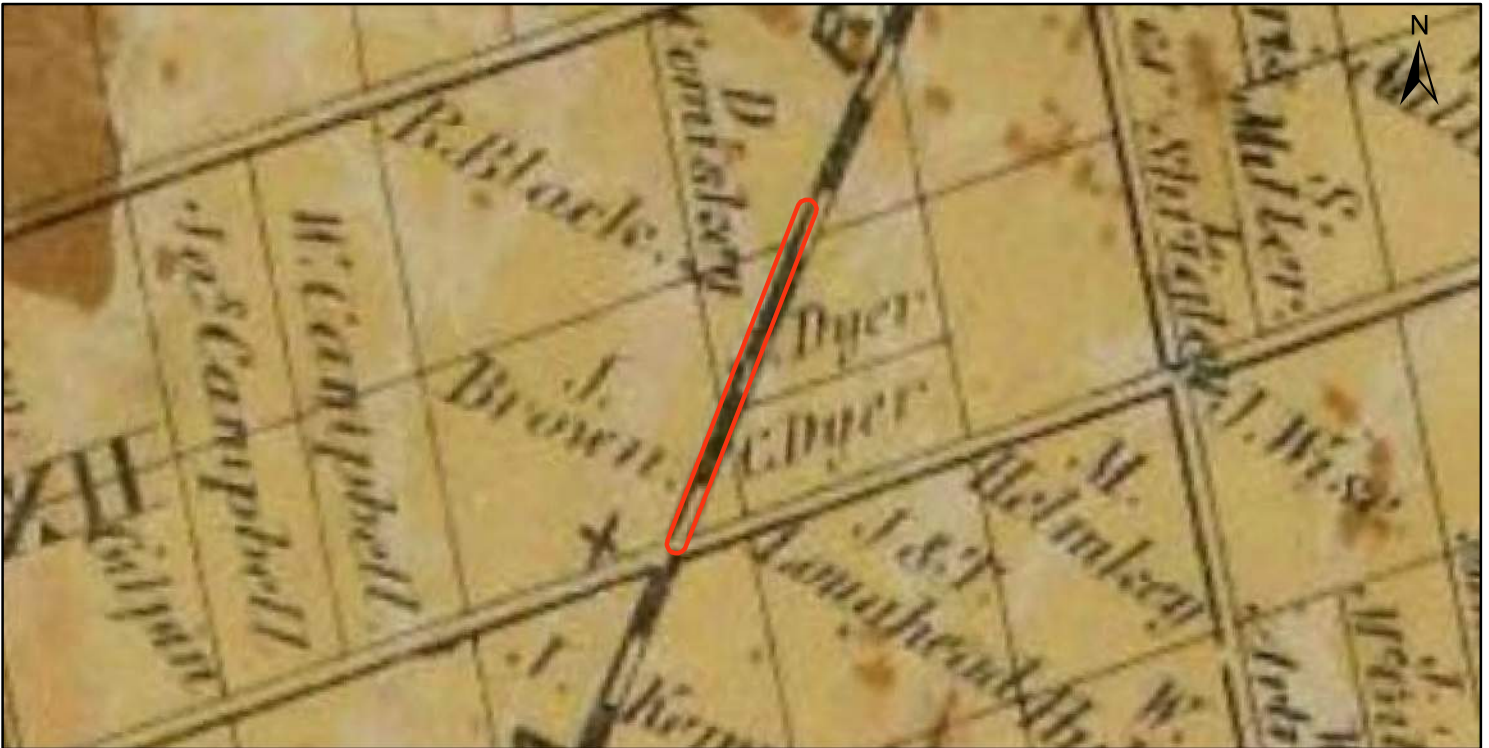




Figure 3: Essa Road Improvements Study Area (Approximate Location) Overlaid on the 1871 Map of the County of Simcoe



Figure 4: Essa Road Improvements Study Area (Approximate Location) Overlaid on the 1878 Illustrated Historical Atlas of the Township of Innisfil

 <p>Archaeological & Cultural Heritage Services 528 Bathurst Street Toronto, ONTARIO M5S 2P9 416-966-1069 F416-966-9723 asiheritage.ca</p>	 Study Area	<p>Base: 1871 Map of the County of Simcoe 1878 Illustrated Historical Atlas of the Township of Innisfil</p>	<p>0 500</p>  <p>Metres</p>
			<p>ASI PROJECT NO.: 16EA-274 DATE: 4/5/2017</p>

