

ARCHEOWORKS INC.

**Stage 1 Archaeological Assessment for the
Proposed Development of Highway 400 & Harvie Road Lands
Within Part of Lots 6 and 7, Concession 12
Geographic Township of Innisfil
Historical County of Simcoe
Now in the City of Barrie
Ontario**

**Project #: 123-BA2795-20
Licensee (#): Ian Boyce (P1059)
PIF#: P1059-0136-2021**

Original Report

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**Presented to:
Barrie-Bryne Developments Limited
3200 Highway 7
Vaughan, Ontario
L4K 5Z5
T: 905.326.6400**

**Prepared by:
Archeoworks Inc.
16715-12 Yonge Street, Suite 1029
Newmarket, Ontario
L3X 1X4
T: 416.676.5597
F: 647.436.1938**

EXECUTIVE SUMMARY

Archeoworks Inc. was retained by *Barrie-Bryne Developments Limited* to conduct a Stage 1 Archaeological Assessment (AA) in support of the proposed development of lands lying immediately south of Harvie Road and west of Highway 400 ("study area"). The study area encompasses Part of Lots 6 and 7, Concession 12, in the Geographic Township of Innisfil, former County of Simcoe, now in the City of Barrie, Ontario.

Stage 1 AA background research established elevated potential for the recovery of archaeologically significant materials within the study area due to the presence and/or close proximity of several registered archaeological sites, watercourses and a historic road. A desktop review of aerial imagery, past archaeological reports, and detailed topographic mapping was undertaken. Research identified the sanitary trunk sewer corridor traversing the study area as previously disturbed, and also identified the entire study area as previously subjected to an archaeological assessment. However there are still outstanding archaeological concerns that require addressing.

The following recommendations are presented:

1. Given the findings and recommendations in the relevant Stage 4 mitigation report and associated addendum have not been verified, the immediate area of the Molson (BcGw-27) site is provisionally considered to still have outstanding archaeological concerns and will require Stage 4 mitigation prior to development impacts. Should the report and addendum documenting the 1999-2000 Stage 4 mitigations become available, these recommendations may be amended.
2. Any soil-intrusive work on the balance of the study area, including the 20-metre wide sanitary trunk sewer easement that traverses the southern part of the Molson site, must be monitored by a licensed archaeologist, given the risk of impacting unidentified ossuaries tied to previously identified Huron-Wendat archaeological sites in proximity.

No construction activities shall take place within the study area prior to the *Ministry of Heritage, Sport, Tourism and Culture Industries* (Archaeology Programs Unit) confirming in writing that all archaeological licensing and technical review requirements have been satisfied.

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PROJECT PERSONNEL

Project Director Ian Boyce – MHSTCI licence P1059

Historical Research..... Lee Templeton – MHSTCI licence R454

Report Preparation Jay Allen Villapando

Graphics Jay Allen Villapando

Report Review..... Kim Slocki – MHSTCI licence P029

1.0 PROJECT CONTEXT

1.1 Objective

The objectives of a Stage 1 Archaeological Assessment (AA), as outlined by the 2011 *Standards and Guidelines for Consultant Archaeologists* ('2011 S&G') published by the *Ministry of Heritage, Sport, Tourism and Culture Industries* (MHSTCI) (2011), are as follows:

- To provide information about the property's geography, history, previous archaeological fieldwork and current land condition;
- To evaluate in detail, the property's archaeological potential, which will support recommendations for a Stage 2 survey for all parts of the property; and
- To recommend appropriate strategies for a Stage 2 survey.

1.2 Development Context

Archeoworks Inc. was retained by *Barrie-Bryne Developments Limited* to conduct a Stage 1 AA in support of the proposed development of lands lying immediately south of Harvie Road and west of Highway 400, within Ward 7 of the City of Barrie, Ontario. This approximately 33.261-hectare property, which excludes the Bryne Drive extension right-of-way (ROW), will be the subject of the report documented herein and referred to as the "study area." The study area encompasses Part of Lots 6 and 7, Concession 12, in the Geographic Township of Innisfil, former County of Simcoe, now in the City of Barrie, Ontario (*see Appendix A – Map 1*).

This study was triggered by the *Ontario Planning Act*. This Stage 1 AA was conducted pre-submission under the project direction of Mr. Ian Boyce, under the archaeological consultant licence number P1059, in accordance with the *Ontario Heritage Act* (1990; amended 2021) and the 2011 S&G. Permission to investigate the study area was granted by *Barrie-Bryne Developments Limited* on November 19, 2021.

1.3 Historical Context

To establish the historical context and archaeological potential of the study area, *Archeoworks Inc.* conducted a review of Indigenous and Euro-Canadian settlement history, and a review of historical mapping and aerial imagery. The results of this background research are documented below and summarized in **Appendix B – Summary of Background Research**.

1.3.1 Pre-Contact Period

The pre-contact period of Southern Ontario includes numerous Indigenous groups that continually progressed and developed within the environment they inhabited (Ferris, 2013, p.13). **Table 1** includes a brief overview and summary of the pre-contact Indigenous history of Southern Ontario.

Table 1: Pre-Contact Period

Periods	Date Range	Overview and Attributes
PALEO-INDIAN (Early)		
Early	ca. 11000 to 8500 BC	Small groups of nomadic hunter-gatherers who utilized seasonal and naturally available resources; sites are rare; hunted in small family groups who periodically gathered into larger groups/bands during favourable periods in the hunting cycle; campsites used during travel episodes and found in well-drained soils in elevated situations; sites found primarily along glacial features (e.g., glacial lake shorelines/strandlines) due to current understanding of regional geological history; artifacts include fluted and lanceolate stone points, scrapers and dart heads. - Gainey, Barnes, Crowfield Fluted Points (Early Paleo-Indian) - Holcombe, Hi-Lo, Lanceolates (Late Paleo-Indian) (Ellis and Deller, 1990, pp.37-64; Ellis, 2013, p.37; Wright, 1994, p.25).
Late	ca. 8500 to 7500 BC	
ARCHAIC (Middle)		
Early	ca. 7800 to 6000 BC	Descendants of Paleo-Indian ancestors; lithic scatters are the most commonly encountered site type; trade networks appear; artifacts include reformed fluted and lanceolate stone points with notched bases to attach to wooden shaft; ground-stone tools shaped by grinding and polishing; stone axes, adzes and bow and arrow; Shield Archaic in Northern Ontario introduced copper tools; oral traditions of the Algonquian-speaking <i>Michi Saagiig</i> (Mississauga Anishinaabeg) assert that they, “are the descendants of the ancient peoples who lived in Ontario during the Archaic and Paleo-Indian periods” (Gitiga Migizi and Kapyrka, 2015, p.1). - Side-notched, corner-notched, bifurcate projectile points (Early Archaic) - Stemmed, Otter Creek/Other Side-notched, Brewerton side and corner-notched projectile points (Middle Archaic) - Narrow Point, Broad Point, Small Point projectile points (Late Archaic) (Dawson, 1983, pp.8-14; Ellis et al., 1990, pp.65-124; Ellis, 2013, pp.41-46; Wright, 1994, pp.26-28).
Middle	ca. 6000 to 2000 BC	
Late	ca. 2500 to 500 BC	
WOODLAND (Late)		
Early	ca. 800 BC to AD 1	Evolved out of the Late Archaic Period; introduction of pottery (ceramic) where the earliest were coil-formed, under fired and likely utility usage; two primary cultural complexes: Meadowood (broad extent of occupation in southern Ontario) and Middlesex (restricted to Eastern Ontario); poorly understood settlement-subsistence patterns; artifacts include cache blades, and side-notched points that were often recycled into other tool forms; primarily Onondaga chert; commonly associated with Saugeen and Point Peninsula complexes. - Meadowood side-notched projectile points (Dawson, 1983, pp.15-19; Ferris and Spence, 1995, pp.89-97; Gagné, 2015; Spence et al., 1990, pp.125-142; Williamson, 2013, pp.48-61; Wright, 1994, pp.29-30).
Middle	ca. 200 BC to AD 700	Three primary cultural complexes in Southern Ontario: Point Peninsula (generally located throughout south-central and eastern Southern Ontario), Saugeen (generally located southwestern Southern Ontario), and Couture (generally located in southwestern-most part of Ontario); “given the dynamics of hunter-gatherer societies, with high levels of interaction and intermarriage among neighbouring groups, one would not expect the existence of discrete cultures” and the “homogeneity of these complexes have been challenged” (Ferris and Spence, 1995, p.98); introduction of large “house” structures and

