Appendix D STAGE 1 ARCHAEOLOGICAL ASSESSMENT

Stage 1 Archaeological Assessment: Bass Pro Mills Drive, from Highway 400 to Weston Road

Part of Lots 13 and 14, Concessions 5 and 6, Geographic Township of Vaughan, York County, now the City of Vaughan, Regional Municipality of York, Ontario.

February 26, 2021

Prepared for:

Hilda Esedebe
City of Vaughan
2141 Major Mackenzie Dr
Vaughan, ON L6A 1T1
Tel: 403-920-5063
Email: hilda.esedebe@vaughan.ca

Prepared by:

Stantec Consulting Ltd.
300W-675 Cochrane Dr
Markham, ON L3R 0B8

Licensee: Caitlin Simmons, M.Sc.
License Number: P1060
PIF Numbers: P1060-0099-2020
Project Number: 160540006

ORIGINAL REPORT

Table of Contents

LIST OF TABLES

LIST OF FIGURES

Executive Summary

Stantec Consulting Ltd. (Stantec) was retained by the City of Vaughan to conduct a Stage 1 archaeological assessment as part of a Municipal Class Environmental Assessment (EA) for the Bass Pro Mills Drive Extension Project (the Project) located on part of Lots 13 and 14, Concessions 5 and 6, Geographic Township of Vaughan, York County, now the City of Vaughan, Regional Municipality of York, Ontario. The study area consists of approximately 31 hectares of fallow agricultural land, scrubland, roads and highways, residential and commercial space, and manicured lawn and spans from the existing terminus of Bass Pro Mills Drive at Highway 400, westerly to Weston Road between Rutherford and Langstaff roads. A property inspection was conducted on November 4, 2020 under Project Information Form (PIF) Number P1060-0099-2020 issued to Caitlin Simmons, M.Sc., by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI).

The Stage 1 archaeological assessment, involving background research and a limited property inspection, resulted in the determination that a portion of the study area retains 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), a **Stage 2 archaeological assessment is recommended for the portion of the study area retaining archaeological potential.** The Stage 1 archaeological assessment also determined that portions of the study area are permanently low and wet, steeply sloped, or show signs of previous ground disturbance and do not retain potential for the identification or recovery of archaeological resources. 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), a **Stage 2 archaeological assessment is not required for any portion of the study area that retains low to no archaeological potential.**

As per Section 2.6.2 of the 2020 *Provincial Policy Statement* (PPS), "development and site alteration shall not be permitted on lands containing archaeological resources or **areas of archaeological potential** unless significant archaeological resources have been conserved". Under the PPS, development is defined as "the creation of a new lot, a change in land use, or the construction of buildings and structures requiring approval under the *Planning Act*"; site alteration is defined as "activities, such as grading, excavation and the placement of fill that would change the landform and natural vegetative characteristics of a site"; and conserved is defined as "the identification, protection, management and use of built heritage resources, cultural heritage landscapes and archaeological resources in a manner that ensures their cultural heritage value or interest is retained under the *Ontario Heritage Act*. This may be achieved by the implementation of recommendations set out in a conservation plan, archaeological assessment, and/or heritage impact assessment. Mitigative measures and/or alternative development approaches can be included in these plans and assessments".

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

The Executive Summary highlights key points from the report only; for complete information and findings, the reader should examine the complete report

Project Personnel

Project Manager:	Peter Cholewa, P.Eng.
Licensed Archaeologist:	Caitlin Simmons, M.Sc. (P1060)
Field Director:	Kristen Hahne, BA (R1154)
Report Writer:	Caitlin Simmons, M.Sc. (P1060)
GIS Analyst:	Julie Werner, BA, GISP
Quality Review:	Colin Varley, MA, RPA (P002)
Independent Review:	Tracie Carmichael, BA, B.Ed. (R140)

Acknowledgements

Proponent Contact:	Hilda Esedebe, Transportation Project Manager, City of Vaughan
Ministry of Heritage, Sport, Tourism, and Culture Industries:	Rob von Bitter, Data Coordinator

1.0 PROJECT CONTEXT

1.1 DEVELOPMENT CONTEXT

Stantec Consulting Ltd. (Stantec) was retained by the City of Vaughan to conduct a Stage 1 archaeological assessment as part of a Municipal Class Environmental Assessment (EA) of Bass Pro Mills Drive, from Highway 400 to Weston Road(the Project) located on part of Lots 13 and 14, Concessions 5 and 6, Geographic Township of Vaughan, York County, now the City of Vaughan, Regional Municipality of York, Ontario (**Figure 1**). The proposed extension of Bass Pro Drive is classified as a Schedule C project under the Municipal Class EA process. Schedule C projects require the preparation and filing of an Environmental Study Report (ESR) for review by the public and relevant agencies, which includes an archaeological assessment (Municipal Engineers Association 2015).

The Project was recommended as part of the City's 2014 *Vaughan Mills Centre Secondary Plan* (City of Vaughan 2014). This extension would serve as an internal road to service the area and will help to distribute east-west traffic, alleviating Rutherford Road to the north, and providing another route connection for York Region Transit. As such, the study area consists of approximately 31 hectares of fallow agricultural land, scrubland, roads and highways, residential and commercial space, and manicured lawn and spans from the existing terminus of Bass Pro Mills Drive at Highway 400, westerly to Weston Road between Rutherford and Langstaff roads (**Figure 2**).

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 Overview/Background Study 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 a Stage 2 survey for all or parts of the property; and
- To recommend appropriate strategies for a 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 historical 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 site visit to document existing ground conditions and confirm and presence or absence of features of archaeological potential.

Permission for Stantec staff to enter municipal property to conduct archaeological field work was provided by the City of Vaughan. No permission was granted to enter private property at the time of the Stage 1 site visit. Additional property review was conducted from publicly accessible roads and rights-of-way.

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 post-contact Indigenous occupation of southern Ontario was heavily influenced by the dispersal of various Iroquoian-speaking communities by the New York State Iroquois and the subsequent arrival of Algonkian speaking groups from northern Ontario at the end of the 17th century and the beginning of the 18th century (Konrad 1981; Schmalz 1991).

During the early post-contact period the north shore of Lake Ontario was occupied by two distinct peoples with different cultural traditions: the Michi Saagiig Nishnaabeg (Mississauga Anishinaabeg) and the Huron-Wendat. It has long been the understanding of archaeologists that prior to the 16th century the north shore of Lake Ontario was occupied by Iroquoian-speaking populations (Birch and Williamson 2013; Birch 2015; Dermarker et al. 2016). Recently, the direct correlation in Ontario between archaeology and ethnicity, and especially regional identity, has been questioned (cf. Fox 2015:23; Gaudreau and Lesage 2016:9-12; Ramsden 2016:124). Recent considerations of Indigenous sources on cultural history has led to the understanding that prior to the 16th century the north shore of Lake Ontario was co-habited by Iroquoian and more mobile Anishnaabeg populations (Kapyrka 2018), the latter of whom have not been represented in previous analyses of the archaeological record and most likely left a more ephemeral archaeological record than that of more densely populated agricultural settlements. The apparent void of semi-permanent village settlement along the north shore of Lake Ontario continued through the first half of the 17th century; however, this does not preclude the occupation of the region by mobile Anishnaabeg peoples. Both Huron and Mississauga traditional history indicate that the Huron-Wendat and Mississauga cohabited the region (Kapyrka 2018).

The Mississauga traditional homeland stretched along the north shore of Lake Ontario and its tributary rivers from present-day Gananoque in the east to Long Point on Lake Erie in the west. In the winter, the communities dispersed into smaller groups and travelled in-land to the north, to the area around present-day Bancroft and the Haliburton Highlands. Mississauga oral history relates that their ancestors occupied this part of southern Ontario from the time of the last deglaciation and continued to occupy it up to the start of the Contact period (Kapyrka 2018).

At the turn of the 17th century, the region of the study area was occupied by Iroquoian populations who are historically described as the Huron-Wendat (Birch 2015), but by the beginning of the 17th century, the region of the study area had been abandoned by the Huron-Wendat, who had re-settled north near modern-day Penetanguishene (Birch and Williamson 2013: 38-39). In 1649, the Seneca with the Mohawk led a campaign into the southern Ontario and dispersed the Attiwandaron (Neutral) Nations and the Seneca established dominance over the region (Heidenreich 1978; Konrad 1981).

In 1667, surviving Huron Wendat warriors joined alliance with the French-allied Ojibwa and Mississaugas to counterattack the Iroquois who had settled along the north shore of Lake Ontario. By 1690, Ojibwa (Anishinaabe) speaking people had begun moving south into the lower Great Lakes basin (Konrad 1981; Rogers 1978). Mississauga oral traditions, as told by Chief Robert Paudash and recorded in 1904, indicate that after the Mississauga defeat of the Mohawk Nation, who retreated to their homeland south of Lake Ontario, a peace treaty was negotiated between those groups. Upon the Mississaugas' return they decided to settle permanently in southern Ontario. These events occurred around 1695 (Praxis Research Associates n.d.). In southwestern Ontario, however, members of the Three Fires Confederacy (Chippewa, Ottawa and Potawatomi) were immigrating from Ohio and Michigan in the late 1700s (Feest and Feest 1978). Thus, numerous Indigenous groups are associated with the post-contact occupation of southern Ontario.

The study area is located in Vaughan Township approximately two kilometers east of the Toronto Carrying Place trail. This 45 kilometre portage route was a significant location for both Indigenous peoples and the French because of its location on the Humber River, which is part of the important transportation route from Lake Ontario to Lake Simcoe, the Upper Lakes and Georgian Bay (Reaman 1971). The Humber Trail, which linked Lake Ontario to the Holland River, is said to have begun at the first rapids of the Humber and travelled north following the east bank of the Humber closely until it reached the community at Pine Grove (Reaman 1971). This route was preferred by Indigenous peoples to the water routes on the Don, Rouge, or Humber Rivers as it allowed them to make one long portage rather than several shorter ones (Reaman 1971). The Toronto Carrying Place trail continued to be used by succeeding explorers, missionaries, and traders until Governor Simcoe constructed Yonge Street in 1795 (Given 1973).

