

TRANSPORTATION ENVIRONMENTAL STUDY REPORT

Highway 401 Planning, Preliminary Design and Class Environmental Assessment, Brockville, GWP 4003-19-00

November 2023

**APPENDIX F:
STAGE 1 ARCHAEOLOGICAL ASSESSMENT REPORT**





Stage 1 Archaeological Assessment: Highway 401 Brockville, Two Kilometres West of Interchange 696 to 750 Metres East of Interchange 698

Parts of Lots 6 to 18, Concession 1, Geographic Township of Elizabethtown, now Township of Elizabethtown-Kitley, United Counties of Leeds and Grenville, and City of Brockville, Ontario

January 14, 2021

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ORIGINAL REPORT

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Executive Summary

Stantec Consulting Ltd. (Stantec) was retained by the Ontario Ministry of Transportation (MTO) to complete a Stage 1 archaeological assessment as part of the Planning, Preliminary Design, and Class Environmental Assessment (Class) Study for Highway 401, Group Work Project (GWP) 4003-19-00, from 2 kilometres (km) west of the Stewart Boulevard Interchange (IC 696) to 750 metres (m) east of the North Augusta Road Interchange (IC 698) (approximately 4.5 km), located on part of Lots 6 to 18, Concession 1, Geographic Township of Elizabethtown, now Township of Elizabethtown-Kitley, United Counties of Leeds and Grenville and the City of Brockville, Ontario.

The Stage 1 archaeological assessment, involving background research and a property inspection, resulted in the determination that portions of the study area retain potential for the identification and recovery of archaeological resources. In accordance with Section 1.3.1 and Section 7.7.4 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), **Stage 2 archaeological assessment is required for any portion of the Project's anticipated construction which impacts an area of archaeological potential (Figure 6).**

The objective of the Stage 2 archaeological assessment will be to document any archaeological resources within the portions of the study area still retaining archaeological potential and to determine whether these archaeological resources require further assessment. The Stage 2 archaeological assessment will include the systematic walking of open ploughed fields as outlined in Section 2.1.1 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The MHSTIC's standards further require that all agricultural land, both active and inactive, be recently ploughed and sufficiently weathered to improve the visibility of archaeological resources. Ploughing must be deep enough to provide total topsoil exposure, but not deeper than previous ploughing, and must provide at least 80% ground surface visibility.

For areas inaccessible for ploughing, the Stage 2 archaeological assessment will include test pit survey as outlined in Section 2.1.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The MHSTCI's standards require that each test pit be at least 30 centimetres in diameter, excavated to at least five centimetres in to subsoil, and have soil screened through six millimetre hardware cloth to facilitate the recovery of any cultural material that may be present. Prior to backfilling, each test pit will be examined for stratigraphy, cultural features, or evidence of fill.

Should any additional areas of disturbance or features indicating that archaeological potential have been removed, including permanently wet areas and steep slopes, not previously identified during the Stage 1 property inspection be encountered during the Stage 2 archaeological assessment, they will be documented as outlined in Section 2.1.8 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

The remaining parts of the study area were demonstrated to be composed of previously disturbed roadways and associated rights-of-ways, areas of low and wet ground, areas of steep slope, and exposed



bedrock. These areas were identified as having low to no archaeological potential. In accordance with Section 1.3.2 and Section 7.7.4 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), **Stage 2 archaeological assessment is not required for any portion of the Project's anticipated construction which impacts an area of low to no archaeological potential (Figure 6).**

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48(1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological license.

The MHSTCI is asked to accept this report into the Ontario Public Register of Archaeological Reports.



Project Personnel

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Task Manager:	Colin Varley, MA, RPA (P002)
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Acknowledgements

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Ministry of Heritage, Sport, Tourism and Culture Industries:	Robert von Bitter – Archaeological Sites Database Coordinator



1.0 PROJECT CONTEXT

1.1 DEVELOPMENT CONTEXT

Stantec Consulting Ltd. (Stantec) was retained by the Ontario Ministry of Transportation (MTO) to complete a Stage 1 archaeological assessment as part of the Planning, Preliminary Design, and Class Environmental Assessment (Class) Study for Highway 401, Group Work Project (GWP) 4003-19-00, from 2 kilometres (km) west of the Stewart Boulevard Interchange (IC 696) to 750 metres (m) east of the North Augusta Road Interchange (IC 698) (approximately 4.5 km), located on part of Lots 6 to 18, Concession 1, Geographic Township of Elizabethtown, now Township of Elizabethtown-Kitley, United Counties of Leeds and Grenville and the City of Brockville, Ontario (**Figures 1 and 2**).

This archaeological assessment is being completed as part of a “Group B” project under the *Class Environmental Assessment (EA) for Provincial Transportation Facilities* (Government of Ontario 2000) and includes undertaking environmental and engineering field investigations and seeking input from stakeholders. This study will include reviewing existing conditions, developing and evaluating alternatives, identifying appropriate improvements, and developing environmental protection/mitigation measures. A Recommended Plan will be confirmed and designated (protected) at the completion of the study.

1.1.1 Objectives

In compliance with the provincial standards and guidelines set out in the Ministry of Heritage, Sport, Tourism and Culture Industries’ (MHSTCI) 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), the objectives of the Stage 1 archaeological assessment are as follows:

- To provide information about the study area’s geography, history, previous archaeological fieldwork, and current land conditions;
- To evaluate the study area’s archaeological potential, which will support recommendations for Stage 2 survey for all or parts of the property; and
- To recommend appropriate strategies for Stage 2 survey.

To meet these objectives, Stantec archaeologists employed the following research strategies:

- A review of relevant archaeological, historical, and environmental literature pertaining to the study area;
- A review of the land use history, including pertinent historic maps;
- An examination of the *Ontario Archaeological Sites Database* to determine the presence of registered archaeological sites in and around the study area; and
- A property inspection of the study area.

Permission to conduct the property inspection was provided by the MTO.



1.2 HISTORICAL CONTEXT

1.2.1 Post-contact Indigenous Resources

“Contact” is typically used as a chronological benchmark when discussing Indigenous archaeology in Canada and describes the contact between Indigenous and European cultures. The precise moment of contact is a constant matter of discussion. Contact in what is now the province of Ontario is broadly assigned to the 16th century (Loewen and Chapdelaine 2016).