Periods	Date Range	Overview and Attributes
		substantial middens; settlements have dense debris cover indicating increased degree of sedentism; incipient horticulture; burial mounds present; shared preference for stamped, scallop-edged or tooth-like decoration, but each cultural complex had distinct pottery forms; Laurel Culture (ca. 500 BC to AD 1000) established in boreal forests of Northern Ontario. - Saugeen Point projectile points (Saugeen) - Vanport Point projectile points (Couture) - Snyder Point projectile points - Laurel stemmed and corner-notched projectile points (Dawson, 1983, pp.15-19; Ferris and Spence, 1995, pp.97-102; Gagné, 2015; Hessel, 1993, pp.8-9; Spence et al., 1990, pp.142-170; Williamson, 2013, pp.48-61; Wright, 1994, pp.28-33; Wright, 1999, pp.629-649).
Late Woodland		
Late (Transitional)	ca. AD 600 to 1000	According to their oral traditions, to the south of the study area and along the north shore of Lake Ontario was occupied throughout the entire Late Woodland Period by the <i>Michi Saagiig</i> (Mississauga Anishinaabeg); their traditional territory extended north to the tributaries that flow into Lake Ontario and Lake Erie, from Bancroft to the Haliburton highlands where they would hunt and trap during the winter months, followed by a return to Lake Ontario in the spring and summer (Gitiga Migizi and Kapyrka, 2015, p.1). Earliest Iroquoian development in Southern Ontario is Princess Point which exhibits few continuities from earlier developments with no apparent predecessors; hypothesized to have migrated into Ontario; the settlement data is limited, but oval houses are present; introduction of maize/corn horticulture; artifacts include 'Princess Point Ware' vessels that are cord roughened, with horizontal lines and exterior punctation; smoking pipes and ground stone tools are rare; continuity of Princess Point and Late Woodland Iroquoian groups. - Triangular projectile points (Ferris and Spence, 1995, pp.102-106; Fox, 1990, pp.171-188; Gitiga Migizi and Kapyrka, 2015, pp.1-3).
Early	ca. AD 900 to 1300	Two Iroquoian cultures in Southern Ontario: Glen Meyer (located primarily in southwestern Ontario from Long Point on Lake Erie to southwestern shore of Lake Huron) and Pickering (encompassed north of Lake Ontario to Georgian Bay and Lake Nipissing); early houses were small and elliptical; developed into multi-family longhouses and some small, semi-permanent palisade villages; adoption of greater variety of harvest goods; increase in corn-yielding sites; well-made and thin-walled clay vessels with stamping, incising and punctation; crudely made smoking pipes, and worked bone/antler present; evolution of ossuary burials; grave goods are rare and not usually associated with a specific individual. - Triangular-shaped, basally concave projectile points with downward projecting corners or spurs (Ferris and Spence, 1995, pp.106-109; Williamson, 1990, pp.291-320).
Middle	ca. AD 1300 to 1400	Two Iroquoian cultures in Southern Ontario: Uren and Middleport; increase in village sizes (0.5 to 1.7 hectares) and campsites (0.1 to 0.6 hectares) appear; some with palisades; classic longhouse takes form; increasing reliance on maize and other cultigens such as beans and squash; intensive exploitation of locally available land and water resources; decorated clay vessels decrease; well-developed clay pipe complex that includes effigy pipes; from Middleport emerged the Huron-Wendat, Petun, Neutral Natives and the Erie. - Triangular and (side of corner or corner removed) notched projectile points

Periods	Date Range	Overview and Attributes
		- Middleport Triangular and Middleport Notched projectile points (Dodd et al., 1990, pp.321-360; Ferris and Spence, 1995, pp.109-115).
Late	ca. AD 1400 to 1600	<p>Algonquian groups of the Anishinaabeg (e.g., Ojibway, Chippewa, Odawa, Mississaugas, Algonquin, and others) maintained stable relations with Iroquoian groups (e.g., Huron-Wendat, Neutral, Petun) who continued to establish settlements in southern Ontario, according to Mississauga Anishinaabeg oral tradition (Gitiga Migizi and Kapyrka, 2015, p.1).</p> <p>Two major Iroquoian groups: the Neutral Natives to the west, and the Huron-Wendat to the east of the Niagara Escarpment; Huron-Wendat “villages are distributed in clusters along the north shore of Lake Ontario from just west of Toronto to Belleville and north in a triangular area bounded on the Northeast by the Trent River system, and on the west roughly by the Niagara escarpment” (Ramsden, 1990, p.363); within this large area, Huron-Wendat “concentrations of sites occur in the areas of the Humber River valley, the Rouge and Duffin Creek valleys, the lower Trent valley, Lake Scugog, the upper Trent River and Simcoe County” (Ramsden, 1990, p.363); Nine-Mile Portage from Kempenfeldt Bay to Willow Creek, a branch of the Nottawasaga River that connected Lake Ontario to Lake Huron through Simcoe County; longhouse; villages enlarged to 100 longhouses clustered together as horticulture (maize, squash and beans) gained importance in subsistence patterns; villages chosen for proximity to water, arable soils, available fire wood and defensible position; diet supplemented with fish; ossuaries; tribe/band formation; relocation to north of Lake Simcoe (“Huronía”).</p> <p>- Huron-Wendat points are limited but change from predominantly side-notched to unnotched triangular.</p> <p>(Ferris and Spence, 1995, pp.115-122; Heidenreich, 1978, pp.368-388; Hunter, 1909a, p.80; Jury and Jury, 1956, p.2; Ramsden, 1990, pp.361-384; Warrick, 2000, p.446; Warrick, 2008, p.15).</p>

1.3.2 Contact Period

The contact period of Southern Ontario concerns the two centuries following the arrival of the first Europeans to the region. **Table 2** includes an overview of some of the main developments that occurred during this time.

Table 2: Contact Period

Period	Date Range	Overview and Attributes
European Contact	ca. AD 1600s	<p>Numerous Huron-Wendat villages north of Lake Simcoe in and around the City of Barrie (“Huronía”); multiple Huron-Wendat villages are located in and within one-kilometres of the study area (<i>see Table 4</i>); on the Vespra/Innisfill town line was a village where, “on the Innisfil side of the town line, near the shore of Kempenfeldt Bay...there was discovered a large ossuary in the year 1846” (Hunter, 1907; p.56); trade relationship with Huron-Wendat and French establish; trade goods begin to replace traditional tools/items; Jesuit missionaries; epidemics (Heidenreich, 1978, pp.368-388; Trigger, 1994, pp.47-55; Warrick, 2008, pp.12, 245).</p>

Period	Date Range	Overview and Attributes
Five Nations of Iroquois (Haudenosaunee) Arrival	ca. AD 1650s	The Five (later Six) Nations (Mohawk, Seneca, Oneida, Onondaga and Cayuga; later included the Tuscarora) of Iroquois (or Haudenosaunee), originally located south of the Great Lakes, engaged in warfare with Huron-Wendat neighbours as their territory no longer yielded enough furs; the Five Nations, armed with Dutch firearms, attacked and destroyed numerous Huron-Wendat villages in 1649-50; the small groups that remained became widely dispersed throughout the Great Lakes region, ultimately resettling in Quebec, in southwestern Ontario and in America; Five Nations (particularly the Seneca) established settlements along the Lake Ontario shoreline at strategic locations along canoe-and-portage routes and used this territory for extensive fur trade; Five Nations believed to have established a settlement near Orillia after driving out the Huron-Wendat, but this is unconfirmed; European fur trade and exploration continues (Abler and Tooker, 1978, p.506; Hunter, 1909a, p.10; Robinson, 1965, pp.15-16; Schmalz, 1991, pp.12-34; Trigger, 1994, p.53-59; Williamson, 2013, p.60).
Anishinaabeg Return	ca. AD 1650s to 1700s	Algonquian-speaking groups within the Anishinaabeg (Ojibway, Chippewa, Odawa, Mississaugas, Algonquin, and others) returned from the north to their traditional territory of Southern Ontario; “some writers have asserted that these Algonquin [sic] tribes came from the north shore of Georgian Bay and spread over the abandoned country of the Hurons’ but one should not forget the populous tribes of Algonquins who, in the time of the early Jesuits had a mission among them, lived in the Townships of North and South Orillia” (Hunter, 1909a, p.10); “there are no existing records to show that these tribes were ever completely displaced from their ancient possessions, although it is natural to suppose the massacres perpetrated by the Iroquois in their neighbourhood would inspire them to fear and cause them to retreat for at least a brief period” (Hunter, 1909a, p.10); battles fought throughout Southern Ontario, ultimately resulting in most of the Five Nations being driven out and returning to their lands south of the Great Lakes (and some remained in parts of Southern Ontario); the English referred to those Algonquian-speaking linguistic and cultural groups that settled in the area bounded by Lakes Ontario, Erie, and Huron as Chippewas or Ojibwas (Smith, 2002, p.107); the Ojibway and Chippewa settled in the County of Simcoe by the 18 th century (Gibson, 2006, pp.35-41; Hathaway, 1930, p.433; Hunter, 1909a, p.10; Johnston, 2004, pp.9-10; Smith, 2013, pp.16-20; Trigger, 1994, pp.57-59; Williamson, 2013, p.60).
Trade, Peace and Conflict	ca. AD 1700 to 1780s	Great Peace negotiations of 1701 in Montreal established peace around the Great Lakes; collectively referred to the Anishinaabeg and Five Nations of Iroquois as the First Nations; European commerce and exploration resumed; the Anishinaabeg continued to trade with both the English and the French; beginnings of the Métis and their communities; skirmishes between France and Britain as well as their respective First Nations allies erupt in 1754 (“French and Indian Wars”) and forms part of the larger Seven Years’ War; French defeat transferred the territory of New France to British control; Treaty of Paris (1763); Royal Proclamation of 1763 “states explicitly that Indigenous people reserved all land not ceded by or purchased from them” (Hall, 2019a); the Proclamation established framework for how treaties were negotiated (by only the King or an assigned representative of the King, and only at a public meeting called for this specific purpose) and established the “constitutional basis for the future negotiations of Indigenous treaties in British North America” (Hall, 2019a); the Proclamation established the British administration of North American territories ceded by France to Britain; uprising by several First Nations groups against British

