# ADAMS HERITAGE

3783 Maple Crest Court, Inverary, Ontario K0H 1X0 Phone (613) 353 1463 Fax (613) 353 1463 email: nickadam@rideau.net

Stage 1 & Stage 2 Archaeological Assessment
130 Huntmar Drive
Part Lot 1, Concession 1
Geographic Township of March
City of Ottawa

Prepared for: **Urbandale Construction Ltd.** 2193 Arch Street, Ottawa, ON K1G 2H5 (613) 731-6331 (mjarvis@urbandale.com)

Licensee: Nick Adams MA Prepared by: Nick Adams

November 11, 2014

License # P003 PIF# P003-0410-2014 (Stage 1 PIF#) P003-0406-2014

Approval Authority: City of Ottawa

Contact: Lily Xu
Planner, Planning and Growth Management Dept. City of Ottawa
110, Laurier Avenue West,4th Floor
Ottawa, ON K1P 1J1
Tel. 613-580-2424
E-mail: Lily.Xu@ottawa.ca

Regulatory Process: Planning Act Report Type: Original

"I the undersigned hereby declare that, to the best of my knowledge, the information in this report and submitted in support of this report is complete and accurate in every way, and I am aware of the penalties against providing false information under section 69 of the Ontario Heritage Act."

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#### **EXECUTIVE SUMMARY**

Stage 1 and Stage 2 archaeological assessment of the lands discussed in this report was prepared by Adams Heritage. Historical research was undertaken, previous archaeological investigations in the area were evaluated, and the geography of the site considered, to determine whether significant historical or pre-Contact cultural resources might exist on the property and to determine whether further archaeological investigations are warranted. Following completion of the Stage 1 assessment, Stage 2 testing was conducted. This report incorporates and supercedes the Stage 1 report, conducted and submitted separately under PIF#P003-0406-2014.

All areas were tested for archaeological sites using the techniques and approaches stipulated in the Ministry of Tourism, Culture and Sport's 'Standards and Guidelines for Consultant Archaeologists (2011)'. No evidence of archaeological sites was encountered and no artifacts were recovered.

#### The Stage 2 recommendation is as follows:

• It is recommended that no further archaeological assessment of the property is required.

Henceforth 'S & G's'

### Advice on compliance with legislation

- 1. Advice on compliance with legislation is not part of the archaeological record. However, for the benefit of the proponent and approval authority in the land use planning and development process, the report must include the following standard statements:
- a. This report is submitted to the Minister of Tourism and Culture 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 Ministry of Tourism and Culture, 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.
- b. 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.
- c. 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.
- d. The Cemeteries Act, R.S.O. 1990 c. C.4 and the Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.
- 2. Reports recommending further archaeological fieldwork or protection for one or more archaeological sites must include the following standard statement:
- "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."

### 1.0 PROJECT PERSONNEL

Project Personnel

Project Archaeologist / Field Review: Nick Adams
Historical Research: Christine Adams

Field Technicians: Doug Kirk, Chris Cadue, Peter

Cassidy

Report Authors and Preparation: Nick Adams, Christine Adams

Date of Field Review October 7, 2014

Date of Field Testing November 7<sup>th</sup> 2014

Weather Conditions
Cool, intermittent sleet

Permission for Access
Property access permission provided by the client.

### 2.0 DEVELOPMENT CONTEXT

A Stage 1 & 2 archaeological assessment was carried out on lands scheduled to be developed within part of Lot 1, Concession 1, Geographic Township of March (Figures 1-4). The archaeological assessment is part of the City of Ottawa requirements under the Planning Act.

In this part of March (geo) Township, the lots are oriented with their long axis extending from roughly southwest to northeast. Huntmar Drive - which lies along the boundary between Huntley and March Townships, is oriented roughly from southeast to northwest, thus the short axis of the lots within Concession 1 touches Huntmar Drive (Figures 2-4).

The property consists of single cultivated field at the western end of Lot 1, Concession 1, comprising approximately 26.5Ha (65 acres). A single dwelling and surrounding small lot (180 Huntmar Drive - 0.81 Ha (2 acres)) is <u>not</u> included in the proposed development area and is excluded from this study.

Current development plans are for high density residential housing over most of the property. A single commercial lot is planned at the intersection of Huntmar Drive and Maple Grove Road.

At the time of the Stage 1 evaluation, the whole study area was active farm land, supporting a crop of soy beans. The area is essentially level ground, thus the whole property was viewable from its periphery. On completion of the Stage 1 assessment report, the client requested that the recommended Stage 2 testing be completed. The crop was removed, the study area disced and the ground surface was allowed to weather before surface survey of the area was completed.

#### 3.0 HISTORICAL CONTEXT

Archaeological evidence indicates that the Ottawa Valley was a major trade route throughout the pre-Contact period. Discoveries of quantities of Native Copper artifacts from sources in the Lake Superior area at the Morrison and Allumettes Island Archaic sites (Chapdelaine and Clermont 2006: 202) provides a vivid insight into the far reaching and extensive nature of these activities.

With the arrival of French, Dutch and English settlers on the North American continent, the pre-existing trade routes were adapted to include the European appetite for fur. Following Samuel de Champlain's initial forays up the Ottawa River, French traders increasing sought trade with the Algonquin, despite the on-going tensions and sporadic warfare with Mohawk raiding parties in the lower Ottawa River area.

Contact between Algonquin people and French traders occurred as early as 1603 at Tadoussac (Morrison 2005: 23) although contacts between Algonquin hunters and traders in the St. Lawrence Valley may have been occurring with Basques and Breton fishermen for many generations before (Ibid). During the 17th century conflicts between the Five Nations Iroquois, the French, the Algonquin and other First Nations in the Ottawa River / St. Lawrence River area culminated in the 'Iroquois Wars' of the late 1640's and 1650's - a series of coordinated raids throughout the Great Lakes / St. Lawrence region that resulted in the decimation, dispersal and relocation of First Nations groups throughout the region and a disruption of trade. Mohawk raids during the 1640's had forced the Algonquin to abandon settlements in the lower Ottawa River (Sulzman nd.), consolidating with kinsmen further upstream in the vicinity of Pembroke.

The Ottawa area continued to be inhabited by Algonquins throughout the seventeenth, eighteenth and nineteenth centuries, living lives very similar to those of their ancestors, despite the gradual changes that were occurring in their homeland. From the limited information available it would appear that seasonal patterns of settlement and movement mirrored those known from the preceding pre-Contact period, with seasonal populations aggregating during the warm season, for fishing and socializing, with dispersal into small, family based hunting groups to winter hunting grounds throughout the region.

Much of what is now the City of Ottawa was included in the Crawford Purchase of 1783. Captain W.R. Crawford negotiated with Mississauga Indians for a vast tract of eastern Ontario in exchange for,

"clothing for families, powder and ball for winter hunting and as much coarse red cloth as will make about a dozen coats and as many laced hats" 2

Walker, Harry and Olive; Carleton Saga; Carleton County Council; 1968 p. 3

A second treaty made with 'the Principal Men of the Mississauga Nation", at Kingston in 1819, extended the original purchase to include what is now the western part of Carleton County. For this piece of real estate the,

"said Nation of Indians inhabiting the said Tract, yearly and every year forever"

#### received:

"the sum of six hundred and forty two pounds ten shillings, in goods at the Montreal price, which sum the Chiefs parties hereto acknowledge a full consideration for the lands hereby sold and conveyed to His Majesty, His Heirs and Successors"

There is nothing to indicate that the lands in March township were ever occupied by the Mississaugas, and all indications are that the indigenous populations at the time were Algonkins<sup>4</sup>.

