APPENDIX C

ARCHEOLOGICAL ASSESSMENT REPORTS

Stage 1-2 Archaeological Assessment
Bridge 24, Blandford-Blenheim

Part of Road Allowance between Lots 8 and 9, Concession 12 and Lots 8 and 9, Concession 11, Historical Township of Blenheim, now the Geographic Township of Blandford-Blenheim, Oxford County, Ontario

Submitted to:

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and

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CP Number: 2025-031

ORIGINAL REPORT

August 14, 2025

Executive Summary

Detritus Consulting Ltd. ('Detritus') was retained by K. Smart Associates Ltd. (the 'Proponent') to conduct a Stage 1-2 archaeological assessment on part of the road allowance between Lots 8 and 9, Concession 11, and Lots 8 and 9, Concession 12, in the historical Township of Blenheim, now the geographic Township of Blandford-Blenheim in Oxford County, Ontario (Figure 1). This assessment was conducted in advance of road construction on the property located at Bridge 24, Blandford-Blenheim (the 'Study Area;' Figure 5).

This assessment was triggered by the Provincial Policy Statement ('PPS') that is informed by the *Planning Act* (Government of Ontario, 1990a), which states that decisions affecting planning matters must be consistent with the policies outlined in the larger *Ontario Heritage Act* (Government of Ontario, 1990b). According to Section 2.6.2 of the PPS, "development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved." To meet this condition, a Stage 1-2 assessment was conducted as part of the application phase of development under archaeological consulting license P017 issued to Mr. Garth Grimes by the Ministry of Citizenship and Multiculturalism ('MCM') and adheres to the archaeological license report requirements under subsection 65 (1) of the *Ontario Heritage Act* (Government of Ontario, 1990b) and the MCM's *Standards and Guidelines for Consultant Archaeologists* ('*Standards and Guidelines*'; Government of Ontario, 2011).

The Study Area comprises a cross-shaped parcel that measures approximately 1.25 hectares ('ha') and includes a section of Township 12 Road and two areas to the area to the north and south of the road. The Study Area is bound by woodlot and agricultural fields to the north and south and contains a portion of the Nith River that is approximately 40 metres ('m') wide. At the time of assessment, the Study Area contained the hardpacked gravel and asphalt road surface of Township 12 Road and the overgrown dirt and gravel shoulders within the road allowance. The Nith River is spanned by Bridge 24 and the road surface over the bridge and leading to the bridge is asphalt. The areas to the north and south of the road were overgrown at the edges of woodlot. The wider parts of the Study Area were also overgrown and the northern section contained a narrow hard-packed dirt access road leading to the Plattsville flying field to the north of the Study Area that was less than 5m wide and did not affect survey intervals (Figure 4).

The Stage 1 assessment of the Study Area consisted of background study, as per Section 1.1 of the *Standards and Guidelines* (Government of Ontario, 2011). According to the results of the Stage 1 background research, portions of the Study Area retain archaeological potential; therefore, a Stage 2 assessment was recommended for the Study Area.

The subsequent Stage 2 field assessment of the Study Area was conducted on July 18, 2025. This investigation began with a property inspection, conducted according to Section 2.1.8, which is informed by Section 1.2 of the *Standards and Guidelines* (Government of Ontario, 2011). The inspection revealed that the hard-packed gravel and asphalt road surfaces retained no, or low, archaeological potential based on the identification of extensive and deep land alteration that has severely damaged the integrity of archaeological resources as per Section 2.1, Standard 2b of the *Standards and Guidelines* (Government of Ontario, 2011). The previously disturbed areas, as confirmed during a Stage 2 property inspection, were mapped and photo documented only in accordance with Section 2.1, Standard 6, and Section 7.8.1, Standards 1a and 1b of the *Standards and Guidelines* (Government of Ontario, 2011).

The remainder of the Study Area comprised the overgrown areas throughout the Study Area, which were assessed by means of a typical test pit survey at five-metre intervals. No archaeological resources were observed.

Given the results of the Stage 2 investigation and the identification and documentation of no archaeological resources, **no further archaeological assessment of the land portion of the Study Area is recommended.**

The portion of the Nith River that passes through the Study Area is considered open water and could not be evaluated as it is a marine feature. According to the MCM web page for marine

archaeology (Government of Ontario, 2022), many of the cold, fresh waters of Ontario's lakes and rivers have preserved important evidence of Ontario's history of exploration, settlement, and commerce. Some of Ontario's waterways have been surveyed for marine archaeological resources, leaving much to be discovered in Ontario's abundance of lake beds, riverbeds, and shorelines. Therefore, **the unassessed portion of the Study Area that includes the riverbed of the Nith River retains marine archaeological potential**.

If, in the future, the underwater portion of the Study Area will be impacted by development, then a marine archaeological assessment may be required. There is a checklist provided by the MCM to ensure marine concerns are not overlooked, which can be consulted in order to determine whether or not a marine archaeological assessment of this waterbody is required. According to Subsection 48(1), P.3 of the *Heritage Act* (Government of Ontario, 1990b), a marine archaeological assessment must be carried out by the holder of a Marine Archaeology license.

The Executive Summary highlights key points from the report only; for a more detailed discussion regarding the results of the current assessment, the reader should examine the complete report.

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Generous contributions by Trevor Hoard from K. Smart Associates Ltd. made this report possible.

1.0 Project Context

1.1 Development Context

Detritus Consulting Ltd. ('Detritus') was retained by K. Smart Associates Ltd. (the 'Proponent') to conduct a Stage 1-2 archaeological assessment on part of the road allowance between Lots 8 and 9, Concession 11, and Lots 8 and 9, Concession 12, in the historical Township of Blenheim, now the geographic Township of Blandford-Blenheim in Oxford County, Ontario (Figure 1). This assessment was conducted in advance of road construction on the property located at Bridge 24, Blandford-Blenheim (the 'Study Area;' Figure 5).

This assessment was triggered by the Provincial Policy Statement ('PPS') that is informed by the *Planning Act* (Government of Ontario, 1990a), which states that decisions affecting planning matters must be consistent with the policies outlined in the larger *Ontario Heritage Act* (Government of Ontario, 1990b). According to Section 2.6.2 of the PPS, "development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved." To meet this condition, a Stage 1-2 assessment was conducted as part of the application phase of development under archaeological consulting license P017 issued to Mr. Garth Grimes by the Ministry of Citizenship and Multiculturalism ('MCM') and adheres to the archaeological license report requirements under subsection 65 (1) of the *Ontario Heritage Act* (Government of Ontario, 1990b) and the MCM's *Standards and Guidelines for Consultant Archaeologists* ('*Standards and Guidelines*'; Government of Ontario, 2011).

The purpose of a Stage 1 Background Study is to compile all available information about the known and potential archaeological heritage resources within the Study Area and to provide specific direction for the protection, management and/or recovery of these resources. In compliance with the *Standards and Guidelines* (Government of Ontario, 2011), the objectives of the following Stage 1 assessment are as follows:

- To provide information about the Study Area's geography, history, previous archaeological fieldwork and current land conditions;
- to evaluate in detail, the Study Area's archaeological potential which will support recommendations for Stage 2 survey for all or parts of the property; and
- to recommend appropriate strategies for Stage 2 survey.

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

- A review of relevant archaeological, historic and environmental literature pertaining to the Study Area;
- a review of the land use history, including pertinent historic maps; and
- an examination of the Ontario Archaeological Sites Database ('ASDB') to determine the presence of known archaeological sites in and around the Study Area.

The purpose of a Stage 2 assessment is to provide an overview of any archaeological resources within the Study Area; to determine whether any of the resources might be archaeological sites with cultural heritage value or interest ('CHVI'); and to provide specific direction for the protection, management, and/or recovery of these resources. In compliance with the *Standards and Guidelines* (Government of Ontario, 2011), the objectives of the following Stage 2 assessment are as follows:

- To document all archaeological resources within the Study Area;
- to determine whether the Study Area contains archaeological resources requiring further assessment; and
- to recommend appropriate Stage 3 assessment strategies for archaeological sites identified.

The licensee received permission from the Proponent to enter the land and conduct all required archaeological fieldwork activities, including the recovery of artifacts.

1.2 Historical Context

1.2.1 Post-Contact Indigenous Resources

Prior to the arrival of European settlers, much of the central and southern Ontario was occupied by Iroquoian speaking linguistic groups that had united to form confederacies, including the Huron-Wendat, the Neutral (or Attawandaran), and the Petun in Ontario, as well as the Five Nations Iroquois Confederacy in Upper New York State (Warrick, 2013; Birch, 2010). Of these groups, the Huron-Wendat established themselves to the east of the Niagara escarpment and the Neutral, to the west (Warrick, 2000).

Throughout the middle of the 17th century, the Iroquois Confederacy sought to expand upon their territory and to monopolize the fur trade between the European markets and the tribes of the western Great Lakes region. A series of bloody conflicts followed known as the Beaver Wars or the French and Iroquois Wars, contested between the Iroquois Confederacy and the Algonkian speaking communities of the Great Lakes region. Many communities were destroyed including the Huron, Neutral, Susquehannock and Shawnee leaving the Iroquois as the dominant group in the region. By 1653 after repeated attacks, the Niagara peninsula and most of Southern Ontario had been vacated (Heidenreich, 1990).

At this same time, the Anishinaabeg Nation, an Algonkian-speaking community situated inland from the northern shore of Lake Huron, began to challenge the Haudenosaunee for dominance in the Lake Huron and Georgian Bay region in order to advance their own role in the fur trade (Gibson, 2006). The Algonkian-speaking groups that settled in the area bound by Lake Ontario, Lake Erie, and Lake Huron were referred to by the English as the Chippewas or Ojibwas. By 1680, the Ojibwa began expanding into the evacuated Huron-Wendat territory, and eventually into Southern Ontario. By 1701, the Haudenosaunee had been driven out of Ontario completely and were replaced by the Ojibwa (Gibson, 2006; Schmalz, 1991).

The late 17th and early 18th centuries also mark the arrival of an Ojibwa band known as the Mississaugas into Southern Ontario and, in particular, the watersheds of the lower Great Lakes. 'The Mississaugas' is the name that the Jesuits had used in 1840 for the Algonquin community living near the Mississagi River on the northwestern shore of Lake Huron (Smith, 2002). The oral traditions of the Mississaugas, as recounted by Chief Robert Paudash and recorded in 1904, suggest that the Mississaugas defeated the Mohawk Nation, who retreated to their homeland south of Lake Ontario. Following this conflict, a peace treaty was negotiated between the two groups (Praxis Research Associates, n.d.).

From the beginning of the 18th century until the end of the Seven Year War in 1763, the Ojibwa nation, including the Mississaugas, experienced a golden age in trade holding no alliance with either the French or the British (Schmalz, 1991). At the end of the 17th century, the Mississaugas' settled permanently in Southern Ontario (Praxis Research Associates, n.d.). Around this same time, in 1722, the Five Nation Iroquois Confederacy adopted the Tuscarora in New York becoming the Six Nations (Pendergast, 1995).