Period	Date Range	Overview and Attributes
		("Pontiac's War"); fur trade continued until Euro-Canadian settlement (Hall, 2019a; Jaenen, 2013; Johnston, 2004, pp.13-14; Schmalz, 1991, pp.35-62, 81; Surtees, 1994, pp.92-97).
Early British Administration and Euro-Canadian Settlement	ca. AD 1770s to 1800s	American Revolutionary War (1775-1783) drove large numbers of United Empire Loyalists (those who were loyal to the British Crown), military petitioners, and groups who faced persecution in the United States to re-settle Upper Canada; Treaty of Paris (1783) formally recognized the independence of the United States; Province of Quebec divided in 1791 into sparsely populated Upper Canada (now southern Ontario) and culturally French Lower Canada (now southern Quebec); Jay's Treaty of 1795 establishes American/Canadian border along the Great Lakes; large parts of Upper Canada opened to settlement from the British Isles and continental Europe after land cession treaties were negotiated by the British Crown with various First Nations groups (Department of Indian Affairs, 1891; Government of Ontario, 2021; Hall, 2019b; Jaenen, 2014; Surtees, 1994, p.110; Sutherland, 2014).
British Land Treaties	ca. AD 1790s to 1830s	In 1793 Lieutenant-Governor John Graves Simcoe arrived at Penetanguishene Bay and sought to establish a fort should the Americans provoke war; William Claus, Superintendent of Indian Affairs, bargained on behalf of the British Government for a tract of land adjacent to the harbour of Penetanguishene, and purchased the tip of the peninsula for cloth, blankets and kettles valued at £101 of Quebec currency, known as Treaty No.5; in 1818, William Claus and by asked for over a million hectares to the west and south of Lake Simcoe from "certain Anishinaabe peoples" (Government of Ontario, 2021) and advised that Euro-Canadian settlement in this area would take several years; the government agreed to payment of goods in 'Montreal Price' since the economic hub of Upper and Lower Canada was Montreal; this became known as Treaty 18, or Lake Simcoe-Nottawasaga Treaty; the land that would become the Township of Innisfil was included in Treaty No.18 (Department of Indian Affairs, 1891, p.xxx; Government of Ontario, 2014; Government of Ontario, 2021; Hunter, 1909a, pp.12-14; Pencen Museum, 2013; Surtees, 1994, pp.109, 111-116).

1.3.3 Euro-Canadian Settlement Period (1800s to present)

1.3.3.1 Township of Innisfil

The Township of Innisfil was surveyed in 1820 and contained 68,653 acres of rolling terrain that was mostly clay loam soils. Shortly after the completion of the survey of Innisfil, the Hewson Family, lead by Francis Hewson, arrived in the Township of Innisfil and settled on the point of land at the entrance to Kempenfeldt Bay, then called Hewson's Point. Before 1830, few settlers had farms in the Township of Innisfil, but those early settlers include the Clement Family, the McLean family, the Willson Family, the Laird Family, and the Rogerson Family. Scottish settlers who had left Scotland after the passing of the Reform Bill, settled closely together in the southeastern part of the Township while a large community of Irish settled in the west and southwestern part of the Township. By 1850, 1,887 individuals resided within the Township of Innisfil and the township had one grist, five sawmills and cultivated acreage that exceeded fifty percent. Agriculture is the main industry within the Township of Innisfil with a "considerable

amount of lumbering done within its borders" (H. Belden & Co., 1881, p.14; Hunter, 1909b, pp.53-68; Smith, 1851, pp.53-54).

1.3.3.2 Hamlet of Allandale

Allandale, located northeast of the study area, primarily formed after the Northern Railway was established through the community in 1853. In 1857 and 1859, the Town of Barrie petitioned to extend the boundaries of Barrie to annex Allandale and the station grounds, but was unsuccessful (Hunter, 1909a, p.180). In 1873, it was described as, "a pretty post village in Simcoe co., Ont., on Kempenfeldt Bay, an arm of Lake Simcoe, with a station on the N. R., 63 miles from Toronto. It contains a telegraph office, and several stores and saw mills. Pop. 200" (Crossby, 1873, p.18). In 1883 Allandale petitioned to be incorporated as a village, but this did not occur; instead Allandale was annexed to the City of Barrie in 1896 (Hunter, 1909b, p.210; Barrie Advance, 2016).

1.3.4 Past Land Use

1.3.4.1 Pre-1900 Land Use

Several documents were reviewed to gain an understanding of the land use history and of the study area's potential for the recovery of historic pre-1900 remains, namely *Hogg's Map of the County of Simcoe* (1871) and the *Simcoe Supplement* of the *Illustrated Atlas of the Dominion of Canada* (1881) (**see Maps 2-3; Table 3**).

Table 3: Summary of Structures and Property Owners/Occupants documented in Historical Maps

Con.	Lot	Part	Owner/Occupant		Structure(s) in the Study Area	
			1871	1881	1871	1881
12	6	NE¼	J. Harris	(Unlisted)	-	-
	7	N½	W. Little	(Unlisted)	-	-

No historic structures are depicted in or within 300 metres of the study area in both the 1871 *Hogg's Map* and the 1881 *Simcoe Supplement* of the *Illustrated Atlas*. It should be kept in mind, however, that not all structures would have been depicted in the map, as the *Illustrated Atlas* required a paid subscription from area residents to have their residences depicted and properties identified; some did not subscribe to avail of the service (Benson, 1944, p.4).

In addition, the study area fronts along a historic transportation route that was established during the survey of the Township of Innisfil as the road allowance between Concessions 12 and 13: present-day Harvie Road. In Ontario, the 2011 S&G considers areas of early Euro-Canadian settlements (e.g., pioneer homesteads, isolated cabins, farmstead complexes, early wharf or dock complexes, pioneer churches, and early cemeteries), early historic transportation routes (e.g., trails, passes, roads, railways, portage routes), and properties that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations, as features or characteristics that indicate archaeological potential (per *Section 1.3.1*). Therefore, based on the proximity of both early Euro-Canadian settlements and early historic transportation routes, these features contribute to establishing the archaeological potential of the study area.

1.3.4.2 Post-1900 Land Use

To further evaluate the established archaeological potential within the study area, a detailed review of topographic maps and aerial imagery from the 20th and 21st centuries was performed.

Military topographic maps from the first half of the 20th century (*see Map 4*) show that the study area was mostly cleared, except for the tree-lined boundary between Lots 6 and 7, and the wooded southeast corner where a Lovers Creek tributary begins. The closest farmhouse was located just outside the property boundary, along the north side of Whiskey Creek. By 1950 Highway 400 had been constructed along the study area's east margin.