European people began entering what is now Ontario in the early 1600s. Beginning in the late 18th century, numerous treaties and land purchases were negotiated and established between the Indigenous peoples already residing on the land and the Crown. The intent of these treaties, according to the Crown, was to open the land to occupation by European inhabitants. The study area is located within lands included as part of Treaty Number 13, also known as the Toronto Purchase, made between the Mississauga Nation and the Crown. The Toronto Purchase was discussed in 1787 by Sir John Johnson, head of the then-called 'Indian Department', at a council of the Mississaugas at the Bay of Quinte but no sale was made at this time (Mississaugas of the Credit First Nation n.d.) The Toronto Purchase was revisited in 1805 and the treaty was made thus:

> *[O]n the 23rd day of September, 1787, ... Sir John Johnson, representing the King and Wabukanyne, Neace and Paquan, Principal Chief and Warchiefs of the Mississa[auga]*

> *Nation at the Carrying Place, did execute an agreement for the purpose of conveying a tract of land to the King, but it has been ascertained that the Instrument was defective and imperfect, and nothing was done about carrying it out until the first day of August, 1805, an Indenture was made, at the River Credit at Lake Ontario, between William Claus, Esquire, Deputy Superintendent General and Deputy Inspector General of Indians and of their Affairs, for and in behalf of Our Sovereign Lord the King and the Principal Chiefs, Warriors and people of the Mississa[uga] Nation of Indians. This purchase ..., is known as the Toronto Purchase and described as follows: "Commencing at the east bank of the south outlet of the River Etobicoke; thence up the same following the several windings and turnings of the said river to a maple tree, blazed on 4 sides at a distance of three quarters in a straight line from the mouth of the said river; thence north twenty-two degrees west twenty-four miles and one quarter; thence north sixty-eight degrees east fourteen miles; thence south twenty-two degrees east twenty-eight miles more or less to Lake Ontario; then westerly along the water's edge of Lake Ontario, to the eastern bank of the south outlet of the River Etobicoke, being the place of beginning, together with all the woods and waters thereon." This last described parcel is only a small portion of the parcel, supposed to have been conveyed by the Indians, September 23rd, 1787, and the consideration demanded by the Indians was only ten shillings.*
>
> (Morris 1943:21-22)

While it is difficult to exactly delineate treaty boundaries today, **Figure 3** provides an approximate outline of the treaty described above, indicated by the letter "L", and the location of the study area.

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

1.2.2 Euro-Canadian Resources

In 1791, the Provinces of Upper Canada and Lower Canada were created from the former Province of Quebec by an act of British Parliament. At this time, Colonel John Graves Simcoe was appointed as the Lieutenant Governor of Upper Canada and was tasked with governing the new province, directing its settlement and establishing a constitutional government modelled after that of Britain (Coyne 1895). In 1792, Simcoe divided Upper Canada into 19 counties consisting of previously-settled lands, new lands opened for settlement, and lands not yet acquired by Crown. These new counties stretched from Essex in the west, to Glengarry in the east. By 1798, population levels in Upper Canada had increased to a point where it was desirable to create smaller administrative regions.

Much of the region surrounding the study area has been subject to European-style agricultural practices for over 100 years, having been settled by Euro-Canadian farmers by the late 19th century. Those parts of the region that have not yet been developed continue to be used for agricultural purposes. In discussing the late 19th century historical mapping, it must be remembered that historical county atlases were produced primarily to identify factories, offices, residences, public buildings, and landholdings of subscribers and were funded by subscription fees. Landowners who did not subscribe were not always listed on the maps (Caston 1997:100). As such, all structures were not necessarily depicted or placed accurately (Gentilcore and Head 1984). Further, review of historical mapping, including treaty maps, also has inherent accuracy difficulties due to potential error in geo-referencing. Geo-referencing is conducted by assigning spatial coordinates to fixed locations and using these points to spatially reference the remainder of the map. Due to changes in "fixed" locations over time (e.g., road intersections), errors/difficulties of scale and the relative idealism of the historical cartography, historical maps may not translate accurately into real space points. This may provide obvious inconsistencies during the historical map review.

1.2.2.1 County of York

York County was originally created in 1792 and was comprised of what is now the Regional Municipality of York, Regional Municipality of Peel, Regional Municipality of Halton, and the City of Toronto, as well as smaller parts of the Regional Municipality of Durham and the City of Hamilton. In 1816, Wentworth and Halton counties were distinguished from York County and in 1851 Ontario and Peel counties were separated from York County. Historically, the County of York included nine townships: Georgina, Gwillimbury, King, Whitchurch, Markham, Vaughan, Etobicoke, York, and Scarboro (or Scarborough).

The earliest immigrants of York County were United Empire Loyalists from the United States, followed by a second wave of settlers from the British Isles. This second wave of settlers reached its pinnacle between 1820 and 1840 (Reaman 1971). Railway development within York County began in 1852 as the Grand Trunk Railway was constructed between Montreal and Toronto. Today, this railway remains active and operates as part of the Canadian National Railway company. Construction of the Credit Valley Railway began in 1871 and was completed by 1881. In 1883, the railway was absorbed by the Ontario & Quebec Railway and later, by the Canadian Pacific Railway.

Township of Vaughan

Vaughan Township was initially surveyed in 1793, with the first Euro-Canadian inhabitants taking up permanent residence in 1796 (Reaman 1971). The township was named in honour of Benjamin Vaughan, who was one of the negotiators for the Treaty of Paris which ended the American Revolutionary War in 1783 (Rayburn 1997; Reaman 1971). By the 1840s, the township was noted for its excellent land and most of the lots along the Humber River were occupied (Reaman 1971).

The *Tremaine's Map of the County of York* (Tremaine 1860) indicates almost all of the available land had been claimed, with numerous farmsteads in the vicinity of the study area. The towns of Brownsville, Burwick (later renamed Woodbridge), and Pine Grove are well established to the southwest, and the Northern Railway connects Toronto to King along the east side of the township (**Figure 4**). The map of

Vaughan Township in the 1878 *Illustrated Historical Atlas of the County of York* (Miles & Co. 1878) depicts an agricultural landscape similar to Tremaine's map with a number of farmsteads; homesteads; orchards; the local road and railway system; and a number of villages and hamlets (**Figure 5**). Table 1 summarizes relevant landowner information as depicted in these 19th century historic maps (Tremaine 1860, Miles & Co. 1878).

Table 1: Applicable Landowner Information from 19th Century Historic Mapping

Lot	Conc.	Tremaine 1860		Miles & Co. 1878	
		Landowner	Comment	Landowner	Comment
13	5	Isaac Puterbaugh (Entire Lot)	No structures or features indicated	Jacob Puterbaugh (West Portion)	One structure and orchard fronting present-day Weston Road
				Isaac Van Puterbaugh (East Portion)	One structure set back from present-day Jane Street in the centre of the lot
14	5	Henry Dickhout (North Half)	No structures or features indicated	William Dickhout (North Half)	One structure set back from present-day Jane Street in the centre of the lot
		Peter Dickhout (South Half)	No structures or features indicated	John D. Kinnee (South Half)	One structure set back from present-day Jane Street
13	6	[?] Jarrott (Southeast Quarter)	No structures or features indicated	John Watson (Southeast Quarter)	One structure set back from present-day Weston Road
		M. Size (Northeast Quarter)	No structures or features indicated	Arthur McNeil (Northeast Quarter)	One structure fronting present-day Weston Road
14	6	Arthur McNeil (Entire Lot)	One structure fronting present-day Weston Road	Arthur McNeil (Entire Lot)	One structure and orchard fronting present-day Weston Road

1.2.3 Recent Land Use

Aerial imagery from the 20th and 21st century was reviewed to document modern land use and development within the study area (**Figure 6**). An aerial photo taken in 1970 (**Figure 6**, top panel) indicates the study area was still being used for agricultural purposes, with Highway 400 crossing the west and Weston Road crossing the east ends of the study area (City of Toronto 1970). There is minimal land development at this point. By 2002, there was still minimal development of the study area (**Figure 6**, middle panel); however, a residential subdivision has been constructed to the west of Weston Road and a number of commercial spaces have been cleared on the east side of Weston Road (York Region n.d.). The 2005 aerial imagery included in the lower panel of **Figure 6** indicates that the Bass Pro Mills Drive infrastructure has been constructed, including two ramps connecting Highway 400, and the storm water management pond within the western ramp area (York Region n.d.).

1.3 ARCHAEOLOGICAL CONTEXT

1.3.1 Natural Environment

The study area is situated within the Peel Plain physiographic region (Chapman and Putnam 1984). The Peel Plain is a region of level-to-undulating clay soils spanning the central portions of the Regional Municipalities of York, Peel and Halton and covering approximately 780 square kilometres (Chapman and Putnam 1984). The typical elevation ranges from 150 to 230 metres above sea level with a gradual, uniform slope directed toward Lake Ontario (Chapman and Putnam 1984). The area is riddled with deep valleys from water sources like the Credit, Humber, Don, and Rouge rivers and the Bronte, Oakville, and Etobicoke creeks (Chapman and Putnam 1984). The study area is also situated within a beveled till plain physiographic landform. Till plains are large expanses of unstratified glacial drift deposited by glaciers and consisting of clay, sand, gravel, or boulders intermixed in any proportion (Department of Agriculture 1976:40). The till plain within the study area was exposed following the retreat of the Laurentian glacier's Ontario lobe (Karrow and Warner 1990:15). The typical soil profile within the study area consists of Malton Clay, although there are also elements of Peel clay and Chinguacousy clay loam. Malton clay is a dark grey gleisolic soil with poor drainage and is generally only suited for growing hay or as pasturage (Hoffman and Richards 1955:73-74). Chinguacousy clay loam generally develops under woodlot vegetation and has imperfect drainage. It is most commonly used for dairy farming, with fertilizer additions needed for any cash crop growth (Hoffman and Richards 1995:41). Peel clay is another imperfectly drained soil formed from stone-free lacustrine materials. Of the three soils found within the study area it is the best suited for agricultural purposes but still required additional drainage considerations for a good harvest. Dairy farming is quite common, but Peel clay can also support alfalfa, corn, flax, and other cash crops (Hoffman and Richards 1995:71-72).