The Study Area first entered the Euro-Canadian historical record on December 7th, 1792, as part of Treaty No. 3, which included land acquired in the 'Between the Lakes Purchase' dating to May 22, 1784. According to the terms of the treaty, the Mississaugas ceded to the Crown approximately 3,000,000 acres of land between Lake Huron, Lake Erie, and Lake Ontario in return for trade goods valued at £1180.

The limits of the Treaty 3 lands are documented as comprising,

> *Lincoln County excepting Niagara Township; Saltfleet, Binbrook, Barton, Glanford and Ancaster Townships, in Wentworth County; Brantford, Onondaga, Tusc[a]r[o]ra, Oakland and Burford Townships in Brant County; East and West Oxford, North and South Norwich, and Dereham Townships in Oxford County; North Dorchester Township in Middlesex County; South Dorchester, Malahide and Bayham Township in Elgin County; all Norfolk and Haldimand Counties;*

> *Pelham, Wainfleet, Thorold, Cumberland and Humberstone Townships in Welland County.*
>
> Morris, 1943, pp. 17-8

One of the stated objectives of the Between the Lakes Purchase was "to procure for that part of the Six Nation Indians coming into Canada a permanent abode" (Morris, 1943, p. 17). Shortly after the transaction had been finalised in May of 1784, Sir Frederick Haldimand, the Governor of Québec, made preparations to grant a portion of land to those Six Nations who remained loyal to the Crown during the American War of Independence. More specifically, Haldimand arranged for the purchase of approximately 550,000 acres of land adjacent to the Treaty 3 limits from the Mississaugas. This tract of land, referred to as either the Haldimand Tract or the 1795 Crown Grant to the Six Nations, was provided for in the Haldimand Proclamation of October 25th, 1784 and was intended to extend a distance of six miles on each side of the Grand River from mouth to source (Weaver, 1978). By the end of 1784, representatives from each constituent nation of the Six Nations, as well as other allies, relocated to the Haldimand Tract with Joseph Brant (Weaver, 1978; Tanner, 1987).

Throughout southern Ontario, the size and nature of the pre-contact settlements and the subsequent spread and distribution of Indigenous material culture began to shift with the establishment of European settlers. By 1834 it was accepted by the Crown that losses of portions of the Haldimand Tract to Euro-Canadian settlers were too numerous for all lands to be returned. Lands in the Lower Grand River area were surrendered by the Six Nations to the British Government in 1832, at which point most Six Nations people moved into Tuscarora Township in Brant County and a narrow portion of Oneida Township (H. R. Page & Co, 1879; Weaver, 1978; Tanner, 1987). Following the population decline and the surrender of most of their lands along the Credit River, the Mississaugas were given 6000 acres of land on the Six Nations Reserve, establishing the Mississaugas of New Credit First Nation, now the Mississaugas of the Credit First Nation, in 1847 (Smith, 2002)

Despite the encroachment of European settlers on previously established Indigenous territories, "written accounts of material life and livelihood, the correlation of historically recorded villages to their archaeological manifestations, and the similarities of those sites to more ancient sites have revealed an antiquity to documented cultural expressions that confirms a deep historical continuity to Iroquoian systems of ideology and thought" (Ferris, 2009, p. 114). As Ferris observes, despite the arrival of a competing culture, First Nations communities throughout Southern Ontario have left behind archaeologically significant resources that demonstrate continuity with their pre-contact predecessors, even if they have not been recorded extensively in historical Euro-Canadian documentation.

1.2.2 Euro-Canadian Resources

The current Study Area is located on part of the road allowance between Lots 8 and 9, Concession 11, and Lots 8 and 9, Concession 12, in the historical Township of Blenheim, now the geographic Township of Blandford-Blenheim in Oxford County, Ontario.

In 1763, the Treaty of Paris brought an end to the Seven Years' War, contested between the British, the French, and their respective allies. Under the Royal Proclamation of 1763, the large stretch of land from Labrador in the east, moving southeast through the Saint Lawrence River Valley to the Great Lakes and on to the confluence of the Ohio and Mississippi Rivers became the British Province of Québec (Niagara Historical Society and Museum, 2008).

On July 24, 1788, Sir Guy Carleton, the Governor-General of British North America, divided the Province of Québec into the administrative districts of Hesse, Nassau, Mecklenburg, and Lunenburg (Archives of Ontario, 2012-2025). Further change came in December 1791 when the former Province of Québec was rearranged into Upper Canada and Lower Canada under the provisions of the Constitutional Act. Colonel John Graves Simcoe was appointed as Lieutenant-Governor of Upper Canada and he spearheaded several initiatives to populate the province including the establishment of shoreline communities with effective transportation links between them (Coyne, 1895).

In July 1792, Simcoe divided Upper Canada into 19 counties stretching from Essex in the west to Glengarry in the east. Each new county was named after a county in England or Scotland; the constituent townships were then given the names of the corresponding townships from each original British county (Powell & Coffman, 1956).

Blenheim Township was founded in 1792 as part of York County. Portions of the township were surveyed separately by three different surveyors including Augustus Jones in 1793, Riddell in 1795, and John Stegman in 1798. Governor Simcoe originally granted much of the township land to Mr. Thomas Watson from New Jersey State. Watson sent his two nephews, Thomas Watson and Thomas Horner, to scout out the land prior to settlement. Horner is known as the first pioneer of Blenheim Township. Once Simcoe was recalled, his successor refused to carry out the agreement with the senior Watson. Thomas Horner spent the majority of his life battling for the land that his uncle had been promised and that he had worked so hard to settle (Peat, 1930).

In 1798 Blenheim Township was transferred to Oxford County. The first railroad, the Great Western Railway, ran through Canning and Princeton in 1852. By 1854, the Buffalo and Lake Huron Railway was opened as far as Brantford; the full length of the railway was completed in 1858. In 1879, the Credit Valley Railway crossed Blenheim with stations in Wolverton and Drumbo. By 1860, Blenheim was well settled and well supplied with woolen mills, tanneries, blacksmith shops, saw and grist mills, as well as wagon shops and general stores (Peat, 1930).

The Tremaine *Map of Oxford County West* (the 'Tremaine Map') demonstrates the extent to which Blenheim Township had been settled by 1857 (Tremaine, 1857). Landowners are listed for most of the lots throughout the township, many of which had been subdivided multiple times into smaller parcels to accommodate an increasing population throughout the late 19th century. No structures or orchards are illustrated.

According to the Tremaine Map, the Study Area occupies a portion of a historic road, now known as Township 12 Road (Figure 2). The Nith River crosses this road, but seemingly at a slightly different location – although this could be due to inaccuracies in mapping at the time of the map's construction. Lots 8 and 9, Concession 12 border the Study Area to the north. S. Fewtney owns the southern half of Lot 8, Concession 12 and half of the southern half of Lot 9, Concession 12 while W. Hagan owns the remainder of the southern half of this lot. To the south, Lots 8 and 9 in Concession 11 border the Study Area. Samuel I. Gownlact owns the majority of Lot 8, Concession 11 and Richard Davidson owns all of the Lot 9, Concession 11. The small community of Washington is located approximately 2.6 kilometres ('km') to the northwest, while the larger town of Plattsville is located approximately 5.6km further to the northwest.

The *Topographical and Historical Atlas of the County of Oxford* ('*Historical Atlas*') demonstrates the extent to which Blenheim Township had been settled by 1876 (Walker & Miles, 1876). According to the *Historical Atlas*, ownership of the neighbouring lots has changed hands (Figure 3). To the north S. Belden owns the portions of Lots 8 and 9, Concession 12 that border to Study Area and J. Crumbuck owns the portion of Lot 8, Concession 11 that borders the Study Area and R. Davidson still owns all of Lot 9, Concession 11. The community of Washington has grown in size while Plattsville seems to have remained the same. Several railways cross the central and southern portions of the township and many rivers, tributaries, and creeks are depicted throughout the township on both maps.

Although significant and detailed landowner information is available on the historical maps discussed here, it should be recognized that historical county atlases were funded by subscriptions fees and were produced primarily to identify factories, offices, residences and landholdings of subscribers. Landowners who did not subscribe were not always listed on the maps (Caston, 1997, p. 100). Moreover, associated structures were not necessarily depicted or placed accurately (Gentilcore & Head, 1984).

1.3 Archaeological Context

1.3.1 Property Description and Physical Setting

The Study Area comprises a cross-shaped parcel that measures approximately 1.25 hectares ('ha') and includes a section of Township 12 Road and two areas to the area to the north and south of the road. The Study Area is bound by woodlot and agricultural fields to the north and south and contains a portion of the Nith River that is approximately 40 metres ('m') wide. At the time of assessment, the Study Area contained the hardpacked gravel and asphalt road surface of Township 12 Road and the overgrown dirt and gravel shoulders within the road allowance. The Nith River is spanned by Bridge 24 and the road surface over the bridge and leading to the bridge is asphalt. The areas to the north and south of the road were overgrown at the edges of woodlot. The wider parts of the Study Area were also overgrown and the northern section contained a narrow hard-packed dirt access road leading to the Plattsville flying field to the north of the Study Area that was less than 5m wide and did not affect survey intervals (Figure 4).

The majority of the region surrounding the Study Area has been subject to European-style agricultural practices for over 100 years, having been settled by Euro-Canadian farmers by the mid-19th century. Much of the region today continues to be used for agricultural purposes.

The Study Area is located within Waterloo Hills physiographic region. This is a region of sandy hills and ridges broken by the alluvial terrace system of the Grand River spillway (Chapman & Putnam, 1984, pp. 136-137).

The closest source of potable water is the Nith River which passes through the centre of the Study Area.

1.3.2 Pre-Contact Indigenous Land Use

This portion of southern Ontario was occupied by people as far back as 11,000 years ago as the glaciers retreated. For the majority of this time, people were practicing hunter-gatherer lifestyles with a gradual move towards more extensive farming practices. Table 1 provides a general outline of the cultural chronology of Blenheim Township (Ellis & Ferris, 1990).

Table 1: Cultural Chronology for Blenheim Township

Time Period	Cultural Period	Comments
9500–7000 BC	Paleo Indian	first human occupation hunters of caribou and other extinct Pleistocene game nomadic, small band society
7500–1000 BC	Archaic	ceremonial burials increasing trade network hunter-gatherers
1000–400 BC	Early Woodland	large and small camps spring congregation/fall dispersal introduction of pottery
400 BC–AD 800	Middle Woodland	kinship based political system incipient horticulture long distance trade network
AD 800–1300	Early Iroquoian (Late Woodland)	limited agriculture developing hamlets and villages
AD 1300–1400	Middle Iroquoian (Late Woodland)	shift to agriculture complete increasing political complexity large, palisaded villages
AD 1400–1650	Late Iroquoian	regional warfare and political/tribal alliances destruction of Huron and Neutral

1.3.3 Previous Identified Archaeological Work

In order to compile an inventory of archaeological resources, the registered archaeological site records kept by the MCM were consulted. In Ontario, information concerning archaeological sites stored in the ASDB (Government of Ontario, n.d.) is maintained by the MCM. This database

contains archaeological sites registered according to the Borden system. Under the Borden system, Canada is divided into grid blocks based on latitude and longitude. A Borden Block is approximately 13 kilometres ('km') east to west and approximately 18.5km north to south. Each Borden Block is referenced by a four-letter designator and sites within a block are numbered sequentially as they are found. The Study Area lies within block AhHd.

