



18 April, 2017

## STAGE 3 ARCHAEOLOGICAL ASSESSMENT

**Finger Ridge Site (AeHh-150)  
George Street Land Parcel  
Port Stanley, Ontario,  
Parts 1-8 11R-1261  
Former Township of Southwold,  
Now Municipality of Central Elgin,  
Elgin County, Ontario**

**Submitted to:**

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REVISED REPORT





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## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

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### Executive Summary

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

Golder Associates Ltd. ("Golder") was contracted by 2526485 Ontario Inc. to conduct a Stage 3 site-specific archaeological assessment of the Finger Ridge Site (AeHh-150), a pre-contact Aboriginal site located on a 23.6 hectare (58.32 acre) land parcel (Study Area) on Parts 1-8 11R-1261 in the former Township of Southwold, now Municipality of Central Elgin, Elgin County, Ontario. The Study Area is located on the north side of George Street in the west end of Port Stanley, Ontario (Map 1). This Stage 3 assessment was conducted to meet the standard requirements of the the *Planning Act*, R.S.O 1990, c.P.14 (Government of Ontario 1990a), as required by the Municipality of Central Elgin prior to land disturbance.

The objective of the Stage 3 assessments was to conduct a systematic subsurface investigation of the archaeological site identified during Golder's previous Stage 2 assessment to increase the recovered artifact sample and delineate the boundaries of the site, consistent with Ministry of Tourism, Culture and Sport's (MTCS) *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011).

The Stage 3 site-specific assessment of the Finger Ridge Site (AeHh-150) involved the hand excavation of 22 one-metre square test units and resulted in the recovery of one biface and 40 pieces of lithic debitage. No subsurface cultural features, fire cracked rocks, pre-contact Aboriginal ceramic sherds or additional diagnostic artifacts were identified during the Stage 3 assessment of the Finger Ridge Site (AeHh-150). Based on the results of the Stage 3 assessment, the Finger Ridge Site (AeHh-150) is determined to have no further cultural heritage value or interest, and as such it is recommended that Stage 4 mitigation of impacts is not required for the site. This recommendation is consistent with the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), Section 3.4.1, Standards 1 a-d.

The Ontario Ministry of Tourism, Culture and Sport is asked to review the results and recommendations presented herein, accept this report into the Provincial Register of archaeological reports and issue a standard letter of compliance with the Ministry's 2011 Standards and Guidelines for Consultant Archaeologists and the terms and conditions for archaeological licencing.



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## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

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### Acknowledgements

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## Table of Contents

<b>1.0 PROJECT CONTEXT .....</b>	<b>1</b>
1.1 Development Context .....	1
1.2 Objectives .....	1
1.3 Historical Context.....	1
1.3.1 Pre-Contact Aboriginal Period.....	2
1.3.2 Post-Contact Aboriginal Period .....	7
1.3.3 Historical Euro-Canadian Period .....	8
1.3.4 Site Specific Historical Context .....	9
1.4 Archaeological Context.....	9
1.4.1 The Natural Environment .....	9
1.4.2 Previously Known Archaeological Sites and Surveys .....	10
1.4.3 Previous Archaeological Assessments of the Current Study Area .....	10
<b>2.0 FIELD METHODS.....</b>	<b>11</b>
2.1 Methodology .....	11
2.2 GPS Coordinates.....	12
<b>3.0 RECORD OF FINDS.....</b>	<b>13</b>
3.1 Finger Ridge Site (AeHh-150) .....	13
3.1.1 Formal Lithic Tools.....	14
3.1.1.1 Lithic Debitage.....	14
3.2 Artifact Distribution and Frequencies .....	17
3.3 Stratigraphy .....	17
<b>4.0 ANALYSIS AND CONCLUSIONS.....</b>	<b>17</b>
<b>5.0 RECOMMENDATIONS.....</b>	<b>19</b>
<b>6.0 ADVICE ON COMPLIANCE WITH LEGISLATION .....</b>	<b>19</b>
<b>7.0 BIBLIOGRAPHY.....</b>	<b>20</b>
<b>8.0 IMAGES.....</b>	<b>24</b>
<b>9.0 MAPS.....</b>	<b>30</b>
<b>10.0 IMPORTANT INFORMATION AND LIMITATIONS OF THIS REPORT .....</b>	<b>41</b>





## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

<b>11.0 CLOSURE.....</b>	<b>42</b>
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### TABLES

Table 1: Cultural Chronology for Southern Ontario .....	2
Table 2: Summary of Weather Conditions.....	11
Table 3: Inventory of Documentary Record.....	13
Table 4: Finger Ridge Site (AeHh-150) Artifact Summary.....	14
Table 5: Finger Ridge Site (AeHh-150) Informal Lithic Tool Attributes .....	14
Table 6: Finger Ridge Site (AeHh-150) Classification of Lithic Debitage .....	16
Table 7: Finger Ridge Site (AeHh-150) Stage 3 Artifact Catalogue .....	49

### IMAGES

Image 1: Stage 3 archaeological assessment, Finger Ridge Site (AeHh-150), field conditions, facing northeast, October 4, 2016.....	24
Image 3: Stage 3 archaeological assessment, Finger Ridge Site (AeHh-150), test unit excavation in progress, facing northwest, October 3 2016. ....	24
Image 4: Stage 3 archaeological assessment, Finger Ridge Site (AeHh-150), test unit excavation in progress, facing southwest, October 3 2016. ....	25
Image 5: Stage 3 archaeological assessment, Finger Ridge Site (AeHh-150), test unit 845E 890N:1 complete, facing north, September 28, 2016.....	25
Image 6: Stage 3 archaeological assessment, Finger Ridge Site (AeHh-150), test unit 830E 855N:1 complete, facing north, October 3, 2016. ....	26
Image 7: Stage 3 archaeological assessment, Finger Ridge Site (AeHh-150), test unit 755E 825N:1 complete, facing west, October 4, 2016. ....	26
Image 8: Finger Ridge Site (AeHh-150) Stage 1 biface (Cat. # 46). ....	27
Image 9: Finger Ridge Site (AeHh-150) primary reduction flakes (left to right): Cat. #s 47 and 52. ....	27
Image 10: Finger Ridge Site (AeHh-150) primary thinning flakes (left to right): Cat. #s 34, 40, 54. ....	28
Image 11: Finger Ridge Site (AeHh-150) biface thinning flakes (left to right): Cat. #s 19, 30, 38, 43.....	28
Image 12: Finger Ridge Site (AeHh-150) retouch flakes (left to right): Cat. #s 31, 36, 39.....	28
Image 13: Finger Ridge Site (AeHh-150) flake fragments (left to right): Cat. #s 45, 53. ....	29
Image 14: Finger Ridge Site (AeHh-150) shatter (left to right): Cat. #s 29, 48. ....	29

### MAPS

Map 1: Location of Study Area.....	31
Map 2: Southwestern Ontario Pre-contact Aboriginal Culture History.....	32
Map 3: A Portion of Burwell's 1810 Map of Southwold Township .....	33



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## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

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Map 4: A Portion of Ridout's 1816 Map of Southwold Township .....	34
Map 5: A Portion of Burwell's 1819 Map of Southwold Township .....	35
Map 6: A Portion of Maitland's 1819 Map of Southwold Township.....	36
Map 7: A Portion of Burwell's 1831 Map of Southwold Township .....	37
Map 8: A Portion of Tremaine's 1864 Map of Southwold Township .....	38
Map 9: A Portion of the 1877 Historical Atlas Map of Southwold Township .....	39
Map 10: Stage 3 Archaeological Assessment Results .....	40

### APPENDICES

#### APPENDIX A

Pre-contact Aboriginal Glossary of Terms/Definitions

#### APPENDIX B

Finger Ridge Site (AeHh-150) Stage 3 Artifact Catalogue



## **1.0 PROJECT CONTEXT**

### **1.1 Development Context**

Golder Associates Ltd. ("Golder") was contracted by 2526485 Ontario Inc. to conduct a Stage 3 site-specific archaeological assessment of the Finger Ridge Site (AeHh-150), a pre-contact Aboriginal site located on a 23.6 hectare (58.32 acre) land parcel (study area) on Parts 1-8 11R-1261 in the former Township of Southwold, now Municipality of Central Elgin, Elgin County, Ontario. The Study Area is located on the north side of George Street in the west end of Port Stanley, Ontario (Map 1). This Stage 3 assessment was conducted to meet the standard requirements of the the *Planning Act*, R.S.O 1990, c.P.14 (Government of Ontario 1990a), as required by the Municipality of Central Elgin prior to land disturbance.

The Stage 3 site-specific assessment was conducted under professional archaeological licence P457, issued to Lafe Meichenheimer of Golder by the MTCS (PIF# P457-0032-2016). Permission to enter the property to conduct all required archaeological fieldwork activities, including the recovery of artifacts, was granted by Julian Novick of 2526485 Ontario Inc.

### **1.2 Objectives**

The objective of the Stage 3 archaeological assessment of the Finger Ridge Site (AeHh-150) was to determine the extent of the site, collect a representative sample of artifacts, and assess its cultural heritage value or interest in order to make a determination of whether or not Stage 4 mitigations would be required, consistent with Ministry of Tourism, Culture and Sport standards (Government of Ontario 2011).

To meet these objectives Golder archaeologists employed the following research strategies:

- A review of relevant archaeological, historical, and environmental literature pertaining to the Study Area; and,
- Stage 3 archaeological test unit excavations.

In addition, Golder also examined background data sources located at the Ministry of Tourism, Culture and Sport (MTCS) office in Toronto and Golder's corporate library.

Given that the site to be assessed through Stage 3 excavation is pre-contact Aboriginal in nature, and following MTCS recommendations under Section 2.2 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011:39-40), several First Nations communities were engaged to determine their interest in participating in the project (see Supplementary Documentation for further details).

### **1.3 Historical Context**

The Study Area is situated in an area of Ontario that exhibits evidence an extended period of human settlement dating back at least 11,000 years. To provide context to the following sections of this report, the nature of this settlement is summarized below beginning with the pre-contact Aboriginal period as it relates to the Elgin County area in general. This is followed by a summary of the historical Euro-Canadian period for Southwold Township in general and the study area specifically.



## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

### 1.3.1 Pre-Contact Aboriginal Period

Table 1 provides a general outline of the pre- and post-contact culture history for the southern Ontario, drawn from Ellis and Ferris (1990), while Map 2 provides a visual guide to the pre-contact aboriginal history of southern Ontario.

**Table 1: Cultural Chronology for Southern Ontario**

Period	Characteristics	Time	Comments
Early Paleo	Fluted Projectiles	9000 - 8400 BC	spruce parkland/caribou hunters
Late Paleo	Hi-Lo Projectiles	8400 – 8000 BC	smaller but more numerous sites
Early Archaic	Kirk and Bifurcate Base Points	8000 - 6000 BC	slow population growth
Middle Archaic	Brewerton-like points	6000 - 2500 BC	environment similar to present
Late Archaic	Narrow Points	2000 - 1800 BC	increasing site size
	Broad Points	1800 - 1500 BC	large chipped lithic tools
	Small Points	1500 - 1100BC	introduction of bow hunting
Terminal Archaic	Hind Points	1100 - 950 BC	emergence of true cemeteries
Early Woodland	Meadowood Points	950 - 400 BC	introduction of pottery
Middle Woodland	Dentate/Pseudo-Scallop Pottery	400 BC - AD500	increased sedentism
	Princess Point	AD 550 – 900	introduction of corn
Ontario Iroquoian Late Woodland	Early Ontario Iroquoian	AD 900 – 1300	emergence of agricultural villages
	Middle Ontario Iroquoian	AD 1300 – 1400	long longhouses (100m +)
	Late Ontario Iroquoian	AD 1400 – 1650	tribal warfare and displacement
Western Basin Late Woodland	Riviere au Vase	AD 500 - 900	introduction of corn
	Young Phase	AD 900 - 1200	dense storage pits, proto-settlements
	Springwell Phase	AD 1200 - 1400	emergence of agricultural villages
	Wolf Phase	AD 1400 - 1550	palisaded villages, tribal warfare and displacement
Contact Aboriginal	Various Algonquian Groups	AD 1700 – 1875	early written records and treaties
Historic	Euro-Canadian	AD 1796 – present	European settlement

### Paleo Period

The first human occupation of the southern Ontario, known as the Paleo Period, begins just after the end of the Wisconsin Glacial Period. Although there was a complex series of ice retreats and advances which played a large role in shaping the local topography, southwestern Ontario was finally ice free by 12,500 years ago. The first human settlement can be traced back 11,000 years, when this area was settled by Native groups that had been living south of the Great Lakes.