The nature of Indigenous settlement size, population distribution, and material culture shifted as European settlers encroached upon Indigenous territory. However, despite this shift, written accounts of material culture and livelihood, correlations of historically recorded villages to their archaeological assemblages, and the resemblances of those sites to more ancient sites have revealed an antiquity to documented cultural expressions that confirms a deep historical continuity to systems of ideology and thought (Ferris 2009:114). As a result, Indigenous peoples have left behind archaeological resources throughout the region which show continuity with past peoples, even if they have not been explicitly recorded in Euro-Canadian documentation.

During the Late Iroquoian period (1400 – 1650 Common Era [CE]) a distinctive material culture emerged at the east end of Lake Ontario and along the St. Lawrence River up to Québec City, known as the St. Lawrence Iroquoians. The St. Lawrence Iroquoians occupied a territory that extended from the mouth of Lake Ontario to Quebec City, southward to the northern tip of Lake Champlain. Seasonal habitation also extended into the estuarine area and the shores of the Gulf of the St. Lawrence (Gates-St. Pierre 2016:48). Many of the known St. Lawrence Iroquoian archaeological sites are concentrated in the west, near present day Jefferson County in New York State; however, St. Lawrence Iroquoian sites have been found eastwards along the St. Lawrence River valley towards the region of modern-day Quebec City. As a result of their geographic location, the St. Lawrence Iroquoians were among the earliest Indigenous societies to encounter Europeans, namely Jacques Cartier in 1534 (Jamieson 1990:385).

The St. Lawrence Iroquoians practiced maize agriculture and occupied large fortified settlements. Fishing was also a very important part of their subsistence base: yellow perch in particular have been found on St. Lawrence Iroquoian sites and Jacques Cartier described the eel fishery as a very important part of their diet (Gates-St. Pierre 2016:56; Jamieson 1990:385). Cartier specifically describes two settlements: Stadacona, near modern day Quebec City; and Hochelaga, at the modern-day site of Montreal. By 1603, when Samuel de Champlain sailed up the St. Lawrence, the St. Lawrence Iroquoian had abandoned the settlements described by Cartier (Jamieson 1990:385; Tremblay 2006:32;118;123). There have been multiple hypotheses proposed as to why the St. Lawrence Iroquoians vanished. These include climate change, disease, famine, and intertribal warfare between each other or with outside groups such as the Anishnaabeg, the Iroquois of New York State and the ancestral Huron-Wendat (Tremblay 2006:123). It is now understood that during the late 16th century, the St. Lawrence Iroquoians abandoned the St. Lawrence Valley and coalesced with populations living elsewhere in the Great Lakes Basin. Oral traditions of both the Huron-Wendat and Mohawk identify ancestral lands in the St. Lawrence Valley (Warrick and Lesage 2016:135-6). Archaeological and linguistic evidence indicates that the St. Lawrence



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Iroquoian populations lived amongst the Huron-Wendat in the late 16th century (Birch 2016:41; Steckley 2016:24).

The traditional homeland of the Mohawk at the time of European contact was along the middle Mohawk River in what is now New York State. Being the easternmost of the Iroquoians they were among the first to encounter Europeans and enter into trading relationships (Fenton and Tooker 1978:467). One of the earliest encounters, in 1609, was between the Mohawk and Champlain and his Huron and Algonquin allies, which resulted in the death of three Mohawk chiefs. The following summer another attack resulted in the deaths of 15 Mohawk warriors and the capture of dozens of others (Trigger 1985:176). These events initiated a period of hostilities between the Mohawk and the Indigenous and French allegiance which was centered at present-day Montréal and along the St. Lawrence and Ottawa rivers (Bonaparte n.d.). The Mohawk instead focused their trade with the Dutch and English along the Hudson River (Trigger 1985:177).

As the fur trade intensified during the first quarter of the 17th century the Mohawk became increasingly concerned that the Dutch would enter into trade with the Huron and Algonquin to the north. To circumvent this, in 1624, they made peace with the Huron, Algonquin and Montagnais alliance (Trigger 1985:182). Trade with the Dutch continued and eventually the supply of furs began to dwindle, resulting in the need to obtain furs from territories controlled by groups to the north of the lower Great Lakes and St. Lawrence River and led to increasing instances of raiding of Algonquin trade parties and hunting and trapping within the Algonquin territory (Fenton and Tooker 1978:468). Eventually, in the latter half to the 1640s, this led to the destruction of the northern Iroquoian groups (the Huron, Petun, Neutral and Erie) by a combined effort of the Mohawk and the Seneca. This resulted in the acquisition of a large number of furs and an influx of captives to help replenish their population, which had been reduced through the effects of introduced diseases and decades of hostilities (Fenton and Tooker 1978:468).

With the dispersal of their Indigenous allies, the French entered into a peace treaty with the Mohawk in 1653 (Fenton and Tooker 1978:467; Trigger 1985:277-278). In pursuing greater economic relations with the French, a large number of Mohawk left their traditional territory and settled along the St. Lawrence River near Montréal; by the 1670s there was one settlement on the north side of the Island of Montréal and another on the south side of the St. Lawrence River (Fenton and Tooker 1978:469). However, the area on the south side of the river was unsuitable for growing crops and that settlement moved upriver to a new location near the Lachine Rapids. This settlement was known as Kahnawake (“at the rapids”), named after their village on the Mohawk River (Bonaparte n.d.; Fenton and Tooker 1978:470).

By the middle of the 1700s the soil around Kahnawake was becoming depleted and an additional settlement was established upriver at the head of Lake St. Francis (a widening of the St. Lawrence River east of present day Cornwall) between the Saint Regis and Raquette rivers, on the south side of the St. Lawrence River (Fenton and Tooker 1978:473). Known as Saint Regis, the settlement dates to around 1750 and was the foundation of the present-day Mohawk community of Akwesasne, which straddles the Canada – United States border southeast of Cornwall. Shortly thereafter the so-called French and Indian War occurred between the British and French, and their Indigenous allies, in their colonial territories. In this war the Mohawk were for the most part allied with the French. Peace after the conclusion of the French and Indian War was short-lived though, and in 1775 the 13 American colonies declared war on



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Britain in what became the American Revolutionary War. In this conflict the Mohawk largely sided with the British and at the conclusion of the war the Mohawk largely left their traditional lands in the Mohawk River valley and settled on lands on the Bay of Quinte, west of Kingston (Fenton and Tooker 1978:476) and the Mohawk presence along the upper St. Lawrence River has continued into the present day.