Information concerning specific site locations is protected by provincial policy and is not fully subject to the *Freedom of Information and Protection of Privacy Act* (Government of Ontario, 1990c). The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to all media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The MCM will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

According to the ASDB, eight archaeological sites have been registered within a 1km radius of the Study Area (Table 2). Seven of the sites are pre-contact Indigenous sites, five of which are dated to the Archaic period and one to the Early Woodland period. One of the sites, AjHe-3, had very little information available and had no registered affinity.

Table 2: Registered Archaeological Sites within 1km of the Study Area

Borden Number	Site Name	Time Period	Affinity	Site Type
AjHe-3	-	-	-	-
AhHd-78	-	Pre-Contact	Indigenous	-
AhHd-33	Bass	Archaic	Indigenous	-
AhHd-32	Gordony	Woodland, Early	Indigenous	-
AhHd-31	Boterberg 1	Archaic	Indigenous	-
AhHd-30	Livingston	Archaic	Indigenous	Unknown
AhHd-28	Boterberg 2	Archaic	Indigenous	-
AhHd-22	Ferber	Archaic	Indigenous	-

To the best of Detritus' knowledge, no other assessments have been conducted adjacent to the Study Area, and no sites are registered within 50m of the Study Area.

1.3.4 Archaeological Potential

Detritus applied archaeological potential criteria commonly used by the MCM to determine areas of archaeological potential within the Study Area. According to Section 1.3.1 of the *Standards and Guidelines* (Government of Ontario, 2011), these variables include proximity to previously identified archaeological sites, distance to various types of water sources, soil texture and drainage, glacial geomorphology, elevated topography, and the general topographic variability of the area.

Distance to modern or ancient water sources is generally accepted as the most important determinant of past human settlement patterns and, when considered alone, may result in a determination of archaeological potential. However, any combination of two or more other criteria, such as well-drained soils or topographic variability, may also indicate archaeological potential. When evaluating distance to water it is important to distinguish between water and shoreline, as well as natural and artificial water sources, as these features affect site locations and types to varying degrees. As per Section 1.3.1 of the *Standards and Guidelines* (Government of Ontario, 2011), water sources may be categorized in the following manner:

- Primary water sources, lakes, rivers, streams, creeks;
- secondary water sources, intermittent streams and creeks, springs, marshes and swamps;
- past water sources, glacial lake shorelines, relic river or stream channels, cobble beaches, shorelines of drained lakes or marshes; and
- accessible or inaccessible shorelines, high bluffs, swamp or marshy lake edges, sandbars stretching into marsh.

As was discussed above, the closest source of potable water is the Nith River which passes through the centre of the Study Area.

Soil texture is also an important determinant of past settlement, usually in combination with other factors such as topography. The Study Area is situated within the Waterloo Hills physiographic region. As was discussed earlier, the soils within this region are imperfectly drained, but suitable for pre-contact and post contact Indigenous agricultural. Considering also the length of occupation of Blenheim Township prior to the arrival of Euro-Canadian settlers, as evidenced by the seven pre-contact Indigenous sites registered within 1km of the Study Area, the pre-contact and post-contact Indigenous archaeological potential of the Study Area is judged to be moderate to high.

For Euro-Canadian sites, archaeological potential can be extended to areas of early Euro-Canadian settlement, including places of military or pioneer settlements; early transportation routes; and properties listed on the municipal register or designated under the *Ontario Heritage Act* (Government of Ontario, 1990b) or property that local histories or informants have identified with possible historical events. The Tremaine Map from 1857 and the *Historical Atlas* map of Blenheim Township from 1876 show the Study Area in close proximity to historical infrastructure, including the Grand Trunk Railway. Considering the location of the Study Area near to the early settlements of Washington and Plattsville, the potential for post-contact Euro-Canadian archaeological resources is judged to be moderate to high. According to the results of the Stage 1 background research, portions of the Study Area retain archaeological potential; therefore, a Stage 2 assessment was recommended for the Study Area.

Finally, despite the factors mentioned above, extensive land disturbance can eradicate archaeological potential within a Study Area, as outlined in Section 1.3.2 of the *Standards and Guidelines* (Government of Ontario, 2011). Current aerial imagery identified a possible disturbance area within the Study Area in the form of hard-packed gravel and asphalt road surfaces. It is recommended that these potential disturbances be subject to a Stage 2 property inspection to confirm the limits of the disturbance. Detritus determined that the remainder of the Study Area, including the overgrown areas, demonstrated the potential for the recovery of pre-contact Indigenous, post-contact Indigenous, and Euro-Canadian archaeological resources, and were recommended for Stage 2 assessment.

2.0 Field Methods

The Stage 2 assessment of the Study Area was conducted on July 18, 2025, under archaeological consulting license P017 issued to Mr. Garth Grimes by the MCM. The limits of the Study Area were established in the field using a georeferenced shapefile produced using QGIS and uploaded to a hand-held GPS device running Qfield. Buried utility locates were obtained prior to initiating fieldwork.

During the Stage 2 assessment conditions were excellent and at no time were the field, weather, or lighting conditions detrimental to the recovery of archaeological material as per Section 2.1, Standard 3 of the *Standards and Guidelines* (Government of Ontario, 2011). The weather during the assessment was sunny and 22° Celsius. The soil excavated during the test pit survey was dry and screened easily. Photos 1 to 21 demonstrate the land conditions at the time of the survey throughout the Study Area, including areas that met the requirements for a Stage 2 archaeological assessment, as per Section 7.8.6, Standards 1a of the *Standards and Guidelines* (Government of Ontario, 2011). Figure 4 illustrates the Stage 2 assessment methods, as well as photograph locations and directions all in relation to the proposed development of the Study Area. First Nations Representative joined Detritus on site during the Stage 2 Assessment (see Supplementary Documentation for further details regarding Indigenous Engagement).

The Stage 2 field assessment began with a property inspection, conducted according to Section 2.1.8, which is informed by Section 1.2 of the *Standards and Guidelines* (Government of Ontario, 2011). According to the results of this inspection, approximately 24.80% (0.31ha) of the Study Area comprised the possible disturbance areas identified on the current aerial imagery (see Section 1.3.4 above). The disturbed areas, which includes the hard-packed gravel and asphalt road surfaces throughout the Study Area, were evaluated as having no potential based on the identification of extensive and deep land alteration that has severely damaged the integrity of archaeological resources, as per Section 2.1, Standard 2b of the *Standards and Guidelines* (Government of Ontario, 2011). The areas of previous disturbance observed within the Study Area were mapped and photo documented in accordance with Section 2.1, Standard 6 and Section 7.8.1, Standard 1b of the *Standards and Guidelines* (Government of Ontario, 2011; Photos 3, 4, 5, 7, 8, 10, 12, 13, 15, and 17).

Approximately 68.80% (0.86ha) of the Study Area comprised the overgrown areas that were deemed inaccessible to ploughing. These areas were subject to a typical test pit survey at five-metre intervals in accordance with Section 2.1.2 of the *Standards and Guidelines* (Government of Ontario, 2011; Photos 1, 2, 6, 9, 11, 13, 17, 20, and 21). The test pit survey was conducted to within 1m of the built structures or until test pits show evidence of recent ground disturbance, as per Section 2.1.2, Standard 4 of the *Standards and Guidelines* (Government of Ontario, 2011). Each test pit was at least 30 centimetres ('cm') in diameter and excavated 5cm into sterile subsoil as per Section 2.1.2, Standards 5 and 6 of the *Standards and Guidelines* (Government of Ontario, 2011). The soils were then examined for stratigraphy, cultural features, or evidence of fill.

The test pits ranged in total depth from 32cm to 80cm and featured a single dark brown sandy loam with large pebbles and small rocks soil layer (topsoil) above the light brown clayey sand subsoil. The test pits were considerable deeper nearer to the river suggesting that the banks of the river have been subject to seasonal flooding (Photos 23 and 24). Similarly test pits next to the road surface were also deeper but contained gravel fill below the level of subsoil in other areas to the north and south of the road away from the river suggesting that the road disturbance is slightly wider than currently visible (Photos 22 and 25). Considering that each test pit was excavated 5cm into sterile subsoil, the observed topsoil layer ranged in depth from 27cm to 75cm. All soil was checked for stratigraphy and screened through six-millimetre mesh hardware cloth to facilitate the recovery of small artifacts, and then the screened material used to backfill the pit as per Section 2.1.2, Standards 7 and 9 of the *Standards and Guidelines* (Government of Ontario, 2011). No artifacts were encountered during the test pit survey.

Approximately 6.4% (0.08ha) of the Study Area comprised the Nith River. The open water of the river could not be evaluated as this is a marine feature (Photos 14, 18, and 19). There is a separate process for marine archaeological assessment (Government of Ontario, 2022). There is a checklist provided by the MCM to ensure marine concerns are not overlooked. This can be consulted in

order to determine whether or not a marine archaeological assessment of this waterbody is required.

3.0 Record of Finds

The Stage 2 archaeological assessment was conducted employing the methods described in Section 2.0. An inventory of the documentary record generated by fieldwork is provided in Table 3 below.

Table 3: Inventory of Document Record

Document Type	Current Location	Additional Comments
1 Page of Field Notes	Detritus' office	Stored digitally in project file
1 Map provided by the Proponent		
1 Field Map		
35 Digital Photographs		

No archaeological resources were identified within the Study Area during the Stage 2 assessment; therefore, no artifacts were collected. As a result, no storage arrangements were required.

4.0 Analysis and Conclusions

Detritus was retained by the Proponent to conduct a Stage 1-2 archaeological assessment in advance of the culvert replacement on the property located at Bridge 24, Blandford-Blenheim.

The Stage 1 assessment of the Study Area consisted of background study, as per Section 1.1 of the *Standards and Guidelines* (Government of Ontario, 2011). According to the results of the Stage 1 background research, portions of the Study Area retain archaeological potential; therefore, a Stage 2 assessment was recommended for the Study Area.

The subsequent Stage 2 field assessment of the Study Area was conducted on July 18, 2025. This investigation began with a property inspection, conducted according to Section 2.1.8, which is informed by Section 1.2 of the *Standards and Guidelines* (Government of Ontario, 2011). The inspection revealed that the hard-packed gravel and asphalt road surfaces retained no, or low, archaeological potential based on the identification of extensive and deep land alteration that has severely damaged the integrity of archaeological resources as per Section 2.1, Standard 2b of the *Standards and Guidelines* (Government of Ontario, 2011). The previously disturbed areas, as confirmed during a Stage 2 property inspection, were mapped and photo documented only in accordance with Section 2.1, Standard 6, and Section 7.8.1, Standards 1a and 1b of the *Standards and Guidelines* (Government of Ontario, 2011).