Our current understanding of Early Paleo settlement patterns suggest that small bands, that consisted of probably no more than 25 to 35 individuals followed a pattern of seasonal mobility extending over large territories. One of



## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

the most thoroughly studied of these groups followed a seasonal round that extended from as far south as Chatham to the Horseshoe Valley north of Barrie. Early Paleo sites tend to be located in elevated locations on well-drained loamy soils. Many of the known sites were located on former beach ridges associated with Lake Algonquin, the post-glacial lake occupying the Lake Huron/Georgian Bay basin.

There are a few extremely large Early Paleo sites, such as one located close to Parkhill, Ontario, which covered as much as six hectares. It appears that these sites were formed when the same general locations were occupied for short periods of time over the course of many years.

Given their placement in locations conducive to the interception of migratory mammals such as caribou, it has been suggested that they may represent communal hunting camps. There are also smaller Early Paleo camps scattered throughout the interior of southwestern Ontario, usually situated adjacent to wetlands.

The most recent research suggests that population densities were very low during the Early Paleo Period, with all of southwestern Ontario being occupied by perhaps only 100 to 200 people (Ellis and Deller 1990:54). Because this is the case, Early Paleo sites are exceedingly rare.

While the Late Paleo Period (8400-8000 BC) is more recent, it has been less well researched, and is consequently more poorly understood. By this time the environment of southwestern Ontario was coming to be dominated by closed coniferous forests with some minor deciduous elements. It seems that many of the large game species that had been hunted in the early part of the Paleo Period had either moved further north, or as in the case of the mastodons and mammoths, become extinct.

During the late Paleo Period people continued to cover large territories as they moved about in response to seasonal resource fluctuations. On a province wide basis Late Paleo projectile points are far more common than Early Paleo materials, suggesting a relative increase in population.

The end of the Paleo Period was heralded by numerous technological and cultural innovations that appeared throughout the Archaic Period. These innovations may be best explained in relation to the dynamic nature of the post-glacial environment and region-wide population increases.

### **Archaic Period**

During the Early Archaic Period (8000-6000 BC), the jack and red pine forests that characterized the Late Paleo environment were replaced by forests dominated by white pine with some associated deciduous trees (Ellis, Kenyon and Spence 1990:68-69). One of the more notable changes in the Early Archaic Period is the appearance of side and corner-notched projectile points. Other significant innovations include the introduction of ground stone tools such as celts and axes, suggesting the beginnings of a simple woodworking industry. The presence of these often large and not easily portable tools suggests there may have been some reduction in the degree of seasonal movement, although it is still suspected that population densities were quite low, and band territories large.

During the Middle Archaic Period (6000-2500 BC) the trend towards more diverse toolkits continued, as the presence of net-sinkers suggest that fishing was becoming an important aspect of the subsistence economy. It was also at this time that "bannerstones" were first manufactured. Bannerstones are carefully crafted ground stone devices that served as a counterbalance for "atlatls" or spear-throwers.



## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

Another characteristic of the Middle Archaic is an increased reliance on local, often poor quality chert resources for the manufacturing of projectile points. It seems that during earlier periods, when groups occupied large territories, it was possible for them to visit a primary outcrop of high quality chert at least once during their seasonal round.

However, during the Middle Archaic, groups inhabited smaller territories that often did not encompass a source of high quality raw material. In these instances lower quality materials which had been deposited by the glaciers in the local till and river gravels were utilized.

This reduction in territory size was probably the result of gradual region-wide population growth which led to the infilling of the landscape. This process resulted in a reorganization of Native subsistence practices, as more people had to rely on resources from smaller areas. During the latter part of the Middle Archaic, technological innovations such as fish weirs have been documented as well as stone tools especially designed for the preparation of wild plant foods.

It is also during the latter part of the Middle Archaic Period that long distance trade routes began to develop, spanning the northeastern part of the continent. In particular, native copper tools manufactured from a source located northwest of Lake Superior were being widely traded (Ellis, Kenyon and Spence 1990:66). By 3500 BC the local environment had stabilized in a near modern form (Ellis, Kenyon and Spence 1990:69).

During the Late Archaic (2500-950 BC) the trend towards decreased territory size and a broadening subsistence base continued. Late Archaic sites are far more numerous than either Early or Middle Archaic sites, and it seems that the local population had definitely expanded. It is during the Late Archaic that the first true cemeteries appear. Before this time individuals were interred close to the location where they died. During the Late Archaic, if an individual died while his or her group happened to be at some distance from their group cemetery, the bones would be kept until they could be placed in the cemetery. Consequently, it is not unusual to find disarticulated skeletons, or even skeletons lacking minor elements such as fingers, toes or ribs, in Late Archaic burial pits.

The appearance of cemeteries during the Late Archaic has been interpreted as a response to increased population densities and competition between local groups for access to resources. It is argued that cemeteries would have provided strong symbolic claims over a local territory and its resources. These cemeteries are often located on heights of well-drained sandy/gravel soils adjacent to major watercourses such as the Thames River.

This suggestion of increased territoriality is also consistent with the regionalized variation present in Late Archaic projectile point styles. It was during the Late Archaic that distinct local styles of projectile points appear. Also during the Late Archaic the trade networks which had been established during the Middle Archaic continued to flourish. Native copper from northern Ontario and marine shell artifacts from as far away as the Mid-Atlantic coast are frequently encountered as grave goods. Other artifacts such as polished stone pipes and banded slate gorgets also appear on Late Archaic sites. One of the more unusual and interesting of the Late Archaic artifacts is the "birdstone". Birdstones are small, bird-like effigies usually manufactured from green banded slate. While the function of these artifacts is presently poorly understood, they are especially common in the London area.



## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

### *Woodland Period*

The Early Woodland Period (950-400 BC) is distinguished from the Late Archaic Period primarily by the addition of ceramic technology. While the introduction of pottery provides a useful demarcation point for archaeologists, it may have made less difference in the lives of the Early Woodland peoples.

The first pots were very crudely constructed, thick walled, and friable. It has been suggested that they were used in the processing of nut oils by boiling crushed nut fragments in water and skimming off the oil (Spence, Pihl and Murphy 1990:137). These vessels were not easily portable, and individual pots must not have sustained a long use life.

There have also been numerous Early Woodland sites located at which no pottery was found, suggesting that these poorly constructed, undecorated vessels had yet to assume a central position in the day-to-day lives of Early Woodland peoples.

Other than the introduction of this rather limited ceramic technology, the life-ways of Early Woodland peoples show a great deal of continuity with the preceding Late Archaic Period. For instance, birdstones continue to be manufactured, although the Early Woodland varieties have "pop-eyes" which protrude from the sides of their heads. Likewise, the thin, well-made projectile points which were produced during the terminal part of the Archaic Period continue in use. However, the Early Woodland variants were side-notched rather than corner-notched, giving them a slightly altered and distinctive appearance.

The trade networks which were established in the Middle and Late Archaic also continued to function, although there does not appear to have been as much traffic in marine shell during the Early Woodland Period. During the last 200 years of the Early Woodland Period, projectile points manufactured from high quality raw materials from the American Midwest begin to appear on sites in the London area.

In terms of settlement and subsistence patterns, the Middle Woodland (400 BC- AD 900) provides a major point of departure from the Archaic and Early Woodland Periods. While Middle Woodland peoples still relied on hunting and gathering to meet their subsistence requirements, fish became an even more important part of the diet. In addition, Middle Woodland peoples relied much more extensively on ceramic technology. Middle Woodland vessels are often garishly decorated with hastily impressed designs covering the entire exterior surface and upper portion of the vessel interior. Consequently, even very small fragments of Middle Woodland vessels are easily identifiable.

It is also at the beginning of the Middle Woodland Period that rich, densely occupied sites appear on the valley floor of major rivers. While the valley floors of floodplains had been utilized by earlier peoples, Middle Woodland sites are significantly different in that the same location was repeatedly occupied over several hundred years. Because this is the case, rich deposits of artifacts often accumulated.

Unlike earlier seasonally utilized locations, these Middle Woodland sites appear to have functioned as base camps, occupied off and on over the course of the year. There are also numerous small upland Middle Woodland sites, many of which can be interpreted as special purpose camps from which localized resource patches were exploited. This shift towards a greater degree of sedentism continues the trend witnessed from at least Middle Archaic times, and provides a prelude to the developments that follow during the Late Woodland Period.

The Late Woodland Period began with a shift in settlement and subsistence patterns involving an increasing reliance on corn horticulture (Fox 1990:185; Smith 1990; Williamson 1990:312). Corn may have been introduced





### STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

into southwestern Ontario from the American Midwest as early as AD 600. However, it did not become a dietary staple until at least three to four hundred years later.

The first agricultural villages in southwestern Ontario date to the 10th century. Unlike the riverine base camps of the Middle Woodland Period, these sites are located in the uplands, on well-drained sandy soils. Categorized as "Early Ontario Iroquoian" (AD 900-1300), many archaeologists believe that it is possible to trace a direct line from the Iroquoian groups which inhabited southwestern Ontario at the time of first European contact, to these early villagers.

Village sites dating between AD 900 and 1300, share many attributes with the historically reported Iroquoian sites, including the presence of longhouses and sometimes palisades. However, these early longhouses were actually not all that large, averaging only 12.4 metres in length (Dodd et al 1990:349; Williamson 1990:304-305). It is also quite common to find the outlines of overlapping house structures, suggesting that these villages were occupied long enough to necessitate re-building. The Jesuits reported that the Huron moved their villages once every 10-15 years, when the nearby soils had been depleted by farming and conveniently collected firewood grew scarce (Pearce 2010). It seems likely that Early Ontario Iroquoians occupied their villages for considerably longer, as they relied less heavily on corn than did later groups, and their villages were much smaller, placing less demand on nearby resources.

Judging by the presence of carbonized corn kernels and cob fragments recovered from sub-floor storage pits, agriculture was becoming a vital part of the Early Ontario Iroquoian economy. However, it had not reached the level of importance it would in the Middle and Late Ontario Iroquoian Periods. There is ample evidence to suggest that more traditional resources continued to be exploited, and comprised a large part of the subsistence economy. Seasonally occupied special purpose sites relating to deer procurement, nut collection, and fishing activities, have all been identified. While beans are known to have been cultivated later in the Late Woodland Period, they have yet to be identified on Early Ontario Iroquoian sites.

The Middle Ontario Iroquoian Period (AD 1300-1400) witnessed several interesting developments in terms of settlement patterns and artifact assemblages. Changes in ceramic styles have been carefully documented, allowing the placement of sites in the first or second half of this 100-year period. Moreover, villages, which averaged approximately 0.6 hectares in extent during the Early Ontario Iroquoian Period, now consistently range between one and two hectares.

House lengths also change dramatically, more than doubling to an average of 30 metres, while houses of up to 45 metres have been documented. This radical increase in longhouse length has been variously interpreted. The simplest possibility is that increased house length is the result of a gradual, natural increase in population (Dodd et al 1990:323, 350, 357; Smith 1990). However, this does not account for the sudden shift in longhouse lengths around AD 1300. Other possible explanations involve changes in economic and socio-political organization (Dodd et al 1990:357). One suggestion is that during the Middle Ontario Iroquoian Period small villages were amalgamating to form larger communities for mutual defense (Dodd et al 1990:357). If this was the case, the more successful military leaders may have been able to absorb some of the smaller family groups into their households, thereby requiring longer structures.

This hypothesis draws support from the fact that some sites had up to seven rows of palisades, indicating at least an occasional need for strong defensive measures. There are, however, other Middle Ontario Iroquoian villages





## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

which had no palisades present (Dodd et al 1990). More research is required to evaluate these competing interpretations.

The lay-out of houses within villages also changes dramatically by AD 1300. During the Early Ontario Iroquoian Period villages were haphazardly planned at best, with houses oriented in various directions. During the Middle Ontario Iroquoian Period villages are organized into two or more discrete groups of tightly spaced, parallel aligned, longhouses.

It has been suggested that this change in village organization may indicate the initial development of the clans which were a characteristic of the historically known Iroquoian peoples (Dodd et al 1990:358).

Initially at least, the Late Ontario Iroquoian Period (AD 1400-1650) continues many of the trends which have been documented for the proceeding century. For instance, between AD 1400 and 1450 house lengths continued to grow, reaching an average length of 62 metres. One longhouse excavated on a site southwest of Kitchener stretched an incredible 123 metres (Lennox and Fitzgerald 1990:444-445). After AD 1450, house lengths begin to decrease, with houses dating between AD 1500-1580 averaging only 30 metres in length.

