

Original Report:

Stage 1 & 2 Archaeological Assessment

Proposed Commercial Development, 10919 Longwoods Road,
Delaware, Part of Lot 6, Concession 1, Geographic Township of
Delaware, Middlesex County, Ontario
Project # SWW181495

Archaeological Consulting License # P066 (O'Neal)
P.I.F. # P066-0302-2018 (Stage 1 & 2)

Prepared for:

10919 Longwood Road Inc.

10919 Longwoods Road, Delaware, Ontario, N0L 1E0

7-Jan-18

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County, Ontario**

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Prepared for:

10919 Longwood Road Inc.
10919 Longwoods Road, Delaware, Ontario, N0L 1E0

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7-Jan-18

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Executive Summary

Wood Environment & Infrastructure ("Wood") was retained by 10919 Longwood Road Inc. (the CLIENT) to conduct a Stage 1 and Stage 2 archaeological assessment in support of a commercial development. This assessment was triggered under the Planning Act and was conducted prior to development. The study area encompasses approximately 5.8 hectares (14.3 acres) and is located at 10919 Longwoods Road, in the town of Delaware. The property is legally described as Part of Lot 6, Concession 1, Geographic Township of Delaware, Middlesex County, Ontario (Appendix A: Figures 1, 2 and 3).

The Stage 1 & 2 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 20 November 2018 with the approval of PIF number P066-0302-2018 (Stage 1 & 2). Permission to enter for the purposes of the assessment was granted to Wood by the CLIENT on 12 November 2018. This permission extended to all required fieldwork activities, including the recovery and removal of artifacts.

The Stage 1 property inspection was conducted by Kristy O'Neal (P066) of Wood on 04 December 2018. The Stage 2 pedestrian survey was also conducted on 04 December 2018 under the direction of Kristy O'Neal (P066), with the assistance of Luke Fischer (P219) and Chelsea Dickinson (R1194). The weather on 04 December 2018 was a mix of sun and clouds with an approximate temperature of 2 degrees Celsius, which did not impede the inspection or survey in any way.

The Stage 1 background study indicated that the subject property has archaeological potential and warrants Stage 2 property assessment for four principal reasons: 1) the close proximity of a natural water source, Sharon Creek, 300 m to the south; 2) the known presence of six archaeological sites within a 1-km radius (two of which are within 250 m), providing direct evidence that this general area had been exploited by both pre-contact Aboriginal and historic period Euro-Canadian peoples; 3) the presence of an historical transportation route, Longwoods Road, within 100 m; and 4) the proximity of a 1-½ storey brick house as listed in the 1861 historical census.

Based on the Stage 1 property inspection and a review of recent land-use history, Wood has identified that 100% (5.8 hectares) of the study area has archaeological potential and warrants Stage 2 assessment (Appendix A: Figure 7). Because the study area is an agricultural field, it is recommended that Stage 2 assessment be carried out by means of pedestrian survey at five-metre intervals.

No artifacts or other archaeological resources were identified as a result of the Stage 2 property assessment. According to the *Standards and Guidelines for Consultant Archaeologists*, the property has now been completely assessed and does not require any additional fieldwork.

In light of the results presented above, the following recommendations are made, subject to the conditions outlined below and in Section 5.0:

The Study Area requires no further archaeological assessment.

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 of the Study Area is permitted until notice of Ministry of Tourism, Culture, and Sport approval has been received.

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1.0 Project Context

1.1 Development Context

Wood Environment & Infrastructure ("Wood") was retained by 10919 Longwood Road Inc. (the CLIENT) to conduct a Stage 1 and Stage 2 archaeological assessment in support of a commercial development. This assessment was triggered under the Planning Act and was conducted prior to development. The study area encompasses approximately 5.8 hectares (14.3 acres) and is located at 10919 Longwoods Road, in the town of Delaware. The property is legally described as Part of Lot 6, Concession 1, Geographic Township of Delaware, Middlesex County, Ontario (Appendix A: Figures 1, 2 and 3).

The Stage 1 & 2 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 20 November 2018 with the approval of PIF number P066-0302-2018 (Stage 1 & 2). Permission to enter for the purposes of the assessment was granted to Wood by the CLIENT on 12 November 2018. This permission extended to all required fieldwork activities, including the recovery and removal of artifacts.

The Stage 1 property inspection was conducted by Kristy O'Neal (P066) of Wood on 04 December 2018. The Stage 2 pedestrian survey was also conducted on 04 December 2018 under the direction of Kristy O'Neal (P066), with the assistance of Luke Fischer (P219) and Chelsea Dickinson (R1194). The weather on 04 December 2018 was a mix of sun and clouds with an approximate temperature of 2 degrees Celsius, which did not impede the inspection or survey in any way.

This report presents the results of the Stage 1 background study and Stage 2 property assessment and makes pertinent recommendations.