Aerial imagery from the second half of the 20th century (*see Map 5*) show that the study area remained largely unchanged, with the exception of the construction of trails by the 1990s. The main trail branch mostly follows the alignment of a buried sanitary sewer.

More recent imagery from the 21st century (*see Map 6*) shows that by 2002 a portion along the northern boundary of the study area appear to have been graded. By 2013 more minor trails had also been constructed in the central portion of the study area. By 2018 most of the brush and tree cover had been eliminated, except for the portions along the Whiskey Creek (northeast) and Lovers Creek (south).

1.3.5 Present Land Use

As of January 2018 the approved land uses within the study area are General Commercial (east part), General Industrial (west part) and Environmental Protection Area (areas flanking the Whiskey and Lovers Creeks) (City of Barrie, 2021). However, the property is currently vacant, with row crop farming occurring in the interim.

1.4 Archaeological Context

To establish the archaeological context and further establish the archaeological potential of the study area, *Archeoworks Inc.* conducted a comprehensive review of the local archaeological management plan, designated and listed cultural heritage resources, heritage conservation districts, commemorative markers, and pioneer churches and early cemeteries in relation to the study area. Furthermore, an examination of registered archaeological sites and previous AAs within proximity to the study area limits, and a review of the physiography of the study area were performed. The results of this background research are documented below and summarized in **Appendix B – Summary of Background Research**.

1.4.1 Archaeological Management Plan

Per *Section 1.1, Standard 1* of the 2011 S&G, when available, an archaeological management plan (AMP) or other archaeological potential mapping must be reviewed. The City of Barrie does not have a publicly available AMP.

1.4.2 Designated and Listed Cultural Heritage Resources

Per *Section 1.3.1* of the *2011 S&G*, properties listed on a municipal register or designated under the *Ontario Heritage Act*, or that is a federal, provincial, or municipal historic landmark or site, are considered features or characteristics that indicate archaeological potential. The study area is not located in or within 300 metres of a designated or listed cultural heritage resource (City of Barrie, 2021). Therefore, this feature does not contribute to establishing the archaeological potential of the study area.

1.4.3 Heritage Conservation Districts

Per *Section 1.3.1* of the *2011 S&G*, heritage resources listed on a municipal register or designated under the *Ontario Heritage Act* are considered features or characteristics that indicate archaeological potential. The study area is not located in or within 300 metres of a Heritage Conservation District (MHSTCI, 2019). Therefore, this feature does not contribute to establishing the archaeological potential of the study area.

1.4.4 Commemorative Plaques or Monuments

Per *Section 1.3.1* of the *2011 S&G*, commemorative markers of Indigenous and Euro-Canadian settlements and history which may include local, provincial, or federal monuments, cairns or plaques, or heritage parks are considered features or characteristics that indicate archaeological potential. The study area is not located in or within 300 metres of a commemorative plaque or monument (OHT, 2021). Therefore, this feature does not contribute to establishing the archaeological potential of the study area.

1.4.5 Pioneer/Historic Cemeteries

Per *Section 1.3.1* of the *2011 S&G*, pioneer churches and early cemeteries are considered features or characteristics that indicate archaeological potential. No pioneer churches or early cemeteries are located in or within 300 metres of the study area (OGS, 2021). Therefore, this feature does not contribute to establishing the archaeological potential of the study area.

1.4.6 Registered Archaeological Sites

Per *Section 1.1, Standard 1* and *Section 7.5.8, Standard 1* of the *2011 S&G*, the *Ontario Archaeological Sites Database* (OASD) maintained by the MHSTCI was consulted in order to provide a summary of registered or known archaeological sites within a minimum one-kilometre distance of the study area limits. According to the OASD there are 19 registered archaeological sites that lie within one kilometre of the study area (MHSTCI, 2021). Of these, one is located within the study area, and two are located within 300 metres of the study area (*see Table 4*).

BcGw-15 and BcGw-93 are located more than 50 metres away from the study area limits and will not be impacted by the proposed development. However, most of the BcGw-27 (Molson) site is encompassed within the study area limits.

Table 4: Registered Archaeological Sites within One Kilometre of the Study area

Borden #	Name	Cultural Affiliation	Type
Registered archaeological sites within the study area			
BcGw-27	Molson	Late Woodland (Indigenous)	Village
Other archaeological sites within 300 metres of the study area			
BcGw-15	Little	Late Woodland (Iroquoian)	Village
BcGw-93	-	Late Woodland (Huron-Wendat)	Village
Other archaeological sites within one kilometre of the study area			
BbGw-15	Veterans Drive	Post-Contact (Euro-Canadian)	Homestead
BbGw-23	Talls Trees	Post-Contact (Euro-Canadian)	Homestead
BbGw-29	Timothy	Late Archaic	Findspot
BbGw-92	Lockhart West	Post-Contact (Euro-Canadian)	Dump
BcGw-101	BcGw-101	Woodland	Unknown
BcGw-26	Wiacek	Late Woodland (Iroquoian)	Hamlet, village
BcGw-28	Little 2	Late Woodland (Indigenous)	Village
BcGw-29	Birch	Pre-Contact (Iroquoian); Post-Contact (Euro-Canadian)	Cabin
BcGw-30	IF 7	-	-
BcGw-31	Gnarly Man	Post-Contact (Euro-Canadian)	Cabin
BcGw-36	Pern	Early Archaic	Findspot
BcGw-51	Spruce Hollow	Pre-Contact (Indigenous)	Unknown
BcGw-52	Poplar	Middle Archaic	Findspot
BcGw-86	Hatinienhwi'skwa	Late Woodland	Village
BcGw-95	Little-Johnstone	Post-Contact (Euro-Canadian)	Homestead

"-" denotes details not provided in OASD

Per *Section 1.3.1* of the *2011 S&G*, previously registered archaeological sites in close proximity to the study area are considered to be features or characteristics that indicate archaeological potential. Therefore, given the presence of one archaeological site and the proximity of two more sites, this feature contributes to establishing the archaeological potential of the study area.

1.4.7 Previous Archaeological Assessments

Per *Section 1.1, Standard 1* and *Section 7.5.8, Standards 4-5* of the *2011 S&G*, to further establish the archaeological context of the study area, a review of previous AAs carried out within the limits of, or immediately adjacent (e.g., within 50 metres) to the study area (as documented by all available reports) was undertaken. Eleven previous AA reports was identified (*see Table 5*).

Table 5: Previous Archaeological Assessments within 50 m of the Study Area

Company, Year	Stage of Work	Relation to Current Study Area	Details & Recommendations
Lennox, 2000	Stage 4 excavation (equivalent)	Encompasses part of study area	Report documenting results of fieldwork at BcGw-27 (Molson) during the period 1984-1985; this site is mostly located within the study area. Under the direction of Paul Lennox, the excavations resulted in the identification of a series of 12 longhouses, as well as other out-of-house (midden, bog) features. The entire site had not yet been fully excavated by the late 1990s (see below).