The Ottawa River and most of its major drainage tributaries were controlled by the various Algonquin bands that occupied the Ottawa River Valley (Day and Trigger 1978; Whiteduck 2002). The Algonquin homeland is traditionally identified as the portion of the Ottawa River drainage between the Long Sault Rapids (or Point d’Orignal) at present day Hawkesbury in the south, and Lake Nipissing in the north (Holmes 1993). Major tributary rivers and their respective drainage basins were occupied and controlled by identified Algonquin bands (Morrison 2005). Champlain first encountered Algonquins in 1603 at Tadoussac, and in the early 1600s began a deep involvement of the Algonquins with the French in the fur trade, which lasted for most of the first half of the century.

Even before direct contact had been made with Europeans the Algonquin had been active in the fur trade, acting as intermediaries between Indigenous procurers of furs in the north and west and those Indigenous groups that were in direct contact with European traders (Holmes 1993). This role was one that was already in place before the European fur trade was initiated, given their position along, and control over, a major water transportation route (Morrison 2005). The Huron traded corn, cornmeal, and fishing nets in exchange for dried fish and furs, the latter of which the Algonquin secured from Ojibway and Cree living further north (Morrison 2005). The growing fur trade and the designation of animal skins as money led to changes in economic and social organization patterns. After the initial excursions of Samuel de Champlain into the Algonquin territory from 1613 until 1615 the Algonquin played a major role in the trade between the Huron and the French, and actively worked against Champlain making a trip to the Huron territory (Day and Trigger 1978). When direct trade between the Huron and French eventually occurred, and the Huron and French were permitted to use the Ottawa River as a travel route, they were subject to tolls by the Kichesippirini, who occupied the region around present day Morrison Island and controlled traffic up and down the river from their position at that narrows in the river (Hessel 1987; Morrison 2005).

Early Europeans applied the name Algonquin to several bands with similar language then living in the lower Ottawa River valley who appear to have functioned as a trade/military alliance. The bands included: Kichesippirini, Waweskarini (or Petite Nation), Matouweskarini, Kinouchebiriniouek, and the Ononchataronon (Morrison 2005). The Ononchataronons mostly resided within the South Nation River watershed, which drains an area of 3,810 square kilometres from its headwaters just north of the St. Lawrence River near the city of Brockville, northward to its confluence with the Ottawa River (Government of Canada 2013). European explorers, including Champlain, designated this group as the Iroquet, as well as Ononchataronon. Iroquet was the name of their leader, who was an important ally to the French during early stages of contact (Algonquin-Anishinabeg Nation 2016; Hodge 1906).

Very little is known of the Algonquins between 1650 and 1675, which was a period of temporary dispersal from the Ottawa valley (Day and Trigger 1978). After 1670 there was a gradual return of Algonquins to the Ottawa Valley. During the next fifty years, the French established trading posts and missions in the north of the Ottawa valley. The Algonquins remained allies to the French until the Seven Years War, which was followed by the establishment of British control in the region (Algonquins of Ontario 2013).



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The study area is located within the boundaries of the 1783 Crawford’s Purchase (**Figure 3**). Note that **Figure 3** does not represent an exhaustive list of the various treaties, land claims, and land cessions within the region. Rather, **Figure 3** is based on Morris (1943) which provides a general outline of some of the treaties within the Province of Ontario from 1783 to 1923. Crawford’s Purchases consists of three purchases between Captain Crawford and the Iroquois and Mississaugas. The first treaty, identified as “B”, was made between the Crown and the Iroquois. It included lands “reaching from Point Baudet on the north side of Lake St. Francis, up to the mouth of Gananoque River...includes the Counties of Leeds, Grenville, Dundas, Stormont, and Glengarry, Russell, Prescott, the eastern part of Carleton and the southern part of Lanark” (Morris 1943:16-17). The second treaty, identified as “B1”, was made between the Crown and the Mississaugas. It included lands “from the mouth of the Gananoque River to the mouth of the Trent River...includes the southern portions of the Counties of Hastings, Lennox and Addington, and Frontenac” (Morris 1943:16-17).

1.2.2 Euro-Canadian Resources

The first major European post upriver of Montreal on the St. Lawrence River was Fort Frontenac, located at the mouth of the Catarqui River where it empties into Lake Ontario (now Kingston, Ontario). Governor of New France Comte Louis de Baude de Frontenac had visited the site in 1673 and ordered a fort to be built there (Fryer and Humber 1984:50) and a rough wooden fort was constructed during his visit (Costain 1954:349). Construction of the stone fort began in 1675 under the supervision of Rene Robert Cavalier de la Salle (Costain 1954:361). After this there was a steady flow of travel and trade between Fort Frontenac and Montreal.

In 1783 the Treaty of Paris was signed and Great Britain recognized the independence of the United States of America. This resulted in a wave of Loyalist emigration out of the fledgling United States and towards Quebec (which at that time included much of what is now southern Ontario). Many Loyalists from New York State left from American docks along Lake Ontario and the St. Lawrence River and crossed to the British side in Quebec. Frederick Haldimand was the colonial governor of Quebec and in the summer of 1783 decided to settle these Loyalists along land from Long Sault to the Bay of Quinte (Craig 1964:4).

To settle the Loyalists, eight townships were surveyed in 1783 and 1784 along the St. Lawrence River. Originally these townships were simply referred to as Townships 1 through 8. After Haldimand’s departure from Canada these townships became known as the “Royal Townships” as Lord Dorchester named the eight townships after the children of George III. The Township of Elizabethtown was originally Township Number 8 and was the westernmost of the Royal Townships (Fryer 1984:102).

The Royal Townships and the Township of Elizabethtown was surveyed using the Single Front System (**Figure 4**). The Single Front System usually laid out deep and narrow lots and was most often used in Upper Canada between 1783 and 1818. The Township of Elizabethtown contained 11 concessions running from east to west and each concession contained 38 lots that were usually 200 acres in size.

Land allocation in the Royal Townships was according to military rank with civilians and privates receiving 100 acres of land. Noncommissioned officers received 200 acres of land, officers 500 acres of land, captains 700 acres of land, and field officers 1,000 acres of land (Fryer 1984:105). Most of the military



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veterans who settled in Elizabethtown Township were members of the Loyal Rangers (Fryer 1984:106). The Loyal Rangers was created in 1781 when several smaller Loyalist units were amalgamated.