Why house lengths decrease after AD 1450 is poorly understood, although it is believed that the even shorter houses witnessed on historic period sites can be at least partially attributed to the population reductions associated with the introduction of European diseases such as smallpox (Lennox and Fitzgerald 1990:405, 410).

Village size also continued to expand throughout the Late Ontario Iroquoian Period, with many of the larger villages showing signs of periodic expansions. The Late Middle Ontario Iroquoian Period and the first century of the Late Ontario Iroquoian Period was a time of village amalgamation. One large village situated just north of Toronto has been shown to have expanded on no fewer than five occasions. These large villages were often heavily defended with numerous rows of wooden palisades, suggesting that defence may have been one of the rationales for smaller groups banding together.

After AD 1525 communities of pre-contact Aboriginals of the Late Ontario Iroquoian Period who had formerly lived throughout southwestern Ontario as far west as the Chatham area moved further east to the Hamilton area. During the late 1600s and early 1700s, the French explorers and missionaries reported a large population of Iroquoian peoples clustered around the western end of Lake Ontario. They called these people the "Neutral", because they were not involved in the ongoing wars between the Huron and the League Iroquois located in upper New York State.

It has been satisfactorily demonstrated that the Late Ontario Iroquoian communities which were located in southwestern Ontario as far west as the Chatham area were ancestral to at least some of the Neutral Nation groups (Lennox and Fitzgerald 1990; Smith 1990:283). For this reason the Late Ontario Iroquoian groups which occupied southwestern Ontario prior to the arrival of the French are often identified as "Prehistoric Neutral". They occupied a large area extending along the Grand River and throughout the Niagara Peninsula as far east as Fort Erie and Niagara Falls (Lennox and Fitzgerald 1990:448).

### 1.3.2 Post-Contact Aboriginal Period

The post-contact Aboriginal occupation of southern Ontario was heavily influenced by the dispersal of various Iroquoian-speaking peoples, such as the Huron and closely related Petun, by the New York State Iroquois and the



## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

subsequent arrival of Algonkian-speaking groups from northern Ontario at the end of the 17th century and beginning of the 18th century (Schmalz 1991). The nature of their 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). First Nation peoples of southern Ontario have left behind archaeologically significant resources throughout Southern Ontario which show continuity with past peoples, even if they have not been recorded in historical Euro-Canadian documentation.

### 1.3.3 Historical Euro-Canadian Period

The Study Area is a 23.6 hectare (58.32 acre) land parcel located on the north side of George Street in the west end of Port Stanley, Ontario, legally described Parts 1-8 11R-1261, which on historical mapping is part of Lot 15, Range 1 North of Lake Road, part of Lot 15, Range 1 South of Lake Road, and part of Lot D, Range 1 South of Lake Road in the former Township of Southwold, now Municipality of Central Elgin, Elgin County, Ontario. This area first enters the Euro-Canadian historical record as part of Treaty No.2:

*... was made with the O[dawa], Chippew[a], Pottawatom[i] and Huro[n] May 19th, 1790, portions of which nations had established themselves on the Detroit River all of whom had been driven by the Iroquois from the northern and eastern parts of the Province, from the Detroit River easterly to Catfish Creek and south of the river La Tranche [Thames River] and Chenail Ecarte, and contains Essex County except Anderdon Township and Part of West Sandwich; Kent County except Zone Township, and Gores of Camden and Chatham; Elgin County except Bayham Township and parts of South Dorchester and Malahide. In Middlesex County, Del[a]ware and Westminster Townships and part of North Dorchester [are included].*

Morris 1943:17

Originally part of the Western District of Upper Canada, Elgin County was one of the first four counties to be formed in 1792. Southwold Township was initially part of Suffolk County, however in 1798, the Western District was divided into new territories. The London District was one of these parts, and was first divided into three counties; Middlesex, Norfolk, and Oxford. Middlesex included what is now Elgin County and the Township of Southwold (Grainger 2008). Elgin County was created by the Territorial Division Act of 1851, with St. Thomas as the county seat (Grainger 2008). Because Elgin County is located on Lake Erie, it began being settled prior to counties further inland. The majority of the original settlers were United Empire Loyalists who fled the American Revolutionary War (Grainger 2008).

Port Stanley was founded in 1812 by Lieutenant-Colonel John Bostwick. It was originally named Kettle Creek after the creek it was settled on, but was renamed Port Stanley in 1824 after the fourteenth Earl of Derby, Edward Smith-Stanley, who visited Port Talbot in the area. Ferry service between Port Stanley and Buffalo started in 1832 and a year later, Port Stanley had a reputation as one of the best harbours on Lake Erie. Transport Canada operated the harbour and supported coal and wood trade between southwestern Ontario and the United States. By the early 1900s, Port Stanley was known as the “Coney Island of the Great Lakes” due to its large sandy beach and other amenities, such as a casino, outdoor theatre, Ferris wheel, and roller coaster (PortStanley.net 2016).



## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

### 1.3.4 Site Specific Historical Context

As previously mentioned, the Study Area is located on Parts 1-8 11R-1261, which on historical mapping is part of Lot 15, Range 1 North of Lake Road, part of Lot 15, Range 1 South of Lake Road, and part of Lot D, Range 1 South of Lake Road in the former Township of Southwold, now Municipality of Central Elgin, Elgin County, Ontario. There are several early historical maps for Southwold Township, including Mahlon Burwell's 1810 map, Thomas Ridout's 1816 map, Burwell's 1819 map, Maitland's 1819 map, and Burwell's 1831 map (Maps 3 to 9). None of these maps show the names of land owners for any of the lots within the Study Area with the exception of Peregrine Maitland's 1819 map; however, the information provided is illegible (Map 6).

A later historical map of Elgin County produced by George R. Tremaine in 1864 shows that S. Mason owned both Lots 15 North and South of Lake Road with a house in the northwestern portion of Lot 15 North of Lake Road. Lot D, Range 1 South of Lake Road is listed as "College Reserve" (Map 8).

The 1877 *Historical Atlas of Elgin County* indicates owners for both Lot 15 North of Lake Road and Lot 15 South of Lake Road (Map 9). Lot 15 North of Lake Road is listed as owned by a Mrs. Jelly, who had a house on the eastern side of the property close to Lake Road. Lot 15 South of Lake Road is listed as owned by S. Mason. The map does not indicate any buildings on this property. This map also shows one R. McCorkel as the owner of the western Lot D, Range 1 South of Lake Road, with no buildings indicated on the map.

## 1.4 Archaeological Context

### 1.4.1 The Natural Environment

The Study Area is situated within the "Norfolk Sand Plain", physiographic region, which is a large area of fine textured, water deposited sands laid down as part of the delta of the glacial Grand River (Chapman and Putnam 1984).

*The sands and silts of this region were deposited as a delta in glacial Lakes Whittlesy and Warren. A great discharge of meltwater from the Grand River area entered the lakes between the ice front and the moraines to the northwest, building the delta from west to east as the glacier withdrew.*

Chapman and Putnam, 1984:154

The Study Area is roughly 190 metres above sea level, rising to 210 metres above sea level in the northwest. The localized topography is varied. In the northwest, there is a flat ridgetop which slopes down to a drainage channel running southwest through the Study Area. To the east of the drainage channel the majority of the Study Area is a flat agricultural field with the exception of a finger ridge that extends into the study area from the eastern edge of the property. The southern aspect of this ridge is gently sloping and has been cleared for agriculture, while the northern aspect is steeper and remains wooded.

Soil types within the Study Area consist of Fox sandy loam, Haldimand silt loam, and unclassified eroded soils that comprise a miscellaneous land unit known as Valley Complex. Fox sandy loam soils are rapidly drained and permeable and are suitable for a wide variety of crops and Haldimand Silt Loam is also well-drained and suitable for agriculture (Schut 1992). The Valley Complex is undifferentiated material composing side walls and terraces or flood plains of valleys associated with rivers and their major tributaries (Schut 1992).



## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

The bedrock deposits in the vicinity date to the Middle and Upper Devonian Periods and consist of the Hamilton Formation (Hewitt 1972). The Hamilton Formation outcrops in portions of Middlesex, Elgin, Lambton, Kent, and Essex Counties of southwestern Ontario. This formation consists predominantly of grey shale with interbeds of grey crystalline cherty limestone and has a thickness ranging between 80 and 300 feet.

Historical mapping indicates that the closest potable water source is an unnamed tributary of Kettle Creek, which runs roughly northeast through the western portion of the Study Area and drains into Kettle Creek approximately 340 metres to the northeast (Maps 5-7). This tributary was engineered into open-channel diversion drain in the 1950s to facility drainage in the area, which until that time was a low-lying wet area.

The Study Area lies within the Mixed-wood Plains ecozone of Ontario (The Canadian Atlas Online 2015). Although largely altered by recent human activity, this ecozone once supported a wide variety of deciduous trees, such as various species of ash, birch, chestnut, hickory, oak, and walnut, as well as a variety of birds and small to large land mammals, such as raccoon, red fox, white tailed deer, and black bear.

At the time of the Stage 3 site-specific assessment, the Finger Ridge Site (AeHh-150) was located in a ploughed agricultural field on the southern aspect of the finger ridge extending into the Study Area from the eastern boundary (Image 1).

### 1.4.2 Previously Known Archaeological Sites and Surveys

A search of the Ontario Archaeological Sites Database (OASD) indicated that there are no archaeological sites located within a one kilometre radius of Study area.

To the best of our knowledge, no additional archaeological assessments have been conducted within 50 m of the current Study area.

### 1.4.3 Previous Archaeological Assessments of the Current Study Area

In August of 2016, Golder conducted Stage 1 and 2 archaeological assessments of the present Study Area (Golder 2016; PIF#: P457-0028-2016). The Stage 1 background study indicated that the Study Area had archaeological potential for both pre-contact Aboriginal and historical Euro-Canadian sites, and as a result it was determined that a Stage 2 field assessment would be required.

The Stage 2 field assessment, which involved a combination of the standard pedestrian survey and test pit survey methods, resulted in the identification of three pre-contact Aboriginal sites. Location 1 consisted of one isolated piece of Onondaga chert lithic debitage, while Location 3 consisted of two pieces of Onondaga lithic debitage recovered from one test pit and one test unit. Location 2 (AeHh-150), which has since been renamed the Finger Ridge Site, consisted of 18 pre-contact Aboriginal artifacts, including five projectile points and 13 pieces of lithic debitage widely dispersed over an area measuring approximately 100 metres east-west by 80 metres north-south. The five projectile points recovered from the Finger Ridge Site (AeHh-150) included two Early Archaic Nettling-type points, one Late Archaic possible Crawford Knoll projectile point, one Late Woodland Daniels Triangular projectile point, and one indeterminate projectile point fragment.



## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

Based on the small quantity of material recovered from Locations 1 and 3, both sites were concluded to have no further cultural heritage value or interest and no further archaeological assessments were recommended.

Based on the presence of two Early Archaic projectile points, the Finger Ridge Site (AeHh-150) was determined to have further cultural heritage value or interest and it was recommended that further archaeological assessment was required. Diagnostic artifacts from the Early Archaic period are relatively rare in Ontario and as such are considered artifacts of special interest that meet the criteria for required Stage 3 archaeological assessment under the MTCS 2011 Standards and Guidelines for Consultant Archaeologists.

## 2.0 FIELD METHODS

The Stage 3 site-specific assessment of the Finger Ridge Site (AeHh-150) took place on September 28, October 3, and October 4, 2016 under Archaeological Consulting license P457 issued to Lafe Meicenheimer, M.A. of Golder (PIF# P457-0032-2016). The weather during the Stage 3 archaeological assessment was warm with variable cloudiness; the conditions are presented in Table 2. At no time were conditions detrimental to the recognition and recovery of archaeological material. Photographs of field conditions during the Stage 3 fieldwork may be seen in Section 8.0, while photo locations are shown on Map 10.

**Table 2: Summary of Weather Conditions**

Date	Weather
September 28, 2016	Warm (15-24°C), mostly cloudy
October 3, 2016	Warm (15-20°C), partly sunny
October 4, 2016	Warm (18-25°C), sunny

All Stage 3 archaeological work was conducted in accordance with the Ministry of Tourism, Culture and Sport's 2011 *Standards and Guidelines for Consulting Archaeologists* (Government of Ontario 2011), and followed the recommendations of Golder's Stage 1 and 2 archaeological assessment report (Golder 2016).