The First Nations inhabitants of the middle Ottawa River are now collectively known as Algonquin or Algonkin with principal foci of settlement at Golden Lake (Pikwakanagan) in Ontario and a number of locations to the north of the Ottawa River in Quebec. The study area lies within the area defined by the Algonquins of Ontario as their traditional territory (http://www.tanakiwin.com/Algonquins\_of\_ON.pdf).

During the early phases of Euro-Canadian settlement in eastern Ontario, the Algonquin's claim to the region were ignored or overlooked. As Lee Sulzman succinctly expressed it:

"To provide land for these newcomers, the British government in 1783 chose to ignore the Algonkin in the lower Ottawa Valley and purchased parts of eastern Ontario from Mynass, a Mississauga (Ojibwe) chief. Despite this, Algonkin warriors fought beside the British during the War of 1812 (1812-14) and helped defeat the Americans at the Battle of Chateauguay. Their reward for this service was the continued loss of their land to individual land sales and encroachment by American Loyalists and British immigrants moving into the valley. The worse blow occurred when the British in 1822 were able to induce the Mississauga near Kingston, Ontario to sell most of what remained of the Algonkin holdings in the Ottawa Valley. Because few, if any, Mississauga actually lived there, the price paid for them to sell another people's land was virtually nothing. And for a second time, no one bothered to consult the Algonkin who had never surrendered their claim to the area but still received nothing from its sale. Further losses occurred during the 1840s as lumber interests moved into the Upper Ottawa Valley. Treaties and purchases by the Canadian government eventually established ten reserves that permitted the Algonkin to remain in the area, but like most Native Americans in both Canada

<sup>&</sup>lt;sup>3</sup> <u>Ibid</u>; p.8

The Algonkin Tribe: The Algonkins of the Ottawa Valley, An Historical Outline, by Peter Hessel, Kichesippi Books, Arnprior, 1987: p. 69

and the United States, they were allowed to keep only a tiny portion of what once had been their original homeland." (Sulzman nd.).

While European settlement becomes the focus of most histories of the nineteenth century, it is evident that First Nations people continued to inhabit the area. One indication of this is that during 1845, while James Eadie was having a stone house constructed on the Richmond Road, the progress of the 'stone teepee' was watched by an encampment of Algonquin Indians. An Illustration by W.H. Bartlett, "The Squaws Grave, Ottawa River", from the mid nineteenth century shows one such encampment along the Ottawa River. Such presences continued to be common throughout the nineteenth century and in to present times.

### Concession 1, Lot 1, Geographic Township of March

The first colonization of the area of March Township occurred in the years after the War of 1812 when a number of ex-military families settled there. The first influx of settlers occurred between 1818 and 1820<sup>5</sup>. The settlement was less successful than some of the others in the region. March was historically infamous for its poor land, with only scattered portions of arable farmland amongst the rocks. Even as late as 1871, there were only 289 families resident in the entire township<sup>6</sup>.

The first settler associated with Lot 1, Concession 1 was J. J. Kilduff, whose name appears on an 1820 plan of the township<sup>7</sup>. He appears on the 1822 Census, alone, but by 1823, a female of that name is living alone on the property. No further information on this family has come to light. Sometime before 1851, the lot was taken over by members of the Burroughs family, who had also been in the area since 1822. In 1851, Edward Burroughs and his family were living on Lot 1, Concession 1, March. His father John Burroughs was living across the road in Huntley Township, on Concession 1, Lot 1 Huntley, while Edward's brother, George was living on Concession 1, Lot 3, Huntley.

Belden, H. & Co. <u>Illustrated Historical Atlas of the county of Carleton (including city of Ottawa) Ont.</u> / compiled, drawn and published from personal examinations and surveys by H. Belden & Co., reprinted by Wilson's Publishing Company, 1997. p iv

Index to 1871 Census:http://130.15.161.15/dbtw-wpd/exec/dbtwpub.dll

Past Recovery Archaeological Services 2011. Stage 1 & 2 Archaeological Assessments Of the Proposed West Transitway Connection: Terry Fox Drive to Fernbank Road, Part Lots 1, 2 & 3, Concession 1, And Part Lots 2 & 3, Concession 2, Geographic Township of March, And Part Lot 28, Concessions 10, 11& 12, Geographic Township of Goulbourn, City of Ottawa, Ontario. Report conducted under PIF#P031-035-2011

John Burroughs was born in Leinster province, Ireland around 1782<sup>8</sup>. By his reckoning, at the time of the 1842 Census, he had been in Canada for 18 years<sup>9</sup>, however, on the 1822 Census for Huntley Township, he appears, along with his wife and children, two sons and six daughters<sup>10</sup>.

It is reputed that Burroughs was a military officer, having commanded an Irish regiment; and that he came to Canada with sixteen pounds in gold<sup>11</sup>. He was known to have had a library, which he left in his will to his children who could read. His first wife Esther Scharf, died in 1832, and he married again to Martha James, nee Rathwell, a widow, whose husband was killed in an agricultural accident in 1834<sup>12</sup>. John Burroughs died in 1867<sup>13</sup>.

Edward Burroughs and his wife, Jane, also had a large family. In 1851, there were seven children living at home, ranging in age from 18 to 4 years of age. By 1861, only two sons, Richard and Thomas, and a daughter Jane, remained on the farm with their parents.

Walling's map of 1863 indicates that Lot 1 was divided amongst three landowners, W. Black held the most easterly portion, while E. Burroughs and G. Burroughs held two lots along the townline across from J. Burroughs. These are almost certainly Edward and George Burroughs.

By 1871, Richard Burroughs had married Jane Ann Scharf and was enumerated next to his father <sup>14 15</sup>.

Edward Burroughs died in 1872. The Historical Atlas of 1879 shows that the property in Lot 1 was now in the hands of three Burroughs men. J. Burroughs, R. Burroughs, and T. Burroughs. These are almost certainly the sons of Edward Burroughs. Since we know that Richard Burroughs had his own household by 1871, it seems likely that

Farmer, Peter "Histories: John Burroughs and Ester "Hattie Scharf" farmerfiles: collaboros.comshowmmedia.php?mediaID=105&tngprint=1 (05 16 2013)

<sup>&</sup>lt;sup>9</sup> 1842 Census, Huntley Township, Carleton County, p.1. National Archives of Canada, microfilm

<sup>1822</sup> Census, Huntley Township, Carleton County: transcription online at Granny's Genealogy Garden #2 http://freepages.genealogy.rootsweb.com/~granniesgardn/Granny2/huntle11822.html

Farmer, Peter; op.cit.

<sup>12</sup> Ibid.

http://canadianheadstones.com/on/view.php?id=41636

<sup>1871</sup> Census, March Township; facsimiles and transcription@ancestry.com

<sup>&</sup>quot;James Burroughs", Wadey Family Tree, http://trees.ancestry.com/tree/12768006/person/846481426

Thomas had inherited his father's house, and that this is the parcel surrounded by the study area. The current house does not appear to be an great antiquity. It, and the land surrounding it, have been sectioned off from the lands to be developed. The structure on the map associated with R. Burroughs lies outside the current study area.

James Burroughs was living in Huntley in 1871. John Burroughs is not found on the census after 1861, so it may be that he died or moved elsewhere. James Burroughs left Ontario for Manitoba where he appeared on the 1891 census. He died in 1900 in Manitoba<sup>16</sup>. Thomas Burroughs disappears from the Census after 1871, at which time he was single. No trace of him has been found on any Canadian censuses thereafter, nor has any Ontario death record been found.