1.2 Scope of Work

This Stage 1 and 2 archaeological assessment was carried out in accordance with the Terms of Reference provided in Wood's work agreement dated 11 October 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.

The scope of work for the Stage 2 archaeological assessment consisted of the following tasks:

- A pedestrian survey conducted at five-m intervals for any ploughable land employing strategies that adhere to the technical standards for Stage 2 archaeological assessments as prescribed by the MTCS (2011);
- Mapping, photographing and other relevant graphics;
- Artifact processing and analysis; and,
- Preparing a report of findings with recommendations regarding the need for further archaeological work if deemed necessary.

Sites discovered during a Stage 2 assessment that are determined to have cultural value or interest may be recommended for a Stage 3 site-specific assessment.

2.0 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, Wood searched MTCS's PastPort system 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 *AfHi* Borden Block. On the basis of a search of the OASD through PastPort on 19 November 2018, there are no registered sites within the study area and six registered archaeological sites located within a 1-km radius.

Table 1 provides a summary of these sites.

Borden Number	Site Name	Cultural Affiliation	Site Type	Researcher	Distance to Study Area	Status
AfHi-148	Alison	Pre-contact Aboriginal	Unknown	Wilson (1993) Martelle (2003)	185 m	No further Cultural Heritage Value or Interest (CHVI)
AfHi-149	Nursary	Early Woodland	Findspot	Wilson (1993) Martelle (2003)	265 m	No further CHVI
AfHi-153	Raccoon	Pre-contact Aboriginal	Unknown	Wilson (1993) Martelle (2003)	450 m	No further CHVI
AfHi-253		Pre-contact Aboriginal	Lithic Scatter	Wilson (2000)	835 m	No further CHVI
AfHi-323	Dairy	Pre-contact Aboriginal	Findspot	Martelle (2003)	235 m	No further CHVI

Table 1: Registered Archaeological Sites within a 1-km Radius						
Borden Number	Site Name	Cultural Affiliation	Site Type	Researcher	Distance to Study Area	Status
AfHi-334		Euro-Canadian	Midden	Wilson (1993)	460 m	Unknown

2.1.2 History of Archaeological Investigations

Wood completed a search for reports directly on PastPort on 27 November 2018. Based on this search (by address, lot and concession and above mentioned archaeological sites), two archaeological assessments have been conducted within 50 m of the subject lands. A request was made to the MTCS to obtain copies of these reports on 27 November 2018. At the time of the writing of this report, copies of the requested reports had still not been made available.

Based on site information available in PastPort, an assessment was completed on lands to the north by Jim Wilson in 1993 (MTCS 2019). As the report was not available for review, the size of the study area and the results of the assessment are unknown. An additional Stage 1 to 3 assessment was completed on lands to the north by Timmins Martelle Heritage Consultants (TMHC) in 2003 (MTCS 2019). Again, because the report was not available for review the study area limits and results of the assessment are unknown.

Information available in PastPort indicates that there are two sites located within 250 m of the current study area, and a third site located 265 m away. Site AfHi-149, the Alison site, is located 185 m from the current study area. According to the site information available in PastPort, the site was investigated by Jim Wilson in 1993 and again in 2003 by TMHC. The site consists of six flakes, four fire-cracked rocks, a core and a biface (MTCS 2019). The site has no further cultural heritage value or interest (CHVI).

The Dairy Site, AfHi-323 is single artifact findspot investigated by TMHC (MTCS 2019). The site consists of an isolated projectile point of indeterminate type, found 235 m from the current study area. The site has no further CHVI.

The Nursery Site, AfHi-149 is located 265 m from the current study area. PastPort indicates the site was investigated by Jim Wilson in 1993 and by TMHC in 2003. The site measures 40 m by 30 m and consists of four flakes, one biface, one scraper, and ten fire-cracked rocks. The site was subjected to Stage 2 pedestrian survey and Stage 3 test unit excavation (MTCS 2019). The site has no further CHVI.

2.1.3 Environmental Context

The study area (Appendix A: Figures 1–3) is situated in the Caradoc Sand Plain physiographic region (Chapman and Putnam 1984: 113). This area is a basin that formed one of the earliest glacial spillways, which left beds of silt and fine sand. There are two dominant surface soils within the study area. The northern portion consists of Watford very fine sandy loam. The southern portion consists of Brookston fine sandy loam. Both of these soil types are characterized by well to imperfect drainage and very gently sloping topography (Hagerty and Kingston 1992).

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 2011 MTCS *Standards and Guidelines for Consultant Archaeologists* (S&G) 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 S&G, lands within 300 m of an extant or formerly mapped river or creek have potential for the presence of early Aboriginal or Euro-Canadian archaeological sites. The nearest water source is Sharon Creek, a tributary of the Thames River, which is situated 300 m to the south. The Thames River itself is located 1.2 km to the west.