The remainder of the Study Area comprised the overgrown areas throughout the Study Area, which were assessed by means of a typical test pit survey at five-metre intervals. No archaeological resources were observed.

The portion of the Nith River that passes through the Study Area is considered open water and could not be evaluated as it is a marine feature. According to the MCM web page for marine archaeology (Government of Ontario, 2022), many of the cold, fresh waters of Ontario's lakes and rivers have preserved important evidence of Ontario's history of exploration, settlement, and commerce. Some of Ontario's waterways have been surveyed for marine archaeological resources, leaving much to be discovered in Ontario's abundance of lake beds, riverbeds, and shorelines. Therefore, **the unassessed portion of the Study Area that includes the riverbed of the Nith River retains archaeological potential**.

5.0 Recommendations

Given the results of the Stage 2 investigation and the identification and documentation of no archaeological resources, **no further archaeological assessment of the land portion of the Study Area is recommended.**

If, in the future, the underwater portion of the Study Area will be impacted by development, then a marine archaeological assessment may be required. There is a checklist provided by the MCM to ensure marine concerns are not overlooked, which can be consulted in order to determine whether or not a marine archaeological assessment of this waterbody is required. According to Subsection 48(1), P.3 of the *Heritage Act* (Government of Ontario, 1990b), a marine archaeological assessment must be carried out by the holder of a Marine Archaeology license.

6.0 Advice on Compliance with Legislation

This report is submitted to the Minister Citizenship and Multiculturalism as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Citizenship and Multiculturalism, 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.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest , and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

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*.