In 1791, the Province of Quebec was divided into Upper Canada and Lower Canada at the behest of the United Empire Loyalists. The division maintained French laws and customs in Lower Canada but established English Common Law in Upper Canada, which the Loyalists were accustomed to in the former Thirteen Colonies and Great Britain (Craig 1964:17).

By 1802, settlement in the Township of Elizabethtown had developed to the point that a town plot was laid out in the southern parts of Lots 11 and 12, Concession 1 along the St. Lawrence River. The hamlet was originally laid out by Ensign William Buell and was known initially as “Buell’s Bay.” By 1808, the settlement was renamed Elizabethtown and was chosen as the District town for the Johnston District. A jail and courthouse were built in the community in 1810. By 1811 the community contained 26 buildings and a growing population. In the summer of 1812, the hamlet was renamed Brockville in honour of General Isaac Brock. In 1832, Brockville was the first community in Upper Canada to be incorporated (Heritage Brockville 2020).

The Township of Elizabethtown also prospered during the first decades of the 19th century. According to *Smith’s Canadian Gazetteer*, the township contained a population of 6,437 in 1846 and had five gristmills and nine sawmills (Smith 1846:53). The location of some of early mills located along Buells Creek are shown on the 1811 survey map of Elizabethtown Township (Sherwood 1811). The variable soil of the township and the unpredictability of the local wheat harvest led to most of the forested land in the township being logged and cleared (Austin 2009). Smith described Brockville as a “handsome town” of mostly stone buildings with a population of 2,111 (Smith 1846:21).

Economic prosperity in Brockville and the Township of Elizabethtown increased when the Brockville and Ottawa Railway was incorporated in 1853. The railway allowed lumber traffic to pass from the Ottawa Valley into southern Ontario. Brockville and Elizabethtown Township received a further boost when the Grand Trunk Railway was built through the township in 1855. In 1860, the Brockville Railway Tunnel was completed to connect the waterfront of Brockville with the Brockville and Ottawa Railway. When completed, the structure was the first railway tunnel in Canada (Brockville Railway Tunnel 2020).

Historical mapping from 1861 shows that much of the land in the township had been settled and most lots are depicted as having an owner and containing a structure (**Figure 5**). Table 1 lists the landowners of the lots, along concession 1, within the study area. It should be noted that the 1879 mapping available for Elizabethtown Township was a reprint of the 1861 maps.

Table 1: Property Owners / Residents and Historical Features Depicted in the 1861 Map of Elizabethtown Township

Lot	Owner / Resident	Euro-Canadian Features in Proximity to Study Area
6	J. McEachron	One structure illustrated along Oxford Avenue
	C. Jones	One structure illustrated along Oxford Avenue
7	T. Stewart	One structure illustrated along 1 st Avenue, within study area limits



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Lot	Owner / Resident	Euro-Canadian Features in Proximity to Study Area
	A. Hamilton	One structure illustrated along 1 st Avenue
	M. Cormody	One structure illustrated along 1 st Avenue
	W.H. Wilson	One structure illustrated along 1 st Avenue
	I.P. Shipman	No structures illustrated on property
8	T. Jackson	One structure illustrated along 1 st Avenue, within study area limits
	G. Morton	One structure illustrated along 1 st Avenue
	J. Lawrence	One structure illustrated along North Augusta Road
9	J. Healy	One structure illustrated along Bartholomew Street
	T. Owen	One structure illustrated along Bartholomew Street
	S. Aird	One structure illustrated along Bartholomew Street
10	F.W. Chambers	One structure setback on property
11	None listed	No structures illustrated on property; Brockville and Ottawa Railway line runs north-south through lot
12	J.P. Buel	One structure illustrated along Parkedale Avenue
	J.L. Morrison	No structures illustrated
	S. Beach	One structure illustrated along Perth Street
	S. Flint	No structures illustrated
	Cardings	No structures illustrated
	T.H.	One structure illustrated along Perth Street
13	J.L. Schofield	One structure illustrated along Perth Street
	A. Richards	One structure illustrated along Perth Street
14	E. Billings	Two structures setback from Parkedale Avenue
15	D.H.O. Ford	One structure setback from Parkedale Avenue
	J. McCready	One structure illustrated along King St. West
16	Judge Mallock Dunhamsel	One structure and a Temperance House illustrated along King St. West
17	Leggo Estate	One structure illustrated along King St. West and three structures setback from King St. West
18	W. Sherwood	One structure illustrated along King St. West

Other communities in the township besides Brockville in the mid to late 19th century included Selees Corner, Tin Cap, Lyn, Fairfield Station, Clarks Crossing, Dublin Corners, Unionville, Addison, Greenbush, Rockspring, Bells Crossing, Jellys Crossing, and Bellamys. In 1871, the township contained 742 occupied farms on 73,386 acres of land. Of that acreage 26,164 were under crops, 15,744 were pasture, and 787 were gardens or orchards (Census of Canada 1871). The main crops grown in the township were wheat, oats, peas, corn, and hay (Census of Canada 1871).



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The population of Elizabethtown Township would begin to decrease in the last decades of the 19th century, shrinking from 5,373 in 1871 to 4,726 in 1891 (Dominion Bureau of Statistics 1953). During the same period, the Town of Brockville grew from 5,102 to 8,791 (Dominion Bureau of Statistics 1953). The contraction of population in the township and growth of the town was part of a broader trend of urbanization in the late 19th and early 20th centuries. The emergence of industrialization and urbanization increased the number of wage workers required in cities and towns. At the same time, improvements in farm equipment and the mechanization of farming meant that less labour was required on a farm (Sampson 2012), which encouraged out-migration from rural areas to the growing cities of Ontario (Drummond 1987:30).

1.3 ARCHAEOLOGICAL CONTEXT

1.3.1 Natural Environment

The Smiths Falls Limestone Plain is the largest tract of shallow soil over limestone in southern Ontario. It covers nearly 1,400 square miles of the United Counties of Leeds and Grenville, Lanark County, and the City of Ottawa. The town of Smiths Falls is located generally in the centre of the region and the Rideau River divides the region into two portions (Chapman and Putnam 1984: 196).

Soils within the study area are comprised of Farmington loam, Hinchinbrooke loam, Napanee clay, and Rockland. Farmington loam is comprised of shallow till over limestone bedrock and is well-drained. Hinchinbrooke loam is comprised of calcareous fine sand and silt and is poorly drained. Napanee clay is comprised of calcareous clay and is poorly drained. Rocklands are areas of exposed bedrock that are not suitable for agriculture (Gillespie *et al.* 1968).