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 Sharon Creek. Moreover, we have direct evidence that the immediate vicinity of the study area had been intensively exploited by both pre-contact Aboriginal and historic Euro-Canadian peoples in that six sites have previously been registered within a 1-km radius, and two of these sites—AfHi-148 and AfHi-323—were found less than 250 m away.

2.2 Historical Context

2.2.1 Cultural History of 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 2: Simplified Cultural Chronology of Southern and Eastern Ontario

Period	Complexes/Cultures, Some Diagnostic Artifacts
Early Paleo-Indian (9000–8500 B.C.)	Small nomadic hunter-gatherer bands. Early Paleo-Indian (EPI) rarely found in Eastern Ontario. Gainey, Barnes, Crowfield fluted points.
Late Paleo-Indian (8500–7500 B.C.)	Small nomadic hunter-gatherer bands. Hi-Lo, Holcombe points, Lanceolate Bifaces.
Early Archaic (7500–6000/4500 B.C.)	Small nomadic hunter-gatherer bands. Nettling, Stanley/Neville points.
Middle Archaic (6000/4500–2500 B.C.)	Transition to territorial settlements. Seasonal round of subsistence introduced. Thebes (6000–5000 B.C.), Otter Creek points (4500–3000 B.C.). Brewerton Complex (3000–2500 B.C.) . Brewerton points. Laurentian Complex (6000 B.C.–2500 B.C.) (Eastern Ontario)
Late Archaic (2500–1000 B.C.)	More numerous territorial hunter-gatherer bands, increasing use of exotic 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 (1000–400 B.C.)	Pottery introduced. Meadowood Notched points, Meadowood Cache Blades, Kramer, Adena points. Meadowood Complex (1000–400 B.C.) . Middlesex Complex (650–400 B.C.) . Introduction of true cemeteries.
Middle Woodland (400 B.C.–A.D. 500/900)	Saugeen, Snyders, Vanport, Port Maitland points. Point Peninsula Complex (Southcentral and Eastern Ontario) 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 2: Simplified Cultural Chronology of Southern and Eastern Ontario

Period	Complexes/Cultures, Some Diagnostic Artifacts
Transitional Woodland (A.D. 500–900)	Agriculture introduced. Levanna, Jacks Reef points. Princess Point Complex (Eastern end of Lake Erie and the western end of Lake Ontario). Rivière au Vase Phase of the Younger / Western Basin Tradition (Lake St. Clair and western end of Lake Erie) Sandbanks Complex (Kingston area).
Late Woodland (A.D. 900–1650)	Tribal differentiation. Transition to settled village life. Dewaele, Glen Meyer 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 (A.D. 1650–1763)	Iroquoian, Algonkian migrations and resettlement. French exploration and colonization
Late Post-Contact (A.D. 1763–1867)	Iroquoian, Algonkian migrations and resettlement. British and other 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.

2.2.2 Review of Historical Records

The study area is located within the Township of Delaware, Middlesex County. Middlesex County was first settled in 1793 after Lieutenant Governor of Upper Canada, John Graves Simcoe passed through the area (Page 1878). Simcoe determined that the landscape along the Thames River made a suitable location for the future capital of Upper Canada. This plan was not realized; however, London, located at the forks of the Thames River, did become an important city (Mika and Mika, 1981). Much of Middlesex County is comprised of rich agricultural lands, which are drained by the Thames River and its tributaries (Page 1878).

The first permanent settlement of Middlesex County was established in the Township of Delaware in 1801 (Page, 1878). The first settlement was near the Thames River, specifically in the village of Delaware (Mika & Mika, 1977). The township of Delaware thrived because of the early construction of Longwoods Road which connected the township to Chatham (Page, 1878:5). During the War of 1812, Longwoods Road was an important route for transportation of artillery and other war supplies (Page, 1878: 6).

The study area is located approximately 1.2 km east of the historic community of Delaware. Delaware was named after the township and is one of the oldest settlements in Middlesex County. The earliest settler was Ebenezer Allen, who arrived in 1794 and was granted 2,000 acres of land. Allen was originally from New Jersey and had served with Butler's Rangers during the American

Revolution (Goodspeed 1889). He built a grist mill around which early settlement grew (Mika & Mika 1977). A fire destroyed much the settlement and the present village of Delaware was laid out nearby by Henry Rawlings. In 1842, Delaware was chosen as the early township centre and the village grew considerably in the mid-nineteenth century due to construction of plank roads to nearby Port Stanley and London. Once the Great Western and London and Port Stanley Railways were completed, trade was diverted from Delaware and the village's prosperity declined (Mika & Mika 1977). Delaware had a population of 300 in 1886 (Carter 1984: 300).