By 1886, the farms on Lot 1 were occupied by B. N. Burroughs, Richard Burroughs, and Thomas James Jr. <sup>17</sup>. Thomas James Jr. and his wife and children were enumerated in the household of his father, also Thomas James, who lived on Lot 2, Concession 1. This suggests that while Thomas James Jr. may have owned part of the lot, he did not reside there<sup>18</sup>. The identity of B.N. Burroughs is unclear. No other children of Edward Burroughs have these initials. The 1891 Census for Carleton County reveals no one with these initials, male or female<sup>19</sup>. James had a son, Benjamin F. Burroughs, who was living in Manitoba in 1901<sup>20</sup>, but as he was only 22 at that time, it seems unlikely that he was the person referred to in the 1886 directory.

Richard Burroughs died in 1908, after which his wife remarried<sup>21</sup>. His death does not appear in the registers for March Township in that year, so we cannot know if he was still on his farm at that time<sup>22</sup>.

Since the house which currently lies along Huntmar Road is in roughly the same position as that shown on the historic maps, it seems likely there are no other dwellings relating to the historic period to be found within the current study area.

<sup>16</sup> Ibid.

The Union Publishing Co.'s Farmers' and Business Directory, for the Counties of Carleton, Dundas, Glengarry, Grenville, Lanark, Leeds, Prescott, Russell and Stormont, 1886-7. -- Vol. 2. -- Ingersoll: Union Publishing, [1886?].

<sup>1891</sup> census, March Township, facsimiles and transcriptions@ancestry.com.

<sup>19</sup> Census data from Ancestry.com.

<sup>1901</sup> Census; Shell River, Marquette, Manitoba; transcription@automatedgenealogy.com.

<sup>&</sup>lt;sup>21</sup> "Richard Burroughs"; http://canadianheadstones.com/on/view.php?id=41654

http://search.ancestry.com/search/db.aspx?dbid=8946

### 4.0 ARCHAEOLOGICAL CONTEXT

#### Bedrock / Physiography

The study area is underlain by bedrock deposits of limestone, shale and sandstone of Ordovician age (GSC Map 1508A), which, in some areas, have been overlain by relatively recent deposits of glacial till, fluvioglacial and lacustrine deposits. These either pre-date, or date to events associated with the Champlain Sea epoch, which occurred between about 11,500 - 8,500 B.P. (Schut and Wilson 1987).

The study area lies within the Ottawa Valley Clay Plains Physiographic region. This broad physiographic region extends from Pembroke to Hawkesbury along the Ottawa River Valley and encompasses a broad area of clay plain, broken by ridges of rock or sand (Chapman and Putnam 1984: 209).

The property lies on a clay plain derived from level, deep water marine clay deposited during the period when the Champlain Sea occupied this portion of the Ottawa Valley.

The study area lies at an elevation between 100 and 102m. asl. A surficial geology map sheet of the area (Richard 1982 - 1506A) indicates the presence of Champlain Sea beach features to the west of the study area. No beach features are indicated within the study area itself.

The immediate vicinity of the study area would have been available for human occupation as isostatic rebound gradually lowered the water level of the Champlain Sea. Radio-carbon dates on shells found in Champlain Sea beach deposits indicate the beach just north of Stittsville was active at 130 metres a.s.l. at approximately  $11,300\pm300$  years ago (GSC-2248 - Richard 1982). A sample of whale bone discovered just north of the Ottawa International Airport at an elevation of 91 metres a.s.l. is dated to  $10,420\pm50$  (GSC-454 - Richard 1982). Four dates on organic materials have been acquired form Champlain Sea deposits located approximately 4 kilometres to the south of the study area. Of particular note, a sample of shells returned a date of  $10,880\pm160$  (GSC-588 - Richard 1982) from materials recovered at an elevation of 97 metres a.s.l.

Since the study area lands lie at or above an elevation of approximately 100 metres a.s.l. they would have been accessible for occupation or settlement as the waters of the Champlain Sea receded, approximately 11,000 years ago, although they would probably not have presented a particularly enticing environment for settlement.

#### Soils

The soils within the study area consist of soils of the North Gower Series - heavy, fine textured clay soils derived from marine materials deposited as deep water deposits in the bed of the Champlain Sea. These soils have a capability for agriculture rated at 2 - the major constraint being their wetness and their plasticity when wet (Marshall et. al. 1979). These areas of North Gower soils exist as part of a broad clay plain which extends across much of the region.

#### Drainage

No significant watercourses of sources of water lie within the study area. Poole Creek is the nearest water course. It lies to the east of the study area and is approximately 170 metres away at its closest point. Poole Creek flows north, joining the Carp River approximately 600 metres to the northeast of the study area. The Carp River, drains northwest and joins the Ottawa River at Fitzroy Harbour.

#### Climate

The soil climate of the Ottawa region is humic, mild and mesic (Schut and Wilson 1987) with mean annual soil temperatures of between 8 and 15 degrees and a relatively short growing season lasting 200 and 240 days. Rainfall is moderate averaging 850 mm. per year. This climate, while adequate using modern farming techniques, was not particularly favourable for pre-Contact agriculture.

#### Vegetation

The whole study area exists as actively cultivated agricultural land. No areas of original / natural vegetation or forest are present. A soy bean crop covered the whole property at the time of the field inspection.

### Registered Archaeological Sites:

No archaeological sites have been registered within the study area.

Two registered archaeological sites exist within 1 kilometre of the study area<sup>23</sup>. They are BhFx-50 - Boyd House, located as part of an archaeological assessment of a property immediately across Huntmar Drive from the current study area (Adams 2013), and BhFx-49 - James Farm Site (Past Recovery 2011). Both are collections of archaeological materials associated with the historic occupation of existing structures.

#### Studies of Adjacent Areas:

While a number of other archaeological projects preceding development have been conducted in the area, as indicated above, few have resulted in the registration of significant archaeological resources. The property parcel immediately to the northeast (municipal address: 1655 Maple Grove Road) was subject to a Stage 1 & 2 archaeological assessment by Paterson Group (Kopp 2014). No evidence of archaeological sites was identified.

Other pertinent studies are surveys of the proposed Kanata West Business Park to the north of Highway 417 (Adams 2009, 2004) and studies in advance of the proposed West Transitway Connection - Terry Fox Drive to Fernbank Road (Past Recovery 2011) which included a linear transect through the current study area.

Information courtesy of Robert von Bitter, Ministry of Tourism, Culture and Sport.

### Archaeological Summary

This overview is not intended to be a comprehensive thesis on the archaeology of Eastern Ontario. It is a thumbnail sketch of general trends, with the emphasis on the immediate vicinity of the study area.

#### Palaeo-Indian Period

Archaeologists have called Ontario's first people Palaeo-Indians (meaning 'old' or 'ancient' Indians). The Palaeo-Indian Period is estimated to have begun (in Ontario) about 11,000 years ago, and lasted for approximately 1,500 years (longer in northern Ontario). These people may have hunted migrating herds of caribou along the shores of vast glacial lakes, moving north into Ontario as the ice of the last glaciation receded. They have left little evidence of their passing, except for a few lance-shaped spear-points, and some campsites and places where they made their tools. Although the remains left by Palaeo-Indian people are quite sparse, through careful analysis of what has been found archaeologists are beginning to understand something about the way these ancient people lived. Palaeo-Indian people depended on hunting gathering and probably fishing for their subsistence. They did not raise crops. In order to gain a living from the sub-arctic environment in which they lived, Palaeo-Indian people had to exploit large territories. It is likely that they used toboggans, sleds and possibly watercraft in order to aid them move from one area to the next.

The Palaeo-Indian period has been divided into two subdivisions: the Early Palaeo-Indian period (11,000 - 10,400 B.P.) and the Late Palaeo-Indian period (10,400-9,500 B.P.) based on changes in tool technology. No Palaeo-Indian sites are known in the vicinity of the study area.