The closest water source to the study area is Black Creek, a tributary to the Humber River that runs through the western portion of the study area on the east side of Weston Road. Black Creek drains into the Humber River approximately 16 kilometres to the south of the study area. However, the East Humber River is located approximately two kilometres to the west of the study area.

1.3.2 Pre-Contact Indigenous Resources

It has been demonstrated that Indigenous people began occupying southern Ontario as the Laurentide glacier receded, as early as 9,000 BCE (Ellis and Ferris 1990:13). Much of what is understood about the lifeways of these Indigenous peoples is derived from archaeological evidence and ethnographic analogy. In Ontario, Indigenous culture prior to the period of contact with European peoples has been distinguished into cultural periods based on observed changes in material culture. These cultural periods are largely based in observed changes in formal lithic tools, and separated into the Early Paleo-Indian, Late Paleo-Indian, Early Archaic, Middle Archaic, and Late Archaic periods. Following the advent of ceramic technology in the Indigenous archaeological record, cultural periods are separated into the Early Woodland, Middle Woodland, and Late Woodland periods, based primarily on observed changes in formal ceramic decoration. It should be noted that these cultural periods do not necessarily represent specific cultural identities but are a useful paradigm for understanding changes in Indigenous culture

through time. The current understanding of Indigenous archaeological culture is summarized in Table 2 below, based on Ellis and Ferris (1990).

Table 2: Generalized Pre-Contact Indigenous Cultural Chronology for Southern Ontario

Period	Characteristics	Time Period	Comments
Early Paleo-Indian	Fluted Projectiles	9,000 – 8,400 BCE	spruce parkland/caribou hunters
Late Paleo-Indian	Hi-Lo Projectiles	8,400 – 8,000 BCE	smaller but more numerous sites
Early Archaic	Kirk and Bifurcate Base Points	8,000 – 6,000 BCE	slow population growth
Middle Archaic	Brewerton-like points	6,000 – 2,500 BCE	environment similar to present
Late Archaic	Narrow Points	2,000 – 1,800 BCE	increasing site size
	Broad Points	1,800 – 1,500 BCE	large chipped lithic tools
	Small Points	1,500 – 1,100BCE	introduction of bow hunting
Terminal Archaic	Hind Points	1,100 - 950 BCE	emergence of true cemeteries
Early Woodland	Meadowood Points	950 - 400 BCE	introduction of pottery
Middle Woodland	Dentate/Pseudo-Scallop Pottery	400 BCE – 500 CE	increased sedentism
	Princess Point	500 – 900 CE	introduction of corn
Late Woodland	Early Ontario Iroquoian	900 – 1300 CE	emergence of agricultural villages
	Middle Ontario Iroquoian	1300 – 1400 CE	long longhouses (100m +)
	Late Ontario Iroquoian	1400 – 1650 CE	tribal warfare and displacement

Between 9,000 and 8,000 BCE, Indigenous populations were sustained by hunting, fishing, and foraging and lived a relatively mobile existence across an extensive geographic territory. Despite these wide territories, social ties were maintained between groups, one method in particular was through gift exchange, evident through exotic lithic material documented on many sites (Ellis 2013:35-40).

By approximately 8,000 BCE, evidence exists, and becomes more common, for the production of ground-stone tools such as axes, chisels, and adzes. These tools themselves are believed to be indicative specifically of woodworking. This evidence can be extended to indicate an increase in craft production and arguably craft specialization. This latter statement is also supported by evidence, dating to approximately 7,000 BCE of ornately carved stone objects which would be laborious to produce and have explicit aesthetic qualities (Ellis 2013:41). This is indirectly indicative of changes in social organization which permitted individuals to devote time and effort to craft specialization. Since 8,000 BCE, the Great Lakes basin experienced a low-water phase, with shorelines significantly below modern lake levels (Stewart 2013: Figure1.1.C). It is presumed that the majority of human settlements would have been focused along these former shorelines. At approximately 6,500 BCE the climate had warmed considerably since the recession of the glaciers and the environment had grown more similar to the present day. By approximately 4,500 BCE, evidence exists from southern Ontario for the utilization of native copper (naturally occurring pure copper metal) (Ellis 2013:42). The known origin of this material along the north shore of Lake Superior indicates the existence of extensive exchange networks across the Great Lakes basin.

At approximately 3,500 BCE, the isostatic rebound of the North American plate following the melt of the Laurentide glacier had reached a point which significantly affected the watershed of the Great Lakes basin. Prior to this, the Upper Great Lakes had drained down the Ottawa Valley via the French-Mattawa river valleys. Following this shift in the watershed, the drainage course of the Great Lakes basin had changed to its present course, draining through the St. Lawrence River. This also prompted a significant increase in water-level to approximately modern levels (with a brief high-water period); this change in water levels is believed to have occurred catastrophically (Stewart 2013:28-30). This change in geography coincides with the earliest evidence for cemeteries (Ellis 2013:46). By 2,500 BCE, the earliest evidence exists for the construction of fishing weirs (Ellis *et al.* 1990: Figure 4.1). Construction of these weirs would have required a large amount of communal labour and are indicative of the continued development of social organization and communal identity. The large-scale procurement of food at a single location also has significant implications for permanence of settlement within the landscape. This period is also marked by further population increase and by 1,500 BCE evidence exists for substantial permanent structures (Ellis 2013:45-46).

By approximately 950 BCE, the earliest evidence exists for populations using ceramics. Populations are understood to have continued to seasonally exploit natural resources. This advent of ceramic technology correlated, however, with the intensive exploitation of seed foods such as goosefoot and knotweed as well as mast such as nuts (Williamson 2013:48). The use of ceramics implies changes in the social organization of food storage as well as in the cooking of food and changes in diet. Fish also continued to be an important facet of the economy at this time. Evidence continues to exist for the expansion of social organization (including hierarchy), group identity, ceremonialism (particularly in burial), interregional exchange throughout the Great Lakes basin and beyond, and craft production (Williamson 2013:48-54).

By approximately 550 CE, evidence emergences for the introduction of maize into southern Ontario. This crop would have initially only supplemented Indigenous people's diet and economy (Birch and Williamson 2013:13-14). Maize-based agriculture gradually became more important to societies and by approximately 900 CE permanent communities emerge which are primarily focused on agriculture and the storage of crops, with satellite locations oriented toward the procurement of other resources such as hunting, fishing, and foraging. By approximately 1250 CE, evidence exists for the common cultivation of historic Indigenous cultigens, including maize, beans, squash, sunflower and tobacco. The cultural affiliation of populations within the region of the study area at this time period is debated, whether they may have spoken a form of Iroquoian language or Algonquian (Murphy and Ferris 1990). The extant archaeological record demonstrates many cultural traits similar to historic Indigenous nations (Williamson 2013:55).

The study area is located within the understood territory of the ancestral Huron-Wendat (Birch 2015), specifically near the well-documented Upper Humber River settlement cluster. The pre-contact component of the Upper Humber River settlement cluster dates to the late 15th century (Birch and Williamson 2013: 36).

1.3.3 Previous Archaeological Sites and Surveys

In order that an inventory of archaeological resources could be compiled, the registered archaeological site records kept by MHSTCI were consulted. In Ontario, information concerning archaeological sites is stored in the *Ontario Archaeological Sites Database* and maintained by the MHSTCI. In Canada, archaeological sites are registered within the Borden system, a national grid system designed by Charles Borden in 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 (Borden 1952). These sequential numbers are issued by the MHSTCI who maintain the *Ontario Archaeological Sites Database*. The study area is located within Borden Block AkGv.

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 1990b). The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to all 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 no previously registered sites within 50 metres of the study area. However, there are 21 archaeological sites previously registered within 1 kilometre of the study area (Government of Ontario 2020a). Information regarding these sites is summarized in Table 3.

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

Borden Number	Site Name	Cultural Affiliation	Site Type
AkGv-16	McNeil	Indeterminate Indigenous	scatter
AkGv-95	Wonderland	Indigenous (Late Archaic period)	findspot
AkGv-98	Bestway	Indigenous (Archaic period)	campsite
AkGv-144	None Assigned (n.a.)	Indigenous (pre-Contact)	findspot
AkGv-148	n.a.	Indigenous (pre-Contact)	findspot
AkGv-149	Cowan	Euro-Canadian	homestead
AkGv-150	McLean	Euro-Canadian	homestead
AkGv-151	Westford 1	Indigenous (Middle Archaic period)	campsite

Borden Number	Site Name	Cultural Affiliation	Site Type
AkGv-152	Westford 2	Indigenous (Archaic period)	campsite
AkGv-154	Lehman 1	Euro-Canadian	homestead
AkGv-155	Lehman 2	Euro-Canadian	homestead
AkGv-161	Hector McLean	Euro-Canadian	homestead
AkGv-162	Vaughan Mills	Euro-Canadian	homestead
AkGv-163	Dickout	Euro-Canadian	homestead / farmstead
AlGv-18	Jarrett-Lahmer	Indigenous (Late Woodland Huron-Wendat)	village
AlGv-49	Circle Ridge 1	Indigenous (pre-Contact)	campsite
AlGv-50	Circle Ridge 2	Indigenous (pre-Contact)	campsite
AlGv-146	Snider	Multi-component Indigenous (Early Archaic and Middle Woodland periods) and Euro-Canadian	cabin, homestead
AlGv-147	Rutherford	Indigenous (Early Archaic period)	findspot
AlGv-162	Vellore 2	Indigenous (Early Archaic period)	scatter
AkGv-163	Dickout	Euro-Canadian	farmstead, homestead

A review of the *Ontario Public Register of Archaeological Reports* indicated that no previous archaeological assessments have been completed within 50 metres of the study area (Government of Ontario 2020b).

1.3.4 Existing Conditions

The study area for the archaeological assessment comprises approximately 31 hectares of fallow agricultural land, scrubland, roads and highways, residential and commercial space, and manicured lawn and spans from the existing terminus of Bass Pro Mills Drive at Highway 400, westerly to Weston Road between Rutherford and Langstaff roads.

