

Regional Municipality of Halton

New North Oakville Transportation Corridor and Crossing of Sixteen Mile Creek

**Appendix E: Archaeological Assessment** 

Stage 1 Archaeological Assessment for The New North Oakville Transportation Corridor and Crossing of Sixteen Mile Creek Class Environmental Assessment Town of Oakville Regional Municipality of Halton Ontario

**Project Number: 012-466-04** 

Licence#: P029-164

**Revised June 2008** 

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### INTRODUCTION

This report involves the Stage 1 archaeological assessment for the New North Oakville Transportation Corridor and Crossing of Sixteen Mile Creek, in the Town of Oakville (see Figure 1). A review of a study area block, bounded by Bronte Road, Dundas Street, Highway 407 and Ninth Line, was conducted to assess the archaeological potential of the area; this block being reviewed to accommodate a new transportation corridor in the vicinity of Burnhamthorpe Road to satisfy east-west capacity requirements. A Stage 1 review corresponding to the study area illustrated in Figure 1 was conducted.

Co-ordinating an environmental assessment in support of a Class EA for this study is *Totten Sims Hubicki Associates*, of Whitby, Ontario. *Totten Sims Hubicki Associates* retained *Archeoworks Inc.* to conduct a Stage 1 archaeological assessment within the above listed study area. The Stage 1 research, reported herein, was conducted under the project direction of Ms. Kim Slocki. This study was conducted in accordance with the Ontario Heritage Act (1990) under an archaeological consulting licence (P029) issued to Kim Slocki.

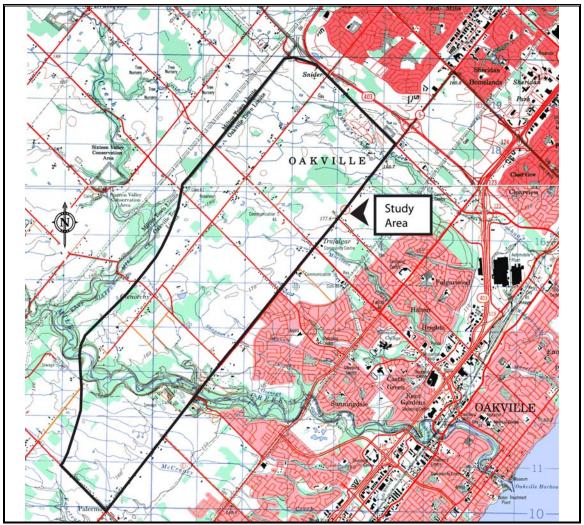


Figure 1: Location of Study Area (Brampton 30M/12 and Hamilton 30M/5)

### 1) Registered Archaeological Sites

In order that an inventory of archaeological resources could be compiled for this study area, the site record forms for registered sites housed at the *Ministry of Culture (MCL)* were consulted. Each site is registered according to the Borden System, which is an archaeological numbering system used throughout Canada to track archaeological sites and the artifacts that come from them. The study area under review is located within Borden Blocks AiGw and AjGw. A total of 36 archaeological sites have been registered within a two-kilometre radius of the study area, two of which (AlGs-213 and AlGs-254) were encountered just beyond the study corridor limits. These sites are listed below in *Table 1*.