Historical records and mapping were examined for evidence of early Euro-Canadian use of the study area. The study area was located on Part of Lot 6, Concession 1, in the Geographic Township of Delaware, Middlesex County.

The 1862 *Tremaine's Map of the County of Middlesex* (Tremaine 1862) was examined in an effort to determine the potential for historic archaeological evidence within the study area, which at that time appears to be under the ownership of Mr. Weld (Appendix A: Figure 5). The study area is located directly south of Longwoods Road, an historic transportation route. No historical features shown on the lot, but the study area is just over 1 km from the town of Delaware at that time.

A William Weld, aged 36, appears in only the 1861 Canada census records. He is listed as a farmer married to Agnes Weld, age 34. At the time they had six children between the ages of 2 and 14, and the family belonged to the Church of England. William was born in England, Agnes was born in Scotland, and all six children were born in Upper Canada. A brick 1-½ storey house is listed on the lot (Library and Archives Canada 2018).

In addition, the 1878 *Illustrated Historical Atlas of Middlesex County* (Page 1878; Appendix A: Figure 6) was examined. In 1878, the subject property was under the ownership of S.J. Merrill. Historical features are not illustrated within the study area. However, the study area is once again depicted directly south of Longwoods Road, and east of the historical limits of Delaware. A number of homesteads are illustrated in Lot 5, to the north of Longwoods Road.

A Sylvester Merrill, aged 30, first appears in the 1881 Canada census records. He is listed as a farmer married to Hannah Merrill, age 26. Both Sylvester and Hannah were Methodists who were born in England (Library and Archives Canada 2018).

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 adjacent to historical roadways as illustrated in the 1862 and 1878 historical maps consulted. Moreover, a brick 1-½ storey house is listed in the 1861 census. As per the MTCS's *Standards and Guidelines for Consultant Archaeologists*, any areas within 100 m of early historic transportation routes and 300 m of early Euro-Canadian settlement warrant the need for a Stage 2 property assessment.

2.2.3 Historical Plaques

There are no historical plaques located within 1-km of the study area.

2.3 Stage 1 Property Inspection

2.3.1 Methodology

The Stage 1 property inspection was conducted by Kristy O'Neal (P066) of Wood on 04 December 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 sunny to cloudy and cool (2°C) and did not impede the inspection in any way.

The Stage 1 property inspection included a walk-through of the entire property, which measures approximately 5.8 ha and is made up entirely of ploughed agricultural field. The property inspection was thoroughly photo-documented. Field observations were recorded on aerial maps and field forms. All land conditions were recorded as shown in Appendix A: Figure 7 and Appendix B: Photographs 1–4.

2.3.2 Results

The study area consists of a 5.8-ha ploughed agricultural field. The entire property exhibits archaeological potential and warrants Stage 2 assessment (Appendix A: Figure 7; Appendix B: Photographs 1–4).

2.4 Stage 1 Analysis and Conclusions

The Stage 1 background study indicated that the subject property has archaeological potential and warrants Stage 2 property assessment for four principal reasons: 1) the close proximity of a natural water source, Sharon Creek, 300 m to the south; 2) the known presence of six archaeological sites within a 1-km radius (two of which are within 250 m), providing direct evidence that this general area had been exploited by both pre-contact Aboriginal and historic period Euro-Canadian peoples; 3) the presence of an historical transportation route, Longwoods Road, within 100 m; and 4) the proximity of a 1-½ storey brick house as listed in the 1861 historical census.

Based on the Stage 1 property inspection and a review of recent land-use history, Wood has identified that 100% (5.8 hectares) of the study area has archaeological potential and warrants Stage 2 assessment (Appendix A: Figure 7). Because the study area is an agricultural field, it is recommended that Stage 2 assessment be carried out by means of pedestrian survey at five-metre intervals.

3.0 Stage 2 Property Assessment

3.1 Methodology

The Stage 2 assessment was conducted under the direction of Kristy O'Neal (P066), with the assistance of Luke Fischer (P219) and Chelsea Dickinson (R1194), on 04 December 2018. The weather was sunny to cloudy and cool with a temperature of 2°C and did not impede the assessment in any way.

Stage 2 pedestrian survey was conducted at 5-m intervals on 100% of the property (5.8 hectares). The land had earlier been prepared by being ploughed to the depth of previous ploughing and allowed to weather through several rainfalls. At least 90% of the ground surface was visible at the time of the Stage 2 assessment.

The Wood field crew photo-documented the assessment (Appendix A: Figure 8; and Appendix B: Photographs 1–6).

3.2 Record of Finds

The study area was subjected to comprehensive pedestrian survey at 5-m intervals (Appendix A: Figure 8; Appendix B: Photograph 5).

No artifacts or other archaeological resources were identified during the Stage 2 assessment.