2.0 FIELD METHODS

The Stage 1 archaeological assessment compiled information concerning archaeological resources within the study area. A property inspection was conducted on November 4, 2020 under Project Information Form (PIF) Number P1060-0099-2020 issued to Caitlin Simmons, M.Sc., by the MHSTCI. The property inspection involved spot checks of the entirety 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). During the property inspection, the weather was cool and overcast, and visibility of land features was excellent. Field, lighting, and weather conditions were not detrimental to the identification of features of archaeological potential. Since permission was not granted to access any private land, all photographs were taken from the publicly accessible municipal right-of-way. 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 7** provides an illustration of the study area and photo locations.

Approximately 56.8% of the study area (17.64 hectares) consists of fallow agricultural land, scrubland or manicured lawn that has remained undisturbed other than for agricultural purposes (Photos 1 to 3).This is mostly located between Weston Road and Highway 400 but also includes residential yards to the west of Weston Road and manicured lawn to the east of Highway 400.

There is an artificial berm in the scrubland along the southern edge of the study area (Photo 4). There are multiple roads, and their associated infrastructure, within the study area including; Highway 400 and associated ramps, Bass Pro Mills Drive, Fisherman's Way, Weston Road, and Astona Boulevard (Photos 5 to 10). These areas of previous disturbance account for 20.2% (6.29 hectares) of the study area. The east side of Weston Road includes two separate commercial developments that account for 6.2% (1.94 hectares) of the study area and have also been previously disturbed (Photos 11 and 12). To the west of Weston Road is a residential community accessed via Astona Boulevard. The residential structures and their driveways account for 1.8% (0.53 hectares) of the study area (Photos 13 to 15). In addition to the standing water present in the storm water management pond at the east end of the study area at the time of the property visit, water-resistant plant species are also present around Black Creek, suggesting that the area is perennially low and wet (Photos 16 to 19).Finally, there are 0.60 hectares (1.9% of the study area) of steeply sloped areas along the east side of Highway 400 and the northbound onramp (Photos 19 and 20).

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 Ontario 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).

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.

Black Creek runs through the west side of the study area, eventually draining into the Humber River. Black Creek flows south though the Cities of Vaughan and Toronto and has been adjusted significantly from its natural path in the 20th and 21st century through land development. The East Humber River is approximately two kilometres to the west of the study area and was a major transportation route. As discussed in Section 1.2.1, the Toronto Carrying Place Trail follows along the east side of the East Humber River.

Soil texture can be an important determinant of past settlement, usually in combination with other factors such as topography. The study area soils were identified as primarily Malton clay, with elements of Chinguacousy clay loam and Peel clay. These are imperfectly or poorly drained and generally unsuitable for Indigenous agricultural practices. With additional fertilizer and drainage practices, they are suitable Euro-Canadian agricultural practices.

As described in Section 1.3.3, there are 21 previously recorded archaeological sites within one kilometer of the study area, including one multi-component site, 12 Indigenous sites, and eight Euro-Canadian sites. No previously recorded archaeological sites are within 50 metres of the study area.

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 1990a); and properties that local histories or informants have identified with possible historical events, activities or occupations. Both the 1860 and 1878 historical mapping discussed in Section 1.2.2 depict a well-settled landscape with structures and orchards indicated within close proximity to the study area. While those features are not present today, the existing road infrastructure follows many of the original routes.

The property inspection determined that portions of the study area remained undeveloped as fallow agricultural land and scrubland. Water-resistant plants and standing water were also identified within portions of the study area, indicating that a small portion of the study area is perennially low and wet. The remainder of the study area has been subject to previous ground disturbance either as part of residential or commercial development, or roadworks.

When the above listed criteria are applied to the study area, a portion of the study area retains potential for the recovery of Indigenous and Euro-Canadian archaeological resources. The remainder of the study area does not retain potential for the recovery of archaeological resources due to it being permanently low and wet, steep slope, or having been subject to previous deep ground disturbance.

4.0 RECOMMENDATIONS

The Stage 1 archaeological assessment, involving background research and a property inspection, resulted in the determination that a portion of the study area retains 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), **a Stage 2 archaeological assessment is recommended for the portion of the study area retaining archaeological potential (Figure 7).**

The objective of the Stage 2 archaeological assessment will be to document archaeological resources within the portions of the study area still retaining archaeological potential and to determine whether these archaeological resources require further assessment. The MHSTCI recognizes two methods for on-site documentation and inventory of archaeological resources on a subject property. The specific details for these methods are outlined in the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists*. To summarize, for lands **accessible** for ploughing, the Stage 2 physical survey of the study area will involve the pedestrian survey method. In these instances, agricultural and accessible land must be ploughed in advance of the archaeological assessment. Ploughing must be deep enough to provide total topsoil exposure, but not deeper than previous ploughing, and must be able to ensure at least 80% ground surface visibility. For lands **inaccessible** for ploughing, the Stage 2 physical survey of the study area will consist of the test pit survey method. The MHSTCI's standards require that each test pit be at least 30 centimetres in diameter, excavated to at least five centimetres into subsoil, and have all soil screened through six millimetre hardware cloth to facilitate the recovery of archaeological resources. The Stage 2 archaeological assessment will include both pedestrian survey of ploughed agricultural lands and 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).

Should any additional areas of disturbance or features indicating that archaeological potential has been removed, including permanently wet areas, exposed bedrock 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 Stage 1 archaeological assessment also determined that portions of the study area are permanently low and wet, steeply sloped, or show signs of previous ground disturbance and do not retain potential for the identification or recovery of archaeological. 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 study area that retains low to no archaeological potential (Figure 7).**

Please note that as per Section 2.6.2 of the 2020 *Provincial Policy Statement* (PPS) (Government of Ontario 2020c), "development and site alteration shall not be permitted on lands containing archaeological resources or **areas of archaeological potential** unless significant archaeological

resources have been conserved". Under the PPS, development is defined as: "the creation of a new lot, a change in land use, or the construction of buildings and structures requiring approval under the *Planning Act*"; site alteration is defined as: "activities, such as grading, excavation and the placement of fill that would change the landform and natural vegetative characteristics of a site"; and conserved is defined as: "the identification, protection, management and use of built heritage resources, cultural heritage landscapes and archaeological resources in a manner that ensures their cultural heritage value or interest is retained under the *Ontario Heritage Act*. This may be achieved by the implementation of recommendations set out in a conservation plan, archaeological assessment, and/or heritage impact assessment. Mitigative measures and/or alternative development approaches can be included in these plans and assessments" (Government of Ontario 2020).

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

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 1990a). 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 1990a) 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 1990a).

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 1990a). 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 1990a).

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.

Additional archaeological assessment is still required for portions of the study area and as such, these portions recommended for further archaeological fieldwork remain subject to Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990a) and may not be altered, or have artifacts removed, except by a person holding an archaeological license.

6.0 BIBLIOGRAPHY AND SOURCES

Birch, Jennifer. 2015. Current Research on the Historical Development of Northern Iroquoian Societies. *Journal of Archaeological Research*, 22 (4).

Birch, Jennifer and Ron F. Williamson. 2013. The Mantle Site: An Archaeological History of an Ancestral Wendat Community. Lanham, Maryland: AltaMira Press.

Borden, Charles E. 1952. A Uniform Site Designation Scheme for Canada. *Anthropology in British Columbia*, No. 3, (44-48).

Caston, Wayne A. 1997. Evolution in the Mapping of Southern Ontario and Wellington County. *Wellington County History* 10:91-106.

Chapman, Lyman John and Donald F. Putnam. 1984. *The Physiography of Southern Ontario*. 3rd ed. Ontario Geological Survey Special Volume 2. Toronto: Ontario Ministry of Natural Resources.

City of Toronto. 1970. Aerial Photograph 220C, Photo #4677/70, 10193, 3. Electronic document: https://www.toronto.ca/city-government/accountability-operations-customer-service/access-city-information-or-records/city-of-toronto-archives/whats-online/maps/aerial-photographs/aerial-photographs-1970/. Last Accessed November 30, 2020.

City of Vaughan. 2014. *Vaughan Mills Centre Secondary Plan.* Electronic Document: https://www.vaughan.ca/projects/policy_planning_projects/vgnmills_centre_secondary/General%20Documents/VMCSP%20Sept19-2014.pdf. Last Accessed December 9, 2020

Coyne, J.H. 1895. *The County of the Neutrals (As Far as Comprised in the County of Elgin): From Champlain to Talbot.* St. Thomas: Times Print.

Department of Agriculture. 1976. *Glossary of Terms in Soil Science*. Publication 1459. Ottawa: Department of Agriculture. Electronic document: http://sis.agr.gc.ca/cansis/publications/manuals/1976-glossary/pub1459_report.pdf. Last accessed November 30, 2020.

Dermarker, Susan, Jennifer Birch, Termeh Shafie, John P. Hart, and Ronald F. Williamson. 2016. St. Lawrence Iroquoians and Pan-Iroquoian Social Network Analysis. *Ontario Archaeology*, 96: 87-103.

Ellis, Chris J. 2013. Before Pottery: Paleoindian and Archaic Hunter-Gatherers of Southern Ontario. In Before Ontario. Edited by Marit Munson and Susan Jamieson, pp. 35-47. Montreal: McGill-Queens University Press.

Ellis, Chris J. and Neal Ferris (editors). 1990. *The Archaeology of Southern Ontario to A.D. 1650*. Occasional Publication of the London Chapter, Ontario Archaeological Society, Number 5.

Ellis, Chris J., Ian T Kenyon and Michael W. Spence. 1990. *The Archaic.* In The Archaeology of Southern Ontario to A.D. 1650. Edited by Chris J. Ellis and Neal Ferris, pp. 65-124. Occasional Publications of the London Chapter, Ontario Archaeological Society, Number 5.

Feest, Johanna E. and Christian F. Feest 1978. The Ottawa. In *Handbook of North American Indians*. Vol.15 Northeast, pp. 772-786. B.G. Trigger, ed. Washington: Smithsonian Institute.

Ferris, Neal. 2009. *The Archaeology of Native-Lived Colonialism: Challenging History in the Great Lakes*. Tucson: University of Arizona Press.