**STAGE 1 AA FOR HIGHWAY 400 & HARVIE ROAD LANDS
CITY OF BARRIE, ONTARIO**

Company, Year	Stage of Work	Relation to Current Study Area	Details & Recommendations
AMICK, 1999	Stage 1-3 AA	Encompasses entire study area	Stage 1-3 AA for the Lorne Properties lands located west of Highway 400 and south of Harvie Road. Specifically relevant to the current study area, field survey of the property resulted in the collection of surface artifacts from BcGw-27 (Molson), a Huron-Wendat village sites first documented by Jamie Hunter in 1976 and excavated partially by Paul Lennox in 1984-1985. Further Stage 4 mitigative excavation was recommended for BcGw-27, as approximately only 70% of the site had been subjected to salvage excavation up to this point. Conditional clearance was recommended for the balance of the property lying outside the two archaeological sites.
AMICK, 2003; 2010	Stage 4 mitigation	Encompasses part of study area	Documentation of the 1999 Stage 4 mitigative excavations at BcGw-27 (Molson). A copy of the 2003 report and its 2010 addendum has been requested. As of the time of writing both documents have not yet been received.
AMICK, 2005	Stage 1 AA	Encompasses part of study area	Stage 1 AA for the Bryne Drive Extension Municipal Class EA. Further Stage 2 survey was recommended in undisturbed lands, including a segment of the proposed road alignment that falls within the study area.
ASI, 2017	Stage 1 AA	Encompasses part of study area	Stage 1 AA for the Harvie Road Improvements Municipal Class EA. The strip of undisturbed land immediately south of Harvie Road was recommended to be subjected to further Stage 2 survey.
ASI, 2018a	Stage 2 AA	Within 50 m of study area limits	Stage 2 AA for the Harvie Road Improvements Municipal Class EA. No archaeological resources were identified, but construction monitoring was recommended to minimize the risk of impacting possible ossuaries tied to nearby Huron-Wendat villages (Little/BcGw-15, Wiacek/BcGw-26, Molson/BcGw-27, Little 2/BcGw-28; Hatinienhwi'skwa/BcGw-86 and Kha'ajati'nienha'/BcGw-87).
A.M. Archaeological Associates, 2011	Stage 1 AA	Encompasses of part of study area	Stage 1 AA for the New Crossing of Highway 400 at Harvie Road and Big Bay Point Road. Undisturbed lands immediately south of Harvie Road and west of Highway 400 was recommended to be subjected to further Stage 2 survey.
A.M. Archaeological Associates, 2015	Stage 2 AA	Within 50 m of study area limits	Stage 2 AA for the New Crossing of Highway 400 at Harvie Road and Big Bay Point Road. BcGw-93 site was identified during survey, and was recommended to be subjected to Stage 3 AA. However, the site is located more than 50 metres from the current study area limits and will not be impacted by the proposed development.
ASI, 2018b	Stage 2 AA	Within 50 m of study area limits	Stage 2 AA of additional areas for the New Crossing of Highway 400 at Harvie Road and Big Bay Point Road. No archaeological resources were identified, but construction monitoring was recommended to minimize the risk of impacting possible ossuaries tied to nearby Huron-Wendat villages (Little/BcGw-15, Wiacek/BcGw-26, Molson/BcGw-27, Little 2/BcGw-28; Hatinienhwi'skwa/BcGw-86 and Kha'ajati'nienha'/BcGw-87).

Company, Year	Stage of Work	Relation to Current Study Area	Details & Recommendations
ASI, 2021	Stage 2 AA	Encompasses part of study area	Stage 2 AA for the Detailed Design of the Bryne Drive Extension project. No archaeological resources were identified, but construction monitoring was recommended to minimize the risk of impacting possible ossuaries tied to nearby Huron-Wendat villages (Little/BcGw-15, Wiacek/BcGw-26, Molson/BcGw-27, Little 2/BcGw-28; Hatinienhwi'skwa/BcGw-86 and Kha'ajati'nienha'/BcGw-87).

1.4.8 Physical Features

An investigation of the study area's physical features was conducted to aid in the development of an argument for archaeological potential based on the environmental conditions of the study area. Environmental factors such as close proximity to water, soil type, and nature of the terrain, for example, can be used as predictors to determine where human occupation may have occurred in the past.

1.4.8.1 Physiographic Region

The study area is located in the Peterborough Drumlin Field physiographic region of Southern Ontario. This region lies between the Oak Ridges Moraine and the area of shallow overburden on the limestone's of the Gull River Formation. There is a rolling till plain, extending from Hastings County in the east to Simcoe County in the west, and includes the drumlins south of the moraine in Northumberland County. For the most part, the rock underlying this region is limestone of the Lindsay and Verulam Formations which are somewhat softer and less massive formations than the Gull River Formation. The Peterborough drumlin field is notable for its eskers as well as its drumlins. While the eskers are perhaps the most striking features of the plain, apart from the drumlins themselves, they are not as important in respect to soils as the deposits of clay which lie between the drumlins in some area (Chapman & Putnam, 1984, pp.169-172).

1.4.8.2 Soil Types and Topography

Several soil types are found within the study area including Dundonald sandy loam and Tioga sandy loam. The majority of the study area falls within Tioga sandy loam, while a small portion of the study area along the western limit of the study area is located within Dundonald sandy loam. A summary is presented in **Table 6** (Ontario Agricultural College & Canada Department of Agriculture, 1959).

Table 6: Study Area Soil Types

Soil Series and Type	Great Soil Group	Drainage	Topography / Surface Stoniness	Soil Materials
Dundonald sandy loam	Grey-Brown Podzolic	Good	Smooth, gently sloping / Stonefree	Outwash sand underlain by grey calcareous loam or sandy loam till at depths of 3 feet or less.
Tioga sandy loam	Podzol	Good	Smooth, gently to irregular, steeply sloping / Stonefree to moderately stony.	Grey, calcareous outwash sand.

The topography within the study area decreases in elevation from north to south, measuring between 288 and 304 metres above sea level.

1.4.8.3 Water Sources

Hydrological features such as primary water sources (e.g., lakes, rivers, creeks, streams) and secondary water sources (e.g., intermittent streams and creeks, springs, marshes, swamps) would have helped supply plant and food resources to the surrounding area and are indicators of archaeological potential (per *Section 1.3.1* of the *2011 S&G*). Tributaries of the Whiskey and Lovers Creeks are encompassed within the study area. Therefore, this feature contributes to establishing the archaeological potential of the study area.

1.4.9 Current Land Conditions

The study area encompasses undeveloped vacant lands, mostly cleared of shrubs and trees vegetation except for the areas immediately flanking the Whiskey and Lovers Creeks.

1.4.10 Date of Desktop and Field Reviews

A desktop review of field conditions using current and historical aerial imagery was undertaken on January 6th, 2021.

1.5 Confirmation of Archaeological Potential

Based on the information gathered from the background research documented in the preceding sections, elevated archaeological potential has been established within the study area limits. Features contributing to archaeological potential are summarized in **Appendix B**. However, it must be noted that post-1900 developments can negate the possibility of encountering intact archaeological deposits due to deep and extensive soil disturbances. Further assessment of conditions within the study area will be addressed in **Section 3.0**.

2.0 ANALYSIS AND CONCLUSIONS

Information from the detailed topographic map provided by the proponent was combined with data gathered from the background research (*see Sections 1.3 and 1.4*), to evaluate of the established archaeological potential of the study area. The results of this evaluation are presented in **Map 7**.

2.1 Previous Assessments

The Indigenous Molson Site, located entirely within the subject lands, was initially investigated from 1984 to 1985; the results of these excavations documented in a bulletin titled, “*The Molson Site: An Early Seventeenth Century, First National Settlement, Simcoe County, Ontario*” (Lennox, 2000). Follow-up Stage 2 AA of the remainder of the current study area limits occurred in 1999. As noted in the 1999 assessment report, approximately 70% of Molson Site area was estimated to have been subjected to 1984-1985 salvage excavation during the 1984-1985 investigations (AMICK, 1999, p.24). While no additional archaeological sites were encountered within the current study area limits during the Stage 2 AA, owing to the results of the 1984-1985 excavation, namely that portions of the Molson Site remained unexcavated, Stage 4 mitigation was recommended for the unexcavated balance of the Molson Site (AMICK, 1999, p. 24).

Stage 4 excavation of the remainder of the Molson Site appears to have occurred between 1999 and 2000 as evidenced both by the title of the AMICK report, *Report on the 1999-2000 Stage 4 Excavation of the Molson Site (BcGw-27), Lorne Properties Proposed Subdivision Draft Plan #43T-00505, Lot 4 & Part of Lots 3, 5, 6, & 7, Registered Plan 67, Part of Lot 7, Concession 12, City of Barrie (formerly Innisfil Township), Simcoe* (AMICK, 2003) and by a review of 2002 satellite imagery which reveals that the topsoil within the Molson site area had been removed (*see Map 6 – 2002 image*), presumably during Stage 4 mitigation activities. However, until full review of the Stage 4 mitigation report and associated addendum can occur (AMICK, 2003; AMICK, 2010)¹, confirmation of completed Stage 4 mitigations as well as any outstanding archaeological concerns tied to the Molson Site remains outstanding and the site area is still considered to have outstanding archaeological concerns.

Finally, it must be noted that more recent fieldwork within (ASI, 2021) and immediately outside (ASI, 2018a; ASI, 2018b) the study area limits recommended that construction activities be monitored by a licensed archaeologist owing to the risk of encountering ossuaries tied to the many Huron-Wendat archaeological sites located within a 1000-metre radius. Guidance from the MHSTCI was sought on the matter and the recommendation of construction monitoring received concurrence on February 25, 2022 (*see attached Supplementary Document – Section 2.0*).

¹ Multiple attempts to retrieve copies of the Stage 4 Excavation report and addendum via contact with the City of Barrie and the MHSTCI were made (*see Supplementary Document – Section 1.0*). However, retrieval and review of these documents remained outstanding at the time of report completion.