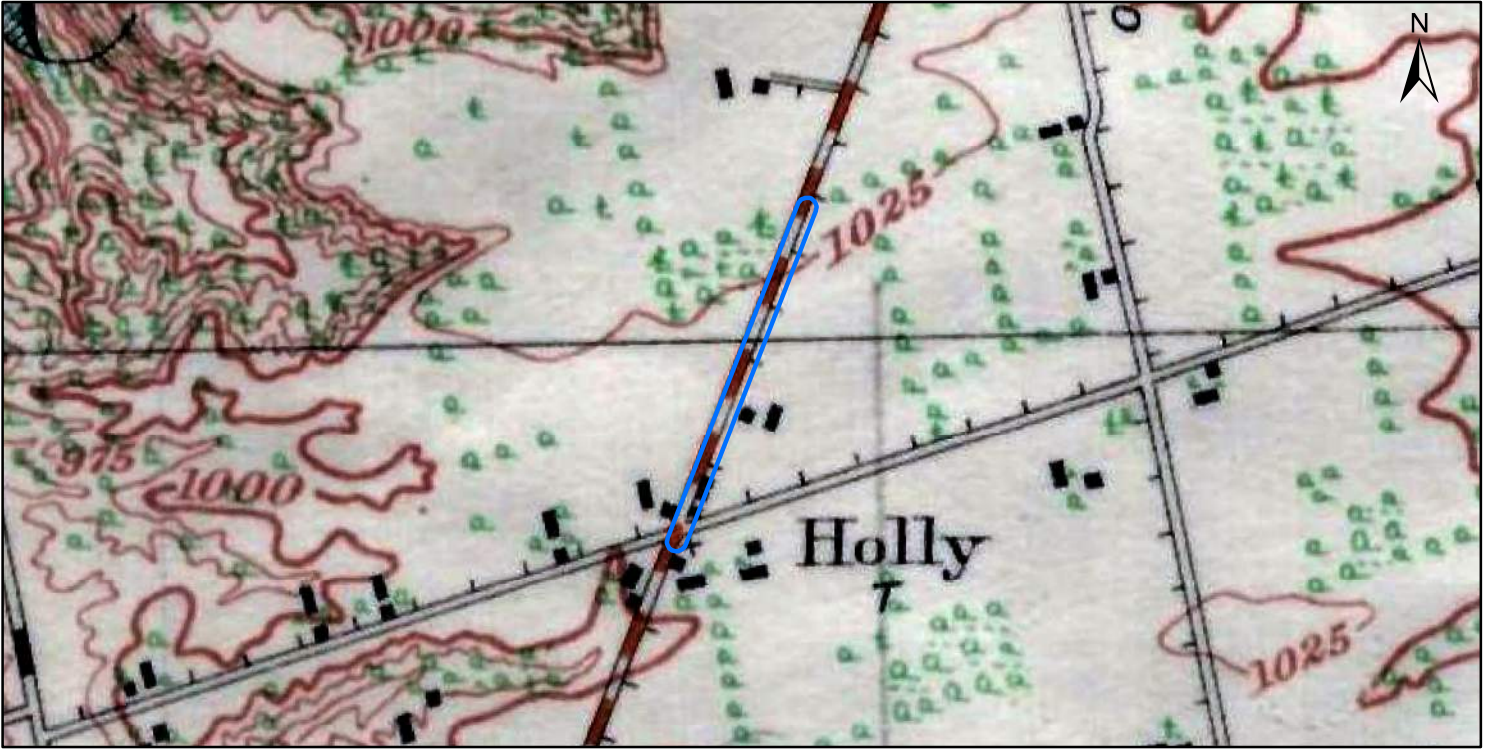


Figure 5: Essa Road Improvements Study Area (Approximate Location) Overlaid on the 1928 NTS Barrie Sheet

