

Appendix C

Stage 1 Archaeological Assessment





ORIGINAL REPORT:

STAGE 1 ARCHAEOLOGICAL ASSESSMENT WFCU PEDESTRIAN BRIDGE AND CONCRETE BOX CULVERT, PART OF LOTS 133 & 134, CONCESSION 1 PETITE COTE, TOWNSHIP OF SANDWICH, CITY OF WINDSOR, COUNTY OF ESSEX, ONTARIO

Submitted to: The Corporation of the City of Windsor 2450 McDougall Street, Windsor, Ontario, N8X 3N6

AND

THE ONTARIO MINISTRY OF TOURISM, CULTURE AND SPORT

Submitted by:

Wood Environment & Infrastructure Solutions, a division of Wood Canada Limited 11865 County Road 42, Tecumseh, Ontario, N8N 2M1 Ph: (519) 735-2499, Fax: (519) 735-9669

> Archaeological Consulting License # P066 (O'Neal) P.I.F. # P066-0287-2018 (Stage 1)

Distribution:

- The Corporation of the City of Windsor 1 Digital Copy
- Ontario Ministry of Tourism, Culture and Sport 1 Digital Copy
- Wood Environment & Infrastructure Solutions 1 Digital Copy

Reference Number: SWW187089



EXECUTIVE SUMMARY

Wood Environment & Infrastructure Solutions, a division of Wood Canada Limited ("Wood") was retained by The Corporation of the City of Windsor (the CLIENT) to conduct a Stage 1 archaeological assessment in advance of construction of a proposed pedestrian bridge and concrete box culvert located south of McHugh Street at the WFCU Centre, in the City of Windsor, Ontario ("Study Area"). This archaeological assessment was triggered under the Environmental Assessment Act as per requirements of a Schedule "B" project of the Municipal Class Environmental Assessment process. The study area was historically described as Part of Lots 133 and 134, Concession 1 Petite Cote, Township of Sandwich, County of Essex (Appendix A: Figures 1, 2 and 3). The subject property is approximately 0.62 hectares (1.54 acres) in size.

The Stage 1 archaeological assessment was carried out in accordance with the Ontario Ministry of Tourism, Culture and Sport's ("MTCS") *Standards and Guidelines for Consultant Archaeologists* (2011), under an Ontario Professional Licence to Conduct Archaeological Fieldwork (P066) held by Kristy O'Neal, Senior Archaeologist at Wood. The project information was acknowledged by the MTCS on 05 April 2018 with the approval of PIF number P066-0287-2018 (Stage 1). Permission to conduct the property inspection was granted to Wood by the CLIENT on 21 February 2018. Permission to conduct the property inspection included all required archaeological fieldwork activities.

The study area measures 0.62 hectares in size and consists of Little River and the surrounding area, including paved parking lots, walking trails and drainage ditches. The section of Little River within the study area has been modified into a straight canal and there are ditches on each side that contain marsh vegetation and rocks to stabilize the banks.

The Stage 1 background study has indicated that undisturbed portions of the subject property would have archaeological potential and warrant Stage 2 property assessment for two principal reasons: 1) the close proximity of a natural water source, Little River, that is located within the study area; and 2) the location of the study area is near historic roadways, railways and farmsteads, as illustrated in the 1877 and 1880 historic atlas maps.

On the basis of the Stage 1 property inspection and a review of recent land use history, Wood has identified that the study area does not require further archaeological assessment for the following reasons: 1) archaeological potential has been removed from 85% (0.53 hectares) of the property due to modern soil disturbance (as shown in the 2008 aerial photograph reviewed); and 2) 15% (0.09 hectares) of the study area is permanently wet (Appendix A: Figure 5).



In light of the results presented above, the following recommendation is made, subject to the conditions outlined below and in Section 6.0:

1. No further archaeological assessment is required for the study area.

The above recommendation is subject to Ministry of Tourism, Culture and Sport approval, and it is an offence to alter any of the study area without Ministry of Tourism, Culture, and Sport concurrence.

No grading or other activities that may result in the destruction or disturbance to the study area is permitted until notice of Ministry of Tourism, Culture, and Sport approval has been received.



TABLE OF CONTENTS

1.1 Development Context 1
1.2 Scope of Work1
STAGE 1 BACKGROUND STUDY
2.1 Archaeological Context
2.1.1 Registered Archaeological Sites
2.1.2 History of Archaeological Investigations
2.1.3 Environmental Context
2.2 Historical Context
2.2.1 A Cultural History for Southwestern Ontario
2.2.2 Review of Historical Records
2.2.3 Historic Plaques
2.2.4 Additional Information
3.1 Methodology11
3.2 Record of Finds
3.3 Results
4 STAGE 1 ANALYSIS AND CONCLUSIONS
ADVICE WITH COMPLIANCE WITH LEGISLATION
BIBLIOGRAPHY

Table 1:Simplified Cultural Chronology of Southern and Eastern OntarioTable 2:Inventory of Documentary Record



- Figure 1 1:50,000 Scale Topographic Map Showing Location of Study area
- Figure 2 Aerial Photograph Showing Location of the Study Area
- Figure 3 Study Area on 1877 Historical Atlas Map of Essex County
- Figure 4 Study Area on 1880 Historical Atlas Map of Sandwich Township, Essex County
- Figure 5 Stage 1 Results with Photograph Locations and Directions

APPENDIX B: PHOTOGRAPHS APPENDIX C: AERIAL PHOTOGRAPHS APPENDIX D: ASSESSOR QUALIFICATIONS APPENDIX E: LIMITATIONS



PROJECT PERSONNEL

Project Director:	Barbara Slim, M.A. (P239)	
Project Manager:	Barbara Slim, M.A.	
Field Director	Luke Fischer, M.A. (P219)	
Report Preparation:	Kristy O'Neal, M.A. (P066) Barbara Slim, M.A.	
Graphics:	Lindsay Ketchabaw (CAD) Kristy O'Neal, M.A.	
Report Reviewer:	Shaun Austin, Ph.D. (P141)	



PROJECT CONTEXT

1.1 Development Context

Wood Environment & Infrastructure Solutions, a division of Wood Canada Limited ("Wood") was retained by The Corporation of the City of Windsor (the CLIENT) to conduct a Stage 1 archaeological assessment in advance of construction of a proposed pedestrian bridge and concrete box culvert located south of McHugh Street at the WFCU Centre, in the City of Windsor, Ontario ("Study Area"). This archaeological assessment was triggered under the Environmental Assessment Act as per requirements of a Schedule "B" project of the Municipal Class Environmental Assessment process. The study area was historically described as Part of Lots 133 and 134, Concession 1 Petite Cote, Township of Sandwich, County of Essex (Appendix A: Figures 1, 2 and 3). The subject property is approximately 0.62 hectares (1.54 acres) in size.

The Stage 1 archaeological assessment was carried out in accordance with the Ontario Ministry of Tourism, Culture and Sport's ("MTCS") *Standards and Guidelines for Consultant Archaeologists* (2011), under an Ontario Professional Licence to Conduct Archaeological Fieldwork (P066) held by Kristy O'Neal, Senior Archaeologist at Wood. The project information was acknowledged by the MTCS on 05 April 2018 with the approval of PIF number P066-0287-2018 (Stage 1). Permission to conduct the property inspection was granted to Wood by the CLIENT on 21 February 2018. Permission to conduct the property inspection included all required archaeological fieldwork activities.

The Stage 1 property inspection was conducted by Luke Fischer (P219) of Wood on 13 April 2018. The weather was cool with a mix of sun and clouds and did not impede the property inspection in any way.

This report presents the results of the Stage 1 background study and makes pertinent recommendations.

1.2 Scope of Work

This Stage 1 archaeological assessment was carried out in accordance with the Terms of Reference provided in Wood's work agreement dated 7 March 2018.