The following table provides the inventory of documentary records accumulated as part of this assessment.

Table 3: Inventory of Documentary Record		
Study Area	Map and Photo(s)	Field Notes
10919 Longwoods Road, Delaware, Part Lot 6, Concession 1, Geographic Township of Delaware, Middlesex County	Copies of 2 historical maps, 6 Stage 1 & 2 photographs and 1 aerial photograph	Stage 1 & 2 photo logs and field notes

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 Stage 2 Analysis and Conclusions

The Stage 1 archaeological assessment determined that entire property had archaeological potential and required Stage 2 archaeological assessment (Appendix A: Figure 7). Because the study area was an actively cultivated agricultural field, it was assessed by means of pedestrian survey (Appendix A: Figure 8).

No artifacts or other archaeological resources were identified as a result of the Stage 2 assessment. According to the *Standards and Guidelines for Consultant Archaeologists*, the property has now been completely assessed and does not require any additional fieldwork.

4.0 Recommendations

In light of the results presented above, the following recommendations are made, subject to the conditions outlined below and in Section 5.0:

- 1) The study area requires no further archaeological assessment.

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 of the Study Area is permitted until notice of Ministry of Tourism, Culture, and Sport approval has been received.

5.0 Advice on Compliance with Legislation

- a) This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part IV of the *Ontario Heritage Act, R.S.O. 1990, c 0.18*. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sport, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.
- b) It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such a 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*.
- c) Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.
- d) The *Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33* requires that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

6.0 Assessor Qualifications

This report was prepared and reviewed by the undersigned, employees of Wood. Wood is one of North America's leading engineering firms, with more than 50 years of experience in the earth and environmental consulting industry. The qualifications of the assessors involved in the preparation of this report are provided in Appendix C.

7.0 Closure

This report was prepared for the exclusive use of 10919 Longwood Road Inc. and is intended to provide a Stage 1 & 2 archaeological assessment of the Study Area. The property is located at 10919 Longwoods Road in the town of Delaware. The property is legally described as Part of Lot 6, Concession 1, Geographic Township of Delaware, Middlesex County, Ontario.

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 Stage 2 property inspection conducted by Wood. It is based solely a review of historical information, a property reconnaissance conducted on 04 December 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 E.

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,
a Division of Wood Canada Limited**

Prepared by,



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

Reviewed by,



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

8.0 Bibliography

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Ministry of Tourism, Culture and Sport

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Page, H. R. & Co.

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Tremaine, George C.

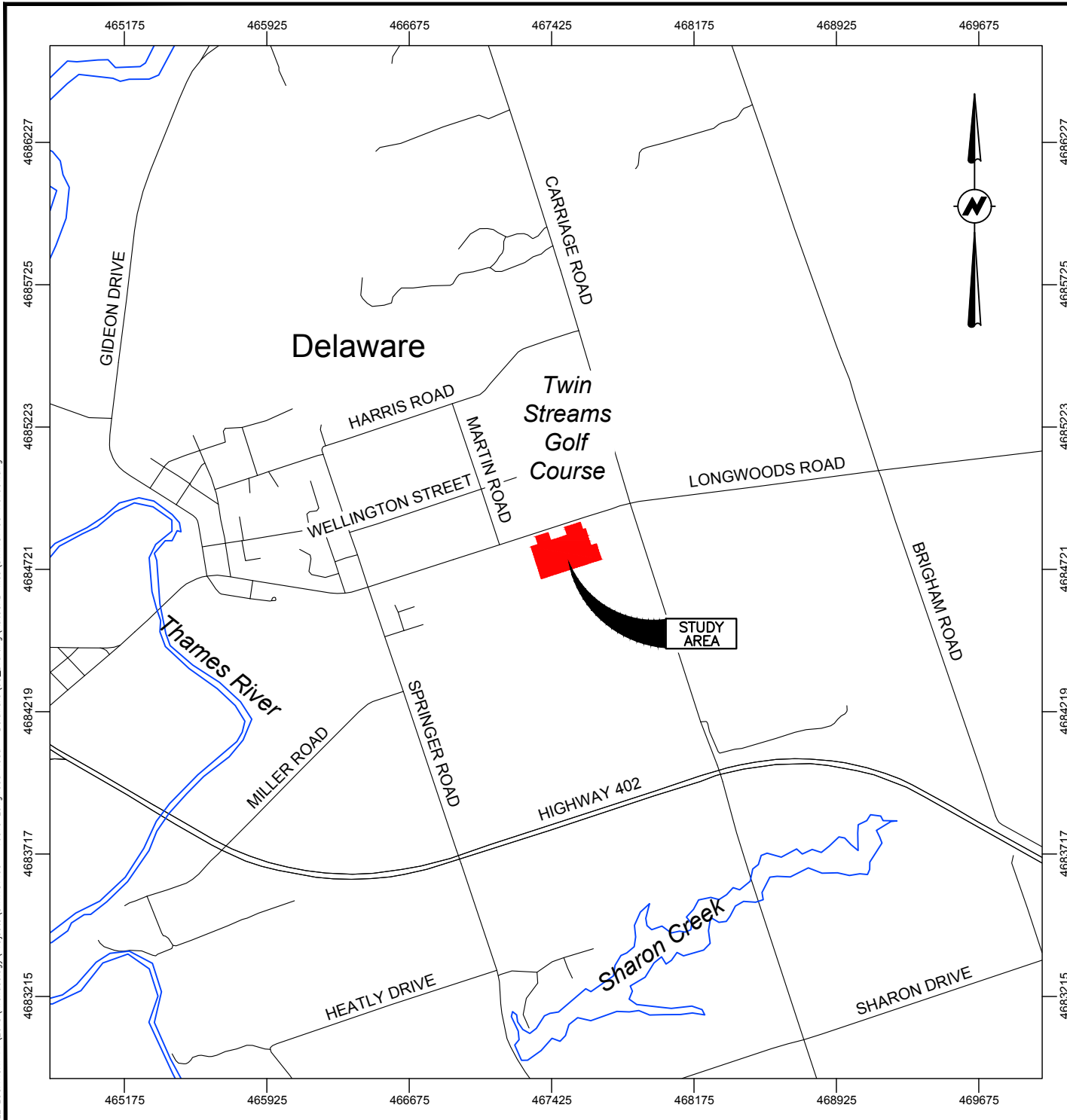
1862 *Tremaine's Map of the County of Middlesex, Canada West*.