Buells Creek bisects the study area between the North Augusta Road and Stewart Boulevard. Grants Creek runs along the north side of the extreme west end of the study area. Butler's Creek is located approximately 400 metres to the east of the study area. The St. Lawrence River is located 1.6 km to the southeast of the study area.

1.3.2 Pre-contact Indigenous Resources

Overall, archaeological research in many parts of south central and eastern Ontario has been fairly limited, at least compared to adjoining areas in southern Ontario and northern New York State, resulting in a limited understanding of the cultural processes that occurred in this part of the province. The following summary of the pre-contact occupation of south central and eastern Ontario (see Table 2 for a generalized chronological chart) is based on syntheses in Archaeologix (2008), Ellis and Ferris (1990), Jacques Whitford (2008), Pilon (1999), Gates-St Pierre (2009), and Wright (1995).

Identifiable human occupation of Ontario begins just after the end of the Wisconsin Glacial period. The first human settlement can be traced back 11,000 years, when this area was settled by Indigenous groups that had been living to the south of the emerging Great Lakes. This initial occupation is referred to as the "Paleo-Indian" archaeological culture.



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Table 2: Generalized Eastern Ontario Cultural Chronology

Archaeological Period	Time Period (Years Before Present [BP])	Characteristics
Early Paleo-Indian	11,000–10,400 BP	Caribou and extinct Pleistocene mammal hunters, small camps
Late Paleo-Indian	10,400–10,000 BP	Smaller but more numerous sites
Early Archaic	10,000-8,000 BP	Slow population growth, emergence of woodworking industry, development of specialized tools
Middle Archaic	8,000–4,500 BP	Environment similar to present, fishing becomes important component of subsistence, wide trade networks for exotic goods
Late Archaic	4,500-3,100 BP	Increasing site size, large chipped lithic tools, introduction of bow hunting
Terminal Archaic	3,100-2,950 BP	Emergence of true cemeteries with inclusion of exotic trade goods
Early Woodland	2,950-2,400 BP	Introduction of pottery, continuation of Terminal Archaic settlement and subsistence patterns
Middle Woodland	2,400-1,400 BP	Increased sedentism, larger settlements in spring and summer, dispersed smaller settlement in fall and winter, some elaborate mortuary ceremonialism
Transitional Woodland	1,400-1,100 BP	Incipient agriculture in some locations, seasonal hunting and gathering
Early Woodland	1,100-700 BP	Limited agriculture, development of small village settlement, small communal longhouses
Middle Woodland	700-600 BP	Shift to agriculture as major component of subsistence, larger villages with large longhouses, increasing political complexity
Late Woodland	600- 350 BP	Very large villages with smaller houses, politically allied regional populations, increasing trading network

Early Paleo-Indian (EPI) (11,000-10,400 BP) settlement patterns suggest that small groups, or “bands”, followed a pattern of seasonal mobility extending over large territories. Many (although by no means all) of the EPI sites were located on former beach ridges associated with Lake Algonquin, the post-glacial lake occupying the Lake Huron/Georgian Bay basin, and research/evidence indicates that the vegetative cover of these areas would have consisted of open spruce parkland, given the cool climatic conditions. Sites tend to be located on well-drained loamy soils, and on elevations in the landscape, such as knolls. The fact that assemblages of artifacts recovered from EPI sites are composed exclusively of stone skews our understanding of the general patterns of resource extraction and use. However, the taking of large game, such as caribou, mastodon and mammoth, appears to be of central importance to the sustenance of these early inhabitants. Moreover, EPI site location often appears to be located in areas which would have intersected with migratory caribou herds.

The Late Paleo-Indian (LPI) period (10,400-10,000 BP) is poorly understood compared to the EPI, the result of less research focus than the EPI. As the climate warmed, the spruce parkland was gradually replaced, and the vegetation of southern Ontario began to be dominated by closed coniferous forests. As a result, many of the large game species that had been hunted in the EPI period either moved north with the more open vegetation or became locally extinct. Like the EPI, LPI peoples covered large territories as



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they moved around to exploit different resources. Environmental conditions in eastern Ontario and the Ottawa Valley were sufficient to allow for a LPI occupation, although the evidence of such is still very limited. There is some evidence of LPI occupation on Thompson Island, in the St. Lawrence River near the junction of Ontario, Québec, and New York State.

The transition from the Paleo-Indian period to the Archaic archaeological culture in Ontario is evidenced in the archaeological record by the development of new tool technologies, the result of utilizing an increasing number of resources as compared to peoples from earlier archaeological cultures and developing a broader based series of tools to more intensively exploit those resources. During the Early Archaic period (10,000-8,000 BP), the jack and red pine forests that characterized the LPI environment were replaced by forests dominated by white pine with some associated deciduous elements. Early Archaic projectile points differ from Paleo-Indian forms most notably by the presence of side and corner notching on their bases. A ground stone tool industry, including celts and axes, also emerges, indicating that woodworking was an important component of the technological development of Archaic peoples. Although there may have been some reduction in the degree of seasonal mobility, it is still likely that population density during the Early Archaic was low, and band territories large.

The development of more diversified tool technology continued into the Middle Archaic period (8,000-4,500 BP). The presence of grooved stone net-sinkers suggests an increase in the importance of fishing in subsistence activities. Another new tool, the bannerstone, also made its first appearance during this period. Bannerstones are ground stone weights that served as counterbalance for “atlatls” or spear-throwers, again indicating the emergence of a new technology. The increased reliance on local, often poor-quality chert resources for chipped stone tools suggests that in the Middle Archaic, groups inhabited smaller territories lacking high quality raw materials. In these instances, lower quality materials which had been glacially deposited in local tills and river gravels were used.

This reduction in territory size appears to have been the result of gradual region-wide population growth, which forced a reorganization of subsistence patterns, as a larger population had to be supported from the resources of a smaller area. Stone tools designed specifically for the preparation of wild plant foods suggest that subsistence catchment was being widened and new resources being more intensively exploited. A major development of the later part of the Middle Archaic period was the initiation of long-distance trade. In particular, native copper tools manufactured from sources near Lake Superior were being widely traded.