A Stage 1 archaeological assessment is a systematic qualitative process executed in order to assess the archaeological potential of a property based on its historical use and its potential for early Euro-Canadian (early settler) and pre-contact Aboriginal occupation. The objectives of a Stage 1 background study are: 1) to provide information about the property's geography, history, previous



archaeological fieldwork and current land condition; 2) to evaluate in detail the property's archaeological potential which will support recommendations for Stage 2 property assessment for all or parts of the property if warranted; and, 3) to recommend appropriate strategies for Stage 2 property assessment if warranted.

The Stage 1 background study was conducted in accordance with the *Standards and Guidelines for Consultant Archaeologists, 2011,* set out by the MTCS, and with the Ontario Heritage Act, R.S.O. 1990, c.0.18.

The scope of work for the Stage 1 background study consisted of the following tasks:

- Contacting the MTCS to determine if recorded archaeological sites exist in the vicinity (one-kilometre ["km"] radius) of the property, through a search of the Ontario Archaeological Sites Database maintained by that Ministry;
- Contacting the MTCS to determine if there are any known reports of previous archaeological field work within a radius of 50 metres ("m") around the study area;
- A desktop review of the study area's physical setting to determine its potential for both historic and pre-contact human occupation, including its topography, hydrology, soils, vegetation, and proximity to important resources and historic transportation routes;
- A review of the potential for historic occupation as documented in historical atlases and other archival sources;
- A visual inspection of the study area in order to gather first-hand and current evidence of the property's physical setting, and to aid in delineating areas where archaeological potential may have been impacted or removed by previous land-use practices.
- Review of any available geotechnical or environmental boreholes to understand the stratigraphy of the study area as available;
- A review of historical land-use practices that may have impacted the preservation
 - of potential archaeological resources
- Mapping, photographing and other relevant graphics;
- Preparing a report of findings with recommendations regarding the need for further archaeological work if deemed necessary.



STAGE 1 BACKGROUND STUDY

As part of the Stage 1 archaeological assessment, Wood searched MTCS's PastPort system to determine if archaeological sites have been registered within 1 km of the property (Section 2.1.1), and if previous archaeological assessments have been carried out within a 50-m radius (Section 2.1.2). Secondly, the principal determinants of archaeological potential–proximity to water, topography, drainage, soils, vegetation, and proximity to important resources and historically significant transportation routes–were examined in order to evaluate the property's overall archaeological potential (Sections 2.1, 2.1.3, 2.2, and 2.2.1). Thirdly, the specific potential for historic archaeological resources was assessed through an examination of available historical maps and other archival sources (Section 2.2).

2.1 Archaeological Context

2.1.1 Registered Archaeological Sites

Wood conducted the requisite Stage 1 background research. First, the MTCS was asked to search the Ontario Archaeological Sites Database in order to ascertain if previously registered archaeological sites have been identified in close proximity to the study area.

In Ontario, information concerning archaeology sites is stored in the Ontario Archaeological Sites Database (OASD) maintained by the MTCS. This database contains archaeological registered sites within the Borden system. Under the Borden system, Canada has been divided into grid blocks based on longitude and latitude. A Borden block is approximately 13 km east to west, and approximately 18.5 km north to south. Each Borden block is referred to by a four-letter designation and sites located within the block are numbered sequentially as they are found. The subject property is located within the *AbHr* Borden Block. On the basis of a search of the OASD through PastPort on 04 April 2018, there are no registered archaeological sites located within a 1-km radius of the study area. The absence of registered sites may not necessarily be an accurate indication of cultural occupation in an area, but rather it may reflect the lack of systematic archaeological surveys in this area.

2.1.2 History of Archaeological Investigations

Wood completed a search for reports directly on PastPortal on 04 April 2018. Based on this search (by address, lot and concession and above mentioned archaeological sites), no archaeological assessments have been conducted within 50 m of the subject lands.



2.1.3 Environmental Context

Fieldwork for this project was conducted on 13 April 2018. At that time the study area consisted of Little River and the surrounding area, including walking trails, paved parking lots and ditches with marsh vegetation.

The study area (Appendix A: Figures 1–3) is situated in the St. Clair Clay Plains physiographic region of Ontario (Chapman and Putnam 1984: 113). This region consists of an extensive clay plain that covers an area of approximately 5,879 km² and lies at an elevation of 175 to 214 m above sea level (Chapman and Putnam 1984: 147). The study area is located within the Essex Clay Plain sub-region and consists of a till plain overlying a low swell in the bedrock (Chapman and Putnam 1984: 149). The soils within the study area consist of Brookston clay loam (Chapman and Putnam 1984: 149), comprised of silty clay soils with poor drainage capabilities (Richards et. al 1949).

The *Soil Survey of Essex County* (Richards *et al.* 1989) indicates that dominant surface soil type is Brookston clay loam, characterized by few stones, and almost level topography with poor natural drainage.

It is crucial to consider the proximity of water sources in any evaluation of archaeological potential because the availability of water is arguably the single most important determinant of human land use, past and present. The *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011) lists proximity to water as one of the prime indicators of potential for the presence of archaeological sites. Distance from potable water has been one of the most commonly used variables for predictive modeling of site location. Water, both potable and non-potable, also facilitated the transportation of people and goods and served to focus animal and vegetable resources. According to the 2011 *Standards and Guidelines for Consultant Archaeologists*, lands within 300 m of an extant or formerly mapped river or creek have potential for the presence of early Aboriginal and Euro-Canadian archaeological sites. Little River transects the study area. Lake St. Clair and the mouth of the Detroit River are located just over 2 km to the north.

In summary, a review of the archaeological context supports a conclusion of overall archaeological potential and the need for a Stage 2 assessment. Natural water sources are located within 300 m of the study area, including Little River within the study area limits.



2.2 Historical Context

2.2.1 A Cultural History for Southwestern Ontario

The majority of interpretations of pre-contact Aboriginal adaptations in Ontario derive from the analysis and interpretation of stone tools. Stone tools are made from specific types of rocks that fracture in ways that can be controlled, so that they are easily shaped into useful forms. These rocks include chert, chalcedony, quartzite, petrified wood, and volcanic glass, known as obsidian. Most stone tools found in southern Ontario are formed from types of chert that outcrop in local limestone formations, such as: Onondaga and Haldimand cherts, found near the north shore of Lake Erie; Kettle Point chert, which outcrops near Lake Huron; and Collingwood chert, which outcrops along the Niagara Escarpment near Georgian Bay.

Stone tools used as spear tips and arrowheads are the most commonly studied tool type. These are referred to as projectile points. As projectile point technology changed over time, styles and shapes of points changed also. Studying these changing point types has resulted in the development of a chronological framework for pre-contact times prior to 3,000 years ago, when First Nations groups began to make clay pottery. Later periods are defined both by point types and pottery characteristics. Radiocarbon dating of archaeological sites can only be done when organic materials are collected from those sites, so the dating of most sites is done by comparing the artifacts from dated sites to those from undated sites. The following is an overview of the pre-contact history of southern Ontario as understood by archaeologists.

The cultural history of southern Ontario began approximately 11,000 years ago when the glaciers had melted and the land was re-exposed. The land was quickly settled by bands of hunters and gatherers who are thought to have been large game hunters. These people used large spear points that are distinctively shaped with long central grooves, called "flutes". Archaeologists have defined a number of point types that date to this time, including Gainey, Barnes, Crowfield, and Hi-Lo types. This period is referred to as the Paleo-Indian Period and it is thought to have lasted until approximately 9,000 years ago.

After 9,500 years ago, there was a long period when the climate was variable and the bare lands left by the glaciers were becoming re-forested, resulting in patchier, more diverse ecozones. During this time, which lasted until 3,000 years ago, people were adapting to diverse environmental settings. There appears to have been more reliance on local stone for making tools and more variable tool manufacturing technologies. The adoption of a spear-throwing board, known as an atlatl, was an important innovation, resulting in the ability to throw smaller darts with more force. Projectile points from this period, called the Archaic Period, are commonly side or



corner-notched and are smaller than those of the preceding period. The Archaic adaptation is generally thought to have centred on localized resources, often forest resources, and groups of people are thought to have been less mobile, an adaptation that continued to develop until the arrival of Europeans.