2.2 Recent Disturbances

Review of detailed mapping provided by the proponent and aerial imagery from 1990 onwards (*see Maps 5-6*) confirm that a sanitary trunk sewer traverses the study area in a general easterly/northerly direction. While the installation of the trunk sewer sometime in the late 1980s to mid-1990s may have caused deep and extensive disturbance along the 20-metre wide easement the nature, the depth and extent of these disturbances cannot be confirmed. As such, the entire length of the sanitary trunk sewer easement, including the segment encompassed within the 50-metre buffer zone of the Molson site, will require construction monitoring (*see Map 7*).

3.0 RECOMMENDATIONS

Considering the findings detailed in the previous sections, the following recommendations are presented:

1. Given the findings and recommendations in the relevant Stage 4 mitigation report and associated addendum have not been verified, the immediate area of the Molson (BcGw-27) site is provisionally considered to still have outstanding archaeological concerns and will require Stage 4 mitigation prior to development impacts. Should the report and addendum documenting the 1999-2000 Stage 4 mitigations become available, these recommendations below may be amended.

The **Molson (BcGw-27)** site represents an Indigenous settlement site that has significant cultural heritage value or interest, and requires Stage 4 mitigation prior to development impacts. According to *Sections 3.5 and 4.2* of the *2011 S&G*, the preferred approach is avoidance and protection of the site. As such, the following options were presented and discussed with the proponent: project redesign; excluding the area of the archaeological site; or incorporating the area of the archaeological site into the project design. It was subsequently determined that the portion of this site lying within the project area limits cannot be avoided or protected (*see Supplementary Document – Section 3.0*); therefore, the site must be subjected to a comprehensive Stage 4 archaeological excavation in accordance with the requirements set within *Sections 4.2.1 (General Excavation Requirements), 4.2.2 (Excavation by Hand), 4.2.3 (Excavation by Mechanical Topsoil Removal), 4.2.4 (Site-Specific Requirements: Woodland Archaeological Site), 4.3 (Determining the Extent of Excavations)* and *4.4 (Collecting Soil Samples)* of the *2011 S&G*.

Note that the recommendations below do not apply to the sanitary trunk sewer easement that traverses the southern part of the Molson site buffer zone. Due to presumed deep disturbance occurring during sewer installation, this corridor is recommended to be subjected to construction monitoring (see Recommendation #2).

STAGE 4 EXCAVATION:

Per *Section 4.2.2* of the *2011 S&G*, hand excavation “is the preferred technique for documenting the full range of materials and formation processes at an archaeological site.” Additionally, *Section 4.2.4, Standard 1* of the *2011 S&G* requires Woodland-period sites be subjected to hand excavation of ploughzone midden areas, followed by mechanical topsoil removal on the remainder of the site. With previous fieldwork having fulfilled the objectives of hand excavation of the ploughzone (Lennox, 2000; AMICK, 1999) and that topsoil disruption has occurred twice previously during both the 1984-1985 salvage excavation and again during the presumed 1999-2000 Stage 4 mitigation, further hand excavation of additional contiguous one-metre square units (“block excavation”) is not recommended.

Mechanical Topsoil Removal Recommendations

Stage 4 mitigations are to commence with mechanical topsoil removal over the entirety of the Molson (BcGw-27) site area where feasible and not restricted by the project area limits, in accordance with *Section 4.2.3* of the *2011 S&G*.

Topsoil stripping must be carried out using a Gradall machine or back hoe with a smooth bucket under the supervision of a licenced archaeologist. Mechanical topsoil removal must stop at or above the topsoil/subsoil interface. In accordance with *Section 4.3, Table 4.1* of the *2011 S&G* mechanical topsoil removal must extend a minimum of 10 metres beyond uncovered cultural features where possible (e.g., where not restricted by the property limits).

Other Requirements

All exposed subsoil surfaces must be cleaned by shovel (“shovel shine”) or trowel to aid in identifying subsurface cultural features. All identified cultural features must be hand-excavated by systematic levels and fully documented only after complete exposure, except when not possible (e.g., where full exposure is restricted by the project limits). All cultural features must be hand-excavated according to *Section 4.2.4, Standards 3-6* of the *2011 S&G*. All hand-excavated soils must be screened through mesh with an aperture of no greater than six-millimetres to facilitate artifact recovery, with the exception of any samples retrieved from appropriate cultural features that are reserved for specialist analysis. Any soil samples taken for flotation and specialist analysis must be collected in accordance with *Section 4.4* of the *2011 S&G*. All cultural features must be documented with photographs and drawings according to *Section 4.2.1, Standard 9* of the *2011 S&G*, mapped and recorded relative to either: a grid approximating the one established during the 1984-1985; or — due to the lack of a recorded site datum — a newly created grid, with the results of earlier fieldwork also mapped in to as accurate as possible.

A thorough record of on-site investigations, including field notes, maps and photographs, should be maintained. Finally, a report documenting the methods and results of excavation and laboratory analysis, together with an artifact inventory, and all necessary cartographic and photographic documentation should be produced in accordance with the licensing requirements of the *MHSTCI*.

2. In line with more recent recommendations (ASI, 2018a; 2018b; 2021) any soil-intrusive work on the balance of the study area, including the sanitary trunk sewer alignment, must be monitored by a licensed archaeologist, given the risk of impacting unidentified ossuaries tied to previously identified Huron-Wendat archaeological sites in close proximity.

No construction activities shall take place within the study area prior to the *MHSTCI* (Archaeology Program Unit) confirming in writing that all archaeological licensing and technical review requirements have been satisfied.

4.0 ADVICE ON COMPLIANCE WITH LEGISLATION

1. This report is submitted to the *MHSTCI* as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 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 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 *MHSTCI*, 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.
2. 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 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 Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
3. Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.
4. The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 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*.
5. Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.

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5.2 Map Sources

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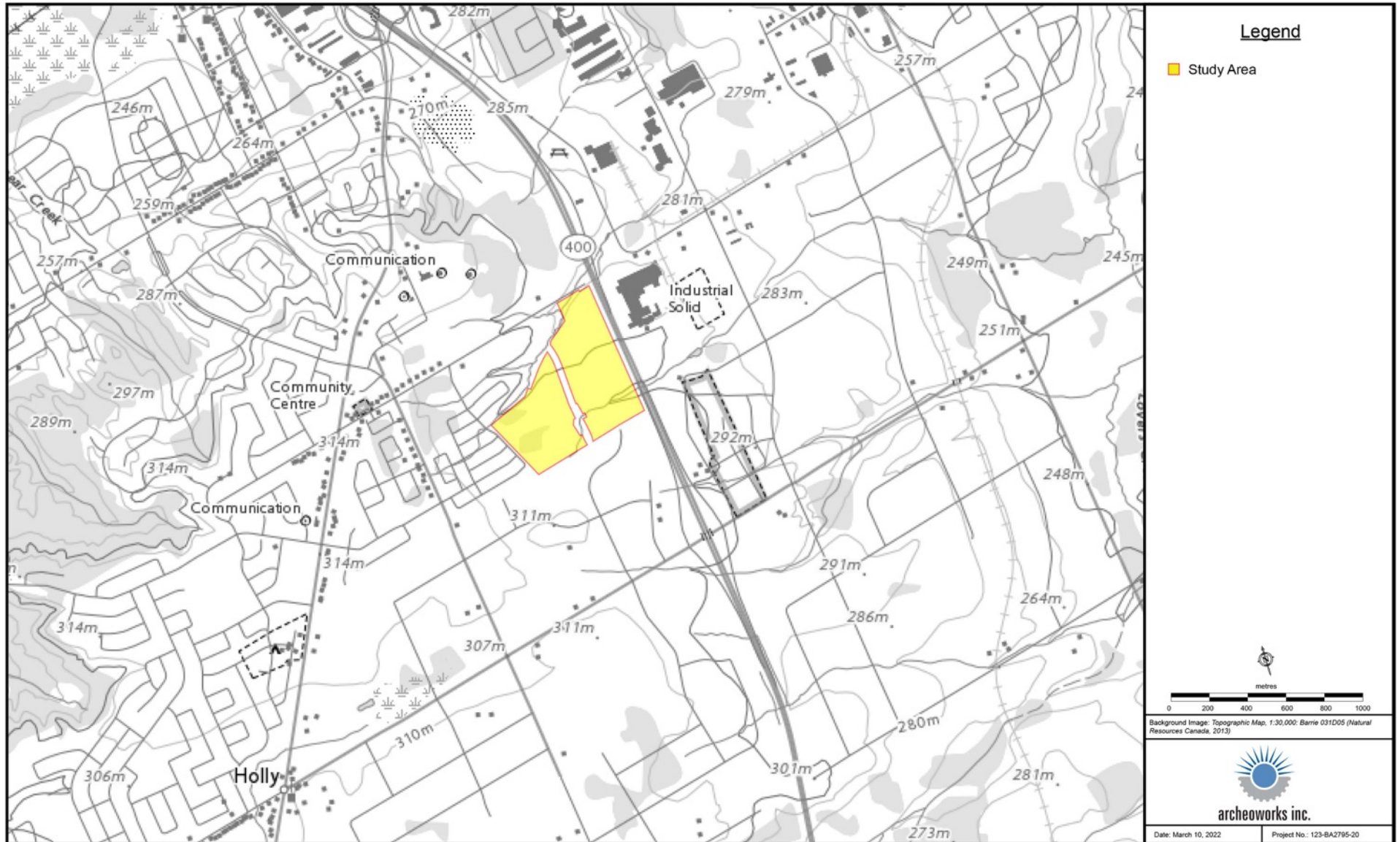
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VuMAP ©First Base Solutions