Table 1: Registered Archaeological Sites within 300m to Study Area

Tuble 1. Registered Archaeological Sues within 500m to Study Area			
Borden #	Name	Cultural Affiliation	Type
AiGw-127	80-403-6	Undetermined Precontact	Projectile Point tip
AiGw-128	80-403-7	Undetermined Precontact	Campsite
AiGw-129	80-403-8	Undetermined Precontact	Campsite
AiGw-130	80-403-9	Undetermined Precontact	Findspot
AiGw-131	80-403-10	Undetermined Precontact	1 Flake
AiGw-145	81-403-5	Undetermined Precontact	Findspot
AiGw-146	81-403-18	Undetermined Precontact	1 Flake
AiGw-147	81-403-19	Undetermined Precontact	1 Flake
AiGw-148	81-403-19	Undetermined Precontact	Biface tip
AiGw-172	81-403-45	Undetermined Precontact	1 Flake
AiGw-179		Undetermined Precontact	1 Flake
AiGw-180		Undetermined Precontact	1 scraper
AiGw-181		Undetermined Precontact	Findspot
AiGw-182		Undetermined Precontact	1 Flake
AiGw-203	Proudfoot's Hollow	Euro-Canadian	Town, mill
AiGw-209	Pettit	Euro-Canadian	Homestead
AiGw-213	Descartes	Undetermined Precontact	Campsite?
AiGw-215	Potemkin	Undetermined Precontact	Campsite?
AiGw-217	Walnut	Middle Archaic	Projectile Point
AiGw-218	Levar-Reid	Euro-Canadian	Homestead
AiGw-219	Oakdene	Undetermined Precontact	Campsite?
AiGw-227	Abigail Post Homestead	Euro-Canadian	Homestead
AiGw-228	Uptown Core Lands 2	Euro-Canadian	Undetermined
	_	Undetermined Precontact	Findspot
AiGw-229	Uptown Core Lands 3	Euro-Canadian	School House
AiGw-230	Daniel Munn Homestead	Euro-Canadian	Homestead
AiGw-231	Uptown Core Lands 5	Early Woodland	Projectile Point
AiGw-304	Corfu	Late Archaic	Campsite
AiGw-335	Iroquois Ridge #2	Middle Archaic	Projectile Point
AiGw-373		Undetermined Precontact	Lithic scatter
AiGw-374	Miniature Horses	Undermined Precontact	Campsite
AjGw-25	Adle	Undetermined Precontact	Campsite
AjGw-227	Lernan	Euro-Canadian	Homestead
AjGw-305	Phoenix	Euro-Canadian	Homestead
AjGw-306	Albertson II	Euro-Canadian	Homestead
AjGw-307	Albertson I	Euro-Canadian	Homestead
AjGw-308	Raptor	Undetermined Precontact	Campsite

Having noted the presence of these sites in close proximity to the study area, it may be useful to place these in context by reviewing the cultural history of occupation in Southern Ontario provided in *Table 2* below.

Table 2: History of Occupation in Southern Ontario

Period	Archaeological Culture	<b>Date Range</b>	Attributes
PALEO-	INDIAN		
Early	Gainey, Barnes, Crowfield	11,000 - 10,400 BP	Small nomadic hunter-gatherer bands. Fluted projectile points
Late	Holcombe, Hi-Lo, Lanceolate	10,400 - 9,500 BP	Small nomadic hunter-gatherer bands. Lanceolate projectile points
ARCHA	IC		•
Early	Side-notched, corner notched, bifurcate-base	9,500 - 8,000 BP	Small nomadic hunter-gatherer bands; first notched and stemmed points, and ground stone celts.
Middle	Otter Creek, Brewerton	8,000 - 4,500 BP Small territorial hunter-gatherer bands; wider variety of ground stone tools; first copper tools; bone tools	
Late	Normanskill, Lamoka, Genesee, Adder Orchard etc. gatherer ban exotic mater		More numerous territorial hunter- gatherer bands; increasing use of exotic materials and artistic items for grave offerings; regional trade networks
WOODI	AND		•
Early	Meadowood, Middlesex	2,800 - 2,000 BP	Introduction of pottery, burial ceremonialism; panregional trade networks
Middle	Point Peninsula	2,000 - 1,200 BP	Cultural and ideological influences from Ohio Valley complex societies; incipient horticulture
Late	Algonquian, Iroquoian	1,200 - 700 BP	Transition to larger settlements and agriculture
	Algonquian, Iroquoian	700 - 600 BP	Establishment of large palisaded villages (Iroquoian)
	Algonquian, Iroquoian	600 - 400 BP	Tribal differentiation and warfare (Iroquoian)
HISTOR	IIC .		
Early	Huron, Odawa, Algonquin	AD 1600-1650	Tribal displacements
Late	Six Nations Iroquois, Ojibway, Algonquin	AD 1650 - 1800s	Migrations and resettlement
	EuroCanadian	AD 1800 - present	European immigrant settlements