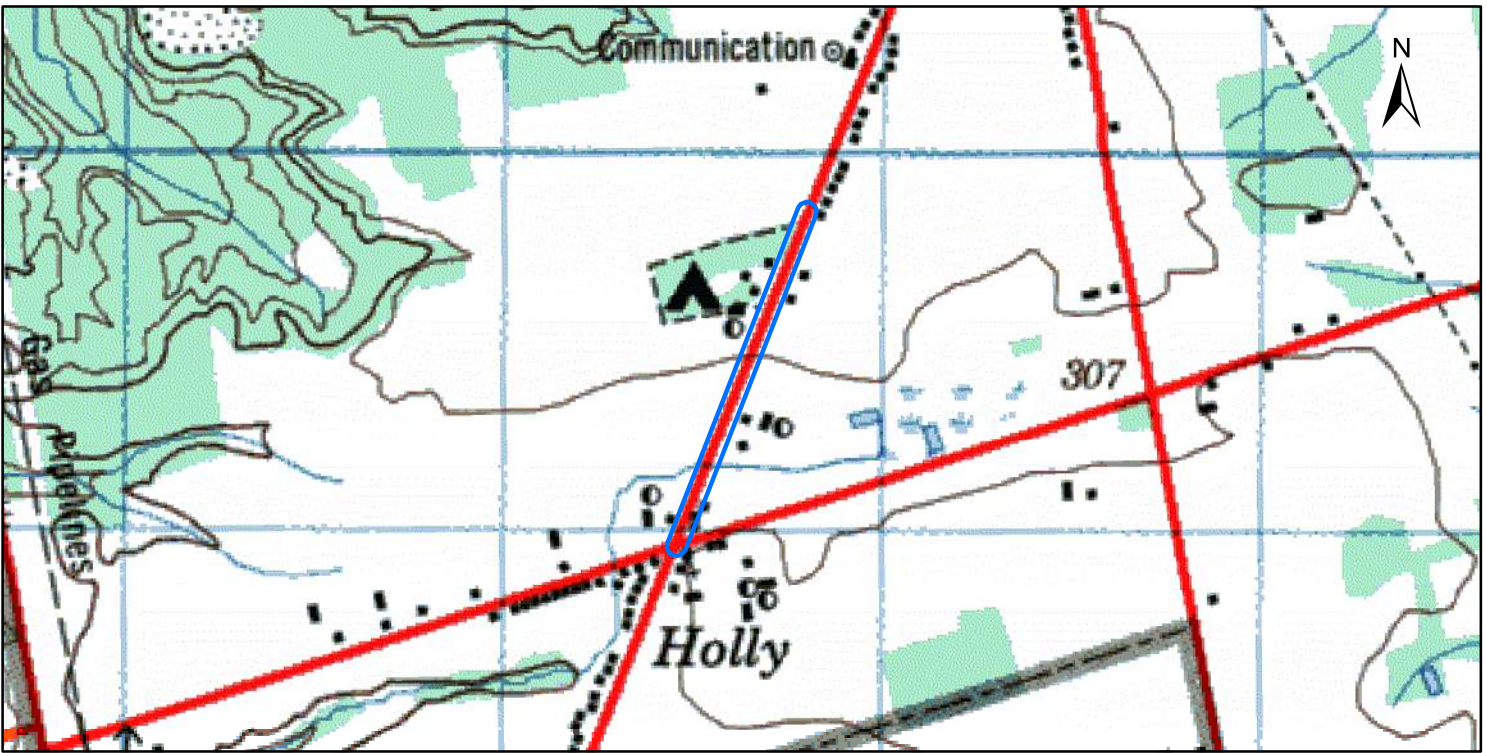


Figure 6: Essa Road Improvements Study Area (Approximate Location) Overlaid on the 1986 NTS Barrie Sheet