## 2.1 Methodology

The Finger Ridge Site (AeHh-150) was relocated from the original Stage 2 assessment data, including field notes, maps, and UTM coordinates. Permanent datum points were then established on the site, oriented on magnetic north. Since a controlled surface pick-up (CSP) that met all requirements outlined in Section 3.2.1 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011) was conducted during the Stage 2 assessment of the Finger Ridge Site (AeHh-150), the Stage 3 assessment began with test unit excavations.

A network of five by five metre grid squares was established across the extent of the site as determined by the location of the Stage 2 surface finds. The grid squares are referred to by the intersection coordinates of their southwest corner. Each five metre unit was further subdivided into 25 one metre units, with sub-square number one located in the southwest corner of the five metre unit, number five in the southeast corner, number six located immediately north of number one, and so on.





## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

Since the Finger Ridge Site (AeHh-150) was interpreted as a large, diffuse lithic scatter during the Stage 2 assessment, the location and placement of test units followed the strategy under Table 3.1, Standards 5-7 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Based on this strategy, a total of 16 one metre square test units were excavated at five metre intervals over four separate areas of diagnostic artifact concentrations identified at the site, including the two Early Archaic Nettling points, the Late Archaic Small Point, and the Late Woodland Daniels Triangular point (Images 2 to 4). Four additional test units, which amounted to slightly more than 20% of the initial grid total, were excavated between the four diagnostic artifact concentrations to document areas of lower concentration. Two additional test units, amounting to slightly more than 10% of the initial grid total, were excavated at the periphery of the surface scatter to determine the extent of the site and sample the periphery. In total, the Stage 3 test unit excavations at the site measured 101 metres east-west by 86 metre north-south; however, artifact-bearing test units were restricted to an area that measured 81 metres east-west by 76 metres north-south.

Each one-metre test unit was excavated to a depth of five centimetres into the subsoil, and all soil was screened through six millimetre hardware cloth to facilitate the recovery of small artifacts (Images 5 to 7). The subsoil surface of each unit was shovel shined and examined for evidence of subsurface cultural features prior to backfilling. No subsurface cultural features were encountered during the Stage 3 archaeological assessment of the Finger Ridge Site (AeHh-150); therefore, all test units were backfilled upon completion.

Test units had an average depth of 34 centimetres (ranged from 19 to 49 centimetres) and yielded from zero to five artifacts. All excavated artifacts were recorded with reference to their one-metre sub-square unit number and retained for laboratory analysis and description, as per Section 6.0 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

## 2.2 GPS Coordinates

All coordinates and elevations were collected in the UTM NAD 83 (Zone 17) datum using a Trimble Nomad Global Navigation Satellite System (GNSS) unit with a ProXH high accuracy receiver and referenced to the Hamilton base station coordinated within the Cansel network (Can-Net) for base station references.

The ProXH high accuracy GPS receiver has built in Wide-Area Augmentation System (WAAS) and European Geostationary Navigation Overlay Service (EGNOS) capability and supports a wide range of satellite signals, including GPS L1C/A/L2C/L2E, GLONASS L1C/A/L1P/L2C/A/L2P. The GNSS receiver is a dual frequency differential GPS (DGPS) capable of real time kinematic (RTK) corrections within the Can-Net Virtual Reference Station (VRS) network. The collected coordinates provide real time accuracy between 30 centimetres and 60 centimetres. The collected coordinates are provided as a six digit easting with three decimal places, and a seven digit northing with three decimal places. Therefore, each survey observation can be considered a permanent and known datum point regardless of any future disturbance to the location of each observation.

Relevant UTM coordinates for the Finger Ridge Site (AeHh-150) are presented in the Supplementary Documentation, separate from this report. The Supplementary Documentation also contains a Tile showing the specific site location.



### 3.0 RECORD OF FINDS

The Stage 3 assessment of the Finger Ridge Site (AeHh-150) was conducted employing the methods outlined in Section 2.0 of this report. Section 3.1 provides a description of the location and the artifacts recovered, while Map 10 shows the location and distribution of the units, as well as the UTM coordinate reference markers (datum points) for the site. The UTM coordinates for the datum points themselves are listed in the Supplementary Documentation that accompanies this report separately.

For a list of terms and definitions regarding the pre-contact Aboriginal cultural material discussed in the present report, see Appendix A.

An inventory of the documentary record generated by the fieldwork at the Finger Ridge Site (AeHh-150) is provided in Table 3 and a complete catalogue of all artifacts recovered during the Stage 3 assessment is provided below in Appendix B.

Material culture recovered from the Stage 3 assessment of the Finger Ridge Site (AeHh-150) has been washed, catalogued, and analyzed, and will be stored in one banker's box, measuring 40.0 x 31.5 x 25.0 centimetres, at Golder's London office at 309 Exeter Road, London, Ontario, until formal arrangements are made for their transfer to a Ministry of Tourism, Culture, and Sport collections facility.

**Table 3: Inventory of Documentary Record**

Document Type	Current Location of Document	Additional Comments
Field Notes	Golder Office in London	Total of 6 pages from original field book. Hard copies stored in project folder and digitally in project file.
Hand Drawn Maps	Golder Office in London	One in total from original field book. Hard copies stored in project folder and digitally in project file.
Maps provided by Client	Golder Office in London	One map in total stored in project folder and stored digitally in project file.
Digital Photographs	Golder Office in London	A total of 17 photos stored in project folder and stored digitally in project file.

### 3.1 Finger Ridge Site (AeHh-150)

A total of 41 pre-contact Aboriginal artifacts were recovered during the Stage 3 archaeological assessment of the Finger Ridge Site (AeHh-150), including one formal lithic tool, and 40 pieces of lithic debitage. Although a CSP was not performed as part of the Stage 3 archaeological assessment of the Finger Ridge Site (AeHh-150), as one had been conducted during the Stage 2 assessment, a total of eight of the artifacts recovered from the site were identified as surface finds. Table 4 presents a summary of the recovered Stage 3 artifacts; each artifact class will be discussed in detail below. Images 8 to 14 illustrate a representative sample of the recovered artifacts. No subsurface cultural features were encountered during the Stage 3 assessment of the Finger Ridge Site (AeHh-150).



## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

Table 4: Finger Ridge Site (AeHh-150) Artifact Summary

Pre-contact Aboriginal Artifacts	Frequency			%
	Surface Finds	Test Units	Total	
Formal Lithic Tools				
<i>Biface: Stage 1</i>	1	0	1	2.4
Lithic Debitage				
<i>Primary reduction flake</i>	2	0	2	4.9
<i>Primary thinning flake</i>	2	6	8	19.5
<i>Biface thinning flake</i>	0	14	14	34.1
<i>Retouch flake</i>	1	5	6	14.6
<i>Flake fragment</i>	1	5	6	14.6
<i>Shatter</i>	1	3	4	9.8
<b>TOTAL</b>	<b>8</b>	<b>33</b>	<b>41</b>	<b>100.0</b>

### 3.1.1 Formal Lithic Tools

One formal lithic tool, a complete biface manufactured on Onondaga chert, was recovered during the Stage 3 archaeological assessment of the Finger Ridge Site (AeHh-150) (Table 17). This biface, which was identified on the ground surface, is blocky and lacks any evidence of use-wear. Based on Fisher's (1997:25-29) definitions of biface reduction stages (see Appendix A – Glossary of Terms and Definitions), this biface can be classified as a Stage 1 biface.

Table 5: Finger Ridge Site (AeHh-150) Informal Lithic Tool Attributes

Cat. #	Tool	Material	Length (mm)	Width (mm)	Thickness (mm)	Comments
46	Biface	Onondaga	50.0	39.5	12.5	Stage 1; no use-wear

#### 3.1.1.1 Lithic Debitage

An analysis of the 40 pieces of lithic debitage recovered from the Finger Ridge Site (AeHh-150) is presented in Table 6. The higher incidence of primary thinning, biface thinning, and retouch flakes in the assemblage of debitage indicates that the latter stages of tool production, as well as tool maintenance were carried out at the site, while the comparatively low quantity of primary reduction flakes indicates that lithic reduction was not frequently performed at the site.

The vast majority of the debitage assemblage (n=29, 72.5%) was manufactured from Onondaga chert, while the remainder (n=11, 27.5%) was manufactured from Selkirk chert. Onondaga and Selkirk cherts are both widely available in southwest Ontario. Onondaga is a high quality raw material that outcrops along the north shore of





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## **STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO**

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Lake Erie east of the embouchure of the Grand River. This material can also be recovered from secondary, glacial deposits across much of southwestern Ontario, east of Chatham (Eley and von Bitter 1989). Selkirk is a moderate quality raw material that outcrops close to the embouchure of the Grand River along the north shore of Lake Erie. Its distribution as a secondary source material is similar to Onondaga chert, and it is frequently encountered as far west as the Chatham area (Eley and von Bitter 1989).



## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

**Table 6: Finger Ridge Site (AeHh-150) Classification of Lithic Debitage**

Chert	Primary Reduction		Primary Thinning		Biface Thinning		Retouch		Fragment		Shatter		TOTAL	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Onondaga	0	0	5	12.5	12	30.0	3	7.5	5	12.5	4	10.0	29	72.5
Selkirk	2	5.0	3	7.5	2	5.0	0	0	1	2.5	0	0	11	27.5
TOTAL	2	5.0	8	20.0	14	35.0	3	7.5	6	15.0	4	10.0	40	100.0



### **3.2 Artifact Distribution and Frequencies**

Based on the results of the Stage 3 site-specific assessment, the extent of the Finger Ridge Site (AeHh-150) is estimated to be 100 metres east-west by 80 metres north-south. Test units excavated at the site ranged in yield from 0 to five artifacts each, with the two highest yielding units (770E 820N:1, 770E 825N:1) located in the southwest corner of the site in close proximity to one of the Nettling projectile points recovered during the Stage 2 assessment. The low artifact yields encountered at the site indicate that there are no clearly definable activity loci.

### **3.3 Stratigraphy**

The soil stratigraphy at the Finger Ridge Site (AeHh-150) varied. In the northeast and southwest portions of the site, the soil consisted of dark orange-brown silty loam topsoil over yellow-brown sandy loam subsoil with dark red-brown clay inclusions. In the central portion of the site the soil was dark reddish-brown silty loam topsoil over reddish-brown sandy silt subsoil and orange-yellow brown silty loam subsoil.

No subsurface cultural features were discovered during the Stage 3 archaeological assessment of the Finger Ridge Site (AeHh-150).

## **4.0 ANALYSIS AND CONCLUSIONS**

The Finger Ridge Site (AeHh-150) is a pre-contact Aboriginal occupation site that was identified on the southern aspect of a gently sloping ridge with sandy loam to silty loam soils of the Norfolk Sand Plains physiographic region. The site is located approximately 160 metres south of a tributary of Kettle Creek and approximately 730 metres north of the Lake Erie, and lies within the Mixed-wood Plains ecozone.

The cumulative Stage 2 and 3 artifact assemblages recovered from the Finger Ridge Site (AeHh-150) consists entirely of lithic artifacts, including five projectile points (two Nettling, one possible Crawford Knoll, one Daniels Triangular, and one indeterminate), one biface, and 53 pieces of lithic debitage. The lithic assemblage recovered from the site, which was widely disbursed across an area measuring approximately 100 metres east-west by 80 metres north-south, was dominated by locally available Onondaga and Selkirk cherts, with single examples of exotic Upper Mercer and Kettle Point cherts also identified.

The relatively limited and widely dispersed artifact assemblage from the Finger Ridge Site (AeHh-150) suggest that it represents small, briefly occupied camps most likely associated with hunting activities given the presence of projectile points. The lithic debitage at the site also indicates that some tool manufacture and/or maintenance activities took place. The interpretation of the Finger Ridge Site (AeHh-150) as a series of briefly occupied hunting camps is also supported by the absence of faunal remains, pottery sherds, subsurface cultural features, and fire cracked rocks suggest, which are typically associated with longer term habitation sites.