In southern Ontario, the Archaic Period is divided into the Early, Middle and Late Archaic. Early point types include serrated Nettling and Bifurcate Base points. Middle types include Brewerton Corner Notched and Otter Creek, and Late types include Lamoka, Genesee, Crawford Knoll, and Innes. Most of these are named after sites where they were first identified.

The Archaic Period is followed by the Woodland Period. The major technological change in the Early Woodland Period is the introduction of pottery. During this time, people are thought to have developed more community organization and the manufacture of clay pottery is thought to indicate less residential mobility. Burial sites dating to this time often display evidence of ceremonial activities. Projectile points made at this time include much smaller types, probably used as arrow tips. Point types include Meadowood and Kramer and early ceramics were crudely-made vessels with conoidal (pointed) bases. The Early Woodland Period transitioned into the Middle Woodland Period approximately 2,400 years ago.

During the Middle Woodland Period in southern Ontario community and kin identity became more deeply entrenched, and more sedentary communities developed. Point types made at this time include Saugeen, Vanport, and Snyders. Ceramic vessels were conoidal in shape, but were decorated with stamped designs in the soft clay. The Middle Woodland Period transitioned into the Late Woodland Period A.D. 500–900 with the earliest direct evidence for agriculture.

The Late Woodland Period saw the development of recognizable Iroquoian and Algonkian cultures in southern Ontario, characterized by the intensification of agriculture and the increased utilization of corn. Greater sedentism led to increasing settlement populations and greater complexity of settlement organization. Sites dating to this time are often found on terraces overlooking the floodplains of large rivers. Iroquoian villages tended to be small, palisaded compounds with longhouses occupied by families. As the Late Woodland Period progressed, more intercommunity communication and integration became necessary to maintain the sedentary agricultural way of life. Later Iroquoian villages were larger and more heavily palisaded and longhouses were larger also.

When European explorers and missionaries arrived in southern Ontario in the early seventeenth century, they described the local Iroquoian social organization as being under the direction of



elected chiefs. Tribal confederacies and allegiances resulted in intertribal warfare, which was only made worse by the European presence. Three Ontario Iroquoian confederacies, the Huron, Petun, and Neutral, were driven from their traditional territories before the middle of the seventeenth century.

Archaeologists tend to describe a period of transition from Late Woodland to Historic times as "proto-historic". The dating of this period is variable and may be different from site to site within a region as it describes a time when local First Nations were acquiring European trade goods indirectly through other Aboriginal middlemen rather than directly from European traders. This period was generally very short and is often difficult to differentiate archaeologically from later historic times, when trade goods were widely available, but it usually is identified by evidence of an intact traditional cultural adaptation with occasional European items used in traditional ways.

Table 1: Simplified Cultural Chronology of Southern and Eastern Ontario				
Period	Complexes/Cultures, Some Diagnostic Artifacts			
Early Paleo-Indian	Small nomadic hunter-gatherer bands. Early Paleo-Indian (EPI) rarely found			
(9000-8500 B.C.)	in Eastern Ontario. Gainey, Barnes, Crowfield fluted points.			
Late Paleo-Indian	Small nomadic hunter-gatherer bands. Hi-Lo, Holcombe points, Lanceolate			
(8500–7500 B.C.)	Bifaces.			
Early Archaic	Small nomadic hunter-gatherer bands. Nettling, Stanley/Neville points.			
(7500–6000/4500				
B.C.)				
Middle Archaic	Transition to territorial settlements. Seasonal round of subsistence			
(6000/4500-2500	introduced. Thebes (6000–5000 B.C.), Otter Creek points (4500–3000 B.C.).			
B.C.)	Brewerton Complex (3000–2500 B.C.). Brewerton points.			
	Laurentian Complex (6000 B.C.–2500 B.C.) (Eastern Ontario)			
Late Archaic	More numerous territorial hunter- gatherer bands, increasing use of exotic			
(2500–1000 B.C.)	materials and artistic items for grave offerings, regional trade networks.			
	Narrowpoint Complex (2500–1850 B.C.). Lamoka points.			
	Broadpoint Complex (1850–1650 B.C.). Adder Orchard, Genesee points.			
	Smallpoint Complex (1650–1000 B.C.). Crawford Knoll, Innes points.			
	Terminal Archaic (1100–1000 B.C.) Glacial Kame Complex. Hind points.			
Early Woodland	Pottery introduced. Meadowood Notched points, Meadowood Cache			
(1000–400 B.C.)	Blades, Kramer, Adena points.			
	Meadowood Complex (1000–400 B.C.).			
	Middlesex Complex (650–400 B.C.). Introduction of true cemeteries.			
Middle Woodland	Saugeen, Snyders, Vanport, Port Maitland points.			
(400 B.C.–A.D.	Point Peninsula Complex (Southcentral and Eastern Ontario)			
500/900)	Saugeen Complex (southeast of Lake Huron and the Bruce Peninsula,			
	London area, and possibly as far east as the Grand River)			
	Couture Complex (Lake St. Clair and the western end of Lake Erie). Burial			
	ceremonialism.			



Table 1: Simplified Cultural Chronology of Southern and Eastern Ontario			
Period	Complexes/Cultures, Some Diagnostic Artifacts		
Transitional	Agriculture introduced. Levanna, Jacks Reef points.		
Woodland (A.D. 500–	Princess Point Complex (Eastern end of Lake Erie and the western end of		
900)	Lake Ontario).		
	Sandbanks Complex (Kingston area).		
Late Woodland	Tribal differentiation. Transition to settled village life. Dewaele, Glen Meyer		
(A.D. 900–1650)	Tanged, Triangular Nanticoke, Notched Nanticoke, Triangular		
	Daniels/Madison points.		
	Ontario Iroquoian and St. Lawrence Iroquoian Traditions (Southcentral		
	and Eastern Ontario, respectively).		
	Algonkian Western Basin Tradition (Lake St. Clair and the western end of		
	Lake Erie).		
Early Post-Contact	Iroquoian, Algonkian migrations and resettlement. French exploration and		
(A.D. 1650–1763)	colonization		
Late Post-Contact	Iroquoian, Algonkian migrations and resettlement. British and other		
(A.D. 1763–1867)	European immigration increases.		

Archaeologically, the years since the arrival of Europeans are referred to as the Historic Period. In southern Ontario, significant Historic sites are those that have an affiliation with an important historic event, figure, or family, but can also be anything dating to the original European settlement of a region. Often, these sites date to before A.D. 1830.

During pre-contact and early contact times, the vicinity of the study area would have comprised a mixture of deciduous trees, coniferous trees and open areas. In the late eighteenth and early nineteenth century, Euro-Canadian settlers arrived and began to clear the forests for agricultural purposes and for permanent settlement.

The study area is located within the Township of Sandwich, County of Essex. As early as the 1670s, Fathers Dollier and Galinee, and later the adventurer LaSalle made their way up the Detroit River to Lake St. Clair to document the region that is now Essex County (Morrison 1954: 3). The first European settlement around the study area took place in the early 1700's when Sieur De Lamothe Cadillac built Fort Pontchartrain on what is now Detroit. The fort originally started out as a fur trading centre but was converted into a military post (Mika & Mika 1977). In 1748, a Jesuit mission to the Huron was established on the south shore of the Detroit River, in what is now the Windsor area (ECTA 1947). After that, French agriculturalists quickly settled in the area (Mika & Mika 1977).

At the close of the War of 1812, United Empire Loyalists began seeking land and settling in the area (ETCA, 1947). The inland areas of the township were not settled until the nineteenth century,



as the land was poorly drained. However, by 1824, Essex had a population of 4,274, which quickly grew upon completion of the Erie Canal and Talbot Road a few years later (Carter 1984a).