Appendix A

Figures



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ARCHAEOLOGICAL ASSESSMENT
PART OF LOT 6, CONCESSION 1,
10919 LONGWOODS ROAD
GEOGRAPHIC TOWNSHIP OF DELAWARE
MIDDLESEX COUNTY, ONTARIO

TITLE: AERIAL PHOTOGRAPH SHOWING
LOCATION OF STUDY AREA

LEGEND:
 STUDY AREA

NOTES:
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH THE
WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS
REPORT No. SWW181495.

ALL LOCATIONS ARE APPROXIMATE.

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CANMAP STREETFILES V2008.4.



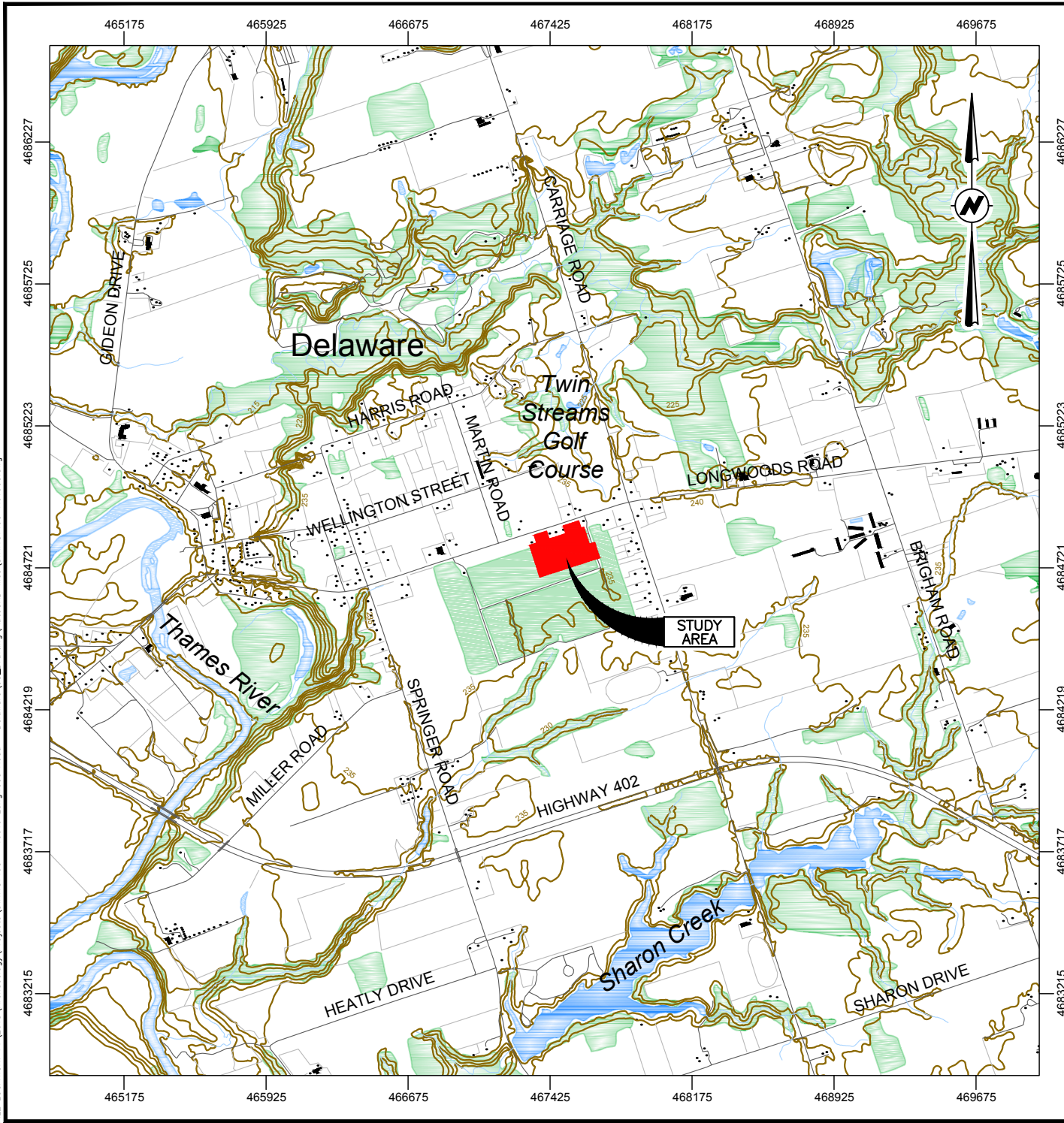
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10919 LONGWOODS ROAD
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11865 COUNTY ROAD 42
TECUMSEH, ONTARIO, N8N 2M1
519-735-2499