The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

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8.0 Maps

Figure 1: Study Area Location

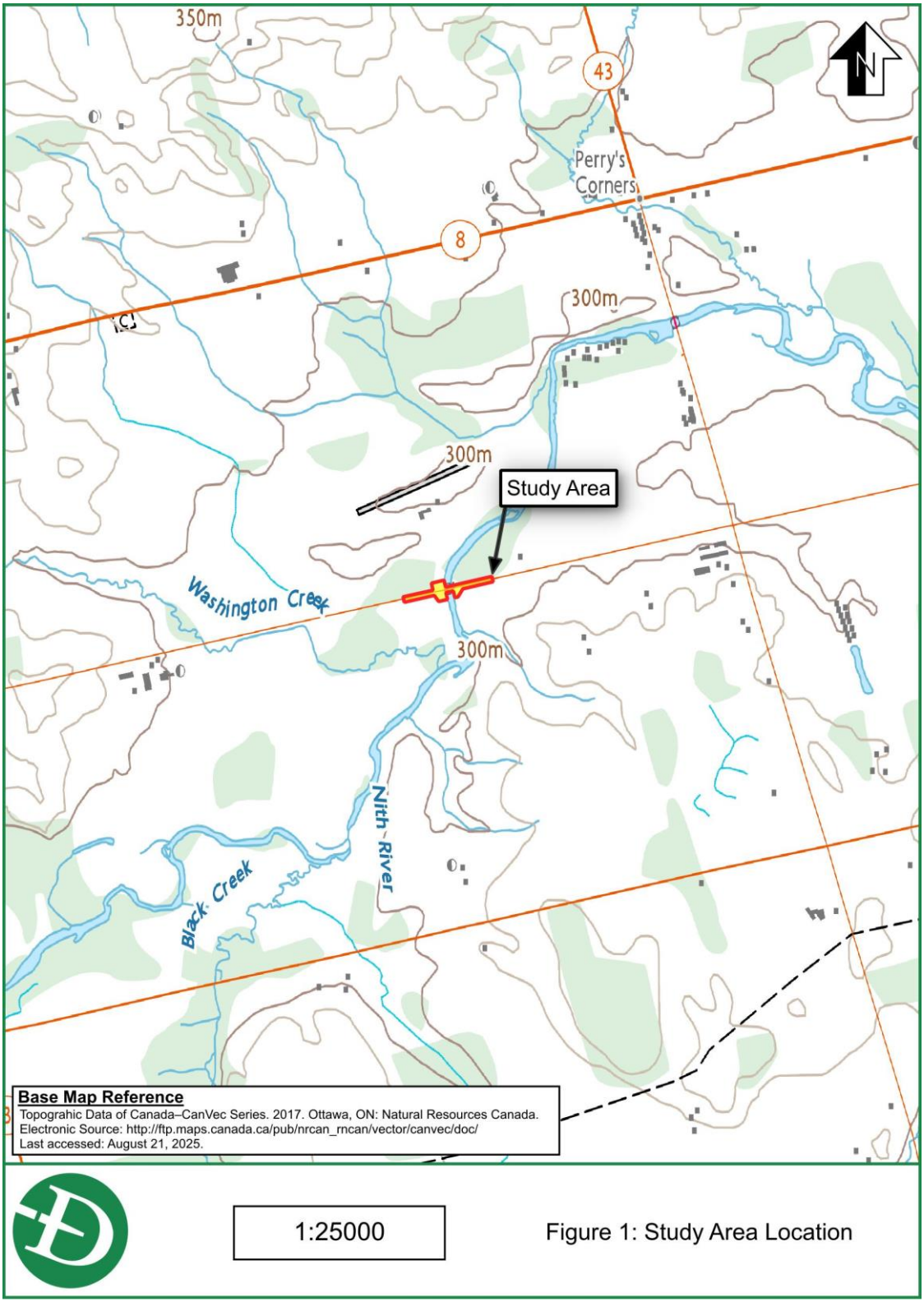


Figure 2: Historic Map Showing Study Area Location

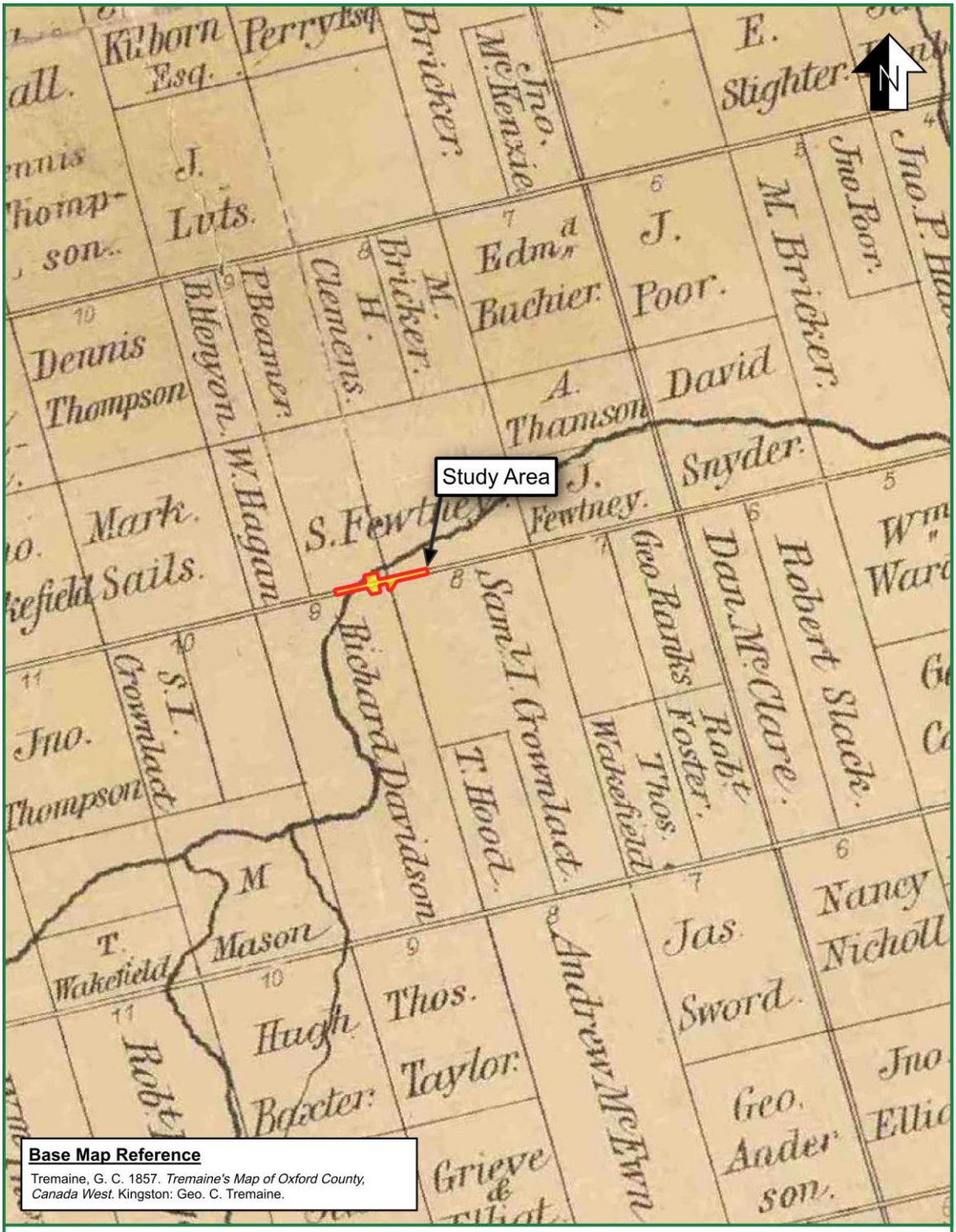


Figure 3: Additional Historic Map Showing Study Area Location

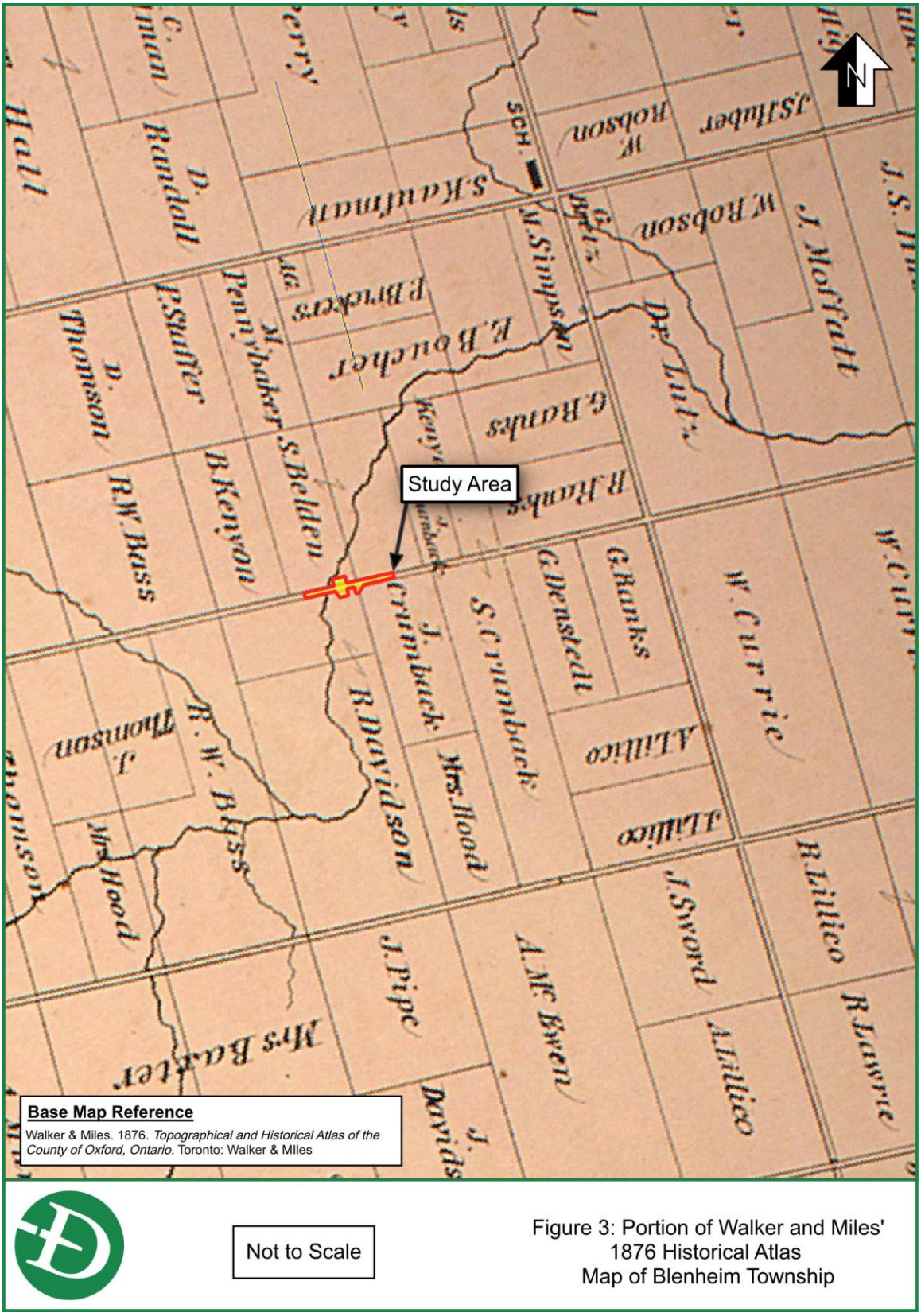


Figure 4: Stage 2 Field Methods Map



Figure 5: Stage 2 Field Methods Map in relation to the Development

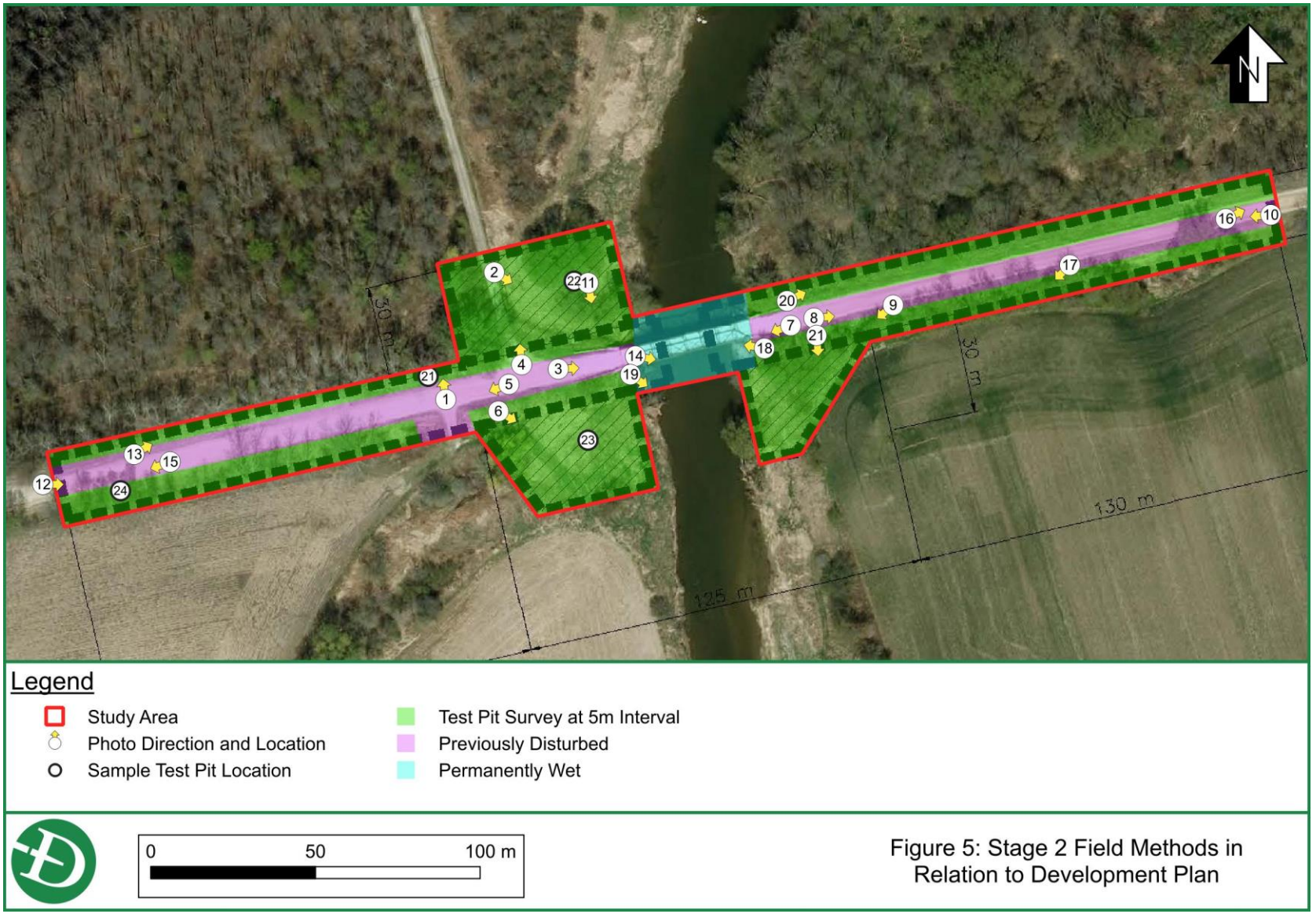
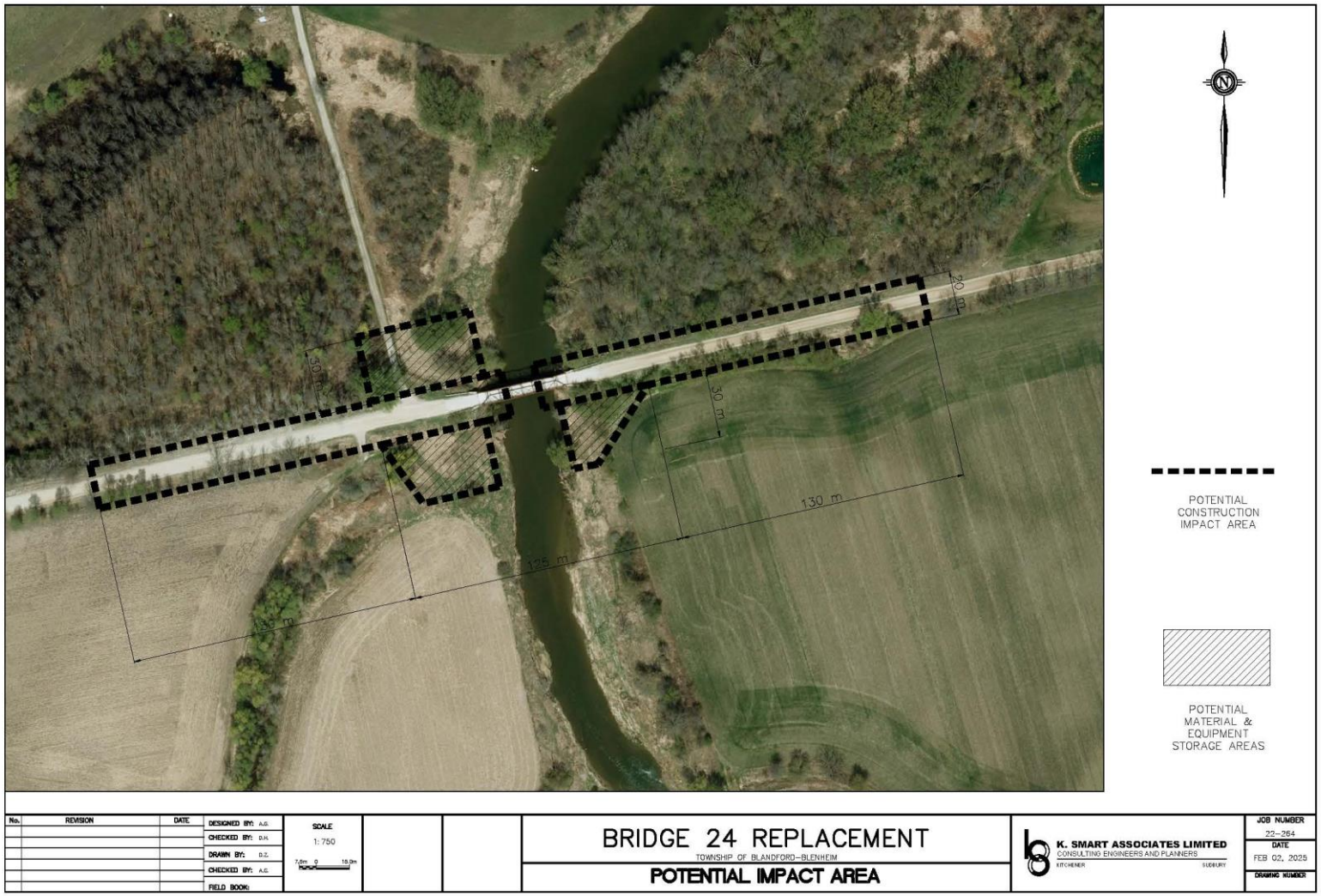


Figure 6: Development Plan



9.0 Images

9.1 Field Photos

Photo 1: Overgrown area to the north of the road surface, Test Pit Surveyed at five-metre intervals, looking north



Photo 2: Overgrown area next to narrow laneway, Test Pit Surveyed at five-metre intervals, looking southeast



Photo 3: Hardpacked dirt and gravel Road surface and asphalt road surface leading toward bridge 12, Previously Disturbed, looking east



Photo 4: Overgrown areas next to Hardpacked dirt, Test Pit Surveyed at five-metre intervals, and gravel laneway, Previously Disturbed but less than 5m wide and did not affect Test Pit survey intervals, looking north