# 2) Physiographic Description & Aboriginal Potential

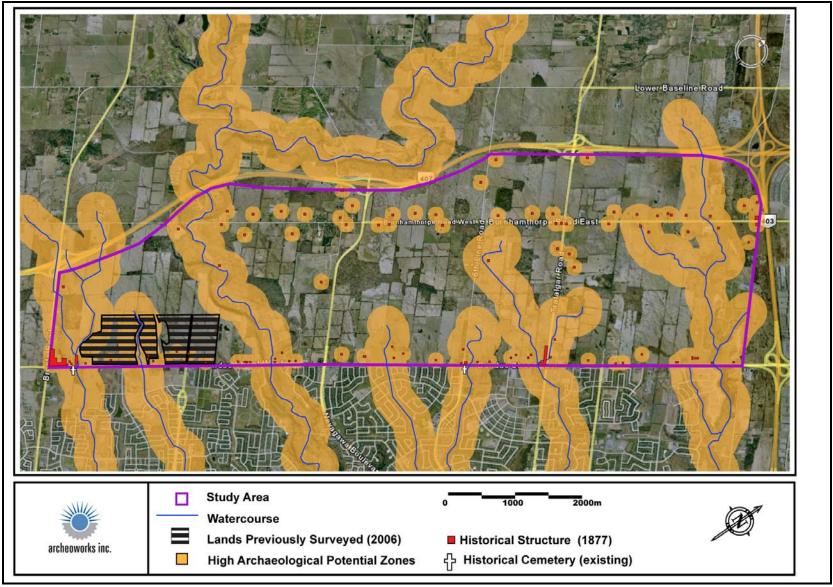
The study area is situated within the Peel Plain physiographic region of Southern Ontario. The Peel Plain is a level-to-undulating tract of clay soils covering 300 square miles across and extends northeastward from the Niagara Escarpment, through the Regional Municipalities of York, Peel and Halton. Across this plain the Credit, Humber, Don and Rouge Rivers have cut deep valleys, as have other streams such as the Bronte, Oakville and Etobicoke Creeks. The underlying geological material of the plain is a till containing large amounts of shale and limestone and while there are widespread beds of stoneless

heavy clay over the till along most of this plain, there are exceptions to be noted. In various places, the stream valleys are bordered by trains of sandy alluvium. This is true of the Credit River below Norval (Chapman & Putnam, 1984).

Settled during the early part of the 19<sup>th</sup> century, the fertile clay soils were cleared rapidly. Once the pioneer stage was passed the plain became a noted wheat growing area which, besides supplying the growing city of Toronto, produced quantities of grain for export to the United States through various lake ports such as Oakville, Port Credit, and Whitby. Later a mixed type of crop and livestock farming developed. When alfalfa was introduced into Ontario it was found that this area not only produced abundant crops of hay but it was also ideal for the production of seed and, for a time, this crop was the source of a fleeting prosperity. Nearness to Toronto resulted in the development of a number of racehorse farms and in the establishment of some orchard, small fruit, vegetable, and poultry farms (Chapman & Putnam, 1984).

The study area is bisected by numerous water courses, including McCraney Creek, Sixteen Mile Creek, Shannon's Creek, Munn's Creek, Morrison Creek, Joshua's Creek and an unnamed watercourse east of Bronte Road. In terms of archeological potential, potable water is arguably the single most important resource necessary for any extended human occupation or settlement. As water sources have remained relatively stable in southern Ontario since post-glacial times, proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most commonly used variables for predictive modeling of site location.

The *Ministry of Tourism*, *Culture and Recreation* (now the *Ministry of Culture*) primer on archaeology, land use planning and development in Ontario stipulates that undisturbed lands within 300 metres of a primary water source, and undisturbed lands within 200 metres of a secondary water source, are considered to be of high archaeological potential (1997: pp12-13). This fact, combined with the numerous sites located within and close to the study area, creates high potential for the location and recovery of additional Aboriginal archaeological resources in undisturbed locations (see Figure 2).



<u>Figure 2</u>: Archaeological Potential Zones\* within the Study Area

<sup>\*</sup>Archaeological Potential Zones are defined as lands within 300 metres of a primary water source, within 200 metres of a secondary water source and within close proximity (ie: 100 metres or less) to a former or existing 18<sup>th</sup> or 19<sup>th</sup> century structure and/or historic cultural village

### 3) Review of Historical Land Use

To assess a study area's potential for the recovery of historic remains, several documents are reviewed in order to gain an understanding of the land-use history. These specifically include the *Illustrated Historical Atlases* for the Counties of Ontario. A review of *Illustrated Historical Atlas of Halton County*, 1877 was undertaken to determine the historical potential within the study area limits. Listed below is a general overview of the historic settlement in the area as illustrated in the 1877 Atlas.