During the late part of the Middle Archaic (5,500-4,500 BP) a distinctive occupation, or tradition, known as the Laurentian Archaic, appears in southeastern Ontario, western Quebec, northern New York and Vermont. Laurentian Archaic sites are found only within the transitional zone between the deciduous forests to the south and coniferous forests to the north known as the Canadian Biotic Province and are identifiable through the association of certain diagnostic tool types, including ground slate semi-lunar knives (or “ulus”), plummets for use in fishing, ground slate points and knives, and ground stone gouges, adzes and grooved axes. It is thought that there was less reliance on plant foods and a greater reliance on hunting and fishing in this region than for Archaic peoples in southern and southwestern Ontario. Laurentian Archaic sites have been found in the middle Ottawa River valley, along the Petawawa River and Trent River watersheds and at Brockville.



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The trend towards decreased territory size and a broadening subsistence base continued during the Late Archaic (4,500-2,900 BP). Late Archaic sites are far more numerous than either Early or Middle Archaic sites. It appears that the increase in numbers of sites at least partly represents an increase in population. However, around 4,500 BP water levels in the Great Lakes began to rise, taking their modern form. It is likely that the relative paucity of earlier Archaic sites is due to their being inundated under the rising lake levels.

The appearance of the first true cemeteries occurs during the Late Archaic. Prior to this period, individuals were interred close to the location where they died. However, with the advent of the Late Archaic and local cemeteries individuals who died at a distance from the cemetery would be returned for final burial at the group cemetery often resulting in disarticulated skeletons, occasionally missing minor bone elements (i.e., finger bones). The emergence of local group cemeteries has been interpreted as being a response to both increased population densities and competition between local groups for access to resources, in that cemeteries would have provided symbolic claims over a local territory and its resources.

Increased territoriality and more limited movement are also consistent with the development of distinct local styles of projectile points. The trade networks which began in the Middle Archaic expand during this period and begin to include marine shell artifacts (such as beads and gorgets) from as far away as the Mid-Atlantic coast. These marine shell artifacts and native copper implements show up as grave goods, indicating the value of the items. Other artifacts such as polished stone pipes and slate gorgets also appear on Late Archaic sites. One of the more unusual of the Late Archaic artifacts is the "birdstone", small, bird-like effigies usually manufactured from green banded slate.

The Early Woodland period (2,900-2,200 BP) is distinguished from the Late Archaic period primarily by the addition of ceramic technology. While the introduction of pottery provides a useful demarcation point for archaeologists, it may have made less difference in the lives of the Early Woodland peoples. The first pots were very crudely constructed, thick walled, and friable. It has been suggested that they were used in the processing of nut oils by boiling crushed nut fragments in water and skimming off the oil. These vessels were not easily portable, and individual pots must not have enjoyed a long use life. There have also been numerous Early Woodland sites located at which no pottery was found, suggesting that these poorly constructed, undecorated vessels had yet to assume a central position in the day-to-day lives of Early Woodland peoples.

Other than the introduction of this rather limited ceramic technology, the life-ways of Early Woodland peoples show a great deal of continuity with the preceding Late Archaic period. For instance, birdstones continue to be manufactured, although the Early Woodland varieties have "pop-eyes" which protrude from the sides of their heads. Likewise, the thin, well-made projectile points which were produced during the terminal part of the Archaic period continue in use. However, the Early Woodland variants were side-notched rather than corner-notched, giving them a slightly altered and distinctive appearance. The trade networks which were established in the Middle and Late Archaic also continued to function, although there does not appear to have been as much traffic in marine shell during the Early Woodland period. These trade items were included in increasingly sophisticated burial ceremonies, some of which involved construction of burial mounds.



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In terms of settlement and subsistence patterns, the Middle Woodland (2,200-1,100 BP) provides a major point of departure from the Archaic and Early Woodland periods. While Middle Woodland peoples still relied on hunting and gathering to meet their subsistence requirements, fish were becoming an even more important part of the diet. Middle Woodland vessels are often heavily decorated with hastily impressed designs covering the entire exterior surface and upper portion of the vessel interior. Consequently, even very small fragments of Middle Woodland vessels are easily identifiable.

It is also at the beginning of the Middle Woodland period that rich, densely occupied sites appear along the margins of major rivers and lakes. While these areas had been utilized by earlier peoples, Middle Woodland sites are significantly different in that the same location was occupied off and on for as long as several hundred years. Because this is the case, rich deposits of artifacts often accumulated. Unlike earlier seasonally utilized locations, these Middle Woodland sites appear to have functioned as base camps, occupied off and on throughout the course of the year. There are also numerous small upland Middle Woodland sites, many of which can be interpreted as special purpose camps from which localized resource patches were exploited. This shift towards a greater degree of sedentism continues the trend witnessed from the Middle Archaic and provides a prelude to the developments that follow during the Late Woodland period.

There are three complexes of Middle Woodland culture in Ontario. The complex specific to eastern Ontario is known as "Point Peninsula" most notably represented by ceramics decorated with a stamped zigzag pattern applied at various angles to the exterior of the vessel, known as "pseudo scallop shell". Another common decorative style is the dentate stamp, a comb-like tool creating square impressions. Middle Woodland components have been identified at St. Regis Island and Sheek Island, both near Cornwall, at Tidd's Island, near Ganonque, in Vincent Massey Park along the Rideau River in the City of Ottawa, at the confluence of the Ottawa and Gatineau Rivers at Lac Leamy Park in Gatineau, Quebec and there is evidence for a widespread Woodland occupation along the Rideau River and Rideau Lakes system (Howard 2010; Jacques Whitford 2004; Kenyon 1986; Laliberté 1999; Watson 1991, 1992, 1999).

The relatively brief period of the Transitional Woodland period is marked by the acquisition of cultivar plants species, such as maize and squash, from communities living south of the Great Lakes. The appearance of these plants began a transition to food production, which consequently led to a reduced need to acquire naturally occurring food resources. Sites were thus occupied for longer periods and by larger populations. Transitional Woodland sites have not been discovered in eastern Ontario.

The Late Woodland period is often divided into three temporal components; Early, Middle and Late Late Woodland (or Early, Middle and Late Iroquoian). In eastern Ontario there is considerable overlap of people continuing to practice a hunting and gathering economy and those using limited horticulture as a supplement to gathered plants. For the most part, however, classic Late Woodland sites in eastern Ontario are limited to an area at the east end of Lake Ontario and along the St. Lawrence River valley. Middle Iroquoian sites have not been identified east of the Kingston area.