Sandwich Township was incorporated in 1850, and in 1861 was divided into three townships, Sandwich East, West and South (Carter 1984b). Sandwich East was annexed in part by the City of Windsor and in part by the Township of Sandwich South in 1966 (Carter 1984b). The Town of Sandwich is the earliest settlement in the area. In 1796, lots were given to fur traders from Detroit who wished to remain under British Rule. Sandwich was the county seat for many years (Mika & Mika 1983). An ex-slave community existed in Sandwich as early as 1820, when they founded the first Baptist congregation there (ECTA 1947). After slavery was outlawed by Britain, the influx of fugitive slaves to Canada increased, with Sandwich and Windsor serving as major border crossings for the Underground Railroad.

The City of Windsor was first established near ferries run by French to carry goods across the river to Detroit and was originally known as South Detroit. Windsor now encompasses three nineteenth century communities, Sandwich, Windsor and Walkerville. Windsor was slow to grow and develop until the construction of the Great Western Railway in 1854, after which it experienced rapid growth (Mika & Mika 1983).

2.2.2 Review of Historical Records

Historical records and mapping were examined for evidence of early Euro-Canadian use of the study area. Historically, the study area was located on Part of Lots 133 and 134, Concession 1 Petite Cote, Township of Sandwich, Essex County.

The 1877 *H.R. Page & Co.'s Map of the County of Essex* was examined in an effort to determine the potential for historic archaeological evidence within the study area (Page 1877; Appendix A: Figure 3). At that time, the owners of Lot 133 were listed as J.R. Louzon and Luis Louzon. The owners of Lot 134 were listed as Ben Soulier and Joseph Soulier. Two farmsteads are shown at the south end of Lot 134 and one farmstead is shown at the south end of Lot 133. All of these farmsteads are located just to the north of historic Tecumseh street, approximately 500 m to the south of the current study area. The Grand Trunk Railway runs to the north of the farmsteads, apprixmately 340 metres south of the study area.

In addition, the 1880 *Illustrated Atlas of Essex County* (Belden 1880; Appendix A: Figure 4) was examined. No owners were identified on either Lot 133 or 134 in the 1880 map. The Great Western Railway ran 340 m to the south and Tecumseh Street, an historic transportation route, was located



570 m to the south. A schoolhouse is shown on Lot 121, Concession 2, 1.6 km to the southwest of the study area.

Historical census records were reviewed to obtain additional information (Library and Archives Canada 2018). Of the four property owners listed on the historic atlas maps, only Louis (sic) Louzon appears in any census records. Louis Louzon only appears in the 1871 Canada census records. In 1871, the census documented that Mr. Louzon was 33 years old and married to Marie Louzon, aged 23. Both Louis and Marie were born in Ontario and their religion was listed as Catholic. Both could read and write. Louis's profession was listed as farmer.

In summary, a review of the historical context supports a conclusion of overall archaeological potential and the need for a Stage 2 assessment since the study area is located near historic roadways, railways and farmsteads, as illustrated in the 1877 and 1880 historic atlas maps (Appendix A: Figures 3 and 4).

2.2.3 Historic Plaques

There are no historic plaques located in the vicinity of the study area.

2.2.4 Additional Information

Wood completed a review of recent aerial photographs available on the County of Essex website: <u>https://www.countyofessex.on.ca/en/residents/maps.asp</u>. As shown in Appendix C, the entirety of the study area appears to have been graded in 2008. The 2017 aerial photograph shows the recent configuration.



STAGE 1 PROPERTY INSPECTION

3.1 Methodology

The Stage 1 property inspection was conducted by Luke Fischer (P219) of Wood on 13 April 2018 to confirm archaeological site potential and to determine the degree to which development and landscape alteration have affected that potential. The weather that day was cool (*ca.* 8 degrees Celsius) with a mix of sun and cloud and did not impede the property inspection in any way.

The Stage 1 property inspection included a walk-through of the entire property, which measures approximately 0.62 ha (1.54 acres) in size. The entire property was inspected by means of transects at regular intervals to sufficiently identify the presence or absence of features of archaeological potential, meeting the requirements of Section 1.2 Standard 1 of the Ontario Ministry of Tourism, Culture and Sport *Standards and Guidelines for Consultant Archaeologists*. The property inspection was thoroughly photo-documented. Field observations were recorded on aerial maps and field forms. Areas identified as disturbed, including paved parking lots, ditches and walking trails, as well as Little River, have had the integrity of the topsoil compromised by earth moving activities to the point where archaeological potential has been removed. All land conditions were recorded as shown in Appendix A: Figure 5 and Appendix B: Photographs 1-9.

3.2 Record of Finds

Table 2: Inventory of Documentary Record				
Study Area	Map and Photo(s)	Field Notes		
McHugh Street, City of Windsor, Part of Lots 133 &	Copies of 2 historical maps, 9	Stage 1 photo logs		
134, Concession 1 Petite Cote, Township of	Stage 1 photographs, 2 aerials	and field notes		
Sandwich, County of Essex	photographs			

Documentation related to the archaeological assessment of this project will be curated by Wood until such time that arrangements for their ultimate transfer to Her Majesty the Queen in right of Ontario, or other public institution, can be made to the satisfaction of the project owner, the MTCS and any other legitimate interest groups.

3.3 Results

The study area measures 0.62 hectares in size and consists of Little River and the surrounding area. The west edge of the study area is largely made up of paved parking lots and there are walking trails to the east and west of Little River. This section of Little River has been modified



into a straight canal and there are ditches on each side that contain marsh vegetation and rocks to stabilize the banks.

Approximately 0.09 hectares of the study area is low-lying and perennially wet and therefore has low archaeological potential. This wet area includes Little River that runs through the study area (Appendix B: Photographs 5, 7-9). The river also appears to have been channelled into a straight drain within the study area, and the slopes to the river appear to be modified.

Archaeological potential has been removed within 0.53 hectares of the study area as a result of the construction of a paved parking lot, drainage ditches and walking trails (Appendix B: Photographs 1-9).

No portions of the property appear to retain archaeological potential, and therefore no Stage 2 property assessment is required.



4 STAGE 1 ANALYSIS AND CONCLUSIONS

The Stage 1 background study has indicated that undisturbed portions of the subject property would have archaeological potential and warrant Stage 2 property assessment for two principal reasons: 1) the close proximity of a natural water source, Little River, that is located within the study area; and 2) the location of the study area is near historic roadways, railways and farmsteads, as illustrated in the 1877 and 1880 historic atlas maps.

On the basis of the Stage 1 property inspection and a review of recent land use history, Wood has identified that the study area does not require further archaeological assessment for the following reasons: 1) archaeological potential has been removed from 85% (0.53 hectares) of the property due to modern soil disturbance (as shown in the 2008 aerial photograph reviewed); and 2) 15% (0.09 hectares) of the study area is permanently wet (Appendix A: Figure 5).



RECOMMENDATIONS

In light of the results presented above, the following recommendation is made, subject to the conditions outlined below and in Section 6.0:

1. No further archaeological assessment is required for the study area.

The above recommendation is subject to Ministry of Tourism, Culture and Sport approval, and it is an offence to alter any of the study area without Ministry of Tourism, Culture, and Sport concurrence.

No grading or other activities that may result in the destruction or disturbance to the study area is permitted until notice of Ministry of Tourism, Culture, and Sport approval has been received.