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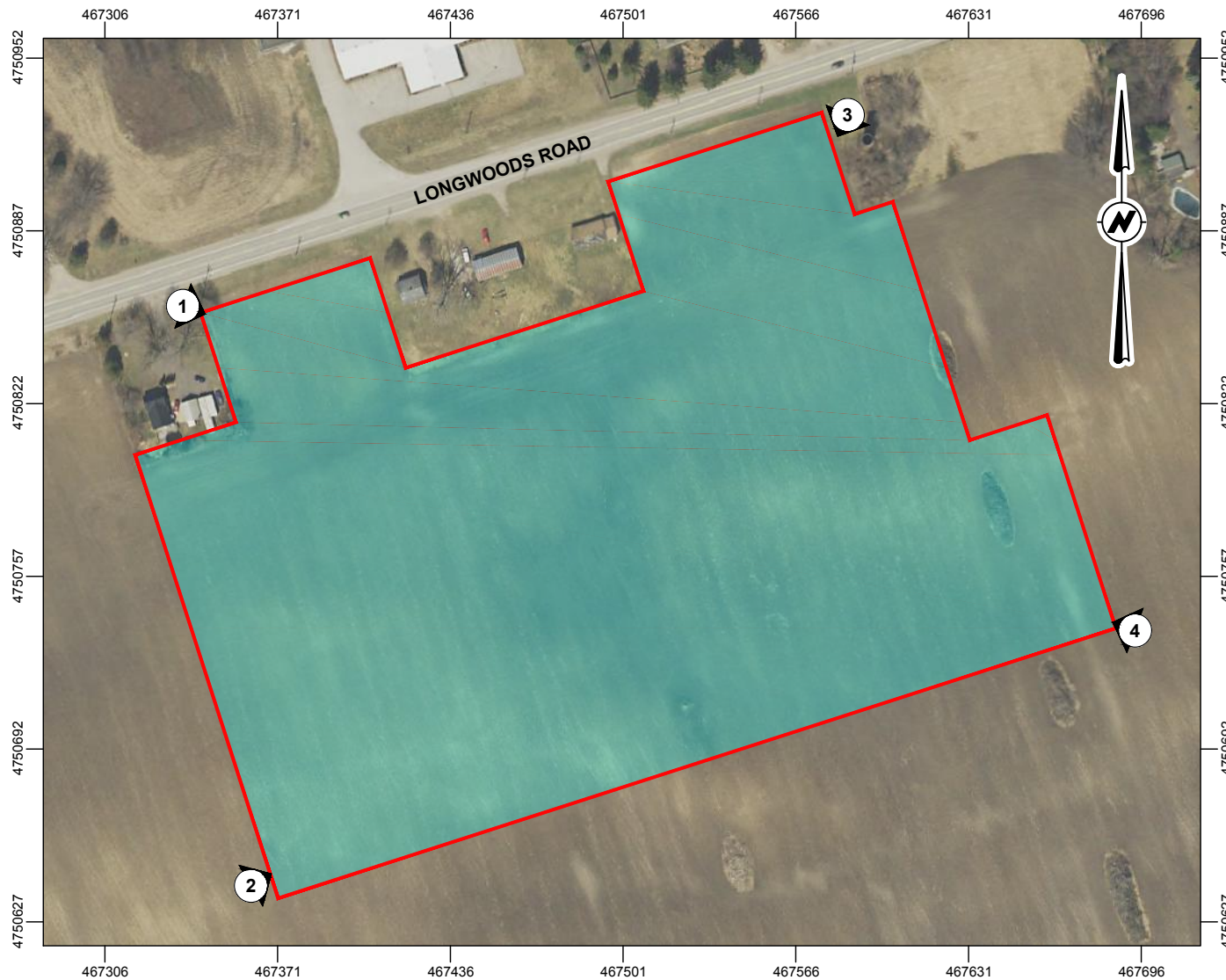
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ARCHAEOLOGICAL ASSESSMENT
PART OF LOT 6, CONCESSION 1,
10919 LONGWOODS ROAD
GEOGRAPHIC TOWNSHIP OF DELAWARE
MIDDLESEX COUNTY, ONTARIO