The temporally diagnostic artifacts recovered from the site suggest that the Finger Ridge Site (AeHh-150) was occupied during the Early Archaic, Late Archaic, and Late Woodland Periods. An occupation during the Early Archaic Period (ca. 8,000 to 7,500 BC) is suggested by the two Nettling projectile points. This period is characterized by the probable use of spear throwers and a likely increase in population over the late Paleo period (Ellis, Timmins and Martelle 2009:800). A greater use of more locally available tool stone and more expedient flaked stone tools is also in evidence (Ellis, Timmins and Martelle 2009:799-800); this observation appears to be



### STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

consistent with the artifacts that were recovered from the Finger Ridge Site (AeHh-150). Populations may have been increasing in size through this period with people staying longer at particular habitation locations, as for example at the Nettling type site (AdHj-1) (Ellis, Timmins and Martelle 2009:798, 800); this hypothesis does not appear to be consistent with the Finger Ridge Site (AeHh-150), which appears to be more ephemeral in nature.

An occupation during the Late Archaic Small Point Horizon (ca. 1,500 – 1,100 BC) is indicated at the Finger Ridge Site (AeHh-150) by the recovery of a possible Crawford Knoll projectile point. This time period is characterised by a general reduction in projectile point size versus earlier or partially contemporary Broad Points (Snarey and Ellis 2010). While early Small Points, such as Crawford Knoll projectile points, are argued to have been used predominantly as arrow points, later Small Points, including Innes and Hind projectile points, may have instead been used as spear thrower dart points (Snarey and Ellis 2010). Snarey and Ellis (2010) suggest that the Crawford Knoll phase of the Late Archaic Small Point horizon may have represented smaller communal gatherings or more independent hunters. Although the Finger Ridge Site (AeHh-150) is multi-component in nature, the limited artifact assemblage appears to be consistent with a small gathering place.

An occupation during the Late Woodland Period is indicated at the Finger Ridge Site (AeHh-150) by the recovery of a Daniels Triangular projectile point. More specifically, this projectile point dates from circa 1550 to 1650 AD, which corresponds to the Late Ontario Iroquoian Period in Elgin County. The Late Ontario Iroquoian Period (LOI) is characterized by the presence of globular ceramic vessels, ceramic pipes, chipped lithic assemblages manufactured from high quality Onondaga and Kettle Point cherts, small side-notched triangular projectile points, and organic artifacts (Lennox and Fitzgerald 1990:415-425). Settlement-subsistence patterns of this period continue trends identified during the Middle Ontario Iroquoian period, including increases in village and long house sizes, and the occurrence of smaller sites devoted to resource extraction or agricultural activities (Lennox and Fitzgerald 1990:437-441). Settlements were also frequently located close to small creeks, headwater springs, and around marshlands in areas with sandy loam soils conducive to maize agricultural. Based on the small quantities of lithic artifacts, as well as the absence of pottery and organic artifacts, recovered from the Finger Ridge Site (AeHh-150), it is likely that the occupation during the LOI was very brief.

Based on the combined results of the Stage 2 and 3 assessments, the Finger Ridge Site (AeHh-150) can be interpreted as a series of briefly occupied hunting camps dating to the Early Archaic, Late Archaic, and Late Woodland Periods.

The small quantity (n=41) of pre-contact Aboriginal material recovered at the Finger Ridge Site (AeHh-150) during the Stage 3 assessment, combined with the absence of pottery, subsurface cultural features, diagnostic artifacts, and high yielding test units (e.g.,  $\geq 10$  artifacts) indicates that the site has no further cultural heritage value or interest. This conclusion is consistent with Section 3.4.1, Standards 1a-d of the MTCS's *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).



## **5.0 RECOMMENDATIONS**

Based on the results of the Stage 3 site-specific assessment conducted at the Finger Ridge Site (AeHh-150), it is concluded that the cultural heritage value or interest of the site has been sufficiently assessed and documented, the site may be considered free of further archaeological concern, and Stage 4 mitigation of impacts is not required.

The Ontario Ministry of Tourism, Culture and Sport is asked to review the results and recommendations presented herein, accept this report into the Provincial Register of archaeological reports and issue a standard letter of compliance with the Ministry's 2011 Standards and Guidelines for Consultant Archaeologists and the terms and conditions for archaeological licencing.

## **6.0 ADVICE ON COMPLIANCE WITH LEGISLATION**

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 (Government of Ontario 1990b). The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism and Culture, a letter will be issued by the ministry stating that there are no further concerns with regards to alterations to archaeological sites by the proposed development.

It is an offence under Section 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alterations 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 Archaeological reports referred to in Section 65.1 of the *Ontario Heritage Act* (Government of Ontario 1990b).

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

The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33, requires that any person discovering or having knowledge of a burial site shall immediately notify the police or coroner (Government of Ontario 2002). It is recommended that the Registrar of Cemeteries at the Ministry of Consumer Services is also immediately notified.



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## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

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## **8.0 IMAGES**



*Image 1: Stage 3 archaeological assessment, Finger Ridge Site (AeHh-150), field conditions, facing northeast, October 4, 2016.*



*Image 2: Stage 3 archaeological assessment, Finger Ridge Site (AeHh-150), test unit excavation in progress, facing northwest, October 3 2016.*





## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO



*Image 3: Stage 3 archaeological assessment, Finger Ridge Site (AeHh-150), test unit excavation in progress, facing southwest, October 3 2016.*



*Image 4: Stage 3 archaeological assessment, Finger Ridge Site (AeHh-150), test unit 845E 890N:1 complete, facing north, September 28, 2016.*





## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO



*Image 5: Stage 3 archaeological assessment, Finger Ridge Site (AeHh-150), test unit 830E 855N:1 complete, facing north, October 3, 2016.*



*Image 6: Stage 3 archaeological assessment, Finger Ridge Site (AeHh-150), test unit 755E 825N:1 complete, facing west, October 4, 2016.*



## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO



*Image 7: Finger Ridge Site (AeHh-150) Stage 1 biface (Cat. # 46).*



*Image 8: Finger Ridge Site (AeHh-150) primary reduction flakes (left to right): Cat. #s 47 and 52.*





### STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO



Image 9: Finger Ridge Site (AeHh-150) primary thinning flakes (left to right): Cat. #s 34, 40, 54.



Image 10: Finger Ridge Site (AeHh-150) biface thinning flakes (left to right): Cat. #s 19, 30, 38, 43.



Image 11: Finger Ridge Site (AeHh-150) retouch flakes (left to right): Cat. #s 31, 36, 39.



**STAGE 3 ARCHAEOLOGICAL ASSESSMENT**  
**FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO**



*Image 12: Finger Ridge Site (AeHh-150) flake fragments (left to right): Cat. #s 45, 53.*



*Image 13: Finger Ridge Site (AeHh-150) shatter (left to right): Cat. #s 29, 48.*