#### The Archaic Period

As the glacial ice continued to recede, the climate gradually became milder and more land became available for exploration and occupation. The Archaic Period spans the time between the end of the Palaeo-Indian Period and the beginning of the use of pottery in Ontario (about 2900 years ago). During the 6,500 years of the Archaic Period the exquisite stone tool workmanship of the Palaeo-Indian period was slowly abandoned. Archaic spear-points rarely reach the quality of workmanship of those of their forebears and are made from a greater variety of rocks. The Archaic period was one of long and gradual change. The long seasonal migratory movements of the Palaeo-Indians seem to have been abandoned as Archaic people focussed more closely on local food resources. They modified the equipment they made to cope with the transition from an open sub-arctic landscape to a more temperate, forested one. Archaic people began to make a wide variety axes, hammers and other tools by pecking and grinding rocks to the desired shape.

A small Archaic campsite was recently located during an archaeological assessment of lands along the Carp River, just to the north of Highway 417 (Adams 2004). Archaic materials have also been discovered in Leamy Lake Park, near the mouth of the Gatineau River (Watson 1999: 64). Significant evidence of Archaic occupation has been noted throughout the Ottawa Valley (Sowter 1909, Kennedy 1962, 1967), particularly in the vicinity of the City of Pembroke, at the Morrison's Island-6 and Allumette Island-1 sites (Chapdelaine and Clermont 2006, Ellis and Ferris 1990, Kennedy 1962).

### Early Woodland Period

Some time around 1000 B.C. the idea of using fired clay to make pottery containers began to spread into Ontario. This technology probably had little impact on the people of this province, however it is of enormous importance to archaeologists because although pots readily break in use, the broken pieces tend to last extremely well in the ground.

All over the world potters have found the semi-hard clay surface of freshly shaped pots (ie. before firing) to be a canvas for decoration and art. Since fashions and design preferences gradually change through time and from one people to another, the patterns of pottery decoration, and even the shape of the pots themselves provide valuable and accurate clues to the age and culture of the people who made them.

The Early Woodland people of Ontario were the first to use pottery in this province. In may other respects, people of the Early Woodland Period (c. 900 B.C. - 300 B.C.) continued to live in much the same way as their predecessors of the Late Archaic. Like the Late Archaic people, they buried their dead with great ceremony, often including attractive and exotic artifacts in the graves. The Early Woodland people of Ontario appear to have been in contact with, or at least heavily influenced by their neighbours to the south - particularly the Adena people of the Ohio Valley. To date, no Early Woodland archaeological sites have been recorded in the immediate vicinity of the study area.

#### The Middle Woodland Period

The most distinctive way in which the Middle Woodland period (2300 B.P. - 1100 B.P.) differs from the Early Woodland is in the way the people of Ontario had broadened the methods they used to decorate their pots. Changes in the shapes and types of tools used, the raw materials chosen and the ways in which these were acquired and traded are also apparent. However, these subtle technological changes mask more fundamental differences. Evidence from numerous archaeological sites indicate that by the Middle Woodland Period the people of Ontario began to identify with specific regions of the province. The artifacts from Middle Woodland period sites in southwestern Ontario differ quite noticeably, for instance, from those of the people in eastern Ontario. For the first time it is possible to distinguish regional cultural traditions - sets of characteristics which are unique to a part of the province. Archaeologists have named these cultural traditions LAUREL (throughout northern Ontario), POINT PENINSULA (in eastern and south-central Ontario), SAUGEEN (in much of southwestern Ontario) and COUTURE (in extreme southwestern Ontario).

Archaeologists have developed a picture of the seasonal patterns these people used in order to exploit the wide variety of resources in their home territories. During the spring, summer and fall groups of people congregated at lakeshore sites to fish, collect shellfish (in the south) and hunt in the surrounding forests. As the seasons progressed the emphasis probably shifted away from fishing and more towards hunting, as the need to store up large quantities of food for the winter became more pressing. By late fall, or early winter, the community would split into small family hunting groups and each would return to a 'family' hunting area inland to await the return of spring.

Some Middle Woodland people may have been influenced by a vigorous culture to the south - the Hopewell. These people buried some of their dead in specially prepared burial mounds, and accompanied the bodies with many and varied objects. Some Ontario people, especially those in the Rice Lake and Bay of Quinte areas adopted this practice, although they tailored it to suit their local needs. Some archaeologists have argued that since not all people were buried in the same way, these rich burials indicate that a hierarchy or class structure was beginning to develop as has been noted among the Hopewell. Such class distinctions do not seem to have lasted long, however, and were not part of Late Woodland life. Significant evidence of Middle Woodland occupation of the Ottawa region has been discovered at Leamy Lake Park at the mouth of the Gatineau River (Laliberté 1999: 78) and numerous Middle Woodland finds have been made in the vicinity of Constance Bay and more recently along the Rideau River (Jacquie Fisher, Pers Comm.). No Middle Woodland sites are known in the immediate vicinity of the study area.

#### The Late Woodland Period

The easiest way for archaeologists to distinguish Late Woodland period archaeological sites from earlier Middle Woodland sites is by looking at the pottery. During the Middle Woodland period the people made conical based pottery vessels by the coil method and decorated them with various forms of stamps. By the beginning of the Late Woodland (ie. by A.D. 900) period the coil method had been abandoned in favour of the paddle and anvil method, and the vessels were decorated with 'cord-wrapped stick' decoration. While these transitions are useful to archaeologists they provide only a hint to the more fundamental changes which were occurring at this time.

Sometime after A.D. 500, maize (corn) was introduced into southern Ontario from the south. Initially this cultivated plant had little effect on the lives of people living in Ontario, but as the centuries past, cultivation of corn, beans, squash, sunflowers and tobacco gained increasingly in importance. Not surprisingly, this transition from an economy based on the products of the lake and forest, to one in which the sowing, tending and harvesting of crops was important, also hastened cultural and technological changes.

Initially at least, the changes were small. People were naturally conservative, and the risks of crop failure must have been too high to allow for too much reliance on the products of the field. Some re-orientation of the seasonal movements of these people must have occurred at this time. Fishing and hunting sites continued to be used although the pattern of summer gathering along the shores of the major lakes of the region probably diminished as the small plots of cultigens needed to be tended and harvested during the summer.

In the Ottawa valley area, it is unlikely that the cultivation of crops made much impact on the lives of the areas inhabitants who continued to rely mainly on fishing and hunting for sustenance. The people of this area were the pre-Contact forebears of the people now collectively known as the Algonquin (or Algonkin) (Hessel 1987). They shared language and cultural traits and an subsistence based more on hunting and fishing than their culturally un-related Iroquoian neighbours to the south.

In the south, the settlements adjacent to the corn fields began to take on a greater permanency as cultigens became more of a staple food. The best quality, light, and easily tillable farmland was sought out for cultivation, with village sites located nearby, near a reliable source of water. As agricultural success increased, it became possible to store a supply of food for the winter. For the first time it was possible to stay in and around the village all year (in southern Ontario at least) instead of dispersing into family winter hunting camps. Villages became larger and more heavily populated. Hostilities erupted between neighbouring peoples, so that by A.D. 1000, some people found it necessary to defend their villages with stockades and ditch defences.

Late Woodland and Contact period occupations have been documented at the multi-component archaeological sites at the mouth of the Gatineau River in Leamy Lake Park (Saint-Germain 1999: 84) near to the Ottawa River shore in Cumberland Township (Neal Ferris, Pers Comm.), however no archaeological sites dating to the Late Woodland period have been recorded in the immediate vicinity of the study area.

#### Contact Period

In the early 1600's French explorers, traders and missionaries described the people they encountered in the vicinity of the Ottawa River, recognizing a number of small groups or bands (Kichesipirini, Kinounchepirini, Iroquet, Matouweskarini, Nibachis, Weskarini etc.) based on localized focal areas (Allumette Island, the Ottawa River below Allumette Island, the South Nation River, Madawaska River, Upper Ottawa River near Cobden, the north side of the Ottawa River along the Lievre and the Rouge Rivers in Quebec) respectively (Sultzman, Lee n.d., Hessel 1987).