ADVICE WITH COMPLIANCE WITH LEGISLATION

- is r ort is subjected to the Ministrice Contario Heritage Act, R.S.O. 1990, c 0.18.
 Is not is read to insure test it coolies it to standards and uid lines test in a standards and uid lines test is uident. Ministriand test test is site to standards and read to and tions insure to and the read of the ministrian and test is site in the read of the ministrian and test is site in the read of the ministrian and test is site in the read of the ministrian and test is site in the read of the ministrian and test is site in the read of the ministrian and test is site in the read of the ministrian and test is site in the read of the ministrian and test is site in the read of the ministrian and test is site in the read of the ministrian and test is site in the read of the ministrian and test is site in the read of the ministrian and test is site in the read of the ministrian and test is site in the read of the ministrian and test is site in the read of the ministrian and test is site in the read of the ministrian and test is site in the read of the ministrian and test is site. The read of the ministrian and test is site in the read of the ministrian and test is site. The read of the ministrian and test is site in the read of the ministrian and test is site. The read of the ministrian and test is site in the read of the ministrian and test is site. The read of the ministrian and test is site. The read of the ministrian and test is site. The read of the ministrian and test is site. The read of the ministrian and test is site. The read of the ministrian and test is site. The read of the ministrian and test is site. The read of the ministrian and test is site. The read of the ministrian and test is site. The read of the ministrian and test is site. The read of the ministrian and test is site. The read of the ministrian and test is site. The read of the ministrian and test is site. The read of the ministrian and test is site. The read of the ministrian and test is site. The read of the ministrian and test is sis site.
- tis no in und r Stions nd no the Ontario Heritage Act for no rt othr the lines derived of the lines derived of the site of the
- Sould relious undo unted reliolo in resources discorred to a more determined relion of the second second to the second se



 Image: Structure of the st



CLOSURE

This report was prepared for the exclusive use of the Corporation of the City of Windsor and is intended to provide a Stage 1 archaeological assessment of the Study Area. The property is located sought of McHugh Drive in the City of Windsor, Ontario. The study area was historically described as Part of Lots 133 and 134, Concession 1 Petite Cote, Township of Sandwich, County of Essex.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of the third party. Should additional parties require reliance on this report, written authorization from Wood will be required. With respect to third parties, Wood has no liability or responsibility for losses of any kind whatsoever, including direct or consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

The report is based on data and information collected during the Stage 1 background study and property inspection conducted by Wood. It is based solely a review of historical information, a property reconnaissance conducted on 13 April 2018 and data obtained by Wood as described in this report. Except as otherwise maybe specified, Wood disclaims any obligation to update this report for events taking place, or with respect to information that becomes available to Wood after the time during which Wood conducted the archaeological assessment. In evaluating the property, Wood has relied in good faith on information provided by other individuals noted in this report. Wood has assumed that the information provided is factual and accurate. In addition, the findings in this report are based, to a large degree, upon information provided by the current owner/occupant. Wood accepts no responsibility for any deficiency, misstatement or inaccuracy contained in this report as a result of omissions, misinterpretations or fraudulent acts of persons interviewed or contacted.

Wood makes no other representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation and change. Such interpretations and regulatory changes should be reviewed with legal counsel.

This report is also subject to the further Standard Limitations contained in Appendix D.



We trust that the information presented in this report meets your current requirements. Should you have any questions, or concerns, please do not hesitate to contact the undersigned.

Respectfully Submitted,

Wood Environment & Infrastructure Solutions a division of Wood Canada Limited

Prepared by,

Kristy O'Neal, M.A. (P066) Senior Archaeologist

Reviewed by,

of Sti

Barbara Slim, M.A. (P348) Senior Archaeologist

Shann Anstri

Shaun Austin, Ph.D. (P141) Associate Archaeologist



BIBLIOGRAPHY

Belden, H. & Co.

1880 *Illustrated Historical Atlas of the Counties of Essex and Kent, Ontario.* Reprinted 1973, Phelps & Cumming, Toronto.

Carter, Floreen Ellen

- 1984a Place Names of Ontario, Volume 1. Phelps Publishing, London.
- 1984b Place Names of Ontario, Volume 2. Phelps Publishing, London.

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

1984 *The Physiography of Southern Ontario*. Second Edition. Ontario Geological Survey, Special Volume 2. Ontario Ministry of Natural Resources, Toronto University Press, Toronto.

County of Essex

- 2008 2008 Aerial Photograph
 - http://gisweb.countyofessex.on.ca/htmlcounty2101/Index.html?configBase=http://giswe b.countyofessex.on.ca/Geocortex/Essentials/County/REST/sites/County_of_Essex_Public/ viewers/htmlpublic/virtualdirectory/Resources/Config/Default&extent=313436.05,46954 51.23,395580.67,4640491.63 Retrieved 08 May 2018

2017 2017 Aerial Photograph

http://gisweb.countyofessex.on.ca/htmlcounty2101/Index.html?configBase=http://giswe b.countyofessex.on.ca/Geocortex/Essentials/County/REST/sites/County_of Essex_Public/ viewers/htmlpublic/virtualdirectory/Resources/Config/Default&extent=313436.05,46954 51.23,395580.67,4640491.63 Retrieved 08 May 2018

Energy, Mines and Resources Canada

- 1994 1:50,000 Scale Topographic Map, 40-J/07, Belle River.
- Essex County Tourist Association
- 1947 Essex County Historical Sketches, Vol. 1
- Mika, Nick and Helma Mika
- 1977 *Places in Ontario: Their Name Origins and History. Part I, A-E.* Mika Publishing Company, Belleville.

Morrison, Neil F.

1954 *Garden Gateway to Canada: One Hundred Years of Windsor and Essex County.* The Ryerson Press, Toronto.

Library and Archives Canada

2018 *1871 Census of Canada*. <u>http://www.bac-lac.gc.ca/eng/census/1871-canada-west/Pages/1871-canada-west.aspx</u>, retrieved 03 April 2018.



Ministry of Tourism, Culture and Sport

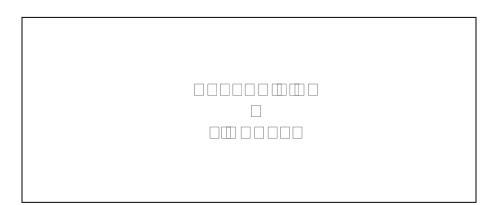
2011 *Standards and Guidelines for Consultant Archaeologists,* Ontario Ministry of Tourism, Culture and Sport, Toronto.

Page, H.R. & Co.

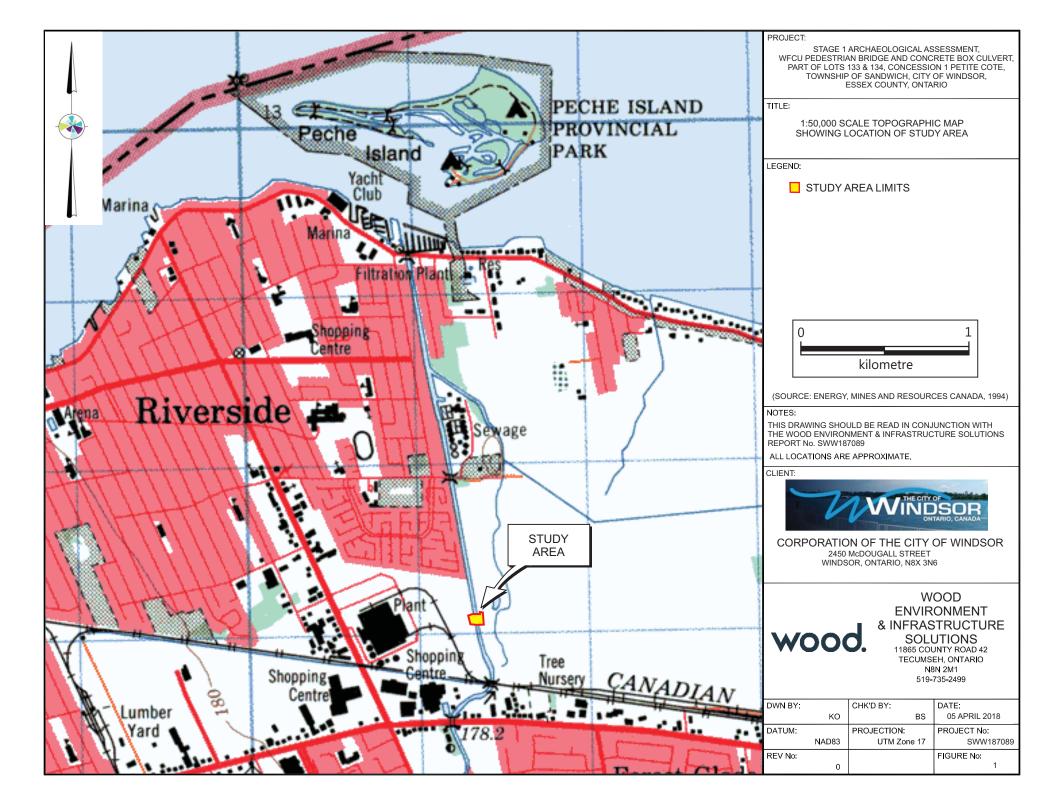
1877 Illustrated Historical Atlas of the County of Essex, Ontario. Reprinted 1970, N.H. Mika, Belleville.