Fox, William. 2015. Ethnogenesis in the Lower Great Lakes and St Lawrence Region. *Ontario Archaeology*. Volume 95:21-32

Gaudreau, Mariane and Louis Lesage. 2016. Understanding Ethnicity and Cultural Affiliation: Huron-Wendat and Anthropological Perspectives. *Ontario Archaeology*. Volume 96: 6-16.

Gentilcore, R. Louis and C. Grant Head. 1984. *Ontario's History in Maps*. Toronto: University of Toronto Press.

Given, Robert A. 1973. *The Story of Etobicoke*. Islington: Etobicoke Historical Society.

Government of Ontario. 1990a. *Ontario Heritage Act*, R.S.O. 1990, CHAPTER O.18. Electronic document: https://www.ontario.ca/laws/statute/90o18. Last accessed November 30, 2020.

Government of Ontario. 1990b. *Freedom of Information and Protection of Privacy Act, R.S.O. 1990, c. F.31*. Electronic document: https://www.ontario.ca/laws/statute/90f31. Last accessed on November 30, 2020.

Government of Ontario. 2002. *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33. Electronic document: https://www.ontario.ca/laws/statute/02f33. Last accessed November 30, 2020.

Government of Ontario. 2011. *Standards and Guidelines for Consultant Archaeologists*. Toronto: Ministry of Heritage, Sport, Tourism and Culture Industries.

Government of Ontario. 2020a. *Ontario Archaeological Sites Database Files.* Electronic document: https://www.pastport.mtc.gov.on.ca/APSWeb/pif/projectSiteDataSearch.xhtml. Last accessed November 30, 2020.

Government of Ontario. 2020b. *Past Portal Report Database Files.* Electronic document: https://www.pastport.mtc.gov.on.ca/APSWeb/report/reportSearch.xhtml. Last accessed November 30, 2020.

Government of Ontario. 2020c. *Provincial Policy Statement, 2020, Under the Planning Act*. Electronic document:https://files.ontario.ca/mmah-provincial-policy-statement-2020-accessible-final-en-2020-02-14.pdf. Last accessed December 9, 2020.

Heidenreich, Conrad E. 1978. Huron. In *Handbook of North American Indians. Volume 15, Northeast,* edited by Bruce G. Trigger, pp. 368-388. Washington: Smithsonian Institution Press.

Hoffman, D.W. and N.R. Richards. 1955. *Soil Survey of York County.* Report No. 19 of the Ontario Soil Survey. Ottawa: Canada Department of Agriculture.

Karrow, P.F. and B.G. Warner. 1990. The Geological and Biological Environment for Human Occupation in Southern Ontario. In Ellis and Ferris 1990, pp. 5-36.

Kapyrka, Julie. 2018. Remembering Original Relationships: Mississauga and Wendat. *Arch Notes*, 23(1): 5-7.

Konrad, Victor. 1981. An Iroquois Frontier: the North Shore of Lake Ontario during the Late Seventeenth Century. *Journal of Historical Geography* 7(2).

Loewen, Brad and Claude Chapdelaine (editors). 2016. Contact in the 16th Century: Networks among Fishers, Foragers and Farmers. Mercury Series Archaeology Paper 176. Ottawa: University of Ottawa Press.

Miles & Co. 1878. *Illustrated Historical Atlas of the County of York and the Township of West Gwillimbury & Town of Bradford in the County of Simcoe, Ont*. Toronto.

Mississaugas of the Credit First Nation. n.d. *Toronto Purchase*. Electronic document: http://mncfn.ca/about-mncfn/land-and-water-claims/toronto-purchase/. Last accessed November 30, 2020.

Morris, J.L. 1943. *Indians of Ontario*. 1964 reprint. Toronto: Department of Lands and Forests.

Municipal Engineers Association. 2015. *Municipal Class Environmental Assessment.*

Murphy, C. and Neal Ferris. 1990. The Late Woodland Western Basin Tradition in Southwestern Ontario. In The Archaeology of Southern Ontario to A.D. 1650. Edited by Chris J. Ellis and Neal Ferris, pp. 189-278. Occasional Publications of the London Chapter, Ontario Archaeological Society, Number 5.

Praxis Research Associates. n.d. *The History of the Mississaugas of the New Credit First Nation*. Hagersville: Lands, Research and Membership, Mississaugas of the New Credit First Nation.

Ramsden, Peter. 2016. Becoming Wendat: Negotiating a New Identity around Balsam Lake in the Late Sixteenth Century. *Ontario Archaeology*. Volume 96: 121-132.

Rayburn, A. 1997. *Place Names of Ontario*. Toronto: University of Toronto Press.

Reaman, G.E. 1971. *A History of Vaughan Township.* Toronto: University of Toronto Press.

Schmalz, Peter S. 1991. *The Ojibwa of Southern Ontario*. Toronto: University of Toronto Press.

Stewart, Andrew M. 2013. Water and Land. In Before Ontario: The Archaeology of a Province. Edited by Marit K. Munson and Susan M. Jamieson, pp. 24-34. Montreal and Kingston: McGill-Queen's University Press.

Tremaine, George R. 1860. *Tremaine's Map of the County of York, Canada West.* Toronto: George C. Tremaine.

Williamson, Ronald F. 2013. The Woodland Period, 900 BCE to 1700 CE. In Before Ontario: The Archaeology of a Province. Edited by Marit K. Munson and Susan Jamieson, pp. 48-61. Montreal and Kingston: McGill-Queen's University Press.

York Region. n.d. *General Interactive Map: Imagery*. Electronic Document: https://ww6.yorkmaps.ca/Html5Viewer24/Index.html?viewer=GeneralInteractiveMap2.YorkMaps. Last accessed December 1, 2020.

7.0 IMAGES

7.1 PHOTOGRAPHS

Photo 1: Fallow agricultural land, center of study area facing southwest

Photo 2: Scrubland, east end of study area facing south

Photo 3: Manicured lawn beside road infrastructure,east end of study area facing northwest

Photo 4: Artificial berm along edge of fallow field, centre of study area facing southwest

Photo 5: Previous disturbance - road infrastructure, northwest corner of study area facing west

Photo 6: Previous disturbance - road infrastructure, southwest corner of study area facing north

Photo 7: Previous disturbance – road infrastructure, centre of study area facing south

Photo 8: Previous disturbance – road infrastructure, southeast corner of study area facing northeast

Photo 9: Previous disturbance – road infrastructure, northeast corner of study area facing west

Photo 10: Previously Disturbance – road infrastructure, east end of study area facing south

Photo 11: Previous disturbance – commercial development, southwest corner of study area facing northeast

Photo 12: Previous disturbance – commercial development and road infrastructure, northwest corner of study area facing south

Photo 13: Previous disturbance – residential development, west end of study area facing southeast

Photo 14: Previous disturbance – residential development, southwest corner of study area facing north

Photo 15: Previous development – residential development, northwest corner of study area facing northeast

Photo 16: Black Creek, low and permanently wet area, northwest corner of study area facing southeast

Photo 17: Low and permanently wet area, centre of study area facing west

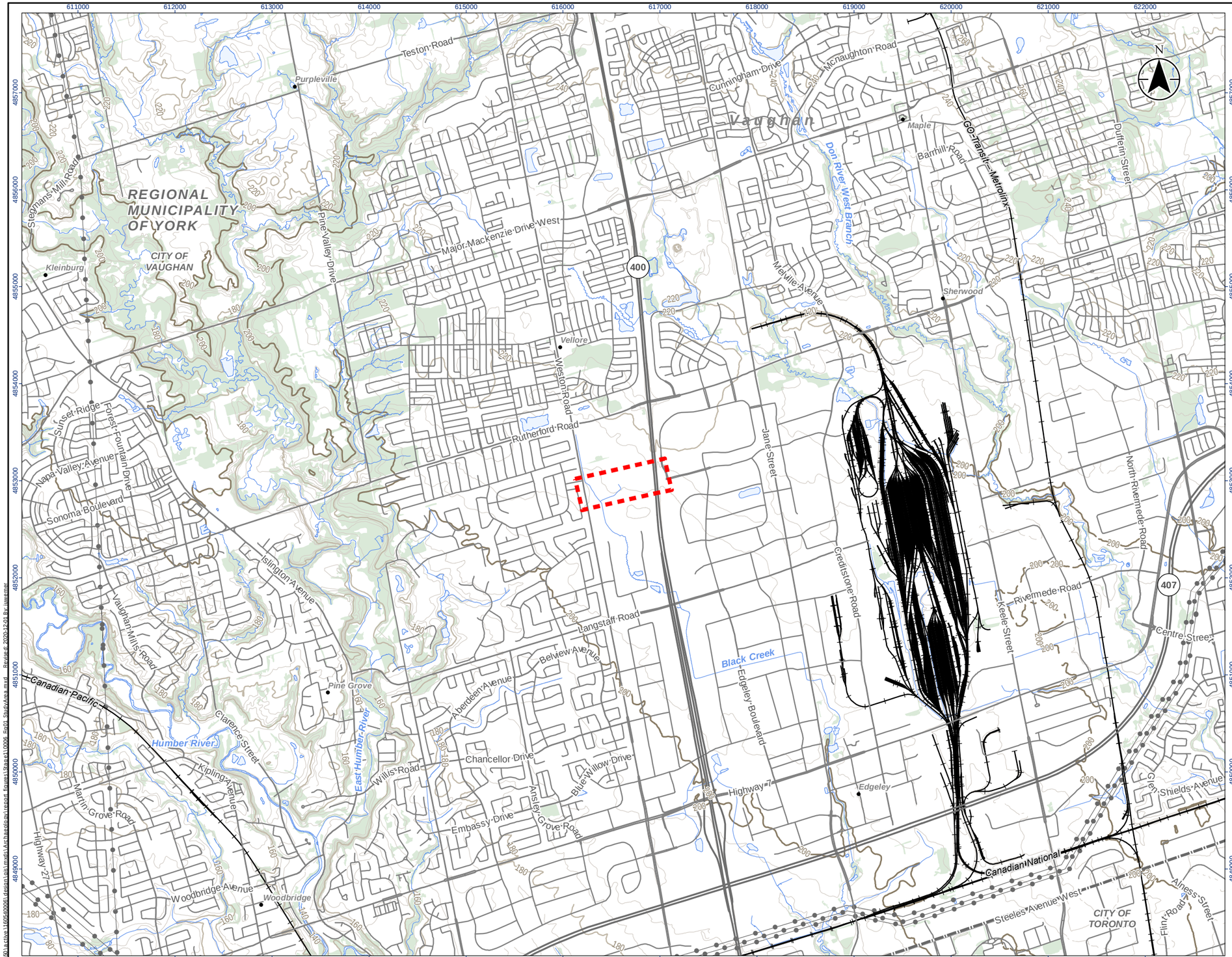
Photo 18: Low and permanently wet area, east end of study area facing northwest

Photo 19: Steeply sloped area to low and permanently wet area, southeast corner of study area facing north

Photo 20: Steeply sloped area down to Highway 400, northeast corner of study area facing south

8.0 MAPS

Maps of the study area will follow on succeeding pages.