These people are now collectively known as Algonquin or Algonkin with principal foci of settlement at Golden Lake (Pikwakanagan) in Ontario and a number of locations to the north of the Ottawa River in Quebec. The study area lies within the area defined by the Algonquins of Ontario as their traditional territory (http://www.tanakiwin.com/Algonquins of ON.pdf).

TABLE 1 Generalized Cultural Chronology of the Ottawa Valley Region

PERIOD	GROUP	TIME RANGE	COMMENT
PALAEO-I NDI AN			
	Fluted Point Hi - Lo	11000 - 10400 B.P 10400 - 9500 B.P	big game hunters small nomadic groups
ARCHAIC			
Early	Side Notched Corner Notched Bifurcate Base	10000 - 9700 B.P. 9700 - 8900 B.P. 8900 - 8000 B.P.	nomadic hunters and gatherers
Middle	Early Middle Archaic Laurentian	8000 - 5500 B.P 5500 - 4000 B.P.	transition to territorial settlements
Late	Narrow Point Broad Point Small Point Glacial Kame	4500 - 3000 B.P. 4000 - 3500 B.P. 3500 - 3000 B.P. ca. 3000 B.P.	polished / ground stone tools, river/lakeshore orientation burial ceremonialism
WOODLAND			
Early	Meadowood Middlesex	2900 - 2400 B.P. 2400 - 2000 B.P.	introduction of pottery elaborate burials
Middle	Point Peninsula Sandbanks/Princess Point	2300 B.P 1300 B.P. 1500 B.P 1200 B.P.	long distance trade burial mounds agriculture begins
Late	Pickering Middleport Huron / St. Lawrence Iroquois	1100 - 700 B.P. 670 - 600 B.P. 600 - 350 B.P.	transition to defended villages, horticulture, large village sites tribal organization, warfare / abandonment
HISTORIC			
Early	Algonquin	300 - present	
Late	Euro-Canadian / Algonquin	225 - present	European settlement

### 4.1 Archaeological Potential

The City of Ottawa's "Archaeological Potential" mapping indicates a small area of archaeological potential in the southeast corner of the property (ASI and Geomatics 1999). It appears to be present because of the proximity of Poole Creek.

In determining archaeological potential for this property, a number of characteristics are considered. In general, these conform to the basic key archaeological site potential criteria identified by the Ontario Ministry of Tourism, Culture and Sport and described in their 'primer' document (MTC 1997) and re-emphasized in the recent "Standards and Guidelines for Consultant Archaeologists (MTC 2011)".

According to MTCS's 2011 "Standards and Guidelines" the following are characteristics that indicate archaeological potential:

- Previously identified archaeological sites.
- Water sources. It is important to distinguish types of water and shoreline, and to distinguish natural from artificial water sources, as these features affect site locations and types to varying degrees:
  - primary water sources (lakes, rivers, streams, creeks)
  - secondary water sources (intermittent streams and creeks, springs, marshes, swamps)
  - features indicating past water sources (e.g., glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, cobble beaches)
  - accessible or inaccessible shoreline (e.g., high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh).
- Elevated topography (e.g., eskers, drumlins, large knolls, plateaux)
- Pockets of well drained sandy soil, especially near areas of heavy soil or rocky ground
- Distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings.
- Resource areas, including:

food or medicinal plants (e.g., migratory routes, spawning areas, prairie), scarce raw materials (e.g., quartz, copper, ochre or outcrops of chert), early Euro Canadian industry (e.g., logging, prospecting, mining).

- Areas of early Euro Canadian settlement. These include places of early military or pioneer settlement (e.g., pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks.
- Early historical transportation routes (e.g., trails, passes, roads, railways, portage routes)
- Property listed on a municipal register or designated under the Ontario Heritage Act or is a federal, provincial or municipal historic landmark or site Property that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations.
   MTCS Standards and Guidelines for Consultant Archaeologists (2011)

#### Pre-Contact and Post-Contact First Nations Archaeological Sites

Based on these criteria, archaeological potential for pre-Contact and post-Contact First Nations archaeological sites is identified since a portion of the property lies within 300 metres of a water course (Poole Creek)(S & G's 1.4.1c). However, since no other topographical features are present on the property which might have proven attractive to past First Nations settlement, the real-world potential for non-Euro-Canadian archaeological sites is low.

#### Euro-Canadian Sites

The 1863 Walling map does not indicate any dwellings on the property. The 1879 Illustrated Historical Atlas maps shows a single dwelling along the Huntmar Road frontage which appears to correspond with the dwelling contained within the exclusion area. No other evidence of historic settlement is indicated on the remainder of the property and much of the Burroughs family settlement activity appears to have occurred elsewhere, with the study area remaining primarily as farm land.

Nevertheless, since 'Standards and Guidelines' standard 1.4.1d does not permit exemption of any areas within 100 metres of a historic transportation route - regardless of the nature of historic/map evidence - archaeological potential along the Huntmar Drive frontage is identified.

### 5.0 FIELD METHODS (Stage 2 testing)

Prior to the Stage 2 archaeological assessment, the soy bean crop had been removed and the whole study area had been disced. The field surface was then allowed to weather through a number of heavy rains before the archaeological assessment proceeded.

Field testing was completed using 'pedestrian survey' methods (S&G's Standard 2.1.1) and the entire property was assessed (S&G's Standard 2.1.1) under acceptable conditions (S&G's Standard 2.1.3)(see Plates). Transect intervals of 5 metres were maintained throughout (S&G's Standard 2.1.1.6).

All work was conducted when the ground was frost and snow free, on November 7<sup>th</sup> 2014 by a team of 4.

### 6.0 RECORD OF FINDS

No artifacts were recovered.

### Inventory of Documentary Record from Field

Field Notes Nil Maps Nil

Photographs<sup>24</sup> Stage 1 15 General views (PA071559-PA071573)

Stage 2 17 General views (PB070439-PB070453)

retained on file by Adams Heritage

### 7.0 ANALYSIS AND CONCLUSIONS

During the Stage 1 archaeological assessment, portions of this property were identified as having potential for pre- and post Contact First Nations archaeological sites, with some potential for historic Euro-Canadian archaeological sites.

The study area consists of a single cultivated field. Its soils were laid down as deep water sediments within the bed of the Champlain Sea. With the demise of the Champlain Sea, this area probably remained unappealing for any form of settlement until it was cleared for farming during the nineteenth century.

The likelihood of encountering pre-contact of post-contact First Nations archaeological sites is limited. Nevertheless, portions of the property have been identified as having archaeological potential.

Stage 2 testing was conducted throughout the entire study area. No artifacts were found and no evidence of archaeological sites was encountered.

Development of this property will have no impact on archaeological resources.

It is requested that the Ministry of Tourism, Culture and Sport issue a letter of concurrence indicating that the archaeological assessment obligations under the Ontario Heritage Act have been met for this project.

In addition to the "advice on compliance with legislation" cited above, if during the process of development any undetected archaeological resources or human remains of potential Aboriginal interest are encountered, the Algonquins of Ontario Consultation Office should be contacted immediately at:

Algonquins of Ontario Consultation Office 31 Riverside Drive, Suite 101 Pembroke, Ontario K8A 8R6 Telephone: (613) 735-3759

Fax: (613) 735-6307 e-mail: algonquins@nrtco.net

## 8.0 RECOMMENDATIONS

### The Stage 2 recommendation is as follows:

• It is recommended that no further archaeological assessment of the property is required.