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APPENDICES

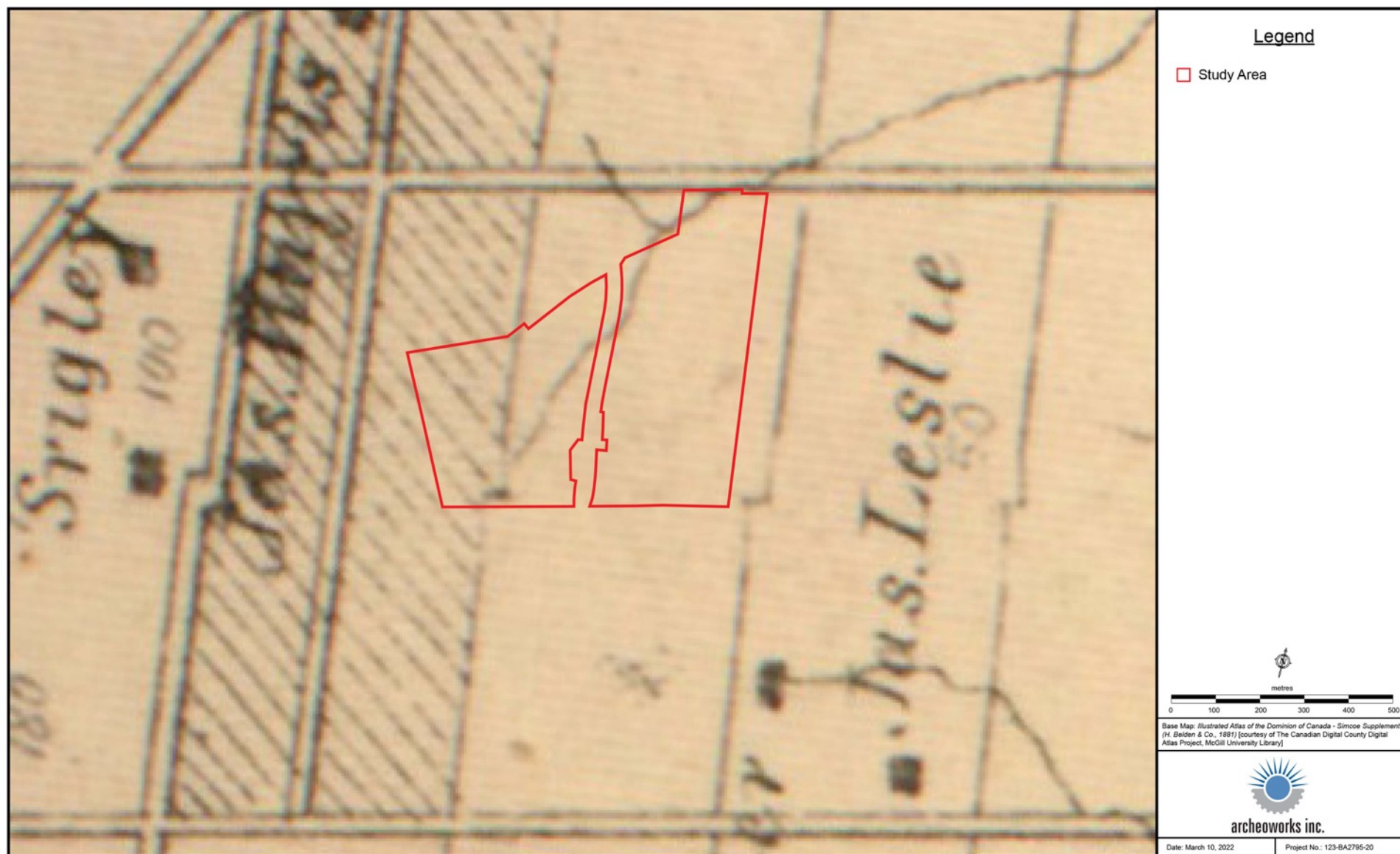
APPENDIX A: MAPS



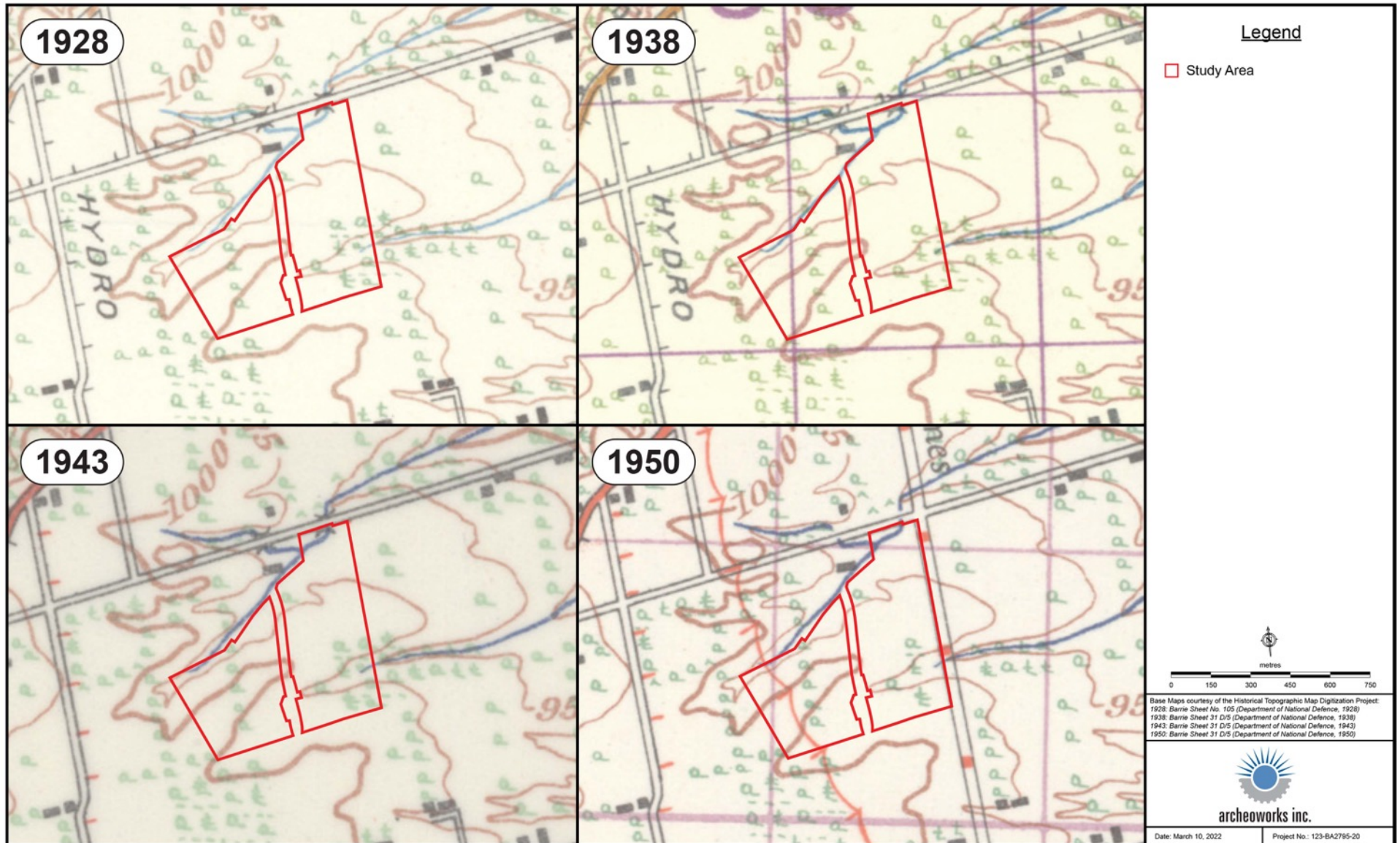
Map 1: Topographic map section identifying the Stage 1 AA study area.