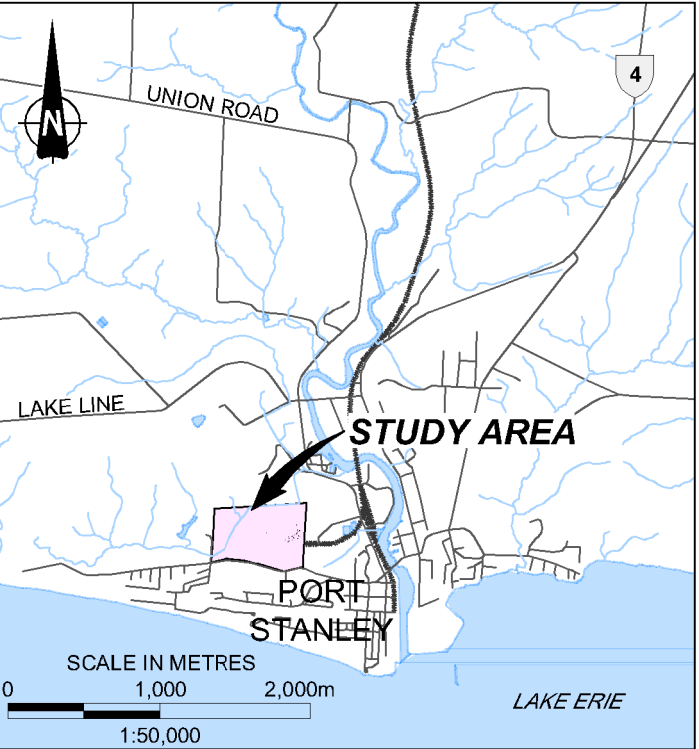


## **9.0 MAPS**

All maps follow on the succeeding pages



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REGIONAL MAP

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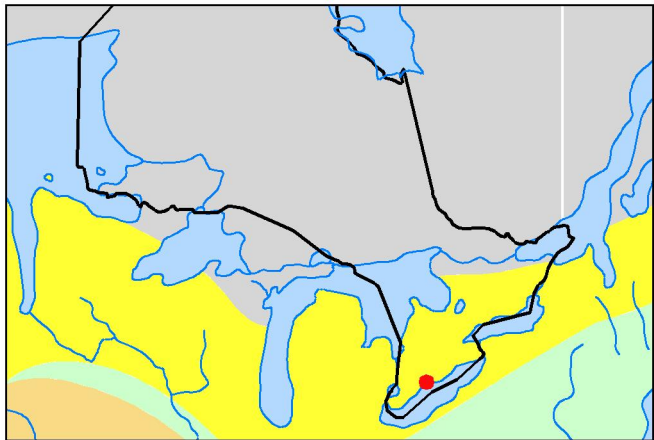
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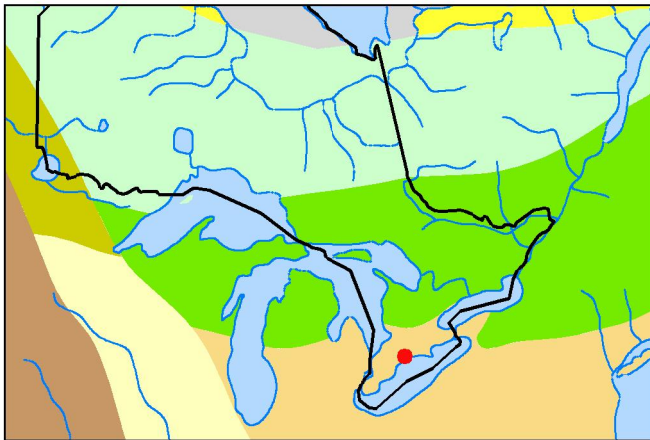
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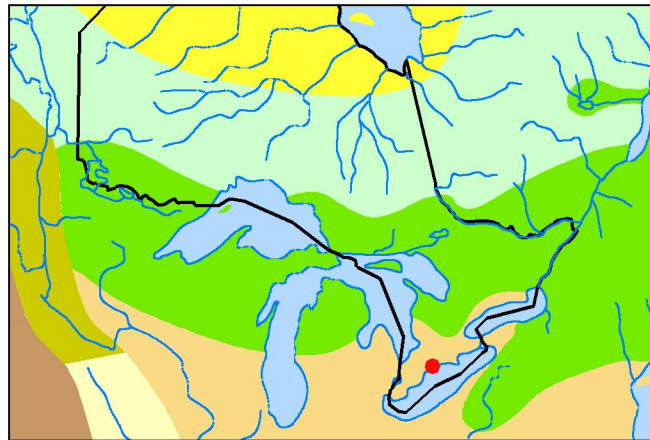
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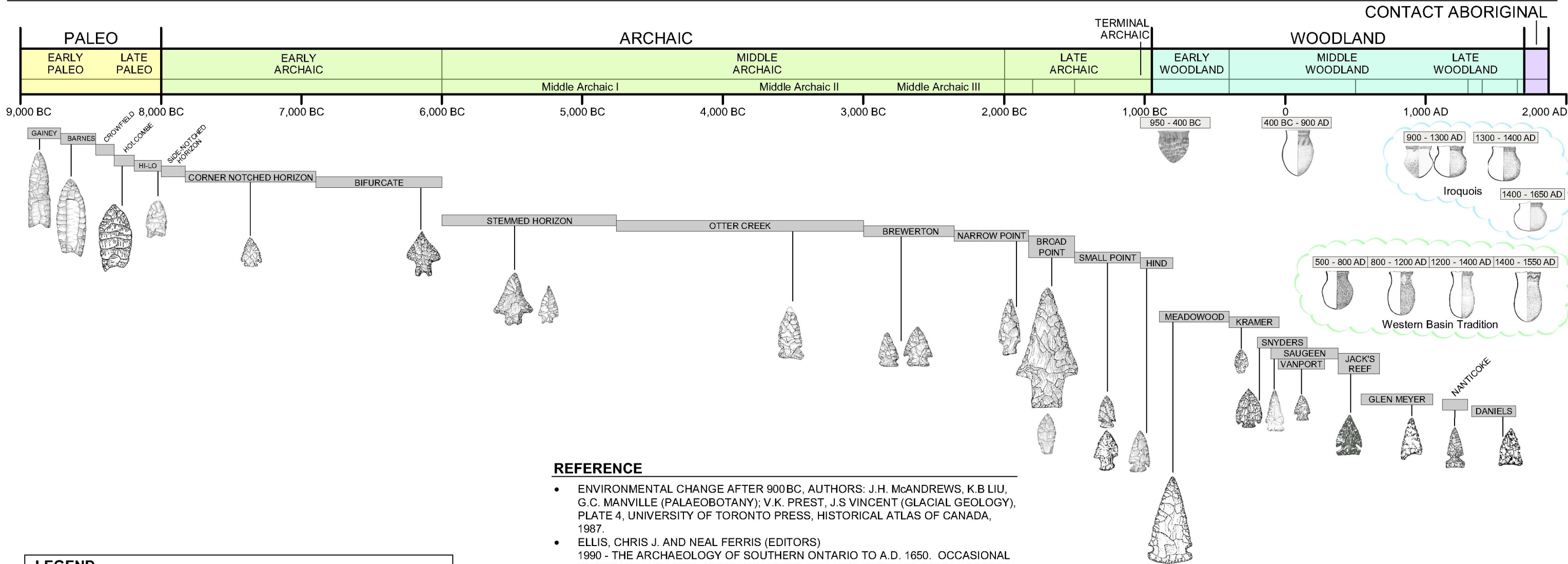
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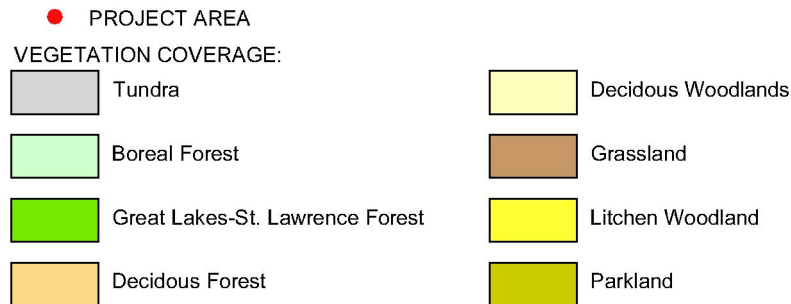
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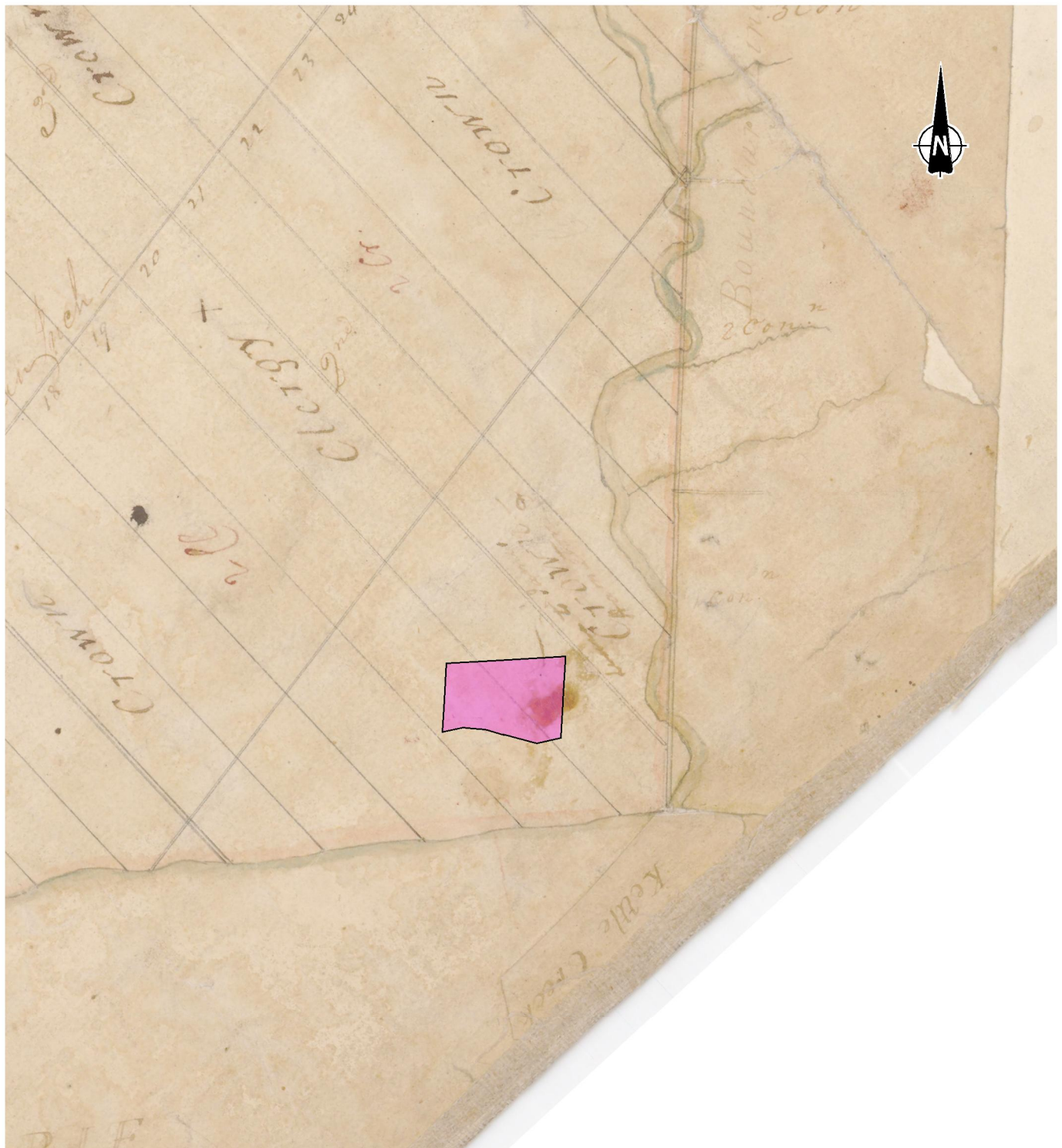


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## REFERENCE

RIDOUT, THOMAS, 1816 MAP OF SOUTHWOLD TOWNSHIP. PORT TALBOT.

## NOTES

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## LEGEND

 APPROXIMATE LOCATION OF STUDY AREA

## REFERENCE

BURWELL, M 1819 MAP OF THE FRONT OF THE TOWNSHIP OF SOUTHWOLD. PORT TALBOT.

## NOTES

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PROJECT

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FINGER RIDGE SITE (AeHh-150)  
GEORGE STREET LAND PARCEL  
ELGIN COUNTY, ONTARIO

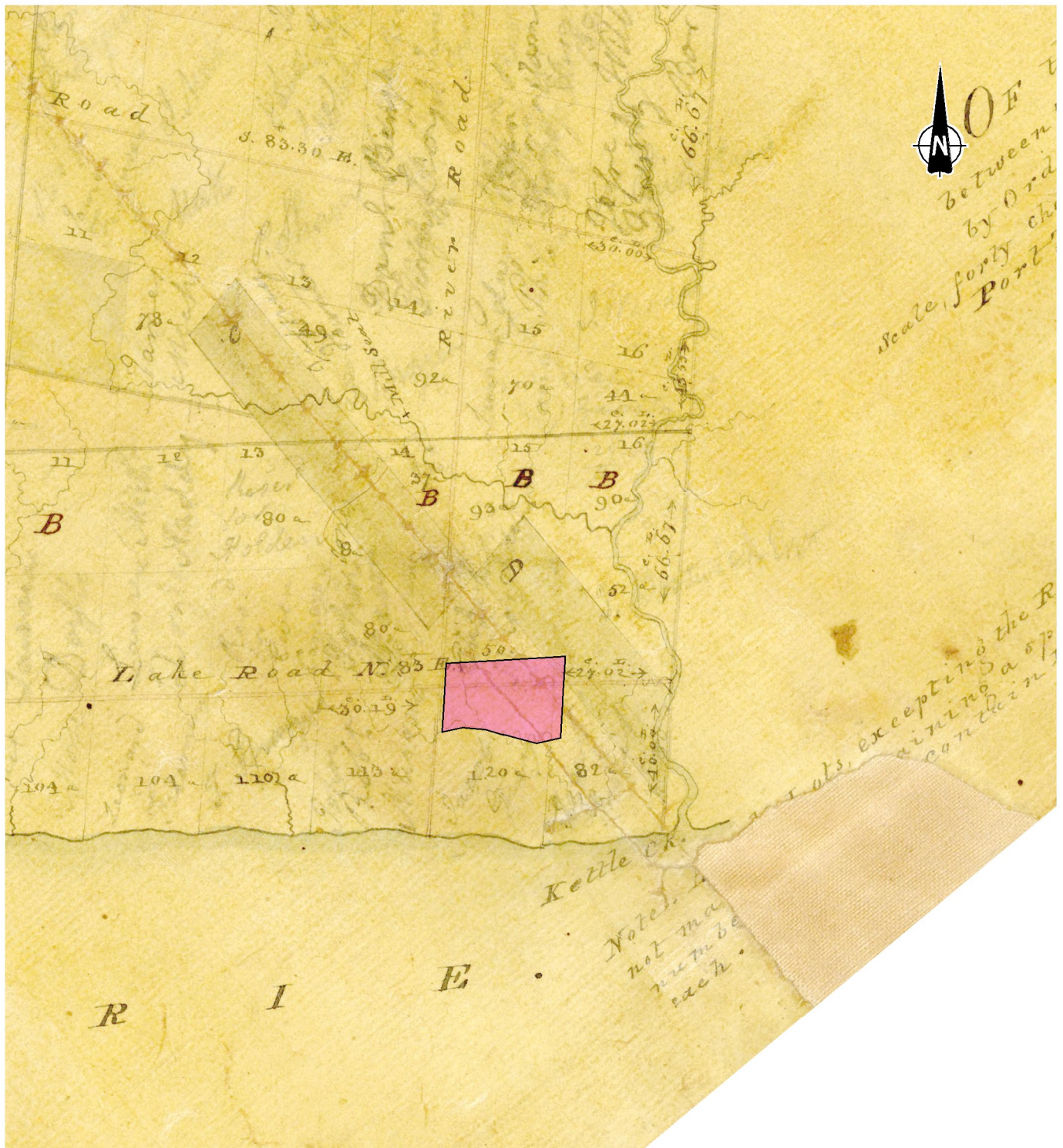
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## LEGEND

 APPROXIMATE LOCATION OF STUDY AREA

## REFERENCE

MAITLAND, PERGRINE, 1819 MAP OF THE FRONT OF THE TOWNSHIP OF SOUTHWOLD. PORT TALBOT.

## NOTES

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ALL LOCATIONS ARE APPROXIMATE ONLY.

PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT  
FINGER RIDGE SITE (AeHh-150)  
GEORGE STREET LAND PARCEL  
ELGIN COUNTY, ONTARIO

TITLE

A PORTION OF MAITLAND'S 1819 MAP OF  
SOUTHWOLD TOWNSHIP



PROJECT No.	1659428	FILE No.	1659428-1000-R01003
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MAP 6			









## LEGEND



APPROXIMATE LOCATION OF STUDY AREA

## REFERENCE

TREMINE, GEORGE R., 1864 TREMINE'S MAP OF THE COUNTY OF ELGIN, CANADA WEST. TORONTO.