During the Late Late Woodland period a distinctive material culture emerges at the east end of Lake Ontario and along the St. Lawrence River up to Québec City, known as the St. Lawrence Iroquois (SLI). SLI sites are characterized by large semi-permanent villages and associated satellite settlements. The



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inhabitants of these villages and satellites practiced horticulture of staple crops which made up the bulk of their diet. Other food resources were hunted, fished and gathered. SLI village sites can be extensive, up to 10 acres or more in size and composed of a number of longhouse structures. Special purpose satellite settlements, such as hunting and fishing camps, are smaller in area and in the number and size of structures within the settlement. While the early contact period descendants of the Late Woodland SLI and Huron used the Ottawa River and its tributaries as transportation routes between the St. Lawrence River and the interior, Late Woodland village sites have not been identified.

1.3.3 Registered Archaeological Sites and Surveys

In Canada, archaeological sites are registered within the Borden system, a national grid system designed by Charles Borden in 1952 (Borden 1952). The grid covers the entire surface area of Canada and is divided into major units containing an area that is two degrees in latitude by four degrees in longitude. Major units are designated by upper case letters. Each major unit is subdivided into 288 basic unit areas, each containing an area of 10 minutes in latitude by 10 minutes in longitude. The width of basic units reduces as one moves north due to the curvature of the earth. In southern Ontario, each basic unit measures approximately 13.5 kilometres east-west by 18.5 kilometres north-south. In northern Ontario, adjacent to Hudson Bay, each basic unit measures approximately 10.2 kilometres east-west by 18.5 kilometres north-south. Basic units are designated by lower case letters. Individual sites are assigned a unique, sequential number as they are registered. These sequential numbers are issued by the MHSTCI who maintain the *Ontario Archaeological Sites Database*. The study area is located within Borden blocks BdFv and BdFw.

Information concerning specific site locations is protected by provincial policy and is not fully subject to the *Freedom of Information and Protection of Privacy Act* (Government of Ontario 1990a). The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The MHSTCI will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

An examination of the *Ontario Archaeological Sites Database* has shown that there are eight registered archaeological sites within one kilometre of the study area (Government of Ontario 2020a). Table 3 provides a summary of the registered archaeological sites within one kilometre of the study area. None of the archaeological sites are located within 50 metres of the study area. Based on a query of the *Ontario Public Register of Archaeological Reports*, no archaeological assessments have taken place within 50 metres of the study area (Government of Ontario 2020b).

Table 3: Registered Archaeological Sites within One Kilometre of the Study Area

Borden Number	Site Name	Cultural Affiliation	Site Type
BdFv-5	Church Family Site	Euro-Canadian	Farmstead
BdFv-6	Not applicable (n/a)	Euro-Canadian	Psychiatric hospital/asylum



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Borden Number	Site Name	Cultural Affiliation	Site Type
BdFw-1	n/a	Indigenous	Findspot
BdFw-2	Beley House	Euro-Canadian	House
BdFw-3	Isaac Beecher House	Euro-Canadian	House
BdFw-6	Fulford Place	Euro-Canadian	Homestead
BdFw-7	n/a	Euro-Canadian	Homestead
BdFw-8	n/a	Euro-Canadian	Homestead

1.4 EXISTING CONDITIONS

The study area is approximately 4.5 kilometres long, extending from two km west of Highway 401 and Stewart Boulevard Interchange (IC 696) to 750 m east of Highway 401 and North Augusta Road Interchange (IC 698). The study area is comprised of Highway 401 and other existing roadways, residential housing, commercial buildings, manicured lawns, scrubland, low and wet areas, steep slopes, and exposed bedrock.



2.0 FIELD METHODS

The Stage 1 archaeological assessment compiled information concerning registered and/or potential archaeological resources within the study area. A property inspection was conducted by Patrick Hoskins, MA, on August 13, 2020 under Project Information Form (PIF) number P415-0244-2020 issued to Mr. Hoskins by the MHSTCI. The property inspection involved spot checks of the study area to identify the presence or absence of features of archaeological potential, in accordance with Section 1.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The property inspection was conducted from publicly accessible roadways, including Highway 401, North Augusta Road, and Stewart Boulevard. Individual properties off of the public roads were not visited.

During the property inspection, the weather was sunny and warm and visibility of land features was excellent. Field, lighting, and weather conditions were not detrimental to the identification of features of archaeological potential. The photography from the property inspection (see Section 7.1) confirms that the requirements for a Stage 1 property inspection were met, as per Section 1.2 and Section 7.7.2 Standard 1 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). **Figure 6** illustrates the photo locations obtained as part of the property inspection.

The study area comprises the existing Highway 401 and several roads that run parallel to the highway or over underpasses that cross the highway. The portions of the ROW adjacent to Highway 401 are ditched. Along the north side of the highway the ditch line slopes down from the highway and then up towards the commercial buildings. Along the south side the ditch slopes upwards to a sound barrier.

Much of the area located outside of the existing Highway 401 ROW is composed of commercial and residential properties. The north side of Highway 401 along the western end is steeply sloped from the edge of the highway to the golf course to the north. The south side of Highway 401 along the western end is composed of undeveloped wood lot and private businesses. The portion of the study area adjacent to Highway 401 between North Augusta Road and Stewart Boulevard is composed of manicured lawn on top of a bedrock shelf.

The property inspection demonstrated that portions of the study area retains archaeological potential (Photos 1 to 10). The property inspection also confirmed that portions of the study area retains low or no archaeological potential identified (i.e., roadways, steep slopes, bedrock, water bodies, etc.) (Photos 11 to 19).



3.0 ANALYSIS AND CONCLUSIONS

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. Stantec applied archaeological potential criteria commonly used by the MHSTCI (Government of Ontario 2011) to determine areas of archaeological potential within the region under study. These variables include proximity to previously identified archaeological sites, distance to various types of water sources, soil texture and drainage, glacial geomorphology, elevated topography and the general topographic variability of the area.

Distance to modern or ancient water sources is generally accepted as the most important determinant of past human settlement patterns and, considered alone, may result in a determination of archaeological potential. However, any combination of two or more other criteria, such as well-drained soils or topographic variability, may also indicate archaeological potential. Finally, extensive land disturbance can eradicate archaeological potential (Government of Ontario 2011).

Distance to water is an essential factor in archaeological potential modeling. When evaluating distance to water it is important to distinguish between water and shoreline, as well as natural and artificial water sources, as these features affect site locations and types to varying degrees. The MHSTCI (Government of Ontario 2011) categorizes water sources in the following manner:

- Primary water sources: lakes, rivers, streams, creeks;
- Secondary water sources: intermittent streams and creeks, springs, marshes and swamps;
- Past water sources: glacial lake shorelines, relic river or stream channels, cobble beaches, shorelines of drained lakes or marshes; and
- Accessible or inaccessible shorelines: high bluffs, swamp or marshy lake edges, sandbars stretching into marsh.