Map 2: Study area within Hogg's Map of the County of Simcoe (Hogg, 1871).



Map 3: Study area within the *Simcoe Supplement of the Illustrated Atlas of the Dominion of Canada* (H. Belden & Co., 1881).



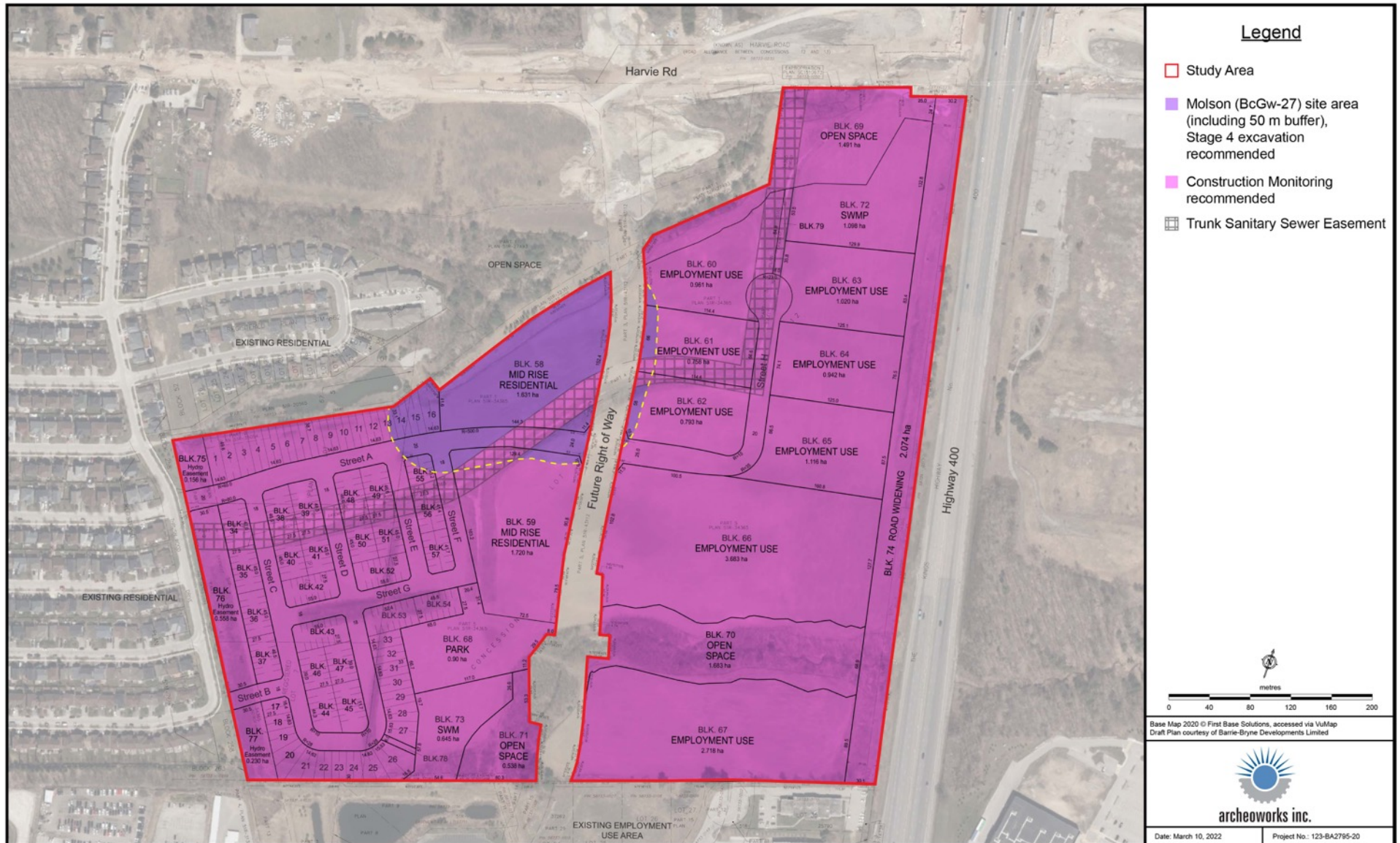
Map 4: Study area within topographic maps dating to the first half of the 20th century.



Map 5: Study area within aerial imagery dating to the second half of the 20th century.



Map 6: Study area within more recent orthoimagery.



Map 7: Stage 1 AA results. A more detailed version showing the extent of the 1984-1985 salvage excavations is provided in **Section 4.0** of the **Supplementary Document**.

APPENDIX B: SUMMARY OF BACKGROUND RESEARCH

Feature of Archaeological Potential		Yes	No	Unknown	Comment
1	Known archaeological sites within 300 m?	X			If Yes, potential confirmed
Physical Features		Yes	No	Unknown	Comment
2	Is there water on or adjacent to the property?	X			If Yes, potential confirmed
2a	Presence of primary water source within 300 metres of the study area (lakes, rivers, streams, creeks)	X			If Yes, potential confirmed
2b	Presence of secondary water source within 300 metres of the study area (intermittent creeks and streams, springs, marshes, swamps)		X		If Yes, potential confirmed
2c	Features indicating past presence of water source within 300 metres (former shorelines, relic water channels, beach ridges)		X		If Yes, potential confirmed
2d	Accessible or inaccessible shoreline (high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh)		X		If Yes, potential confirmed
3	Elevated topography (knolls, drumlins, eskers, plateaus, etc.)		X		If Yes to two or more of 3-5 or 7-10, potential confirmed
4	Pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground		X		If Yes to two or more of 3-5 or 7-10, potential confirmed
5	Distinctive land formations (mounds, caverns, waterfalls, peninsulas, etc.)		X		If Yes to two or more of 3-5 or 7-10, potential confirmed
Cultural Features		Yes	No	Unknown	Comment
6	Is there a known burial site or cemetery that is registered with the Cemeteries Regulation Unit on or directly adjacent to the property?		X		If Yes, potential confirmed
7	Associated with food or scarce resource harvest areas (traditional fishing locations, food extraction areas, raw material outcrops, etc.)		X		If Yes to two or more of 3-5 or 7-10, potential confirmed
8	Indications of early Euro-Canadian settlement (monuments, cemeteries, structures, etc.) within 300 metres		X		If Yes to two or more of 3-5 or 7-10, potential confirmed
9	Associated with historic transportation route (historic road, trail, portage, rail corridor, etc.) within 100 metres of the property	X			If Yes to two or more of 3-5 or 7-10, potential confirmed
Property-specific Information		Yes	No	Unknown	Comment
10	Contains property designated under the Ontario Heritage Act		X		If Yes, potential confirmed
11	Local knowledge (Indigenous communities, heritage organizations, municipal heritage committees, etc.)		X		If Yes, potential confirmed
12	Recent ground disturbance, not including agricultural cultivation (post-1960, extensive and deep land alterations)	X - parts			If Yes, low archaeological potential is determined

APPENDIX C: INVENTORY OF DOCUMENTARY AND MATERIAL RECORD

Project Information:				
Project Number:		123-BA2795-20		
Licensee:		Ian Boyce (P1059)		
MHSTCI PIF:		P1059-0136-2021		
Document/Material			Location	Comments
1.	Research/ Analysis/ Reporting Material	Digital files stored in: /2020/123-BA2795-20 - Barrie Bryne/Stage 1/	Archeoworks Inc., 16715-12 Yonge Street Suite 1029 Newmarket, ON L3X 1X4	Stored on Archeoworks network servers

Under the Section 14 of the Terms and Conditions for Archaeological Licences issued under the *Ontario Heritage Act*, "the licensee shall hold in safekeeping all artifacts and records of archaeological fieldwork carried out under this licence, except where those artifacts and records are transferred by the licensee to Her Majesty the Queen in right of Ontario or the licensee is directed to deposit them in a public institution in accordance with subsection 66(1) of the Act." The collections are being stored at Archeoworks Inc. on the licensee's behalf.