### 9.0 REFERENCES / SOURCES

#### Maps

- 1863 Map of the County of Carleton, Canada West, from surveys under the direction of H.F. Walling. Published by D.P. Putnam, Prescott C.W. (NMC 0025747).
- 1879 Illustrated Historical Atlas of the County of Carleton, 1879, H. Belden & Co. (reprinted by Wilson's Publishing Company, 1997)

### Texts (consulted, not necessarily referenced)

#### Adams Heritage

- 2013 Stage 1 & 2 Archaeological Assessment, 173 Huntmar Drive, Part Lot 1, Concession 1, Geographic Township of Huntley, City of Ottawa. Report prepared under PIF#P003-369-2013
- An Archaeological Assessment (Stage 1 to 3) of the proposed "Kanata West Business Park" (Terrace Lands). Part of the North Half, Lot 3, Concession 1 and Part of the South Half, Lot 3, Concession 1, Geographic Township of West Carleton (formerly Township of Huntley) City of Ottawa, County of Carleton. Including Stage 3 Assessment of BhFx-40. Report conducted for West Ottawa Land Holdings Inc, under PIF P003-232-2009.
- Stage 1& 2 Archaeological Assessment, "Taggart Loblaws", Part of the South Half, Lot 3, Concession 1, Geographic Township of March, City of Ottawa and Stage 3 Archaeological Assessments of The "Allen" Site (BhFx-26) and the "Corelview" Site (BhFx-27). Prepared for: Taggart Construction under the auspices of Fotenn Consultants Inc.

#### ASI and Geomatics International Inc.

1999 "The Archaeological Resource Potential Mapping Study of the Regional Municipality of Ottawa-Carleton" Planning Report submitted to the Regional Municipality of Ottawa-Carleton.

#### Anderson, T.W., Mathewes, R.W., and C.E. Schweger

Holocene climatic trends in Canada with special reference to the Hypsithermal interval; in Chapter 7 of Quaternary Geology of Canada and Greenland. R.J. Fulton (ed.); Geological Survey of Canada, Geology of Canada, no. 1 (also Geological Society of America, The Geology of North America, v K-1).

### Chapdelaine Claude and Norman Clermont

2006 Adaptation, Continuity and Change in the Middle Ottawa Valley: A view from the Morrison and Allumettes Island Late Archaic Sites. <u>in</u> The Archaic of the Far Northeast. (Daniel Sanger and M.A.P. Renouf (Eds.)). University of Maine press, Orono.

#### Chapman, L.J., and D.F. Putnam.

1984 The Physiography of Southern Ontario, Ontario Ministry of Natural Resources, Third edition, 1984.

#### Day, G. M., and B. G. Trigger

1978 Algonquin. In Handbook of North American Indians: Vol. 15, Northeast, ed. B. Trigger, pp. 792-797. Smithsonian Institution, Washington, D. C.

Ellis, C.J. and Neal Ferris,

1990 The Archaeology of Southern Ontario to A.D. 1650. Occasional Publication of the London Chapter of the Ontario Archaeological Society. Number 5. London.

Gadd, N.R. (Ed.)

1988 The Late Quaternary Development of the Champlain Sea Basin. Geological Association of Canada, Special Paper 35, Ottawa.

Harris, R. Cole (ed.) and Geoffrey J. Matthews

1987 Historical Atlas of Canada Volume I: From the Beginning to 1800. University of Toronto Press. Toronto.

Hessel, Peter

1987 The Algonkin Tribe. The Algonkins of the Ottawa Valley: An historical outline. Kichesippi Books, Waba, Arnprior, Ontario.

Kenyon, Ian

1987 A History of Ceramic Tableware in Ontario, 1795-1890: Historical Date Ranges. Arch Notes 87-6: 22-26.

Kopp, L.

2014 Stage 1 and 2 Archaeological Assessment, Kanata West Pond 4, Maple Grove Road, Lot 1, Concession 1, Geographic Township of March, Former Carleton County, Kanata, Ontario. Report prepared by Paterson Group under PIF#P378-0014-2014.

Morrison, James

2005 Algonquin History in the Ottawa River Watershed in A Background Study for Nomination of the Ottawa River under the Canadian Heritage Rivers System. www.ottawariver.org

Laliberté, Marcel

1999 The Middle Woodland in the Ottawa Valley. <u>in</u> Ottawa Valley Prehistory. Outaouais No. 6. Outaouais Historical Society, Hull, Quebec.

Marshall, I.B., J. Dumanski, E.C. Huffman and P.G. Lajoie

1979 Soil Capability and Land Use in the Ottawa Urban Fringe. Land Resource Research Institute, Research Branch, Agriculture Canada and the Ontario Ministry of Agriculture and Food.

Mason, Ronald

1980 Great Lakes Archaeology. Academic Press

MTC

2010 Standards and Guidelines for Consultant Archaeologists. http://www.mtc.gov.on.ca/en/publications/SG\_2011.pdf

1997 Conserving Ontario's Archaeological Heritage: An Educational Primer and Comprehensive Guide for Non-Specialists. Ministry of Citizenship, Culture and Recreation, Cultural Programs Branch, Archaeology & Heritage Planning Unit.

Past Recovery Archaeological Services

2011 Stage 1 & 2 Archaeological Assessments of the Proposed West Transitway Connection: Terry Fox Drive to Fernbank Road, Part Lots 1, 2 & 3, Concession I, and Part Lots 2 & 3, Concession Ii, Geographic Township of March, and Part Lot 28, Concessions X, Xi & Xii, Geographic Township of Goulbourn City of Ottawa, Ontario. Report prepared under P.I.F. No.: P031-035-2011

Richard, S H,

1982 Surficial geology, Ottawa, Ontario-Québec / Geologie de surface, Ottawa, Ontario-Québec. Geological Survey of Canada, , 1506A

Saint-Germain, Claire

1999 The End of the Pre-Contact Period in the Ottawa Valley - A Look at the Zooarchaeology of the Leamy Lake Park Sites. <u>in</u> Ottawa Valley Prehistory. Outaouais No. 6. Outaouais Historical Society, Hull, Quebec.

Schut, L.W. and E.A. Wilson

The Soils of the Regional Municipality of Ottawa-Carleton (excluding the Ottawa Urban Fringe). Vols. 1 & 2. Report No. 58 of the Ontario Institue of Pedology.

Sowter Edwin T. W.

1909 Algonkin and Huron Occupation of the Ottawa Valley, *The Ottawa Naturalist*, Vol. XXIII, No. 4: 61-68 & Vol. XXIII, No. 5:92-104.

Spence, Michael W, and Robert H. Pihl

"The Early and Middle Woodland Occupations of Southern Ontario: Past, Present, and Future Research." in *Arch Notes*, March/April, 1984.

Sultzman, Lee

n.d First Nations Histories: Algonkin. <a href="http://www.tolatsga.org/alg.html">http://www.tolatsga.org/alg.html</a> (accessed May 13<sup>th</sup> 2013).

Trigger, Bruce (editor)

1978 Handbook of North American Indians, Vol 15, Northeast. Smithsonian Institution, Washington.

Trigger, Bruce G.,

1985 Natives and Newcomers: Canada's "Heroic" Age Reconsidered. McGill-Queens University Press. Kingston and Montreal.

Watson, Gordon

1999 The Palaeo-Indian Period in the Ottawa Valley. <u>in</u> Ottawa Valley Prehistory. Outaouais No. 6. Outaouais Historical Society, Hull, Quebec.

Other Sources

Specific historical references cited in the text as footnotes.