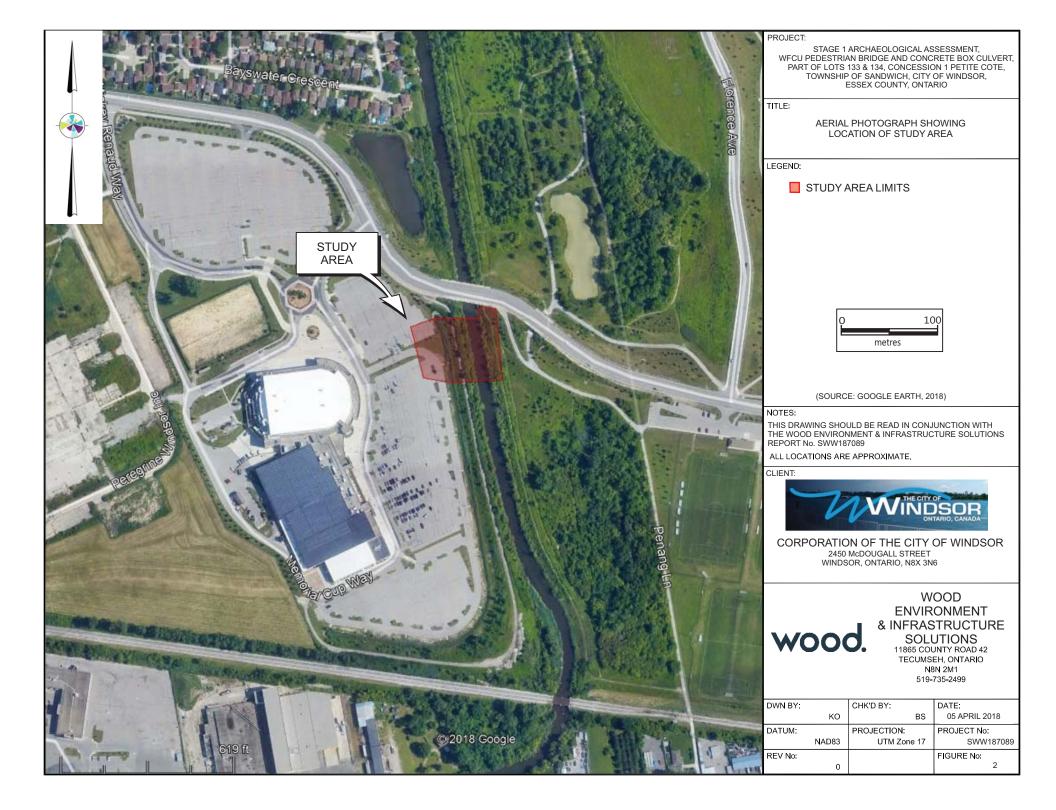
Richards, N.R., A.G. Caldwell and F.F. Morwick

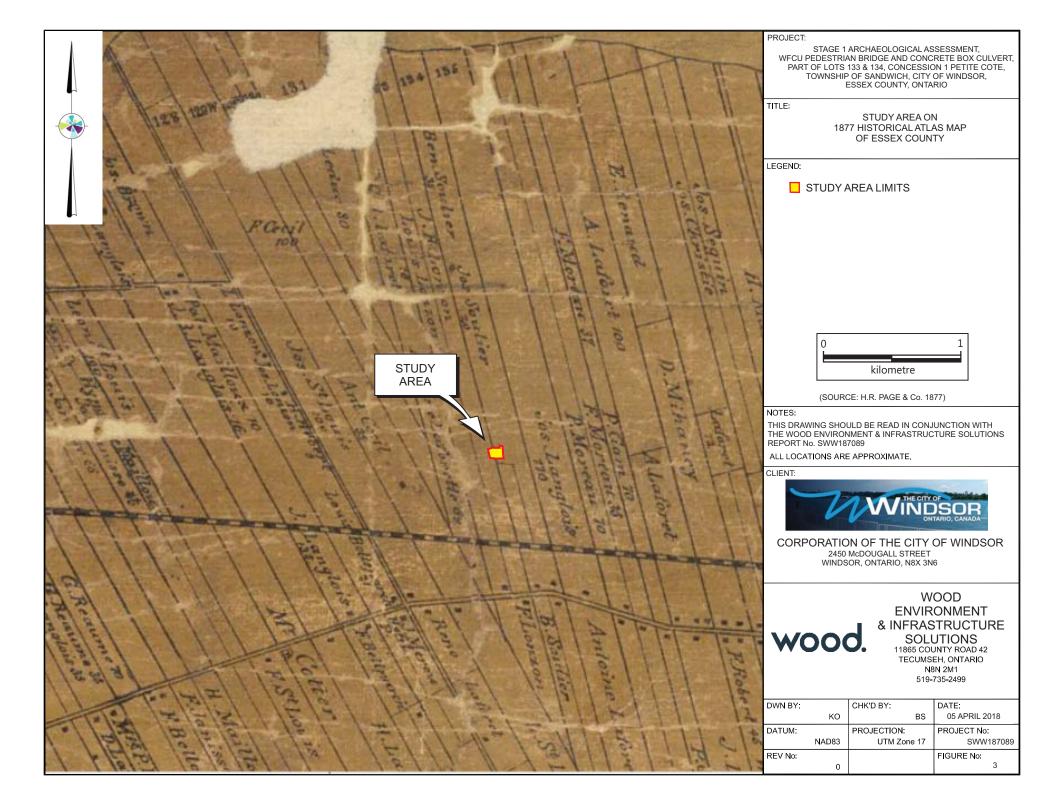
1989 *Soil Survey of Essex County.* Report No. 11 of the Ontario Soil Survey. Ontario Ministry of Agriculture and Food. Guelph, Ontario.