Photo 5: Overgrown areas with some trees next to the road, Test Pit Surveyed at five-metre intervals, and the hardpacked dirt and gravel road surface, Previously Disturbed, looking southwest



Photo 6: Overgrown area to the south of the road, Test Pit Surveyed at five-metre intervals, looking southeast



Photo 7: Hardpacked dirt and gravel Road surface and asphalt road surface leading toward bridge 12, Previously Disturbed, looking southwest



Photo 8: Overgrown areas with some trees next to the road, Test Pit Surveyed at five-metre intervals, and the hardpacked dirt and gravel road surface, Previously Disturbed, looking, looking east



Photo 9: Overgrown area to the north of the road surface, in front of woodlot and agricultural fields, Test Pit Surveyed at five-metre intervals, looking southwest



Photo 10: Overgrown areas with some trees next to the road, Test Pit Surveyed at five-metre intervals, and the hardpacked dirt and gravel road surface, Previously Disturbed, looking west



Photo 11: Overgrown area with some trees and shrubs next to the Nith River, Test Pit Surveyed at five-metre intervals, looking south



Photo 12: Overgrown areas with some trees next to the road, Test Pit Surveyed at five-metre intervals, and the hardpacked dirt and gravel road surface, Previously Disturbed, looking east



Photo 13: Overgrown area to the north of the road surface, Test Pit Surveyed at five-metre intervals, and the hardpacked dirt and gravel road surface, Previously Disturbed, looking northeast



Photo 14: Nith River, Open water, not assessed, looking southeast



Photo 15: Overgrown area to the south of the road surface, Test Pit Surveyed at five-metre intervals, and the hardpacked dirt and gravel road surface, Previously Disturbed, looking southwest



Photo 16: Overgrown area to the north of the road surface, Test Pit Surveyed at five-metre intervals, looking northeast



Photo 17: Overgrown areas with some trees next to the road, Test Pit Surveyed at five-metre intervals, and the hardpacked dirt and gravel road surface, Previously Disturbed, looking southwest



Photo 18: Nith River, Open water, not assessed, looking northwest



Photo 19: Nith River, Open water, not assessed, looking southeast



Photo 20: Overgrown area to the north of the road surface, Test Pit Surveyed at five-metre intervals, looking northeast



Photo 21: Overgrown area to the south of the road surface in front of an agricultural field, Test Pit Surveyed at five-metre intervals, looking south



Photo 22: Sample Test Pit



Photo 23: Sample Test Pit



Photo 24: Sample Test Pit



Photo 25: Sample Test Pit



Marine Archaeological Assessment Bridge 24, Blandford-Blenheim

Nith River Part of Road Allowance between Lots 8 and 9, Concession 12 and Lots 8 and 9, Concession 11, Historical Township of Blenheim, now the Geographic Township of Blandford-Blenheim, Oxford County, Ontario

Submitted to:
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85 McIntyre Drive
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and

Ontario's Ministry of Citizenship and Multiculturalism

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Marine License Number: 2026-16

ORIGINAL REPORT

September 16, 2026

Executive Summary

Detritus Consulting Ltd. ('Detritus') was retained by K. Smart Associates Ltd. (the 'Proponent') to conduct a marine archaeological assessment on part of the Nith River, in the historical Township of Blenheim, now the geographic Township of Blandford-Blenheim in Oxford County, Ontario (Figure 1). This assessment was conducted in advance of a bridge replacement on the property located at Bridge 24, Blandford-Blenheim (the 'Study Area;' Figure 4).

The marine archaeological assessment was conducted under marine license #2026-16 issued to Mr. Michael Pitul (P462). The marine investigation was conducted in advance of a proposed demolition and re-constriction of Bridge 24. A Stage 1-2 archaeological assessment was conducted by Detritus Consulting (P017-1134-2025) for the terrestrial portion of the Study Area which did not identify any archaeological resources. The terrestrial Stage 1-2 recommended that the Nith Riverbed retained archae0olgiical potential and should be subjected to a marine archaeological study. As such a marine archaeological assessment was conducted for the Nith River portion of the Project Area.

According to Subsection 48(1), P.3 of the *Heritage Act* (Government of Ontario 1990b), a marine archaeological assessment must be carried out by the holder of a Marine Archaeology license and adhere to Ontario Regulation 11/06 for Marine Archaeological sites within the larger *Heritage Act* (Government of Ontario 1990b).

The Study Area is rectangular in shape and comprises the foreshore and river bottom of the Nith River directly under and to the north and south of the bridge area. The Study Area measures approximately 0.25 acres and comprises primarily the waters of the Nith River and its banks (Figure 4). The majority Study Area is currently submerged beneath the Nith River at depths ranging from 0.2 to 0.4 m.

The principal objectives of this investigation were to research the Study Area from a maritime history perspective, to determine the potential for marine archaeological resources to be present within the Study Area, and to test the river bottom for archaeological materials before the bridge is removed and a new bridge is constructed.

The background research identified the entire Study Area as having marine archaeological resources. The Nith River is a tributary of the Grand River and part of the Grand River Valley. The Grand River has four major tributaries including the Conestoga, Eramosa, Speed and Nith rivers. These rivers and the valley have been home to indigenous peoples for well over 10, 000 years. During the 18th and 19th centuries Euro-Canadian settlers come to the area for the fertile land. Therefore, there is marine archaeological potential within the Study Area.

Impacts to the river bottom during construction are including the construction of sheet pile cofferdams, which will be installed to dewater the construction area for the pier footing and pier shaft construction. Turbidity curtains will be installed to surround the cofferdams. The sheet piles are permanent and will remain in place to protect the pier footings from undermining. There will be two cofferdams, each starting at the riverbank into the riverbed. The average size of each cofferdam would be approximately 10 to 15 metres from shore into the river by 12 to 15 metres wide. The site isolation area would total approximately 450 sq. m. (approx. 225 sq. m. per side) The new pier footings and piers would be constructed within these isolated areas on each side of the river. Due to the planned impacts to the river bottom and in consultation with the MCM (See Supplementary Documentation) a test pits survey of the river bottom was conducted to test for any marine archaeological resources. The test pits assessment of the river bottom was conducted on July 29, 2026 and resulted in the identification of no archaeological resources terrestrial or marine.

Based on the results of the marine investigation, **no further marine archaeological assessment is recommended for the current Study Area.**

The Executive Summary highlights key points from the report only; for complete information and findings, the reader should examine the complete report.

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	Six Nations of the Grand River Elected Council George Atkins
Report Preparation:	Michael Pitul, P462
Mapping and GIS:	Michael Pitul, P462

Acknowledgments

Generous contributions by Trevor Hoard from K. Smart Associates Ltd. made this report possible.

1.0 Project Context

1.1 Development Context

Detritus Consulting Ltd. ('Detritus') was retained by K. Smart Associates Ltd. (the 'Proponent') to conduct a marine archaeological assessment on part of the Nith River, in the historical Township of Blenheim, now the geographic Township of Blandford-Blenheim in Oxford County, Ontario (Figure 1). This assessment was conducted in advance of a bridge replacement on the property located at Bridge 24, Blandford-Blenheim (the 'Study Area;' Figure 5).

The Stage 1 marine archaeological assessment was conducted under marine license #2026-16 issued to Mr. Michael Pitul (P462). The marine investigation was conducted in advance of a proposed demolition and construction of a new bridge As such a background marine archaeological assessment was conducted for the Nith River portion of the Project Area.

The purpose of the background marine assessment is to compile, from a maritime perspective, all available information about the known and potential archaeological heritage resources within the Study Area and to provide specific direction for the protection, management, and/or recovery of these resources. The objectives of the Marine Archaeological Background Study are as follows:

- To provide information about the Study Area's geography, history, previous archaeological fieldwork and current conditions;
- To evaluate in detail, the Study Area's archaeological potential which will support recommendations for further assessment of all or parts of the property; and
- To recommend appropriate strategies for additional assessment.

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

- A review of relevant archaeological, historic and environmental literature pertaining to the Study Area;
- A review of the land use history, directly adjacent to the Study Area including pertinent historic maps; and
- An examination of the Ontario Archaeological Sites Database ('ASDB') to determine the presence of known archaeological sites in and around the Study Area.

In addition to the background research, the Study Area was subject to an optional property inspection, conducted according to Section 1.2 of the *Standards and Guidelines* (Government of Ontario 2011).

The purpose of an in-water marine assessment is to provide an overview of any archaeological resources within the Study Area; to determine whether any of the resources might be archaeological sites with cultural heritage value or interest ('CHVI'); and to provide specific direction for the protection, management, and/or recovery of these resources. In compliance with the *Standards and Guidelines* (Government of Ontario, 2011), the objectives of the following Stage 2 assessment are as follows:

- To document all archaeological resources within the Study Area;
- to determine whether the Study Area contains archaeological resources requiring further assessment; and
- to recommend appropriate Stage 3 assessment strategies for archaeological sites identified.

The licensee received permission from the Proponent to enter the land and conduct all required archaeological fieldwork activities, including the recovery of artifacts.

1.2 Historical Context

1.2.1 Post-Contact Indigenous Resources

Prior to the arrival of European settlers, much of the central and southern Ontario was occupied by Iroquoian speaking linguistic groups that had united to form confederacies, including the Huron-Wendat, the Neutral (or Attawandaran), and the Petun in Ontario, as well as the Five Nations Iroquois Confederacy in Upper New York State (Warrick, 2013; Birch, 2010). Of these groups, the Huron-Wendat established themselves to the east of the Niagara escarpment and the Neutral, to the west (Warrick, 2000).

Throughout the middle of the 17th century, the Iroquois Confederacy sought to expand upon their territory and to monopolize the fur trade between the European markets and the tribes of the western Great Lakes region. A series of bloody conflicts followed known as the Beaver Wars or the French and Iroquois Wars, contested between the Iroquois Confederacy and the Algonkian speaking communities of the Great Lakes region. Many communities were destroyed including the Huron, Neutral, Susquehannock and Shawnee leaving the Iroquois as the dominant group in the region. By 1653 after repeated attacks, the Niagara peninsula and most of Southern Ontario had been vacated (Heidenreich, 1990).

At this same time, the Anishinaabeg Nation, an Algonkian-speaking community situated inland from the northern shore of Lake Huron, began to challenge the Haudenosaunee for dominance in the Lake Huron and Georgian Bay region in order to advance their own role in the fur trade (Gibson, 2006). The Algonkian-speaking groups that settled in the area bound by Lake Ontario, Lake Erie, and Lake Huron were referred to by the English as the Chippewas or Ojibwas. By 1680, the Ojibwa began expanding into the evacuated Huron-Wendat territory, and eventually into Southern Ontario.