Stantec

Legend

- Study Area
- Railway
- Hydro Line
- Watercourse (Permanent)
- Waterbody
- Wooded Area
- Municipal Boundary, Upper
- Municipal Boundary, Lower

0 1 2 km

1:40,000 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2019.

- Oak Ridges Moraine
- Greenbelt Natural Heritage System

Project Location
City of Vaughan

160540006 REV1
Prepared by JW on 2020-12-01

Client/Project
CITY OF VAUGHAN
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY
BASS PRO MILLS DRIVE FROM HWY 400 TO WESTON ROAD

Figure No.
1

Title
Location of the Study Area

Stantec

Legend

- Study Area
- Watercourse (Permanent)

0 100 200 Meters

1:5,000 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2019.
3. Orthophoto obtained from City of Vaugh, Imagery date 2019.

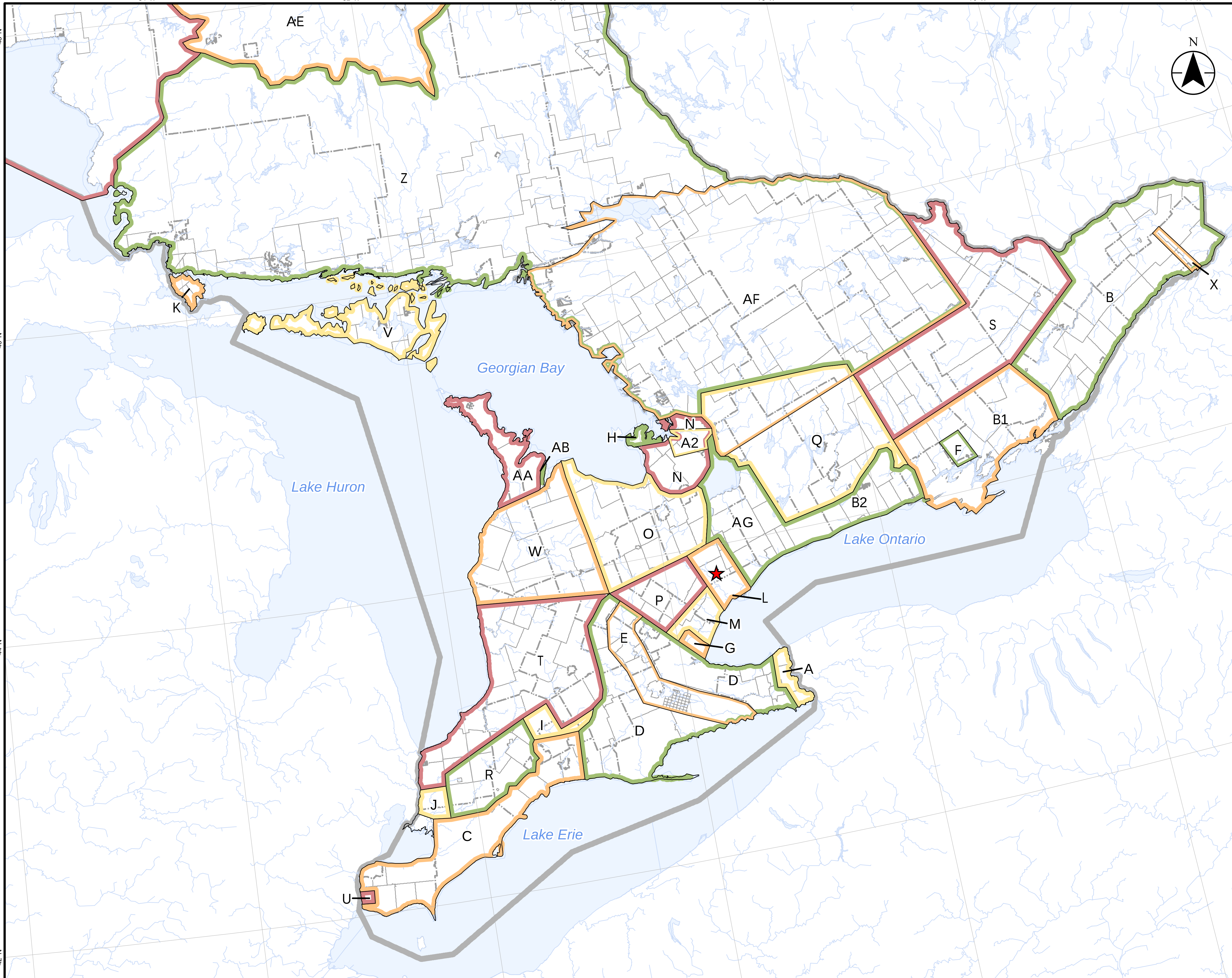
Project Location
City of Vaughan

160540006 REV1
Prepared by JW on 2020-12-01

Client/Project
CITY OF VAUGHAN
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY
BASS PRO MILLS DR FROM HWY 400 TO WESTON RD

Figure No.
2

Title
Location of **the** Study Area - Detail



Stantec

Legend

★ Study Area

▭ Municipal Boundary - Upper Tier

▭ Municipal Boundary - Lower or Single Tier

Watercourse

Waterbody

A Treaty No. 381, May 9th, 1781 (Mississauga and Chippewa)
B Crawford's Purchase, October 9th, 1783 (Algonquin and Iroquois)
B1 Crawford's Purchase, October 9th, 1783 (Mississauga)
B2 Crawford's Purchases, 1784, 1787 And 1788 (Mississauga)
A2 John Collins' Purchase, 1785 (Chippewa)
C Treaty No. 2, May 19th, 1790 (Odawa, Chippewa, Pottawatomi, and Huron)
D Treaty No. 3, December 2nd, 1792 (Mississauga)
E Haldimand Tract:from the Crown to the Mohawk, 1793
F Tyendinaga:from the Crown to the Mohawk, 1793
G Treaty No. 3 3/4:from the Crown to Joseph Brant, October 24th, 1795
H Treaty No. 5, May 22nd, 1798 (Chippewa)
I Treaty No. 6, September 7th, 1796 (Chippewa)
J Treaty No. 7, September 7th, 1796 (Chippewa)
L Treaty No. 13, August 1st, 1805 (Mississauga)
M Treaty No. 13A, August 2nd, 1805 (Mississauga)
N Treaty No.16, November 18th, 1815 (Chippewa)
O Treaty No. 18, October 17th, 1818 (Chippewa)
P Treaty No. 19, October 28th 1818 (Chippewa)
Q Treaty No. 20, November 5th, 1818 (Chippewa)
R Treaty No. 21, March 9th, 1819 (Chippewa)
S Treaty No. 27, May 31st, 1819 (Mississauga)
T Treaty No. 27½, April 25th, 1825 (Ojibwa and Chippewa)
U Treaty No. 35, August 13th, 1833 (Wyandot or Huron)
V Treaty No. 45, August 9th, 1836 (Chippewa and Odawa, "For All Indians To Reside Thereon")
W Treaty No. 45½, August 9th, 1836 (Saugeen)
X Treaty No. 57, June 1st, 1847 (Iroquois of St. Regis)
Z Treaty No. 61, September 9th, 1850 (Robinson Treaty:Ojibwa)
AA Treaty No. 72, October 30th, 1854 (Chippewa)
AB Treaty No. 82, February 9th, 1857 (Chippewa)
AF Williams Treaty, October 31st and November 15th, 1923 (Chippewa and Mississauga)
AG Williams Treaty, October 31st, 1923 (Chippewa)

0 75 150 km
1:3,000,000 (At original document size of 11x17)

Notes
1. Coordinate System: NAD 1983 Statistics Canada Lambert
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2016.
3. Treaty boundaries adapted from Morris 1943 (1964 reprint).