The study area is bounded by the existing Bronte Road, Dundas Street, Ninth Line and Burnhamthorpe Road/Highway 407, in the Town of Oakville (*Figure 3*). The boundaries of the study area (Lots 6-30, Concession 1 and Lots 6-27, Concession 2 NDS), contained the following historic activity:

Table 3: Historical Review of Study Area: 1877 Inhabitants

	Halton County			
Lot	Concession	Comments		
30	1	Southwest corner of the Lot makes up the northeast corner of crossroads of the		
		village of Palermo. Four homesteads also illustrated within this Lot		
29	1	1 homestead illustrated within this Lot, within the boundaries of the study area		
28	1	1 homestead illustrated within this Lot, within the boundaries of the study area		
27	1	2 homesteads illustrated within this Lot, within the boundaries of the study area		
26	1	3 homesteads illustrated within this Lot, within the boundaries of the study area		
25	1	3 homesteads illustrated within this Lot, within the boundaries of the study area		
24	1	2 homesteads illustrated within this Lot, within the boundaries of the study area		
23	1	3 homesteads, 1 blacksmiths shop, 1 unidentified structure illustrated within this Lot, within the boundaries of the study area		
22	1	5 homesteads, 1 blacksmiths shop illustrated within this Lot, within the boundaries of the study area		
21	1	1 homestead illustrated within this Lot, within the boundaries of the study area		
20	1	2 homesteads illustrated within this Lot, within the boundaries of the study area		
19	1	3 homesteads illustrated within this Lot, within the boundaries of the study area		
18	1	2 homesteads and 1 spring illustrated within this Lot, within the boundaries of the study area		
17	1	2 homesteads illustrated within this Lot, within the boundaries of the study area		
16	1	2 homesteads and Munn's Corners illustrated within this Lot, within the boundaries		
15	1	of the study area 6 homesteads, 1 church associated with Munn's Corners illustrated within this Lot, within the boundaries of the study area		
14	1	2 homesteads illustrated within this Lot, within the boundaries of the study area		
13	1	2 homesteads, Crange Hall, 1 blacksmiths shop and the northwest segment of Trafalgar Village illustrated within this Lot, within the boundaries of the study area		
12	1	5 homesteads illustrated within this Lot, within the boundaries of the study area		
11	1	2 homesteads illustrated within this Lot, within the boundaries of the study area		
10	1	3 homesteads illustrated within this Lot, within the boundaries of the study area		
9	1	2 homesteads and 1 spring illustrated within this Lot, within the boundaries of the study area		
8	1	2 homesteads illustrated within this Lot, within the boundaries of the study area		
7	1	5 homesteads illustrated within this Lot, within the boundaries of the study area		
6	1	2 homesteads and 1 school house illustrated within this Lot, within the boundaries of the study area		
27	2	No homesteads illustrated within the boundaries of the study area		

		·
26	2	1 homestead illustrated at the northern boundary of the study area, within this Lot
25	2	1 homestead illustrated within this Lot, within the boundaries of the study area
24	2	1 homestead illustrated within this Lot, within the boundaries of the study area
23	2	1 homestead illustrated within this Lot, within the boundaries of the study area
22	2	1 homestead illustrated within this Lot, within the boundaries of the study area
21	2	1 homestead illustrated within this Lot, within the boundaries of the study area
20	2	1 homestead illustrated within this Lot, within the boundaries of the study area
19	2	1 homestead illustrated within this Lot, within the boundaries of the study area
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13	2	1 homestead illustrated within this Lot, within the boundaries of the study area
12	2	1 homestead illustrated within this Lot, within the boundaries of the study area
11	2	1 homestead illustrated within this Lot, within the boundaries of the study area
10	2	1 homestead illustrated within this Lot, within the boundaries of the study area
9	2	3 homesteads illustrated within this Lot, within the boundaries of the study area
8	2	1 homestead illustrated within this Lot, within the boundaries of the study area
7	2	1 homestead illustrated within this Lot, within the boundaries of the study area
6	2	2 homesteads and 1 church illustrated within this Lot, within the boundaries of the
		study area

Thus, in light of this documentation of historic settlement, the study area has obviously had a long history of historical land use, both for rural settlement and agricultural purposes. This long history attests to the high potential for the recovery of significant Euro-Canadian archaeological remains in those areas within the study area, which have not been disturbed by recent development activities and provides an excellent rational for further Stage 2 archaeological investigations once the preferred route alignment has been selected (ie: during detail design).

#### 4) Field Review

A field review of the transportation corridor study area was conducted in May of 2005 to identify and describe high potential areas requiring additional archaeological research and low potential areas not warranting further archaeological concern. The entire study area was visually inspected and photo-documented.