## NOTES

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PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT  
FINGER RIDGE SITE (AeHh-150)  
GEORGE STREET LAND PARCEL  
ELGIN COUNTY, ONTARIO

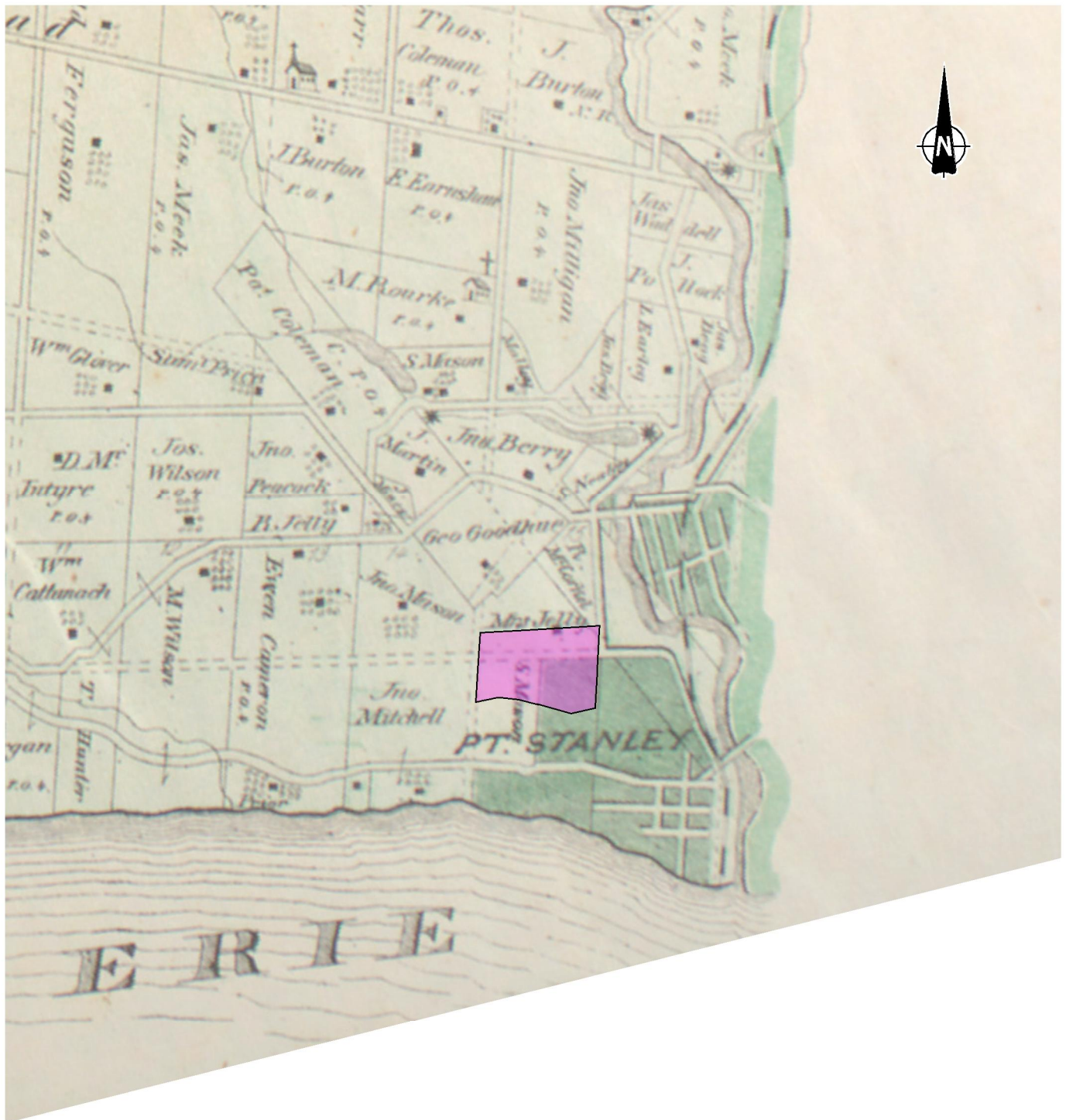
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MAP 8			





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## REFERENCE

PAGE, H.R. & CO., 1877, ILLUSTRATED HISTORICAL ATLAS OF THE COUNTY OF ELGIN. TORONTO.

## NOTES

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PROJECT

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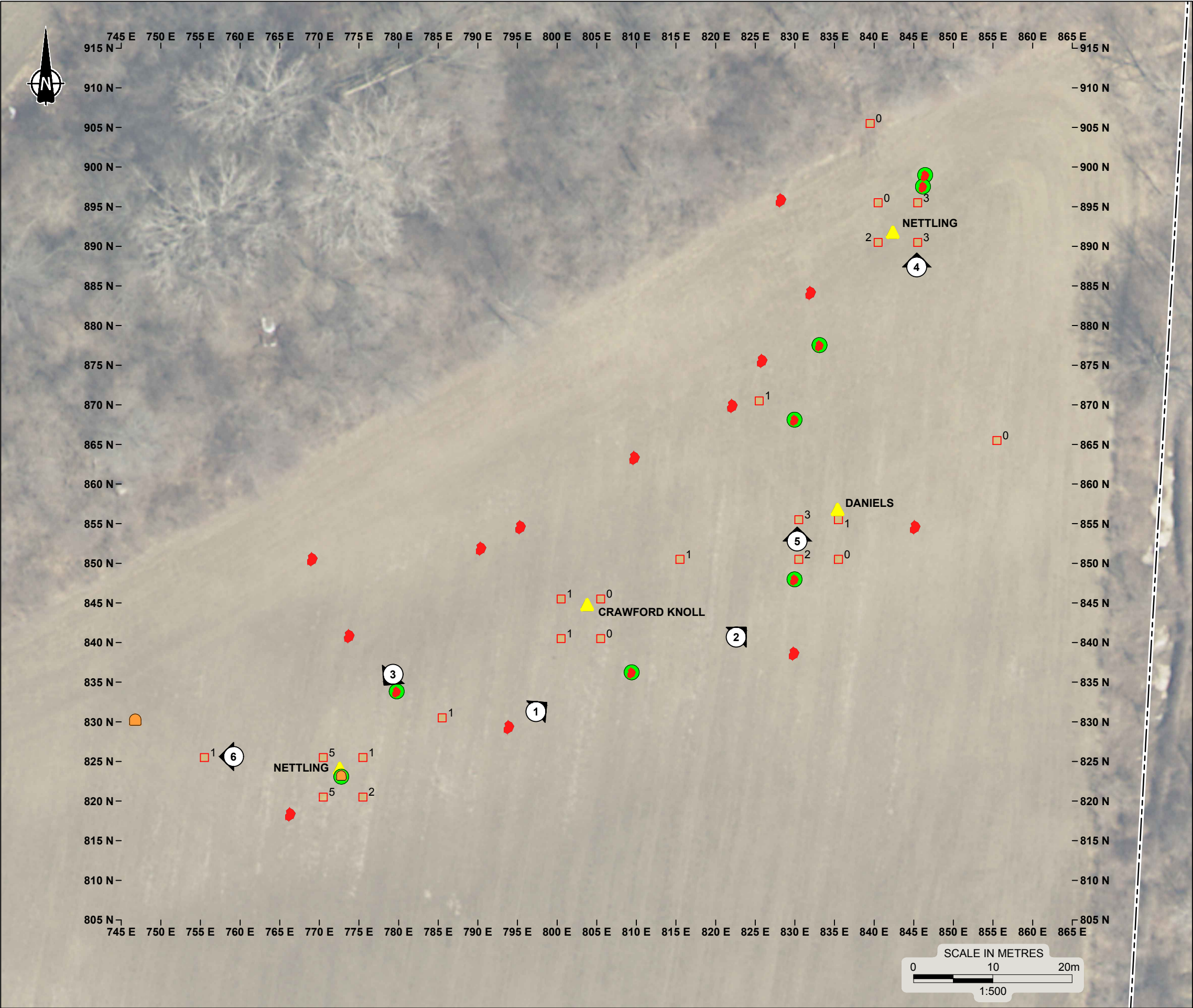
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## STAGE 2 SURFACE FINDS:

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PROJECT		STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AeHh-150) GEORGE STREET LAND PARCEL ELGIN COUNTY, ONTARIO		
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		MAP 10		



## **10.0 IMPORTANT INFORMATION AND LIMITATIONS OF THIS REPORT**

Golder has prepared this report in a manner consistent with the level of care and skill ordinary exercised by members of the archaeological profession currently practicing under similar conditions in the jurisdiction in which the services are provided, subject to the time limits and physical constraints applicable to this report. No other warranty, expressed or implied is made.

This report has been prepared for the specific site, design objective, developments and purpose described to Golder by Mr. Julian Novick of 2526485 Ontario Inc. (the Client). The factual data, interpretations and recommendations pertain to a specific project as described in this report and are not applicable to any other project or site location.

The information, recommendations and opinions expressed in this report are for the sole benefit of the Client. No other party may use or rely on this report or any portion thereof without Golder's express written consent. If the report was prepared to be included for a specific permit application process, then upon the reasonable request of the client, Golder may authorize in writing the use of this report by the regulatory agency as an Approved User for the specific and identified purpose of the applicable permit review process. Any other use of this report by others is prohibited and is without responsibility to Golder. The report, all plans, data, drawings and other documents as well as electronic media prepared by Golder are considered its professional work product and shall remain the copyright property of Golder, who authorizes only the Client and Approved Users to make copies of the report, but only in such quantities as are reasonably necessary for the use of the report by those parties. The Client and Approved Users may not give, lend, sell, or otherwise make available the report or any portion thereof to any other party without the express written permission of Golder. The Client acknowledges that electronic media is susceptible to unauthorized modification, deterioration and incompatibility and therefore the Client cannot rely upon the electronic media versions of Golder's report or other work products.

Unless otherwise stated, the suggestions, recommendations and opinions given in this report are intended only for the guidance of the Client in the design of the specific project.

Special risks occur whenever archaeological investigations are applied to identify subsurface conditions and even a comprehensive investigation, sampling and testing program may fail to detect all or certain archaeological resources. The sampling strategies incorporated in this study comply with those identified in the Ministry of Tourism and Culture's *Standards and Guidelines for Consultants Archaeologists* (Government of Ontario 2011).



## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

### 11.0 CLOSURE

We trust that this report meets your current needs. If you have any questions, or if we may be of further assistance, please contact the undersigned.

#### GOLDER ASSOCIATES LTD.

Lafe Meichenheimer, M.A.  
Archaeological Field Director

Carla Parslow, Ph.D.  
Associate, Senior Archaeologist

LCM/MT/CP/ly

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# **APPENDIX A**

## **Pre-contact Aboriginal Glossary of Terms/Definitions**



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## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

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Chipped lithic tools and debitage were found at the site (or sites) described in this report. Some of the more common chert types found on pre-contact Aboriginal sites in southern Ontario are described below.

**Kettle Point chert:** a relatively high quality raw material found within the Upper Devonian age Kettle Point Formation that outcrops between Kettle Point and Ipperwash, on Lake Huron. Currently, Kettle Point occurs as submerged outcrops extending for approximately 1,350 metres into Lake Huron. Secondary deposits of Kettle Point chert have been reported in Essex County and in the Ausable River watershed (Eley and von Bitter 1989; Fox 2009:362).

**Onondaga chert:** a high quality raw material found within the Onondaga Formation that outcrops along the north shore of Lake Erie west of the mouth of the Grand River as far west as Nanticoke, east of the mouth of the Grand River as far east as Fort Erie, and along the Onondaga Escarpment between Cayuga and Hagersville (Telford and Tarrant 1975). This material can also be recovered from secondary, glacial deposits across much of southwestern Ontario, east of Chatham (Eley and von Bitter 1989; Fox 2009:361-362).

**Selkirk chert:** a moderate to relatively high quality raw material that occurs within the Dundee Formation; it outcrops along Sandusk Creek and its tributaries just west of the village of Selkirk (Telford and Tarrant 1975). The chert ranges in colour from mottled or banded grey to a predominantly brown colour, the latter of which being of relatively more vitreous fabric than the former. Its distribution as a secondary source material is similar to Onondaga chert and it is frequently encountered as far west as the Chatham area (Eley and von Bitter 1989; Fox 2009:362).

**Non-chert:** some materials other than chert were occasionally used for the manufacture of chipped tools, and consequently some pieces of non-chert debitage may occur on some sites. Materials in the non-chert category may include quartzite, quartz-like materials, schist and slate or shale.

All chert types discussed herein were identified visually by comparison to reference materials located in Golder's London offices. The flake assemblage was subject to morphological analysis following the classification scheme described by Lennox et al. (1986) and expanded upon by Fisher (1997), with the exception that no attempt was made to distinguish "primary" from "primary bipolar" flakes.

With reference to the analysis of lithic debitage, the following overview provides descriptions of the various types of cores and debitage commonly found on pre-contact Aboriginal sites.

**Cores:** Pieces of stone (usually chert) from which flakes or blades have been removed. A core may be uni-facetted (flake removed from one surface or edge only) or multi-facetted (flakes removed from two or more surfaces or edges). A core may retain a segment of its exterior, weathered surface.

**Primary Reduction Flakes:** are by-products of the initial stages of the reduction of lithic material, they are derived from cores and are generally attributed to direct hard hammer percussion. Primary flakes may exhibit a large cortical striking platform. This platform may appear on an otherwise unmodified flake scar or a crushed flake margin. Where measureable the striking platform – ventral surface angle is approximately 90 degrees, usually unfacetted and large. Ventral surface attributes are usually well pronounced while the dorsal surface consists of 50-100% cortex, implying little or no modification of the core prior to the removal of the primary flake.