TITLE: STAGE 1 RESULTS WITH
PHOTOGRAPH LOCATIONS & DIRECTIONS

- LEGEND:
- STUDY AREA
 - AREA OF ARCHAEOLOGICAL POTENTIAL:
 - PEDESTRIAN SURVEY AT 5m INTERVALS RECOMMENDED
 - 1 PHOTOGRAPH LOCATION, VIEWING DIRECTION, AND PLATE NUMBER

NOTES:
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CANMAP STREETFILES V2008.4.



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10919 LONGWOODS ROAD
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DATUM: NAD83	PROJECTION: UTM Zone 17	PROJECT No: SWW181495
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Appendix B

Photographs



APPENDIX B - PHOTOGRAPHIC RECORD

PROJECT NO. SWW181495

PROJECT Stage 1 & 2 Archaeological Assessment

LOCATION 10919 Longwoods Road, Delaware
Part Lot 6, Concession 1, Delaware Township, Middlesex County, Ontario



PHOTOGRAPH	1
Description	
View of study area, from northwest corner, facing southeast.	



PHOTOGRAPH	2
Description	
View of study area, from southwest corner, facing northeast.	

APPENDIX B - PHOTOGRAPHIC RECORD

PROJECT NO. SWW181495

PROJECT Stage 1 & 2 Archaeological Assessment

LOCATION 10919 Longwoods Road, Delaware
Part Lot 6, Concession 1, Delaware Township, Middlesex County, Ontario



PHOTOGRAPH	3
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Description
View of study area, from northeast corner, facing southwest.



PHOTOGRAPH	4
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Description
View of study area, from southeast corner, facing northwest.

APPENDIX B - PHOTOGRAPHIC RECORD

PROJECT NO. SWW181495

PROJECT Stage 1 & 2 Archaeological Assessment

LOCATION 10919 Longwoods Road, Delaware
Part Lot 6, Concession 1, Delaware Township, Middlesex County, Ontario



PHOTOGRAPH	5
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Description
Crew at work, pedestrian survey at 5m intervals, facing northwest.



PHOTOGRAPH	6
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Description
Ground visibility conditions.

Appendix C

Assessor Qualifications



Assessor Qualifications

Dr. Shaun Austin, Ph.D. – Associate Archaeologist

Dr. Austin is the Senior Archaeology Advisor of Wood's cultural heritage resources group and is based in the Wood's 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 cultural heritage consultant with repeated success guiding projects through to completion to the satisfaction of the development proponent, the cultural heritage community and all other 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. – Senior Archaeologist

Ms. Slim is a Senior Archaeologist with more than 13 years of experience in the archaeological field and has participated in and directed numerous Stage 1 to 4 archaeological assessments in Ontario. As a founding member of the Wood's archaeology team, Ms. Slim has performed every aspect of project execution, from client relations, project design and First Nation's engagement to MTCS clearance. The majority of the above-mentioned projects have included First Nations involvement. In addition to her archaeological experience, Ms. Slim has several years of experience in conducting environmental investigations and occupational hygiene assessments. Furthermore, she currently serves as Health & Safety Coordinator for her office. Her diverse background with multidisciplinary projects has highlighted her abilities as an effective team member and innovator. Ms. Slim holds a Professional Archaeology License (P348) issued by the Ontario MTCS, is a member of the Ontario Association of Professional Archaeologists and Ontario Archaeological Association.

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 Licence (P066)** issued by the Ontario Ministry of Tourism, Culture and Sport, and is a member of the Ontario Archaeology Society.

Appendix D

Limitations



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's 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's 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's services during the implementation of any further archaeological work recommended will allow Wood Environment & Infrastructure to observe compliance with the conclusions and recommendations contained in the report. Wood Environment & Infrastructure's 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 or conclusions in the report, is the sole responsibility of such third party. Wood Environment & Infrastructure 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, which shall not be unreasonably withheld.