The late 17th and early 18th centuries also mark the arrival of an Ojibwa band known as the Mississaugas into Southern Ontario and, in particular, the watersheds of the lower Great Lakes. 'The Mississaugas' is the name that the Jesuits had used in 1840 for the Algonquin community living near the Mississagi River on the northwestern shore of Lake Huron (Smith, 2002). The oral traditions of the Mississaugas, as recounted by Chief Robert Paudash and recorded in 1904, suggest that the Mississaugas defeated the Mohawk Nation, who retreated to their homeland south of Lake Ontario. Following this conflict, a peace treaty was negotiated between the two groups (Praxis Research Associates, n.d.).

From the beginning of the 18th century until the end of the Seven Year War in 1763, the Ojibwa nation, including the Mississaugas, experienced a golden age in trade holding no alliance with either the French or the British (Schmalz, 1991). At the end of the 17th century, the Mississaugas' settled permanently in Southern Ontario (Praxis Research Associates, n.d.). Around this same time, in 1722, the Five Nation Iroquois Confederacy adopted the Tuscarora in New York becoming the Six Nations (Pendergast, 1995). The Study Area first entered the Euro-Canadian historical record on December 7th, 1792, as part of Treaty No. 3, which included land acquired in the 'Between the Lakes Purchase' dating to May 22, 1784.

According to the terms of the treaty, the Mississaugas ceded to the Crown approximately 3,000,000 acres of land between Lake Huron, Lake Erie, and Lake Ontario in return for trade goods valued at £1180. The limits of the Treaty 3 lands are documented as comprising, Lincoln County excepting Niagara Township; Saltfleet, Binbrook, Barton, Glanford and Ancaster Townships, in Wentworth County; Brantford, Onondaga, Tusc[a]r[o]ra, Oakland and Burford Townships in Brant County; East and West Oxford, North and South Norwich, and Dereham Townships in Oxford County; North Dorchester Township in Middlesex County; South Dorchester, Malahide and Bayham Township in Elgin County; all Norfolk and Haldimand Counties; Pelham, Wainfleet, Thorold, Cumberland and Humberstone Townships in Welland County (Morris, 1943, pp. 17-8).

One of the stated objectives of the Between the Lakes Purchase was "to procure for that part of the Six Nation Indians coming into Canada a permanent abode" (Morris, 1943, p. 17). Shortly after the transaction had been finalized in May of 1784, Sir Frederick Haldimand, the Governor of Québec, made preparations to grant a portion of land to those Six Nations who remained loyal to the Crown during the American War of Independence. More specifically, Haldimand arranged for the purchase of approximately 550,000 acres of land adjacent to the Treaty 3 limits from the Mississaugas. This tract of land, referred to as either the Haldimand Tract or the 1795 Crown Grant to the Six Nations, was provided for in the Haldimand Proclamation of October 25th, 1784 and was intended to extend a distance of six miles on each side of the Grand River from mouth to source (Weaver, 1978). By the end of 1784,

representatives from each constituent nation of the Six Nations, as well as other allies, relocated to the Haldimand Tract with Joseph Brant (Weaver, 1978; Tanner, 1987).
Throughout southern Ontario, the size and nature of the pre-contact settlements and the subsequent spread and distribution of Indigenous material culture began to shift with the establishment of European settlers. By 1834 it was accepted by the Crown that losses of portions of the Haldimand Tract to Euro-Canadian settlers were too numerous for all lands to be returned. Lands in the Lower Grand River area were surrendered by the Six Nations to the British Government in 1832, at which point most Six Nations people moved into Tuscarora Township in Brant County and a narrow portion of Oneida Township (H. R. Page & Co, 1879; Weaver, 1978; Tanner, 1987). Following the population decline and the surrender of most of their lands along the Credit River, the Mississaugas were given 6000 acres of land on the Six Nations Reserve, establishing the Mississaugas of New Credit First Nation, now the Mississaugas of the Credit First Nation, in 1847 (Smith, 2002).

Despite the encroachment of European settlers on previously established Indigenous territories, "written accounts of material life and livelihood, the correlation of historically recorded villages to their archaeological manifestations, and the similarities of those sites to more ancient sites have revealed an antiquity to documented cultural expressions that confirms a deep historical continuity to Iroquoian systems of ideology and thought" (Ferris, 2009, p. 114). As Ferris observes, despite the arrival of a competing culture, First Nations communities throughout Southern Ontario have left behind archaeologically significant resources that demonstrate continuity with their pre-contact predecessors, even if they have not been recorded extensively in historical Euro-Canadian documentation.

1.2.2 Euro-Canadian Resources

The current Study Area is located on part of the road allowance between Lots 8 and 9, Concession 11, and Lots 8 and 9, Concession 12, in the historical Township of Blenheim, now the geographic Township of Blandford-Blenheim in Oxford County, Ontario. In 1763, the Treaty of Paris brought an end to the Seven Years' War, contested between the British, the French, and their respective allies. Under the Royal Proclamation of 1763, the large stretch of land from Labrador in the east, moving southeast through the Saint Lawrence River Valley to the Great Lakes and on to the confluence of the Ohio and Mississippi Rivers became the British Province of Québec (Niagara Historical Society and Museum, 2008).

On July 24, 1788, Sir Guy Carleton, the Governor-General of British North America, divided the Province of Québec into the administrative districts of Hesse, Nassau, Mecklenburg, and Lunenburg (Archives of Ontario, 2012-2025). Further change came in December 1791 when the former Province of Québec was rearranged into Upper Canada and Lower Canada under the provisions of the Constitutional Act. Colonel John Graves Simcoe was appointed as Lieutenant-Governor of Upper Canada and he spearheaded several initiatives to populate the province including the establishment of shoreline communities with effective transportation links between them (Coyne, 1895). In July 1792, Simcoe divided Upper Canada into 19 counties stretching from Essex in the west to Glengarry in the east. Each new county was named after a county in England or Scotland; the constituent townships were then given the names of the corresponding townships from each original British county (Powell & Coffman, 1956).

Blenheim Township was founded in 1792 as part of York County. Portions of the township were surveyed separately by three different surveyors including Augustus Jones in 1793, Riddell in 1795, and John Stegman in 1798. Governor Simcoe originally granted much of the township land to Mr. Thomas Watson from New Jersey State. Watson sent his two nephews, Thomas Watson and Thomas Horner, to scout out the land prior to settlement. Horner is known as the first pioneer of Blenheim Township. Once Simcoe was recalled, his successor refused to carry out the agreement with the senior Watson. Thomas Horner spent the majority of his life battling for the land that his uncle had been promised and that he had worked so hard to settle (Peat, 1930).

In 1798 Blenheim Township was transferred to Oxford County. The first railroad, the Great Western Railway, ran through Canning and Princeton in 1852. By 1854, the Buffalo and Lake Huron Railway was opened as far as Brantford; the full length of the railway was completed in 1858. In 1879, the Credit Valley Railway crossed Blenheim with stations in Wolverton and Drumbo. By 1860, Blenheim was well settled and well supplied with woolen mills, tanneries, blacksmith shops, saw and grist mills, as well as wagon shops and general stores (Peat, 1930).

The Tremaine Map of Oxford County West (the 'Tremaine Map') demonstrates the extent to which Blenheim Township had been settled by 1857 (Tremaine, 1857). Landowners are listed for most of the lots throughout the township, many of which had been subdivided multiple times into smaller parcels to accommodate an increasing population throughout the late 19th century. No structures or orchards are illustrated. According to the Tremaine Map, the Study Area occupies a portion of a historic road, now known as Township 12 Road (Figure 2). The Nith River crosses this road, but seemingly at a slightly different location – although this could be due to inaccuracies in mapping at the time of the map's construction. Lots 8 and 9, Concession 12 border the Study Area to the north. S. Fewtney owns the southern half of Lot 8, Concession 12 and half of the southern half of Lot 9, Concession 12 while W. Hagan owns the remainder of the southern half of this lot. To the south, Lots 8 and 9 in Concession 11 border the Study Area. Samuel I. Gownlact owns the majority of Lot 8, Concession 11 and Richard Davidson owns all of the Lot 9, Concession 11. The small community of Washington is located approximately 2.6 kilometres ('km') to the northwest, while the larger town of Plattsville is located approximately 5.6km further to the northwest.

The Topographical and Historical Atlas of the County of Oxford ('Historical Atlas') demonstrates the extent to which Blenheim Township had been settled by 1876 (Walker & Miles, 1876). According to the Historical Atlas, ownership of the neighboring lots has changed hands (Figure 3). To the north S. Belden owns the portions of Lots 8 and 9, Concession 12 that border to Study Area and J. Crumbuck owns the portion of Lot 8, Concession 11 that borders the Study Area and R. Davidson still owns all of Lot 9, Concession 11. The community of Washington has grown in size while Plattsville seems to have remained the same. Several railways cross the central and southern portions of the township and many rivers, tributaries, and creeks are depicted throughout the township on both maps.
Although significant and detailed landowner information is available on the historical maps discussed here, it should be recognized that historical county atlases were funded by subscriptions fees and were produced primarily to identify factories, offices, residences and landholdings of subscribers. Landowners who did not subscribe were not always listed on the maps (Caston, 1997, p. 100). Moreover, associated structures were not necessarily depicted or placed accurately (Gentilcore & Head, 1984).

1.2.3 Indigenous and Euro-Canadian Maritime Tradition and History

The Nith River is a tributary of the Grand River and part of the Grand River Valley. The Grand River has four major tributaries including the Conestoga, Eramosa, Speed and Nith rivers. These rivers and the valley have been home to indigenous peoples for well over 10, 000 years. During the 18th and 19th centuries Euro-Canadian settlers come to the area for the fertile land (Grand River Conservation Authority).

The Nith begins in Crosshill and winds its way through the countryside until it meets the Grand River in Paris Ontario. In 1994 due the historical and cultural heritage value of the Grand, and its tributaries including the Nith the entire system was recognized and designated Canadian Heritage Rivers (Grand River Conservation Authority).

Scottish immigrants give us the modern name of the Nith River which is named after the Nith River in Scotland (Mercer 2018).

1.3 Archaeological Context

1.3.1 Property Description and Physical Setting

The Study Area occupies the Nith River and foreshore section of the Study Area, in the historical Township of Blenheim, now the geographic Township of Blandford-Blenheim in Oxford County, Ontario (Figures 1,and 4). The majority of the Study Area is currently submerged beneath the Nith River at depths ranging from 0.2 to 0.4 m.

The Study Area is part of the Nith River. The Nith River is a 125km waterway that connects to the Grand River which ends in Lake Erie. The Nith River is part of the Grand River Valley. The Grand River has four major tributaries including the Conestoga, Eramosa, Speed and Nith rivers.

Much of the terrestrial region surrounding the Study Area has been subject to European-style agricultural practices for over 100 years, having been settled by Euro-Canadian farmers by the mid-19th century. Much of the region today continues to be used for agricultural purposes.

The Study Area is located within Waterloo Hills physiographic region. This is a region of sandy hills and ridges broken by the alluvial terrace system of the Grand River spillway (Chapman & Putnam, 1984, pp. 136-137).