# 10.0 MAPS

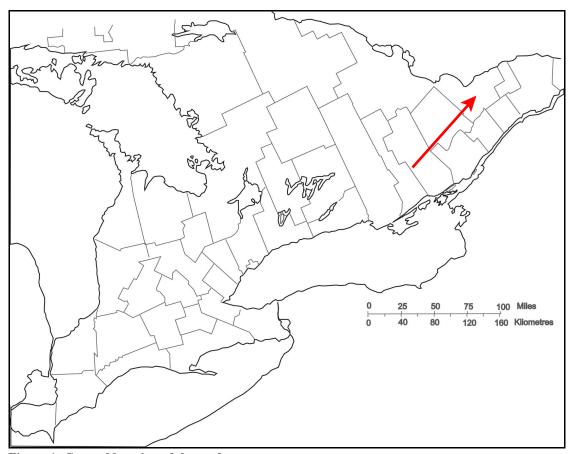


Figure 1: General location of the study area.

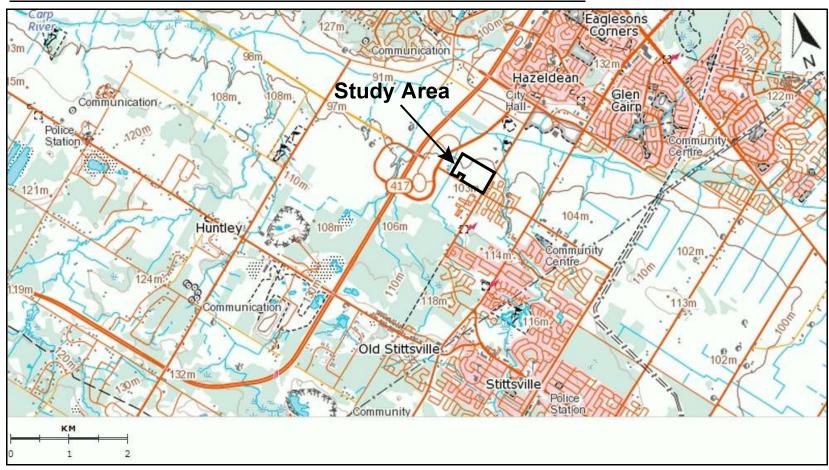


Figure 2: Location of the study area: 1:50,000 (source: Toporama).

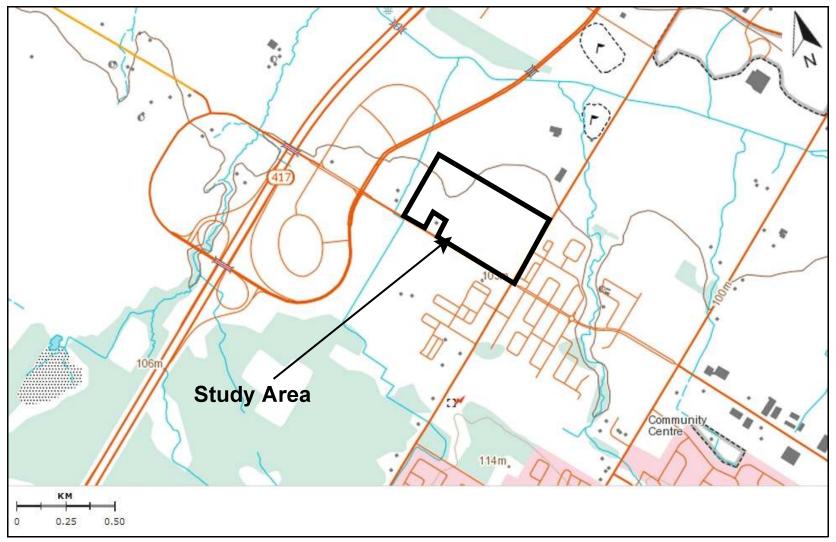


Figure 3: Location of the study area: 1:15,000 (source: Toporama).

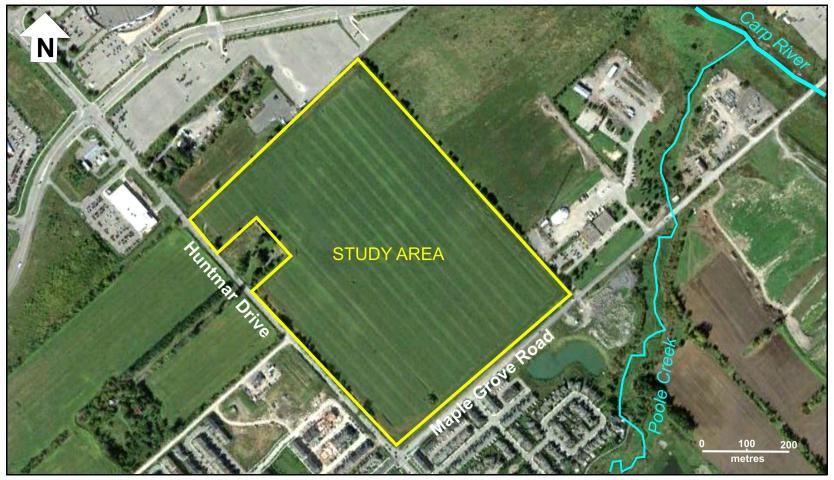


Figure 4: Air photograph showing the location and extent of the study area (source: Google Earth).

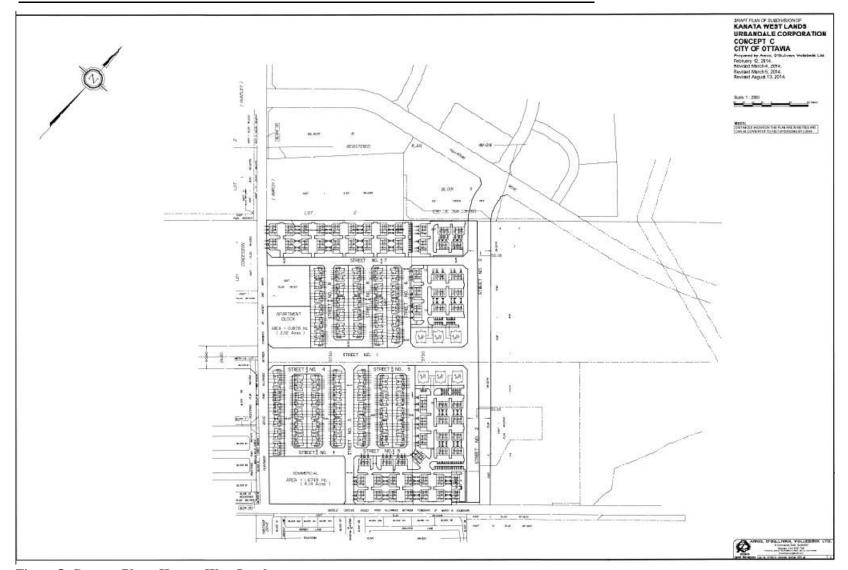


Figure 5: Concept Plan - Kanata West Lands.

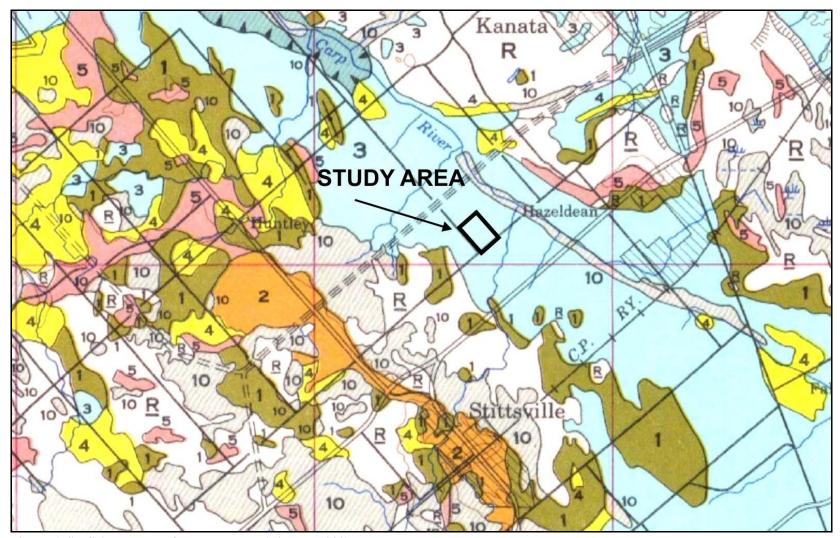


Figure 6: Surficial geology of the study area (Richard 1982).