 <p>Archaeological & Cultural Heritage Services 528 Bathurst Street Toronto, ONTARIO M5S 2P9 416-966-1069 F416-966-9723 asih heritage.ca</p>	 Study Area	<p>Base: 1928 NTS Barrie Sheet 1986 NTS Barrie Sheet</p>	<p>0 500</p>  <p>Metres</p>	
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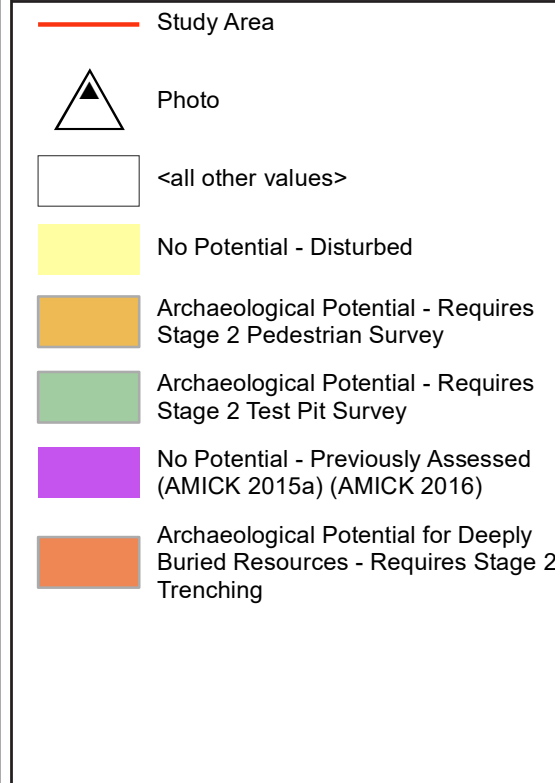
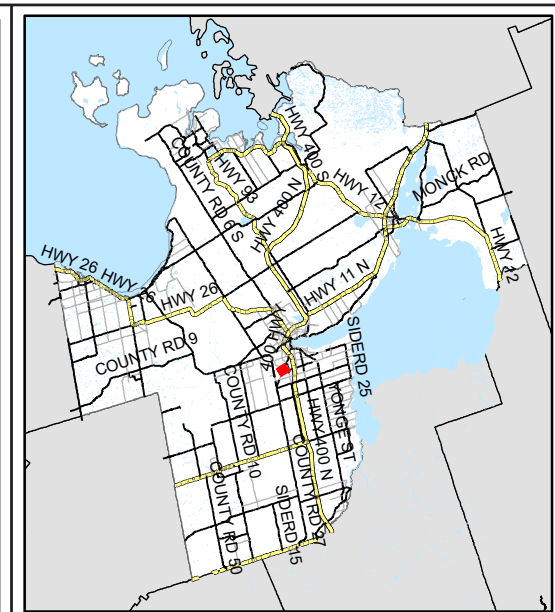
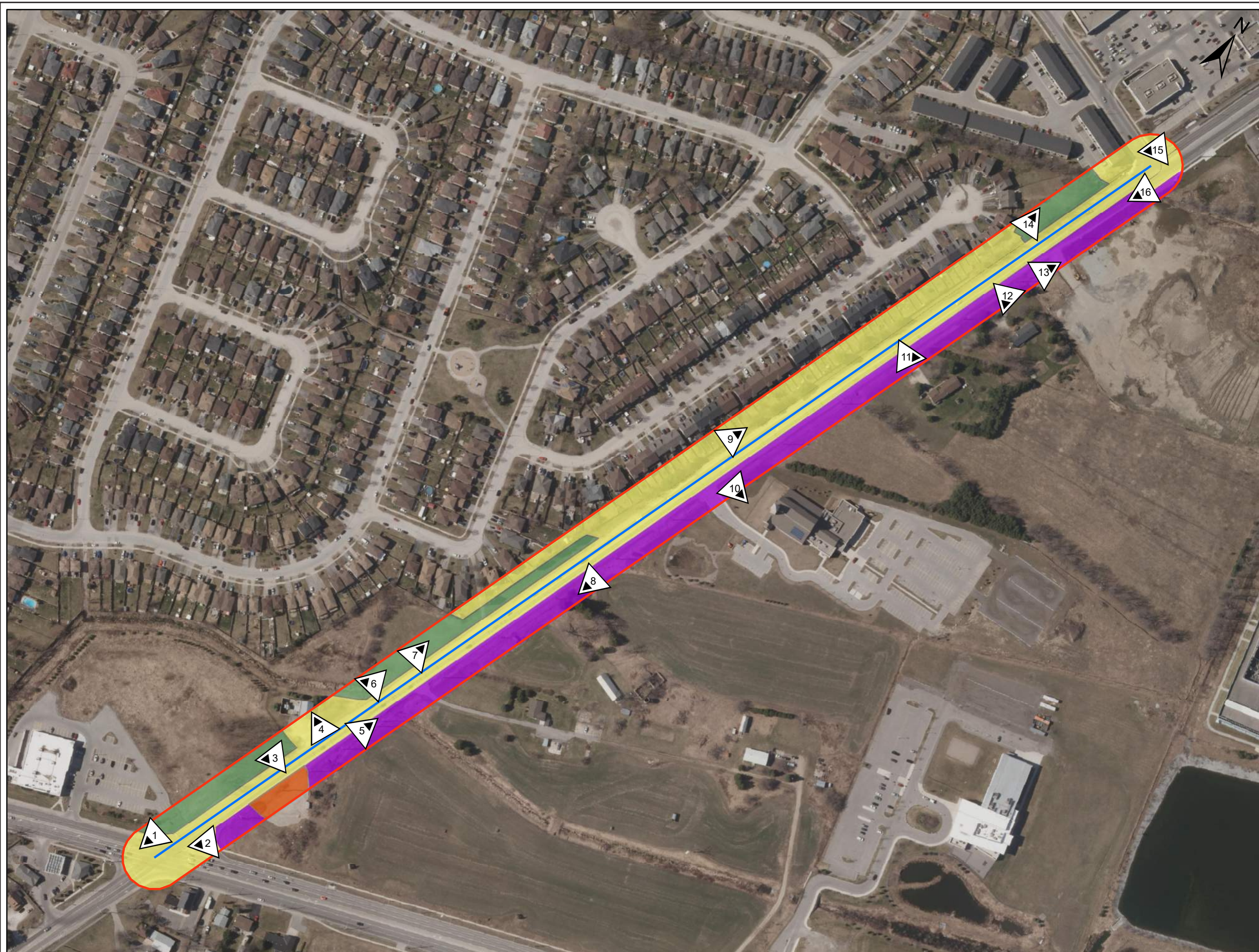