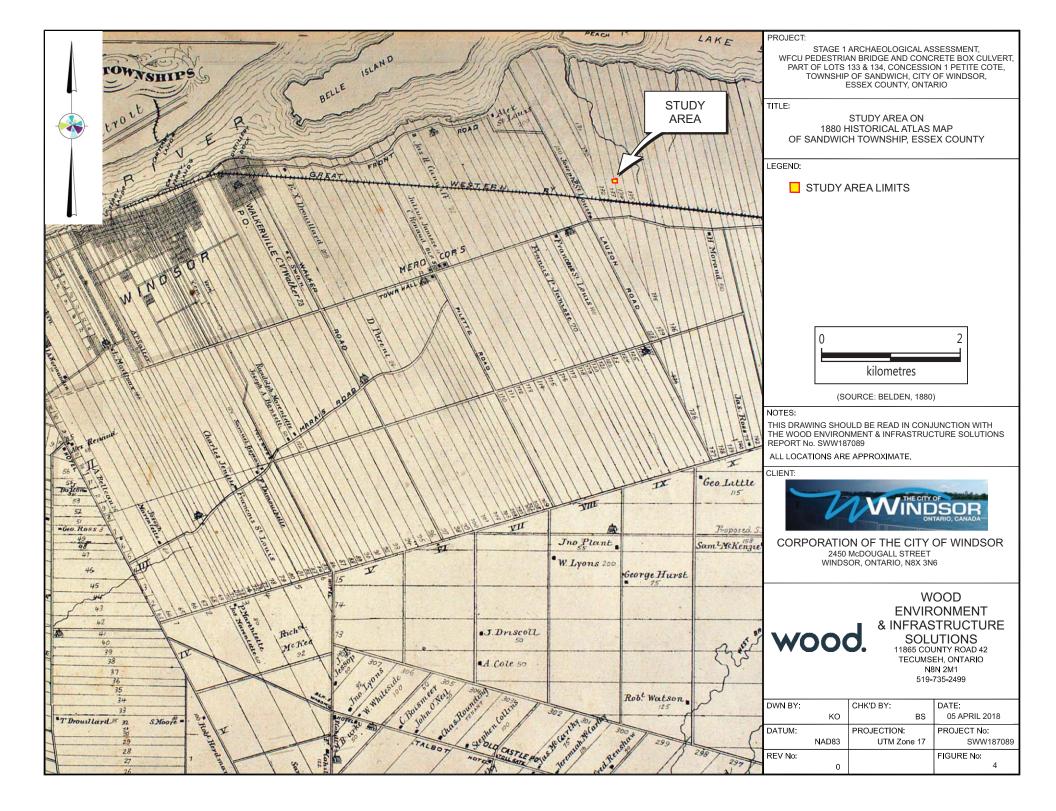


wood

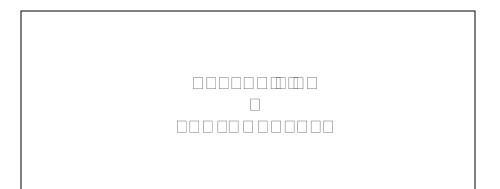












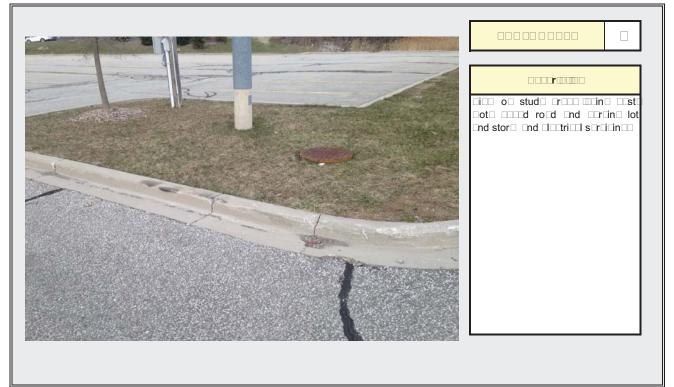
wood.

wood.

 St
 r
 ss
 st

 Image: St
 Image: St
 image: St
 st





wood.

Store of states and

 Image: Construction in the second second





wood.

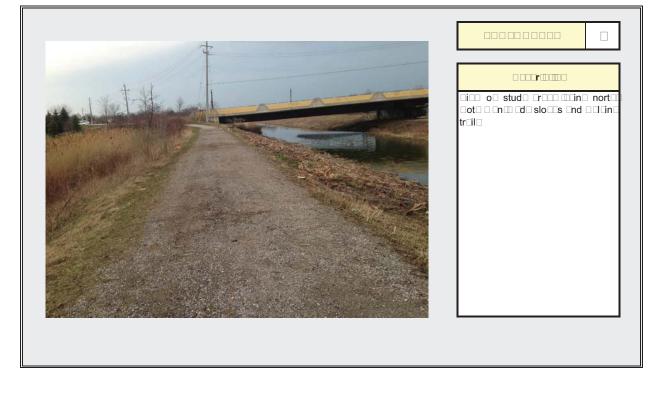
 Image: Construction in the second second

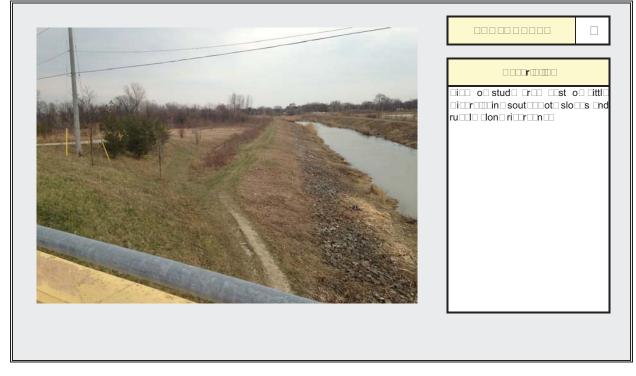




wood.

- Store or colori da ssesse ent
- Image: Construction in the second second



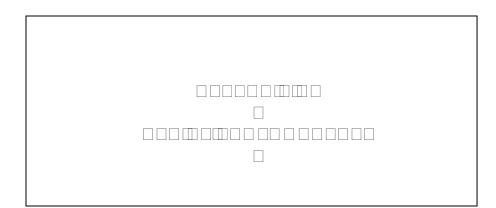


wood.