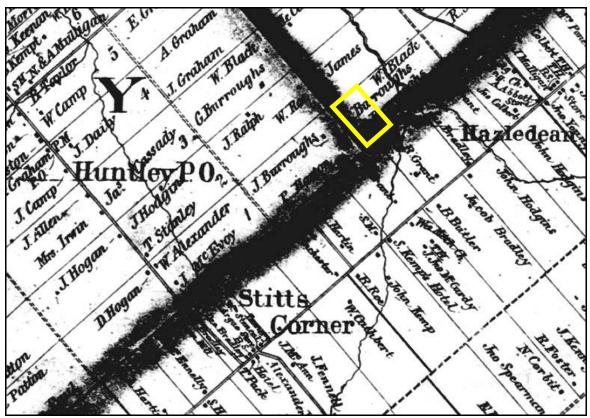


Figure 7: Portion of the 1863 Walling map showing the location of Lot 1, Con. 1 March Twp. Unfortunately the reproduction obscures any useful detail.

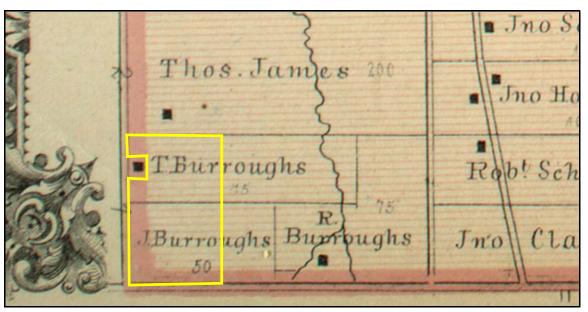


Figure 8: Portion of the 1879 Illustrated Historical Atlas of Carleton County showing the approximate location of the study area.

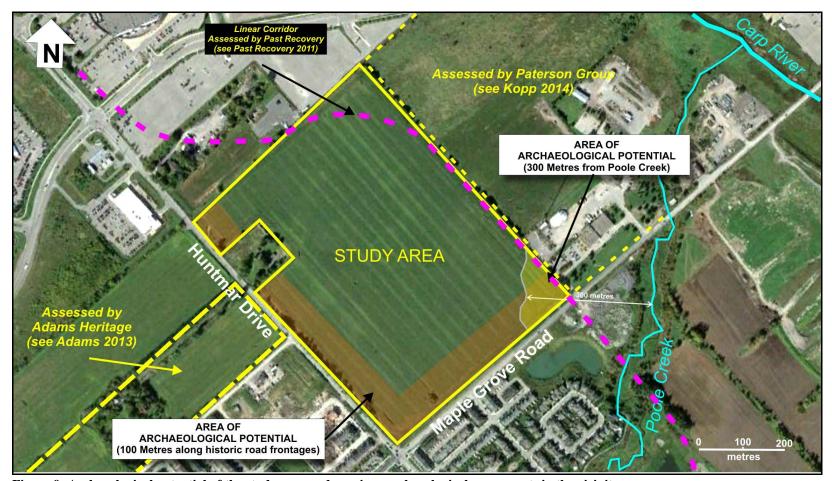


Figure 9: Archaeological potential of the study area and previous archaeological assessments in the vicinity.

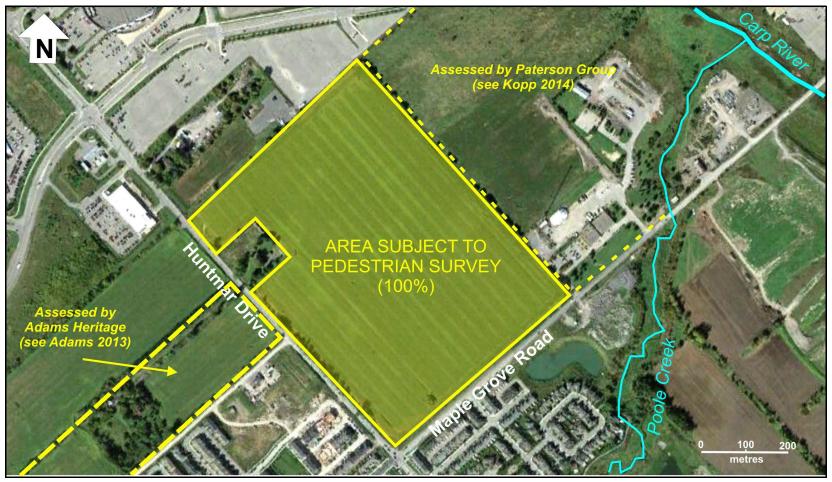


Figure 10: Area tested. 100% of the study area was subject to pedestrian survey using a 5 metre transect interval.

## 11.0 STAGE 1 IMAGES



Plate 1: General view of the study area looking north towards the Canadian Tire Centre (formerly: The Palladium (1996), Corel Centre (1996–2006), Scotiabank Place (2006–2013)), showing the level nature of the terrain and the current crop of soybeans.



Plate 2: View along the south-east side of the property, looking south-west towards the intersection of Maple Grove Road and Huntmar Drive.



Plate 3: The south-west corner of the property looking west towards Huntmar Drive.



Plate 4: View looking south-east along Huntmar Drive. The house and lands in the centre of the picture are excluded from the study area.



Plate 5: General view of the study area looking east from Huntmar Drive.



Plate 6: General view of the study area looking north-east from Huntmar Drive.



Plate 7: General view of the study area looking north from Maple Grove Road.

## 12.0 STAGE 2 IMAGES



Plate 8: Pedestrian survey in progress. Looking north towards the Canadian Tire Centre.



Plate 9: Pedestrian survey near the northern edge of the study area.



Plate 10: Pedestrian survey close to the Maple Grove Road frontage.



Plate 11: Conditions for pedestrian survey. The ground surface was well washed, with good surface visibility.

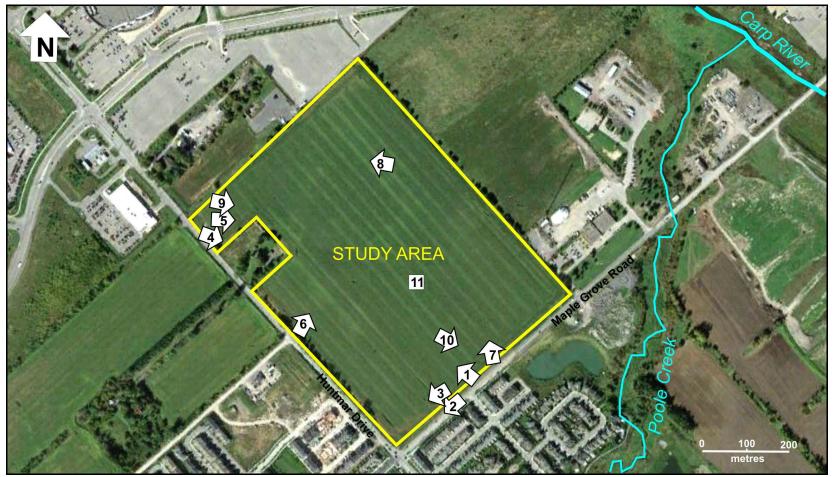


Figure 11: Location orientation and direction of photographs included in this report. The numbers equate to plate numbers in the 'Images' section.