The study area as a whole can be primarily classified as undisturbed rural; this block comprised of a mixture of pastureland, cultivated fields, rural residential frontages and barn complexes, meadowlands and woodlot (*Plates 1-2*). Disturbances include a preschool located at 3300 Ninth Line and the modern Glen Oaks Cemetery, also adjacent to Ninth Line. Light industrial development can be seen along the north side of existing Burnhamthorpe Road. Furthermore, low archaeological potential due to floodplain and low-lying wet land associated with McCraney Creek, Sixteen Mile Creek, Shannon Creek, Morrison Creek, Joshua's Creek, and the unnamed creek east of Bronte Road (*Plate 3*) was identified. However, while the immediate surroundings, sloping floodplain lands are classified as low in potential, the surrounding tablelands located within 300 metres to these water courses are classified as extremely archaeologically sensitive lands

and have very high potential for yielding archaeological remains. Thus, despite the minor disturbances listed above, the large majority of this study area would require further Stage 2 archaeological investigations.

Specific to Dundas Street, while disturbances associated with gravel shoulders and ditches can be seen, beyond the toe of slope, further Stage 2 test-pitting could be conducted within the grass margins following the right-of-way limits. Additionally, the lands immediately adjacent to the right-of-way are mostly undisturbed cultivated, pasture and fallow fields; these areas also requiring further Stage 2 investigations should the Dundas Street alternative be chosen for widening and construction activities need to occur beyond the right-of-way limits. Finally, further Stage 3 investigations would be necessary for pioneer Palermo Cemetery, located on the south side of Dundas Street, just east of Bronte Road and for pioneer Munn's Cemetery, located on the south side of Dundas Street, just east of 6<sup>th</sup> Line. This testing would be required since human remains may be unmarked and may extend into the right-of-way of the adjacent road. Nineteenth century historic cemeteries were not highly regulated, and burials sometimes occurred in close proximity to a much narrower historic right-of-way and often employed markers of little substance that have since disappeared. Thus, should disturbances take place within the right-of-way limits next to a pioneer cemetery, Stage 3 archaeological assessments would be required.

Should improvements be made to Lower Baseline or upgrades to the existing Burnhamthorpe alignment, due to the undisturbed, rural condition and the established high archaeological potential immediately surrounding both of these corridors, further Stage 2 investigations would be necessary in all areas to be affected by construction activities.

Furthermore, a significant portion of the study area, as illustrated in *Figure 2*, has previously been surveyed by Archaeological Assessments Ltd., as is documented in their report "The Stage 1-3 Archaeological Assessment of the Ontario Realty Corporation Property, Oakville Assembly Lands, Part of Lots 25, 26, 27 and 28, Concession 1 NDS, Township of Trafalgar, Town of Oakville. Project No. D60399". Therefore, this portion of the study area can be considered free of archaeological concern, and will thus not be subjected to further archaeological assessment.

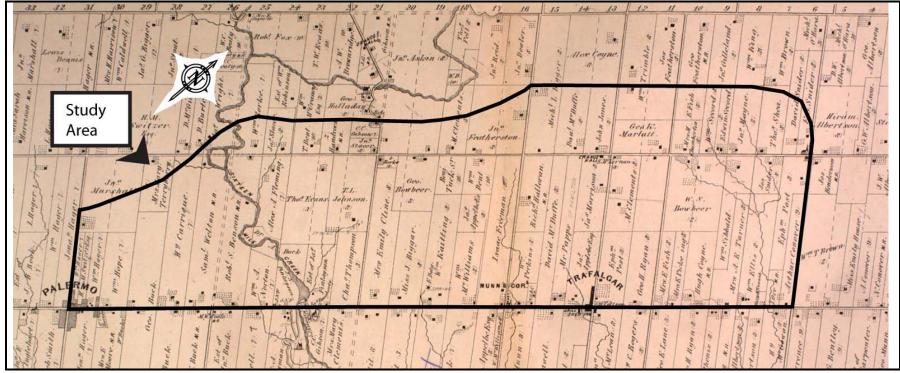


Figure 3: Historical Review of Study Area: 1877

### 5) Conclusions & Recommendations

The Stage 1 archaeological review of the New North Oakville Transportation Corridor and Crossing of Sixteen Mile Creek, bounded by Bronte Road, Dundas Street, Ninth Line and Burnhamthorpe Road/Highway 407, within the Town of Oakville, has indicated that there are 36 registered archaeological sites within 300 metres or less to the study area. Based on the visual documentation of suitable topography, the close proximity of known archaeological sites, historical documentation and the close proximity of several watercourses, additional significant sub-surface Aboriginal and 19<sup>th</sup> century Aboriginal and Euro-Canadian sites may be discovered at any undisturbed location within the proposed study area. As such, the following recommendations are presented:

- 1. Once the preferred transportation corridor and construction limits have been determined (ie: during detail design), with the exception of the area previously archaeologically investigated as seen in **Figure 2**, a Stage 2 archaeological field assessment in all undisturbed areas listed above should be undertaken to minimize impacts to heritage resources. Should significant archaeological resources be encountered, additional background research or fieldwork may be required by the *Ministry of Culture*.
- 2. Should improvements be made along Dundas Street, further Stage 2 and 3 investigations of the pioneer Palermo Cemetery grounds, located on the south side of Dundas Street just east of Bronte Road, and the pioneer Munn's Cemetery grounds, located on the south side of Dundas Street just east of 6<sup>th</sup> Line, would be necessary. This would entail the completion of a test-pit survey, followed by the use a smooth-bucket backhoe or Gradall® to strip topsoil following the length of the cemetery, within the right-of-way boundaries. Once the topsoil has been removed, if it has been determined no grave shafts fall within the limits of construction, the topsoil would subsequently be returned and all excavated ditches filled in. Should grave shafts be encountered, the client and the *Registrar of Cemeteries* must be contacted immediately for further instruction; however, topsoil would also be returned in this situation, to ensure protection of the graves.
- 3. This report is filed with the Minister of Culture in compliance with Section 65 (1) of the *Ontario Heritage Act*. The ministry reviews reports to ensure that the licensee has met the terms and conditions of the licence and archaeological resources have been identified and documented according to the standards and guidelines set by the ministry, ensuring the conservation, protection and preservation of the heritage of Ontario. It is recommended that development not proceed before receiving confirmation that the *Ministry of Culture* has entered the report into the provincial register of reports.
- 4. Should previously unknown or unassessed deeply buried archaeological resources be uncovered during development, 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 archaeologist to carry out archaeological

fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*. The office of the Heritage Operations Unit, *Ministry of Culture* (416-314-7143) should be contacted immediately.

5. Any person discovering human remains must immediately notify the office of the Heritage Operations Unit, *Ministry of Culture* (416-314-7143), the police or coroner, and the Registrar of Cemeteries, Cemeteries Regulation Unit, *Ministry of Government Services* (416-326-8404).

Under Section 6 of Regulation 881 of the *Ontario Heritage Act*, *Archeoworks Inc*. will, "keep in safekeeping all objects of archaeological significance that are found and all field records that are made."

### 6) Bibliography

Archaeological Assessments Ltd.

2006 The Stage 1-3 Archaeological Assessment of the Ontario Realty Corporation Property, Oakville Assembly Lands, Part of Lots 25, 26, 27 and 28, Concession 1 NDS, Township of Trafalgar, Town of Oakville. Project No. D60399. Oakville.

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1984 *The Physiography of Southern Ontario*; Ontario Geological Survey, Special Volume 2. Government of Ontario: Toronto.

Miles & Co.

1877 Illustrated Historical Atlas of the County of Halton. Toronto.

Ministry of Tourism, Culture and Recreation (former MCzCR)
 1997 Conserving A Future For Our Past: Archaeology, Land Use Planning & Development in Ontario. Cultural Programs Branch. Toronto.

Ontario Ministry of Citizenship, Culture and Recreation
1993 Archaeological Assessment Technical Guidelines, Stage 1-3.

# **GLOSSARY OF TERMS:**

<u>Before Present (BP):</u> Before present (where present is calculated to be 1951).

#### Biface:

A stone tool, which has been flaked from both sides.

## Diagnostic:

An artifact is labeled "diagnostic" if it has a distinguishing characteristic that helps identify and date what it is. Projectile points, for example, are classified as "diagnostic" based on their shape and style, which are culturally distinct and, thus, classifiable.

### *Findspot:*

Refers to three or less non-diagnostic artifact(s).

### Precontact/Prehistoric:

Before written history. In Ontario, this term is used to define the time between the beginning of human settlement in the province (c. 9500BC) and the period when the first contacts were made between native and non-native groups (c. 1650 AD).

### Retouch:

Evidence of re-sharpening along the working face of a stone tool.

## Site:

Refers to an area containing at least four artifacts, or an isolated formal tool/artifact that provides cultural or chronological information, such as a projectile point or decorated ceramic shard.

# **APPENDIX A: PLATES**

- Plate 1: Looking west at rural condition of study area just west of 9th Line
- Plate 2: Looking east at rural condition of study area just east of 6<sup>th</sup> Line

Plate 3: Looking north at Sixteen Mile Creek and surrounding valleylands