Buells Creek bisects the study area between the North Augusta Road and Stewart Boulevard. Grants Creek runs along the north side of the extreme west end of the study area. The St. Lawrence River is located 1.6 km to the southeast of the study area. There are several other watercourses within close proximity to the study area, including Butlers Creek on the south side of the study area.

Soil texture can be an important determinant of past settlement, usually in combination with other factors such as topography. Of the soils identified, Farmington loam is suitable for agriculture. The other soils, Hinchinbrooke loam and Napanee clay are poorly drained and are not suitable for agriculture. A total of eight registered archaeological sites are located within one kilometre of the study area. Of these, seven are Euro-Canadian and one is pre-contact Indigenous.

For Euro-Canadian sites, archaeological potential can be extended to areas of early Euro-Canadian settlement, including places of military or pioneer settlements; early transportation routes; properties listed on the municipal register or designated under the *Ontario Heritage Act* (Government of Ontario 1990b); and properties that local histories or informants have identified with possible historical events,



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activities or occupations. Historic mapping from 1861 shows that much of the land in the township had been settled and most lots are depicted as having an owner and containing a structure.

The property visit demonstrated that parts of the study area beyond the existing Highway 401 ROW, approximately 30.9%, retain archaeological potential and consist of undeveloped wood lot, manicured lawn, or scrubland. Areas identified as having no or low archaeological potential were also identified and confirmed during the property visit and comprise the footprints of existing roadways and buildings (66.8%), existing low and permanently wet areas (1.5%), steep slopes (0.7%), and exposed bedrock (0.1%).



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4.0 RECOMMENDATIONS

The Stage 1 archaeological assessment, involving background research and a property inspection, resulted in the determination that portions of the study area retain potential for the identification and recovery of archaeological resources. In accordance with Section 1.3.1 and Section 7.7.4 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), **Stage 2 archaeological assessment is required for any portion of the Project's anticipated construction which impacts an area of archaeological potential (Figure 6).**

The objective of the Stage 2 archaeological assessment will be to document any archaeological resources within the portions of the study area still retaining archaeological potential and to determine whether these archaeological resources require further assessment. The Stage 2 archaeological assessment will include the systematic walking of open ploughed fields as outlined in Section 2.1.1 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The MHSTCI's standards further require that all agricultural land, both active and inactive, be recently ploughed and sufficiently weathered to improve the visibility of archaeological resources. Ploughing must be deep enough to provide total topsoil exposure, but not deeper than previous ploughing, and must provide at least 80% ground surface visibility.

For areas inaccessible for ploughing, the Stage 2 archaeological assessment will include test pit survey as outlined in Section 2.1.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The MHSTCI's standards require that each test pit be at least 30 centimetres in diameter, excavated to at least five centimetres in to subsoil, and have soil screened through six millimetre hardware cloth to facilitate the recovery of any cultural material that may be present. Prior to backfilling, each test pit will be examined for stratigraphy, cultural features, or evidence of fill.

Should any additional areas of disturbance or features indicating that archaeological potential have been removed, including permanently wet areas and steep slopes, not previously identified during the Stage 1 property inspection be encountered during the Stage 2 archaeological assessment, they will be documented as outlined in Section 2.1.8 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

The remaining parts of the study area were demonstrated to be composed of previously disturbed roadways and associated rights-of-ways, areas of low and wet ground, areas of steep slope, and exposed bedrock. These areas were identified as having low to no archaeological potential. In accordance with Section 1.3.2 and Section 7.7.4 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), **Stage 2 archaeological assessment is not required for any portion of the Project's anticipated construction which impacts an area of low to no archaeological potential (Figure 6).**

The MHSTCI is asked to accept this report into the *Ontario Public Register of Archaeological Reports*.



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5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the Minister of Heritage, Sport, Tourism and Culture Industries as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c. O.18 (Government of Ontario 1990b). The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection, and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Heritage, Sport, Tourism, and Culture Industries, 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* (Government of Ontario 1990b) 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 fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the *Ontario Public Register of Archaeological Reports* referred to in Section 65.1 of the *Ontario Heritage Act* (Government of Ontario 1990b).

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* (Government of Ontario 1990b). The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990b).

The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (Government of Ontario 2002) requires that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Government and 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, or have artifacts removed from them, except by a person holding an archaeological license.



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Images
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7.0 IMAGES

7.1 PHOTOS

Photo 1: General ground conditions, area of archaeological potential, facing north



Photo 2: General ground conditions, area of archaeological potential, facing northeast



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Images
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Photo 3: General ground conditions, area of archaeological potential, facing southwest



Photo 4: General ground conditions, area of archaeological potential, facing northeast



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Photo 5: General ground conditions, area of archaeological potential, facing northeast



Photo 6: General ground conditions, area of archaeological potential, facing southwest



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Images
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Photo 7: General ground conditions, area of archaeological potential, facing southwest



Photo 8: General ground conditions, area of archaeological potential, facing northeast



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Photo 9: General ground conditions, area of archaeological potential, facing northeast



Photo 10: General ground conditions, area of archaeological potential, facing south



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Photo 11: Low and wet area – low to no archaeological potential, facing south



Photo 12: Low and wet area – low to no archaeological potential, facing northeast



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Photo 13: Low and wet area, note water-resistant species – no archaeological potential, facing east



Photo 14: Exposed bedrock – no archaeological potential, facing northeast



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Photo 15: Steep slope – low to no archaeological potential, facing northeast



Photo 16: Area of archaeological potential and area of previous disturbance – low to no archaeological potential, facing northeast



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Photo 17: Area of previous disturbance from highway construction and ditching within the RoW and paving outside of the RoW– low to no archaeological potential, facing southwest



Photo 18: Area of previous disturbance, steep slope, and low and wet ground – low to no archaeological potential, facing northeast



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Photo 19: Area of previous disturbance – low to no archaeological potential, facing north



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Closure
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9.0 CLOSURE

This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential archaeological resources associated with the identified property.


All information received from the client or third parties in the preparation of this report has been assumed by Stantec to be correct. Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

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Quality Review  _____
(signature)

Colin Varley – Senior Associate, Senior Archaeologist

Independent Review  _____
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