**Primary Thinning Flake:** a large, thick flake with an unprepared striking platform and few to no flake scars on its dorsal (exterior) surface. These flakes are typically thinner than Primary Reduction Flakes. Their platform is





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## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

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usually large, flat or minimally faceted, and close to 90 degrees. A Large bulb of percussion is common on the ventral side. Primary Thinning Flakes are typically associated with the hard hammer percussion method from the initial stage of chipped stone tool production.

**Biface Thinning Flake:** a moderately thick to thin flake with a small platform that can be ground and/or faceted to some degree. The platform angle is usually acute or less than 90 degree. The dorsal side of the flake often has several shallow intersecting scars with no cortex material remaining. Biface Thinning Flakes are associated with the medial stage of biface reduction where a stone tool is thinned through the removal of flakes from opposing surfaces.

**Retouch Flakes:** small, thin flakes removed from the edge of a stone tool or larger flake through pressure flaking. These flakes tend to have a small, lipped platform that may exhibit crushing or part of a dulled bifacial edge. The dorsal surface typically displays flake scars from previous removals and lacks cortex material. They are associated with the final stage of chipped stone tool production when edges are sharpened and notches for hafting are created. They are also associated with maintenance activities where tools are re-sharpened and broken edges rejuvenated.

**Shatter:** usually consists of thick, blocky pieces of chert which lack striking platforms and ventral flake surface attributes. This category of debitage is thought to be a by-product of the initial stages of reduction through the uncontrolled breakage of the raw material along structural faults or irregularities. They commonly result from the use of horizontally and vertically flawed material, these flaws apparently a result of stresses occurring to the material while still within its primary deposit. A relatively high incidence of shatter is usually associated with the bipolar reduction strategy.

**Flake Fragments:** are broken flakes with no platform or proximal end. They cannot be convincingly linked to any particular lithic activity. As such, they have very little analytical value.

**Micro flake:** Very small broken flakes are classed as micro flakes, less than 3mm in size. These flakes are small and generally only recovered from floatation samples.

The following glossary defines some of the terms for some of the formal and informal chipped lithic tools from the sites discussed in this report. All of the definitions are derived from a reputable online sources such as [www.archaeologywordsmith.com](http://www.archaeologywordsmith.com) . and [www.wvculture.org/shpo/glossary.html](http://www.wvculture.org/shpo/glossary.html).

**Artifact:** “any object made, modified or used by people”.

**Biface:** “a stone tool which has been flaked on both surfaces or sides”; frequently made as roughed-out blanks or preforms intended for further reduction into finished tools such as projectile points or knives.

**Burin:** “from the French word *burin*, meaning cold chisel. A specialized engraving tool ... that is cut or ground [or flaked] diagonally downward to form a diamond-shaped point at the tip... In its most characteristic form, the working tip is a narrow transverse edge formed by the intersection of two flake scars produced by striking at an angle to the main axis of the blade... Burins were used to carve or engrave softer organic materials such as antler, bone... or wood”.

**Debitage:** “the by-products or waste materials left over from the manufacture of stone tools”.

**Diagnostic artifact:** “an item that is indicative of a particular time period or cultural group”.



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## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

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**Drill:** “a tool used to drill holes through or into wood, stone or bone”.

**Ecofact:** “nonartifactual evidence that has not been technologically altered but that has cultural relevance.”

**Graver:** “a stone tool manufactured from a flake by chipping (pressure-flaking) it on two edges at one end so as to leave a sharp point. Gravers were used to cut or score organic materials such as bone, shell, wood and antler; perhaps for punching leather, and other purposes”.

**Lithic:** “stone, or made of stone”.

**Knife:** a purposefully formed cutting tool.

**Perforator:** “a flint [chert] tool for piercing holes”, or, “a small chipped stone implement with a rather long and slender point and usually a broad base, supposed to have been used for drilling or boring holes”. Perforators are sometimes referred to as borers.

**Projectile point:** “a general term for points [usually stone] that were hafted to darts, spears or arrows”; commonly referred to as either spearhead or arrowhead.

**Retouched flake:** “a flake that has had small flakes removed to blunt, sharpen, refine the outline or prepare the edge of the tool”.

**Scraper:** a stone tool formed by chipping [flaking] the end or side of a flake which can then be used to scrape animal hides or wood.

**Spokeshave:** “a stone tool with a semi-circular concavity on the edge, used for smoothing spear or arrow shafts; a drawknife or small transverse plane for planing convex surfaces”.

**Utilized flake:** “a piece of stone debitage that is used for cutting or slicing. The edge may be damaged from use, but not deliberately”.

**Wedge:** “an object used to split, force open or keep open another object; a tool used to split wood”.

### **Stages of Reduction for Chert Bifaces** (based on Fisher 1997:25-29)

There have been several different approaches to the definition of the stages of biface reduction, in both Eurasia (Andrefsky 2005:32) and North America (i.e. Callahan 1979: 30-31). Many Ontario-based researchers have adopted the classification scheme used by Fisher (1997: 25-29), which was based largely on Callahan (1979: 30-31). Fisher's definitions of Stage 1 (initial) through Stage 4 (final) bifaces take into consideration characteristics such as number and size of flakes removed, length and depth of flake scars, cross-section, length-width ratio, and edge configuration.

Stage 1: During this initial stage of biface reduction specimens are only roughly shaped. The biface cross-section is hexagonal, irregular to thick lenticular, and is not plano-convex at all (Callahan 1979:36). Biface thinning flake scars are deep, large and generally do not cross half of the biface width, leaving remnants of the original material surface. From a lateral view, the edge of the biface is jagged and highly irregular.



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## STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

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Stage 2: At this stage the biface is still relatively thick compared to its width, with more lateral flake removals crossing over half the biface width, leaving less of the original surface present. As well, thinning flakes are more numerous and smaller. The edge of the biface is still irregular, but less jagged.

Stage 3: This stage of reduction produces a biface with a lenticular cross-section, thinning flakes are shallow and are consistently greater than half the biface width. Also, there is a greater regularity to the edge, and bases may be formed, if only incipiently, on some specimens.

Stage 4: Stage 4 is represented by an almost finished projectile point with a relatively high width to thickness ratio, a relatively regular or even edge, some retouch, and a shaped base. Some items classed as Stage 4 specimens may have been finished projectile points. However, they are not as finely crafted as the definitive finished projectile points, perhaps due to material or knapping flaws, or skills of knappers



# **APPENDIX B**

## **Finger Ridge Site (AeHh-150) Stage 3 Artifact Catalogue**



### STAGE 3 ARCHAEOLOGICAL ASSESSMENT FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO

Table 7: Finger Ridge Site (AeHh-150) Stage 3 Artifact Catalogue

Cat. #	Easting	Northing	Subunit	Depth	Lot	Material 1	Material 2	Function 1	Function 2	Object	Fragment	Manufacture	Alteration	# of Artifacts	Note
19	770	820	1	0-28	1	stone	chert: Onondaga	tools and equipment	debitage	biface thinning flake	complete	chipped		3	
20	770	820	1	0-28	1	stone	chert: Onondaga	tools and equipment	debitage	primary thinning flake	lateral	chipped		1	
21	770	820	1	0-28	1	stone	chert: Selkirk	tools and equipment	debitage	flake fragment	incomplete	chipped		1	
22	775	820	1	0-33	1	stone	chert: Onondaga	tools and equipment	debitage	primary thinning flake	proximal	chipped		1	
23	775	820	1	0-33	1	stone	chert: Onondaga	tools and equipment	debitage	biface thinning flake	proximal	chipped		1	
24	770	825	1	0-25	1	stone	chert: Onondaga	tools and equipment	debitage	primary thinning flake	complete	chipped		1	
25	770	825	1	0-25	1	stone	chert: Onondaga	tools and equipment	debitage	biface thinning flake	complete	chipped		1	
26	770	825	1	0-25	1	stone	chert: Selkirk	tools and equipment	debitage	primary thinning flake	complete	chipped		1	
27	770	825	1	0-25	1	stone	chert: Onondaga	tools and equipment	debitage	flake fragment	midsection	chipped		1	
28	770	825	1	0-25	1	stone	chert: Onondaga	tools and equipment	debitage	shatter	incomplete	chipped		1	
29	775	825	1	0-49	1	stone	chert: Onondaga	tools and equipment	debitage	shatter	incomplete	chipped		1	
30	800	840	1	0-32	1	stone	chert: Onondaga	tools and equipment	debitage	biface thinning flake	complete	chipped		1	
31	800	845	1	0-32	1	stone	chert: Selkirk	tools and equipment	debitage	retouch flake	complete	chipped		1	
32	830	850	1	0-38	1	stone	chert: Selkirk	tools and equipment	debitage	retouch flake	proximal	chipped		1	
33	830	850	1	38-43	2	stone	chert: Selkirk	tools and equipment	debitage	primary thinning flake	complete	chipped		1	
34	830	855	1	0-33	1	stone	chert: Onondaga	tools and equipment	debitage	flake fragment	midsection	chipped		1	
35	830	855	1	0-33	1	stone	chert: Onondaga	tools and equipment	debitage	retouch flake	proximal	chipped		1	
36	830	855	1	0-33	1	stone	chert: Selkirk	tools and equipment	debitage	retouch flake	complete	chipped		1	
37	835	855	1	0-28	1	stone	chert: Onondaga	tools and equipment	debitage	biface thinning flake	complete	chipped		1	
38	840	890	1	0-14	1	stone	chert: Onondaga	tools and equipment	debitage	biface thinning flake	proximal	chipped		1	
39	840	890	1	0-14	1	stone	chert: Onondaga	tools and equipment	debitage	retouch flake	complete	chipped		1	
40	845	890	1	0-15	1	stone	chert: Onondaga	tools and equipment	debitage	primary thinning flake	complete	chipped		1	
41	845	890	1	0-15	1	stone	chert: Onondaga	tools and equipment	debitage	flake fragment	midsection	chipped		1	
42	845	890	1	0-15	1	stone	chert: Onondaga	tools and equipment	debitage	shatter	incomplete	chipped		1	



**STAGE 3 ARCHAEOLOGICAL ASSESSMENT  
FINGER RIDGE SITE (AEHH-150), ELGIN COUNTY, ONTARIO**

Cat. #	Easting	Northing	Subunit	Depth	Lot	Material 1	Material 2	Function 1	Function 2	Object	Fragment	Manufacture	Alteration	# of Artifacts	Note
43	845	895	1	0-21	1	stone	chert: Onondaga	tools and equipment	debitage	biface thinning flake	proximal	chipped		1	
44	845	895	1	0-21	1	stone	chert: Onondaga	tools and equipment	debitage	biface thinning flake	complete	chipped	burnt	1	
45	845	895	1	21-26	2	stone	chert: Onondaga	tools and equipment	debitage	flake fragment	midsection	chipped		1	
46	CSP 9A				surface	stone	chert: Onondaga	tools and equipment	tools	biface: Stage 1	complete	chipped		1	no use-wear; L: 50mm, W: 39.5mm, T: 12.5mm
47	CSP 6A				surface	stone	chert: Selkirk	tools and equipment	debitage	primary reduction flake	complete	chipped		1	
48	CSP 7A				surface	stone	chert: Onondaga	tools and equipment	debitage	shatter	incomplete	chipped		1	
49	CSP 5A				surface	stone	chert: Onondaga	tools and equipment	debitage	retouch flake	complete	chipped		1	
50	815	850	1	0-42	1	stone	chert: Onondaga	tools and equipment	debitage	biface thinning flake	complete	chipped		1	
51	CSP 1A				surface	stone	chert: Selkirk	tools and equipment	debitage	primary thinning flake	complete	chipped	burnt	1	
52	CSP 2A				surface	stone	chert: Selkirk	tools and equipment	debitage	primary reduction flake	proximal	chipped		1	
53	CSP 3A				surface	stone	chert: Onondaga	tools and equipment	debitage	flake fragment	midsection	chipped		1	
54	CSP 4A				surface	stone	chert: Onondaga	tools and equipment	debitage	primary thinning flake	complete	chipped		1	
55	825	870	1	0-25	1	stone	chert: Selkirk	tools and equipment	debitage	biface thinning flake	complete	chipped		1	
56	755	825	1	0-34	1	stone	chert: Selkirk	tools and equipment	debitage	biface thinning flake	complete	chipped		1	
57	785	830	1	0-31	1	stone	chert: Onondaga	tools and equipment	debitage	biface thinning flake	complete	chipped		1	

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