Figure 7: Essa Road Improvements Study Area - Surficial Geology

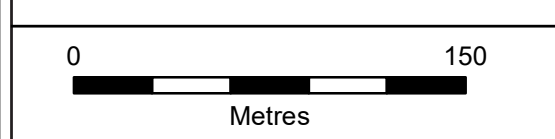


Figure 8: Essa Road Improvements Study Area - Soil Drainage

 <p>Archaeological & Cultural Heritage Services 528 Bathurst Street Toronto, ONTARIO M5S 2P9 416-966-1069 F416-966-9723 asih heritage.ca</p>	 Study Area	Base: Datum and Projection NAD 83 UTM 17N	
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BASE:
 (c) OpenStreetMap and contributors,
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Figure 9: Essa Road Improvements Study Area - Results of the Property Inspection

8.0 IMAGES



Plate 1: South view of Essa Rd at Mapleview Dr W.; Area is disturbed, no potential



Plate 2: Southwest view of Essa Rd at Mapleview Dr W.; Area is disturbed, no potential



Plate 3: West view on Essa Rd; Area beyond disturbed road shoulder exhibits potential, requires Stage 2 test pit survey.



Plate 4: Northwest view on Essa Rd.; Area is disturbed, no potential



Plate 5: Northeast view on Essa Rd; Area beyond disturbed road shoulder exhibits potential, requires Stage 2 test pit survey.



Plate 6: Southwest view on Essa Rd at Bear Creek; A Area beyond disturbed road shoulder exhibits potential, requires Stage 2 test pit survey.



Plate 7: Northeast view on Essa Rd; Area beyond disturbed road shoulder and buried utilities exhibits potential, requires Stage 2 test pit survey.



Plate 8: Southwest view on Essa Rd; Area east of the fence line exhibits potential, requires Stage 2 survey



Plate 9: Northeast view on Essa Rd; Area is disturbed, no potential



Plate 10: Southeast view on Essa Rd; Area is disturbed, no potential



Plate 11: Northeast view on Essa Rd; Areas adjacent to disturbed residential driveway and ROW exhibit potential, require Stage 2 survey



Plate 12: Southeast view on Essa Rd; Areas adjacent to disturbed residential driveway and ROW exhibit potential, require Stage 2 survey



Plate 13: Northeast view on Essa Rd; Area is disturbed, no potential



Plate 14: North view on Essa Rd; Area west of fenceline exhibits potential, requires Stage 2 survey



Plate 15: West view on Essa Rd at Coughlin Dr.; Area is disturbed, no potential



Plate 16: Southwest view on Essa Rd at Coughlin Dr.; Area is disturbed, no potential