Project Location
Province of Ontario

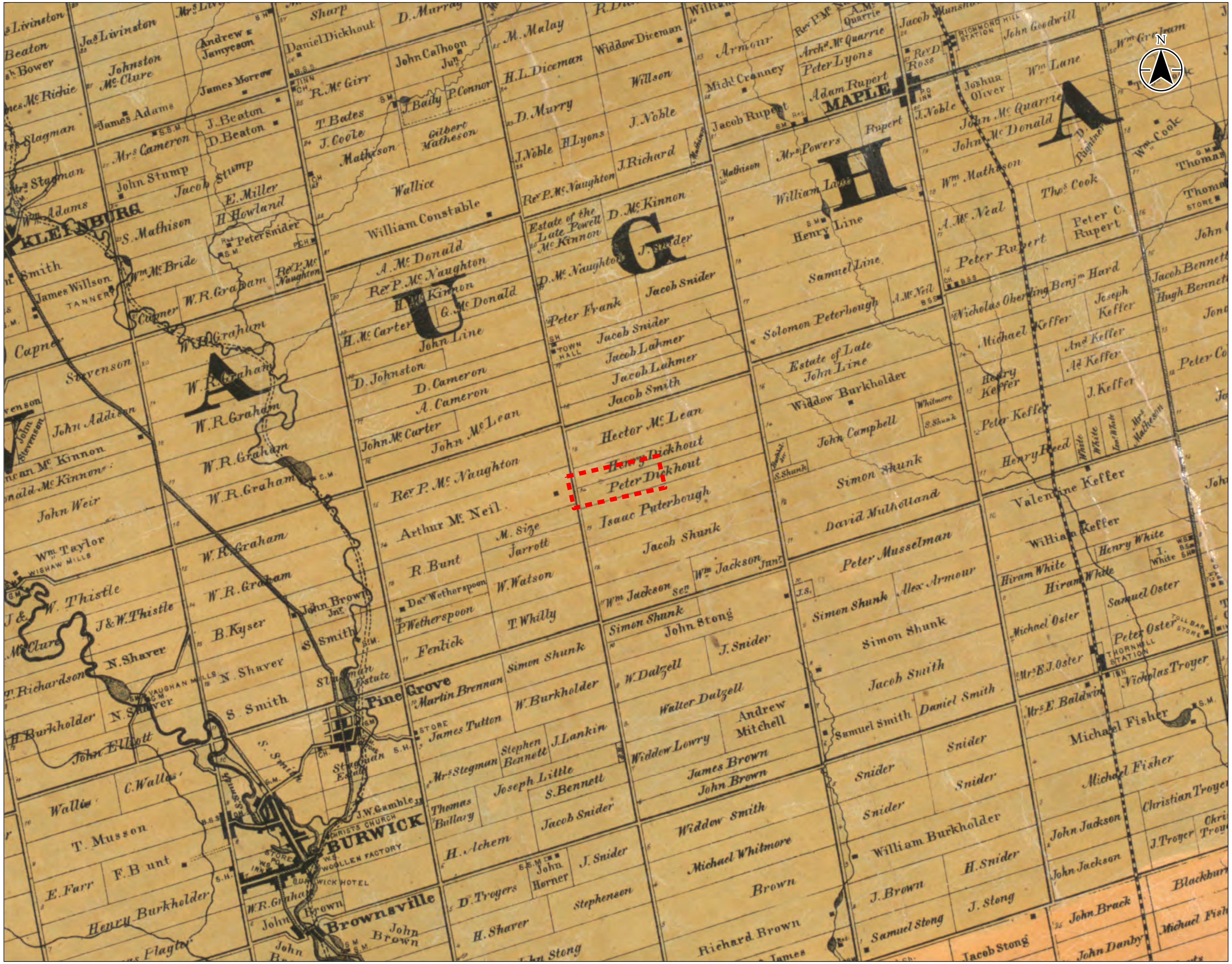
Treaties and Purchases REVA
Prepared by JW on 2020-12-01

Client/Project
CITY OF VAUGHAN
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY
BASS PRO MILLS DR FROM HWY 400 TO WESTON RD

Figure No.
3

Title
Treaties and Purchases
(Adapted from Morris 1943)

Figure X-X.X



Legend

Study Area (Approximate)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2019.
3. Tremaine, George R. 1860. Tremaine's Map of the County of York, Canada West.

Project Location
City of
Vaughan

160540006 REV1
Prepared by JW on 2020-12-01

Client/Project
CITY OF VAUGHAN
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY
BASS PRO MILLS DR FROM HWY 400 TO WESTON RD

Figure No.
4

Title
Portion of the 1860 Map of
Vaughan Township

V:\01650\active\160540006\design\gis\mxds\Archaeology\report_figures\Stage1\10006_Fig04_Stg1_1860.mxd Revised: 2020-12-01 By: juwerner

Stantec

Legend
Study Area (Approximate)

Notes
1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2019.
3. Miles & Co. 1878. Illustrated Historical Atlas of the County of York. Toronto: Miles &

Project Location
City of Vaughan

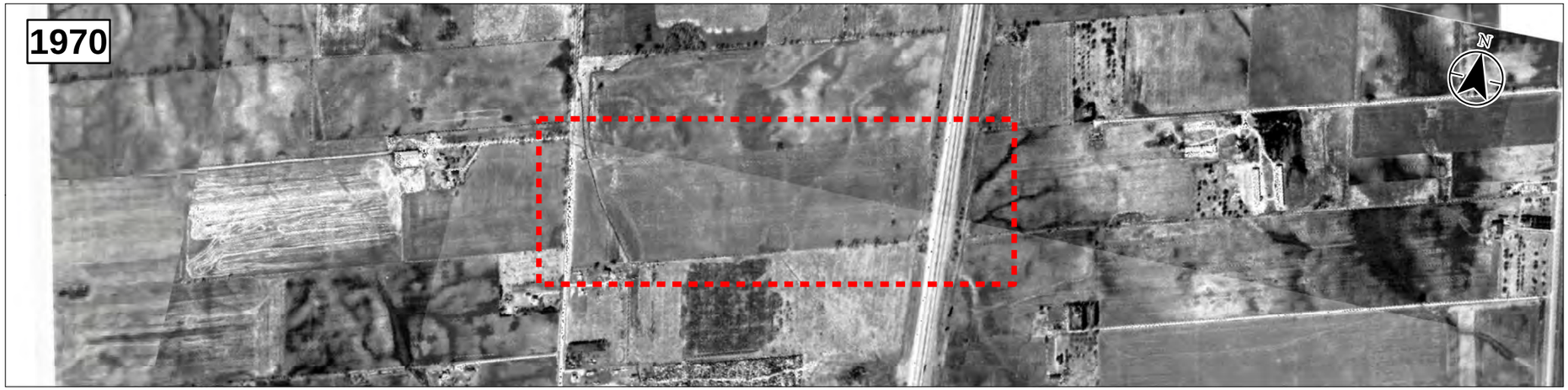
160540006 REV1
Prepared by JW on 2020-12-01

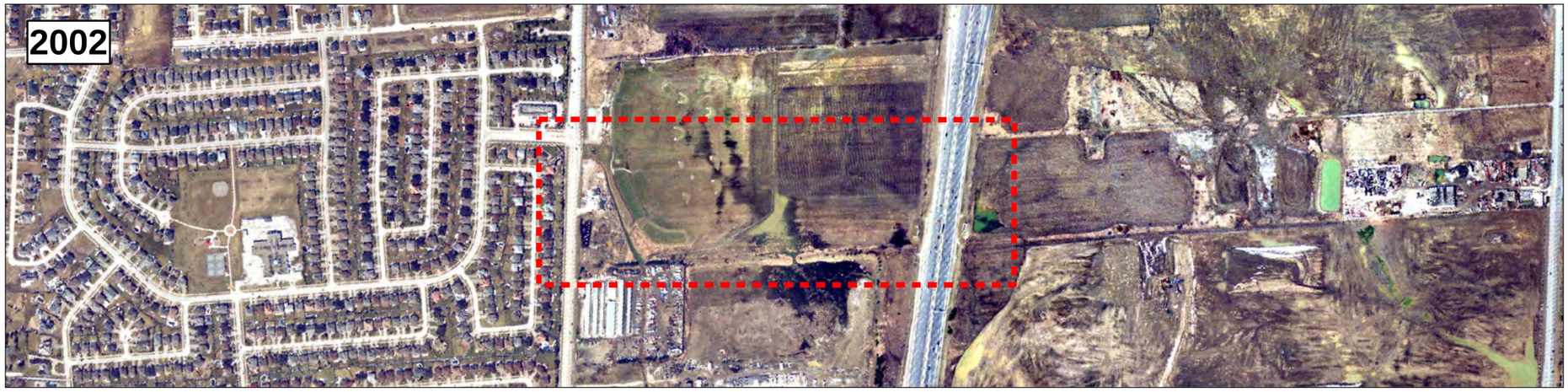
Client/Project
CITY OF VAUGHAN
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY
BASS PRO MILLS DR FROM HWY 400 TO WESTON RD

Figure No.
5

Title
Portion of the 1878 Map of Vaughan Township

V:\01650\active\160540006\design\gis\mxds\Archaeology\report_figures\Stage1\0006_Fig05_Stg1_1878.mxd Revised: 2020-12-01 By: juwerner





Stantec

Legend

Study Area

0 200 400 Meters

1:10,000 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2019.
3. Aerial Imagery 1970 obtained from: City of Toronto. 1970. Aerial Photograph 220C, Photo #467/70, 10193.3.
4. Aerial Imagery 2002/ 2005 obtained from: York Region. n.d. General Interactive Map: Imagery. Electronic Document:

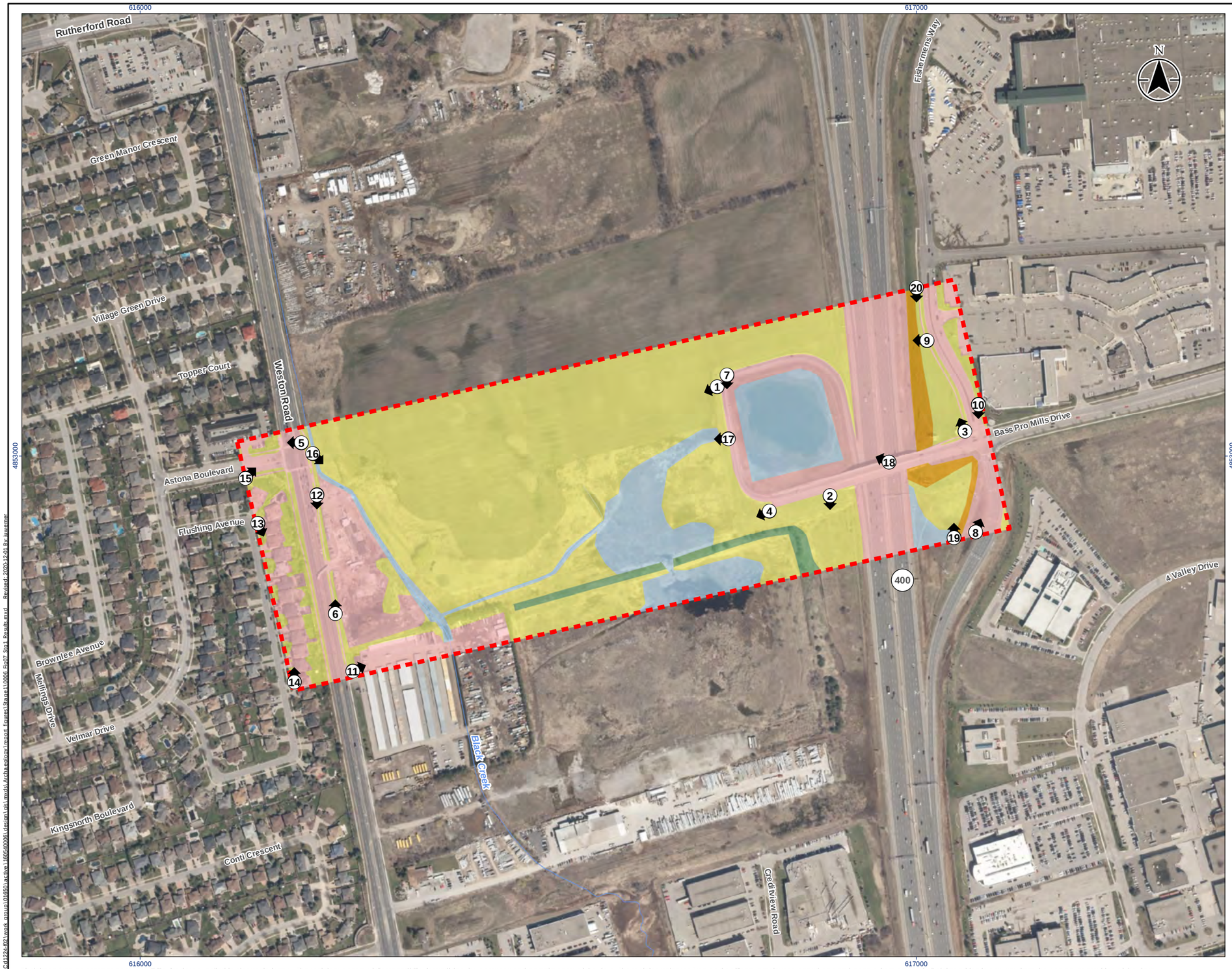
Project Location
City of Vaughan

160540006 REV1
Prepared by JW on 2020-12-01

Client/Project
CITY OF VAUGHAN
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY
BASS PRO MILLS DR FROM HWY 400 TO WESTON RD

Figure No.
6

Title
20th and 21st Century Aerial Imagery



Stantec

Legend

- Photo Location and Direction
- Study Area
- Watercourse (Permanent)
- Area of Archaeological Potential
  Further Archaeological Work Required
- Area of Steep Slope, Low to No Archaeological Potential
  No Further Archaeological Work Required
- Low and Permanently Wet Area,
  Low to No Archaeological Potential
  No Further Archaeological Work Required
- Previously Disturbed, Low to No Archaeological Potential
  No Further Archaeological Work Required
- Artificial Berm - Further Archaeological Work Required

0 100 200 Meters

1:5,000 (At original document size of 11x17)

Notes
1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2019.
3. Orthophoto obtained from City of Vaugh, Imagery date 2019.

Project Location
City of Vaughan

160540006 REV1
Prepared by JW on 2020-12-01

Client/Project
CITY OF VAUGHAN
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY
BASS PRO MILLS DR FROM HWY 400 TO WESTON RD

Figure No.
7

Title
Stage 1 Archaeological Assessment Results **and Recommendations**

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.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report and are based solely on the scope of work described in the report, the limited data available and the results of the work. The conclusions are based on the conditions encountered by Stantec at the time the work was performed. Due to the nature of archaeological assessment, which consists of systematic sampling, Stantec does not warrant against undiscovered environmental liabilities nor that the sampling results are indicative of the condition of the entire property.

This report has been prepared for the exclusive use of the client identified herein and any use by any third party is prohibited. Stantec assumes no responsibility for losses, damages, liabilities or claims, howsoever arising, from third party use of this report. We trust this report meets your current requirements. Please do not hesitate to contact us should you require further information or have additional questions about any facet of this report.

Quality Review by _____
(signature)

Colin Varley - Senior Associate, Senior Archaeologist

Independent Review by _____
(signature)

Tracie Carmichael, Managing Principal, Environmental Services

Robinson, Jennifer

To: Robinson, Jennifer
Subject: RE: ENTERED INTO REGISTER: Archaeological Report for P1060-0099-2020 / Bass Pro Mills Stage 1

From: pastport <pastport@ontario.ca>
Sent: Thursday, April 8, 2021 1:10 PM
To: Simmons, Caitlin <Caitlin.Simmons@stantec.com>
Cc: tbd@ontario.ca; hilda.esedebe@vaughn.ca; PastPort@ontario.ca
Subject: ENTERED INTO REGISTER: Archaeological Report for P1060-0099-2020 / *

Dear Caitlin Simmons,

The ministry has reviewed the Original report for PIF P1060-0099-2020 submitted by you as a condition of your licence.

This report has been deemed compliant with ministry requirements for archaeological fieldwork and reporting. It has been entered into the *Ontario Public Register of Archaeological Reports.* Please refer to the attached letter to see the result of this review.

Note: the ministry makes no representation or warrant as to the completeness, accuracy or quality of reports in the register.

Development proponents and approval authorities: the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries has copied you on this email as you have been identified by the consultant archaeologist as either the proponent or approval authority for this project.

Please **do not** reply to this e-mail. The message will be undeliverable and we are unable to respond from this address.

If you have any questions about this report email us at: Archaeology@ontario.ca

Thank you,

Michelle Davies

Michelle.Davies@ontario.ca

Ministry of Heritage, Sport, Tourism, and Culture Industries

Archaeology Program Unit
Programs and Services Branch
Heritage, Tourism and Culture Division
401 Bay Street, Suite 1700
Toronto ON M7A 0A7
Tel.: (416) 219-6078
Email: Michelle.Davies@ontario.ca

Ministère des Industries du patrimoine, du sport, du tourisme et de la culture

Unité des programme d'archéologie
Direction des programmes et des services
Division du patrimoine, du tourisme et de la culture
401, rue Bay, bureau 1700
Toronto ON M7A 0A7
Tél. : (416) 219-6078
Email: Michelle.Davies@ontario.ca

Ontario

Apr 8, 2021

Caitlin Simmons (P1060)
Stantec Consulting
10001 6 Uxbridge ON L9P 1R2

RE: Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 1 Archaeological Assessment: Bass Pro Mills Drive, from Highway 400 to Weston Road. Part of Lots 13 and 14, Concessions 5 and 6, Geographic Township of Vaughan, York County, now the City of Vaughan, Regional Municipality of York, Ontario.", Dated Feb 26, 2021, Filed with MHSTCI Toronto Office on Mar 11, 2021, MHSTCI Project Information Form Number P1060-0099-2020, MHSTCI File Number 0012050

Dear Miss Simmons:

This office has reviewed the above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18.[1] This review has been carried out in order to determine whether the licensed professional consultant archaeologist has met the terms and conditions of their licence, that the licensee assessed the property and documented archaeological resources using a process that accords with the 2011 *Standards and Guidelines for Consultant Archaeologists* set by the ministry, and that the archaeological fieldwork and report recommendations are consistent with the conservation, protection and preservation of the cultural heritage of Ontario.

The report documents the assessment/mitigation of the study area as depicted in Figure 7 of the above titled report and recommends the following:

The Stage 1 archaeological assessment, involving background research and a property inspection, resulted in the determination that a portion of the study area retains 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), a Stage 2 archaeological assessment is recommended for the portion of the study area retaining archaeological potential (Figure 7).
The objective of the Stage 2 archaeological assessment will be to document archaeological resources within the portions of the study area still retaining archaeological potential and to determine whether these archaeological resources require further assessment. The MHSTCI recognizes two methods for on-site documentation and inventory of archaeological resources on a subject property. The specific details for these methods are outlined in the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists. To summarize, for lands accessible for ploughing, the Stage 2 physical survey of the study area will involve

the pedestrian survey method. In these instances, agricultural and accessible land must be ploughed in advance of the archaeological assessment. Ploughing must be deep enough to provide total topsoil exposure, but not deeper than previous ploughing, and must be able to ensure at least 80% ground surface visibility. For lands inaccessible for ploughing, the Stage 2 physical survey of the study area will consist of the test pit survey method. The MHSTCI's standards require that each test pit be at least 30 centimetres in diameter, excavated to at least five centimetres into subsoil, and have all soil screened through six millimetre hardware cloth to facilitate the recovery of archaeological resources. The Stage 2 archaeological assessment will include both pedestrian survey of ploughed agricultural lands and 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).

Should any additional areas of disturbance or features indicating that archaeological potential has been removed, including permanently wet areas, exposed bedrock 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 Stage 1 archaeological assessment also determined that portions of the study area are permanently low and wet, steeply sloped, or show signs of previous ground disturbance and do not retain potential for the identification or recovery of archaeological. 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 study area that retains low to no archaeological potential (Figure 7).

Please note that as per Section 2.6.2 of the 2020 Provincial Policy Statement (PPS) (Government of Ontario 2020c), "development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved". Under the PPS, development is defined as: "the creation of a new lot, a change in land use, or the construction of buildings and structures requiring approval under the Planning Act"; site alteration is defined as: "activities, such as grading, excavation and the placement of fill that would change the landform and natural vegetative characteristics of a site"; and conserved is defined as: "the identification, protection, management and use of built heritage resources, cultural heritage landscapes and archaeological resources in a manner that ensures their cultural heritage value or interest is retained under the Ontario Heritage Act. This may be achieved by the implementation of recommendations set out in a conservation plan, archaeological assessment, and/or heritage impact assessment. Mitigative measures and/or alternative development approaches can be included in these plans and assessments" (Government of Ontario 2020).

Based on the information contained in the report, the ministry is satisfied that the fieldwork and reporting for the archaeological assessment are consistent with the ministry's 2011 *Standards and Guidelines for Consultant Archaeologists* and the terms and conditions for archaeological licences. This report has been entered into the Ontario Public Register of Archaeological Reports. Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require any further information regarding this matter, please feel free to contact me.

Sincerely,

Michelle Davies
Archaeology Review Officer

cc. Archaeology Licensing Officer
Hilde Esedebee,City of Vaughn
TBD TBD,Ministry of Environment, Conservation and Parks

[1] *In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.*