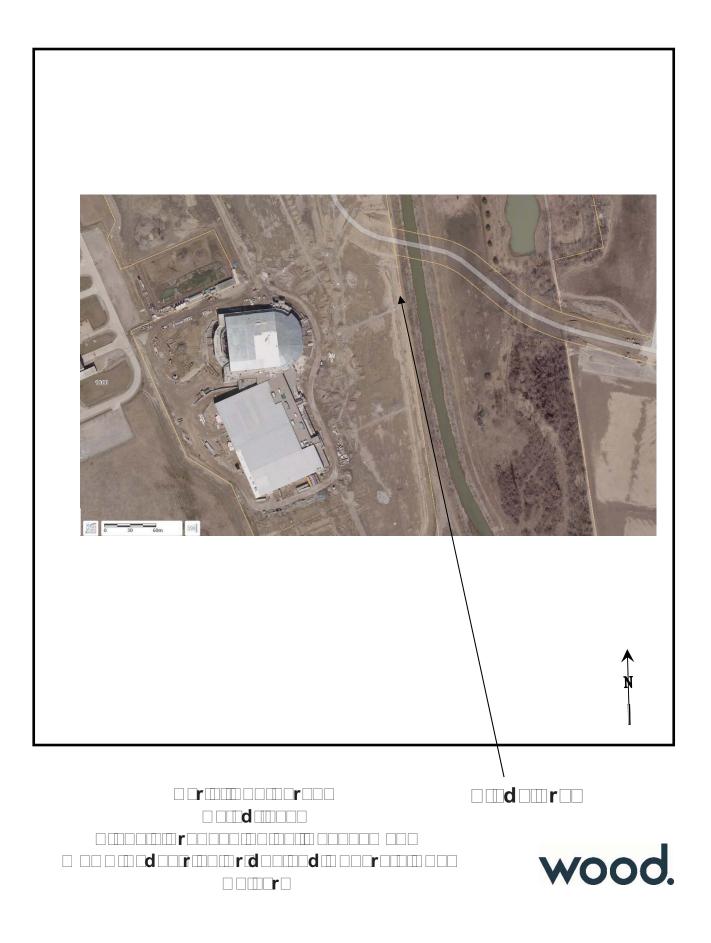
Stand or colorial ssiss ont

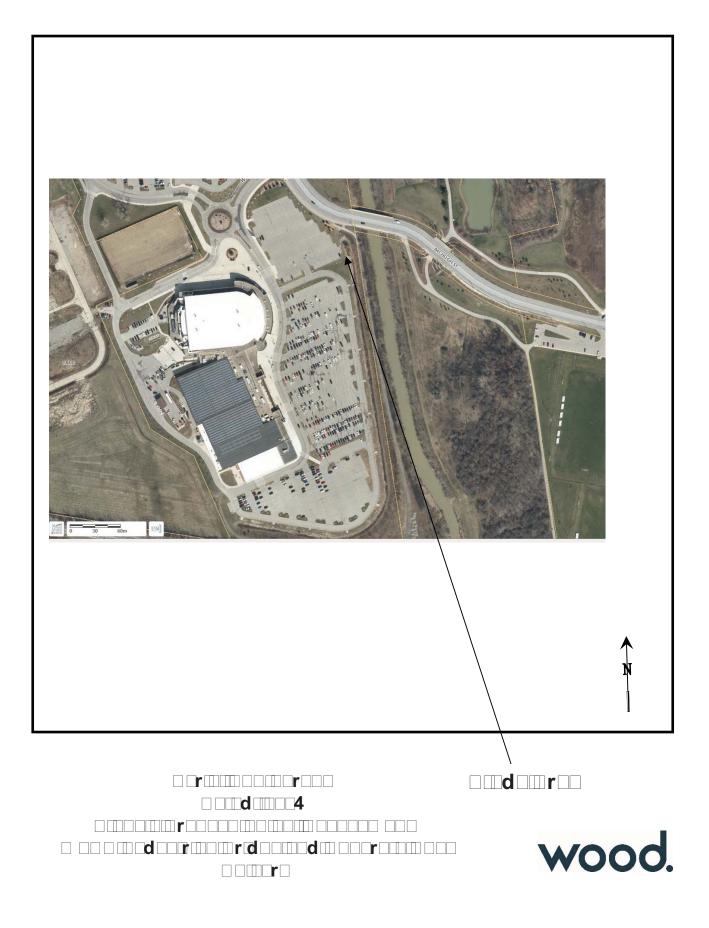
 Image: Contract of the second seco

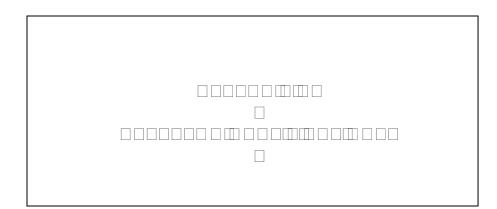




wood







wood

ASSESSOR QUALIFICATIONS

Shaun Austin, Ph.D., Associate Archaeologist, Cultural Heritage Group Lead Dr. Austin is the Senior Advisor to Wood's Cultural Heritage Resources group in Ontario and is based in the Hamilton Office. He has been working in Canadian archaeology and heritage since 1976 and as an archaeological and heritage consultant in Ontario since 1987. He is a dedicated consultant with repeated success guiding projects through to completion to the satisfaction of the development proponent, First Nations communities and cultural heritage stakeholder groups. His areas of interest and expertise include pre-contact Aboriginal lithics and ceramics. Dr. Austin holds a **Professional Archaeology License** (**P141**) issued by the Ontario Ministry of Tourism, Culture and Sport, is **MTO RAQs certified in Archaeology/Heritage** and is a member of the Ontario Association of Professional Archaeologists.

Barbara Slim, M.A. Southwest Ontario Archaeology Group Lead Ms. Slim is a professionally licensed archaeologist with over 13 years of experience in the archaeology and environmental consulting industry. Ms. Slim has conducted all aspects of Stage 1 to 4 archaeological assessments for provincial agencies, municipalities, and land developers in support of infrastructure developments, financial real estate transactions, environmental remediation and private developments. As a founding member of the Wood Ontario archaeology team, Ms. Slim has performed every aspect of project execution, from client relations, project design to MTCS clearance. Through her project experience, Ms. Slim has gained an in-depth understanding of the Heritage Act and legislations & standards associated with cultural heritage management. Ms. Slim holds a Master's Degree in Anthropology from Trent University and an Honours Bachelor's Degree in Environmental Studies and Anthropology from Trent University. Ms. Slim, Culture and Sport and is a member of the Ontario Association of Professional Archaeologists.

Luke Fischer, M.A. – Senior Archaeologist Mr. Fischer is a Senior Archaeologist at Wood with over 14 years of experience in Ontario archaeology. In addition to extensive experience as an Archaeological Field Director in Ontario Mr. Fischer has operated as a crew lead in the cultural resource management field on large infrastructure projects in Alberta, British Columbia, and Illinois. Mr. Fischer has successfully coordinated efforts; field directed and authored reports for Stage 1 to 4 archaeological investigations for multiple categories of development proponents. His expertise includes the archaeological prehistory and history of the Ontario Great Lakes region. Mr. Fischer's educational background includes the archaeological study of Euro-Canadian standing buildings as well as First Nations material culture. Mr. Fischer has been

involved with First Nations participation on multiple projects. Mr. Fischer holds a Professional Archaeology License (P219) issued by the MTCS and is a member of the OAS.

Kristy O'Neal, M.A., Senior Archaeologist Ms. O'Neal is a Senior Archaeologist at Wood with over 20 years of archaeology consulting experience in Ontario. Ms. O'Neal has supervised a wide variety of Stage 1 through 4 archaeological assessments throughout Ontario, with a focus on both pre-contact and Euro-Canadian settlements. Pre-Contact projects have involved First Nations consultation. Ms. O'Neal has a strong background in cultural material analysis and has extensive experience with large complex stratified Aboriginal sites situated within often compromised urban context. She holds a Master's Degree in Bioarchaeology and a Bachelor of Arts Degree in Anthropology from the University of Western Ontario, where she received a Gold Medal Award. Ms. O'Neal's areas of interest and expertise include the archaeological prehistory and history of southwestern Ontario, with focus on the Middle Woodland period and changes in Aboriginal weapon technology. Ms. O'Neal holds a **Professional Archaeology License (P066)** issued by the Ontario Ministry of Tourism, Culture and Sport, and is a member of the Ontario Archaeology Society.

wood



LIMITATIONS

- 1. The work performed in the preparation of this report and the conclusions presented are subject to the following:
 - (a) The Standard Terms and Conditions which form a part of our Professional Services Contract;
 - (b) The Scope of Services;
 - (c) Time and Budgetary limitations as described in our Contract; and,
 - (d) The Limitations stated herein.
- 2. No other warranties or representations, either expressed or implied, are made as to the professional services provided under the terms of our Contract, or the conclusions presented.
- 3. The conclusions presented in this report were based, in part, on visual observations of the Study Area. Our conclusions cannot and are not extended to include those portions of the Study Area which were not reasonably available, in Wood Environment & Infrastructure Solutions opinion, for direct observation.
- 4. The potential for archaeological resources, and any actual archaeological resources encountered, at the Study Area were assessed, within the limitations set out above, having due regard for applicable heritage regulations as of the date of the inspection.
- 5. Services including a background study and fieldwork were performed. Wood Environment & Infrastructure Solutions work, including archival studies and fieldwork, were completed in a professional manner and in accordance with the Ministry of Tourism, Culture and Sport's guidelines. It is possible that unforeseen and undiscovered archaeological resources may be present at the Study Area.
- 6. The utilization of Wood Environment & Infrastructure Solutions services during the implementation of any further archaeological work recommended will allow Wood Environment & Infrastructure Solutions to observe compliance with the conclusions and recommendations contained in the report. Wood Environment & Infrastructure Solutions involvement will also allow for changes to be made as necessary to suit field conditions as they are encountered.
- 7. This report is for the sole use of the parties to whom it is addressed unless expressly stated otherwise in the report or contract. Any use which any third party makes of the report, in whole or in part, or any reliance thereon, or decisions made based on any information of conclusions in the report, is the sole responsibility of such third party. Wood Environment & Infrastructure

Solutions accepts no responsibility whatsoever for damages or loss of any nature or kind suffered by any such third party as a result of actions taken or not taken or decisions made in reliance on the report or anything set out therein.

8. This report is not to be given over to any third-party other than a governmental entity, for any purpose whatsoever without the written permission of Wood Environment & Infrastructure Solutions, which shall not be unreasonably withheld.