1.3.2 Pre-Contact Indigenous Land Use

This portion of southern Ontario was occupied by people as far back as 11,000 years ago as the glaciers retreated. For the majority of this time, people were practicing hunter-gatherer lifestyles with a gradual move towards more extensive farming practices. Table 1 provides a general outline of the cultural chronology of Blenheim Township (Ellis & Ferris, 1990).

Table 1: Cultural Chronology for Blenheim Township

Time Period	Cultural Period	Comments
9500–7000 BC	Paleo Indian	first human occupation hunters of caribou and other extinct Pleistocene game nomadic, small band society
7500–1000 BC	Archaic	ceremonial burials increasing trade network hunter-gatherers
1000–400 BC	Early Woodland	large and small camps spring congregation/fall dispersal introduction of pottery
400 BC–AD 800	Middle Woodland	kinship based political system incipient horticulture long distance trade network
AD 800–1300	Early Iroquoian (Late Woodland)	limited agriculture developing hamlets and villages
AD 1300–1400	Middle Iroquoian (Late Woodland)	shift to agriculture complete increasing political complexity large, palisaded villages
AD 1400–1650	Late Iroquoian	regional warfare and political/tribal alliances destruction of Huron and Neutral

1.3.3 Previously Identified Archaeological Work

In order to compile an inventory of archaeological resources, the registered archaeological site records kept by the MCM were consulted. In Ontario, information concerning archaeological sites stored in the ASDB (Government of Ontario n.d.) is maintained by the MCM. This database contains archaeological sites registered according to the Borden system. Under the Borden system, Canada is divided into grid blocks based on latitude and longitude. A Borden Block is approximately 13 kilometres ('km') east to west and approximately 18.5km north to south. Each Borden Block is referenced by a four-letter designator and sites within a block are numbered sequentially as they are found. The Study Area under review is within Borden Block AhHd.

Information concerning specific site locations is protected by provincial policy and is not fully subject to the *Freedom of Information and Protection of Privacy Act* (Government of Ontario 1990c). The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to all media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The MCM will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

According to the ASDB, eight archaeological sites have been registered within a 1km radius of the Study Area (Table 1). Seven of the sites are pre-contact Indigenous sites, five of which are dated to the Archaic period and one to the Early Woodland period. One of the sites, AjHe-3, had very little information available and had no registered affinity.

Table 1: Registered Archaeological Sites within 1km of the Study Area

Borden Number	Site Name	Time Period	Affinity	Site Type
AjHe-3	-	-	-	-
AhHd-78	-	Pre-Contact	Indigenous	-
AhHd-33	Bass	Archaic	Indigenous	-
AhHd-32	Gordony	Woodland, Early	Indigenous	-
AhHd-31	Boterberg 1	Archaic	Indigenous	-
AhHd-30	Livingston	Archaic	Indigenous	Unknown
AhHd-28	Boterberg 2	Archaic	Indigenous	-
AhHd-22	Ferber	Archaic	Indigenous	-

A Stage 1-2 terrestrial assessment was conducted by Detritus in 2025 (P017-1134-2025) which included the area around the bridge to be demolished and a new bridge erected. The Stage 1 inspection revealed that the hard-packed gravel and asphalt road surfaces retained no, or low, archaeological potential based on the identification of extensive and deep land alteration that has severely damaged the integrity of archaeological resources The Stage 2 field assessment was conducted on the remainder of the terrestrial Study Area and comprised a typical test pit survey at 5m intervals.

The results of the Stage 1-2 assessment resulted in a recommendation of no further work for the terrestrial portions of the Study Area. A marine archaeological assessment was recommended for the portions of the Nith River that are underwater.

According to the Ontario Underwater Council's ('OUC') shipwreck directory, no none shipwerecks, are located within one kilometer of the study area (OUC n.d.). A review of readily accessible aviation and marine investigation reports (from 1991 onward) indicates that no known downed aircraft or twentieth and twenty-first century shipwrecks and located within one kilometre of the study area (Transportation Safety Board of Canada 2013; 2015).

The best of Detritus' knowledge, no further terrestrial or marine archaeological have been conducted adjacent to the Study Area

2.0 Field Methods

The Stage 1 assessment compiled all available information concerning any known and/or potential terrestrial and marine archaeological heritage resources within the Study Area. A test pit assessment was conducted on July 29, 2026, under marine archaeology license #2026-16 issued to Mr. Michael Pitul by the MCM. The limits of the Study Area were established in the field using a georeferenced shapefile produced using QGIS and uploaded to a hand-held GPS device running Qfield.

During the test pit assessment conditions were excellent and at no time were the field, weather, or lighting conditions detrimental to the recovery of archaeological material as per Section 2.1, Standard 3 of the *Standards and Guidelines* (Government of Ontario, 2011). The weather during the assessment was sunny and 26° Celsius. The soil excavated during the test pit survey was wet and screened easily. Photos 1 to 24 demonstrate the conditions at the time of the survey throughout the Study Area, including areas that met the requirements for a Stage 2 archaeological assessment, as per Section 7.8.6, Standards 1a of the *Standards and Guidelines* (Government of Ontario, 2011). Figure 4 illustrates the test pit assessment methods, as well as photograph locations and directions all in relation to the proposed development of the Study Area. First Nations Representative joined Detritus on site during the test pit assessment (see Supplementary Documentation for further details regarding Indigenous Engagement).

The entire Study Area comprised the bottom of the Nith River and the immediate foreshore. The depth of the river within the Study Area varied from 0.5 to 0.7 meters deep. Following advice through consultation with the MCM the river bottom was subject to a typical test pit survey at two and a half-metre interval in accordance with Section 2.1.2 of the Standards and Guidelines (Government of Ontario, 2011). Each test pit was at least 30 centimetres ('cm') in diameter and excavated 5cm into sterile subsoil as per Section 2.1.2, Standards 5 and 6 of the Standards and Guidelines (Government of Ontario, 2011). The soils were then examined for stratigraphy, cultural features, or evidence of fill. The test pits ranged in total depth from 15cm to 40cm and featured a single dark brown sandy loam with large pebbles and small rocks soil layer (topsoil) above the light brown clayey sand subsoil. The test pits were considerable deeper at the foreshore at the 40cm depth suggesting that the banks of the river have been subject to seasonal flooding. The river bottom was dark brown silty/sandy loam with compact river rocks throughout. The river bottom test pits were excavated to a depth of 15-20cm until compact river rock was encountered. All soil was checked for stratigraphy and screened through six-millimetre mesh hardware cloth to facilitate the recovery of small artifacts, and then the screened material used to backfill the pit as per Section 2.1.2, Standards 7 and 9 of the Standards and Guidelines (Government of Ontario, 2011) were applicable. No artifacts were encountered during the test pit survey.

3.0 Record of Finds

The Stage 2 archaeological assessment was conducted employing the methods described in Section 2.0. An inventory of the documentary record generated by fieldwork is provided in Table 2 below.

Table 2: Inventory of Document Record

Document Type	Current Location	Additional Comments
1 Page of Field Notes	Detritus' office	Stored digitally in project file
1 Map provided by the Proponent		
1 Field Map		
27 Digital Photographs		

No archaeological resources were identified within the Study Area during the Stage 2 assessment; therefore, no artifacts were collected. As a result, no storage arrangements were required.

4.0 Analysis and Conclusions

Detritus Consulting Ltd. ('Detritus') was retained by K. Smart Associates Ltd. (the 'Proponent') to conduct a marine archaeological assessment on part of the Nith River, in the historical Township of Blenheim, now the geographic Township of Blandford-Blenheim in Oxford County, Ontario (Figure 1). This assessment was conducted in advance of a bridge replacement on the property located at Bridge 24, Blandford-Blenheim (the 'Study Area;' Figure 5).

Marine archaeological potential is established by determining the likelihood that marine archaeological resources may be present in the subject area. Detritus applied archaeological potential criteria commonly used by the MCM to determine areas of archaeological potential within the current development property. According to Section 1.3.1 of the *Standards and Guidelines* (Government of Ontario 2011), these variables include proximity to previously identified archaeological sites, distance to various types of water sources, soil texture and drainage, glacial geomorphology, elevated topography, and the general topographic variability of the area.

Distance to modern or ancient water sources is generally accepted as the most important determinant of past human settlement patterns and, when considered alone, may result in a determination of archaeological potential. However, any combination of two or more other criteria, such as well-drained soils or topographic variability, may also indicate archaeological potential. When evaluating distance to water it is important to distinguish between water and shoreline, as well as natural and artificial water sources, as these features affect site locations and types to varying degrees. The MCM (Government of Ontario 2011) categorizes water sources in the following manner:

- Primary water sources, lakes, rivers, streams, creeks;
- secondary water sources, intermittent streams and creeks, springs, marshes and swamps;
- past water sources, glacial lake shorelines, relic river or stream channels, cobble beaches, shorelines of drained lakes or marshes; and
- accessible or inaccessible shorelines, high bluffs, swamp or marshy lake edges, sandbars stretching into marsh.

The Study Area is located beneath the waters of the Nith River and within the immediate foreshore.

For terrestrial sites, soil texture is also an important determinant of past settlement, usually in combination with other factors such as topography. The Study Area is situated within the Waterloo Hills physiographic region. As was discussed earlier, the primary soils within the Study Area, meanwhile, have been documented as being suitable for pre-contact Aboriginal practices. Considering the presence of seven pre-contact Aboriginal sites the Aboriginal archaeological potential is judged to be moderate to high.

For Euro-Canadian sites, archaeological potential can be extended to areas of early Euro-Canadian settlement, including places of military or pioneer settlements; early transportation routes; and properties listed on the municipal register or designated under the *Ontario Heritage Act* (Government of Ontario 1990b) or property that local histories or informants have identified with possible historical events.

The *Historical Atlas* map of Oxford County shows that to the north S. Belden owns the portions of Lots 8 and 9, Concession 12 that border to Study Area and J. Crumbuck owns the portion of Lot 8, Concession 11 that borders the Study Area and R. Davidson owns all of Lot 9, Concession 11. Considering the proximity of the Study Area to the Nith River and the overall area situated in the Grand River Valley the potential for post-contact Euro-Canadian archaeological resources is judged to be moderate to high.

Finally, despite the factors mentioned above, extensive land disturbance can eradicate archaeological potential within a development property, as outlined in Section 1.3.2 of the *Standards and Guidelines* (Government of Ontario 2011). Current aerial imagery as well as historical documentation identified no visible disturbance within the Study Area.

Due to the historical nature of the Nith River and the larger Grand River Valley the entire Study Area was determined to have marine archaeological potential. As such through consultation with the MCM a test pit survey of the river bottom at 2.5-meter intervals was conducted throughout the Study Area. No archaeological material was encountered during the assessment therefore no further archaeological methods were employed.

5.0 Recommendations

Based on the results of the marine investigation, no further marine archaeological assessment is recommended for the current Study Area.

6.0 Advice on Compliance with Legislation

This report is submitted to the Minister of Citizenship and Multiculturalism as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Citizenship and Multiculturalism, 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.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest , and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

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*.

The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

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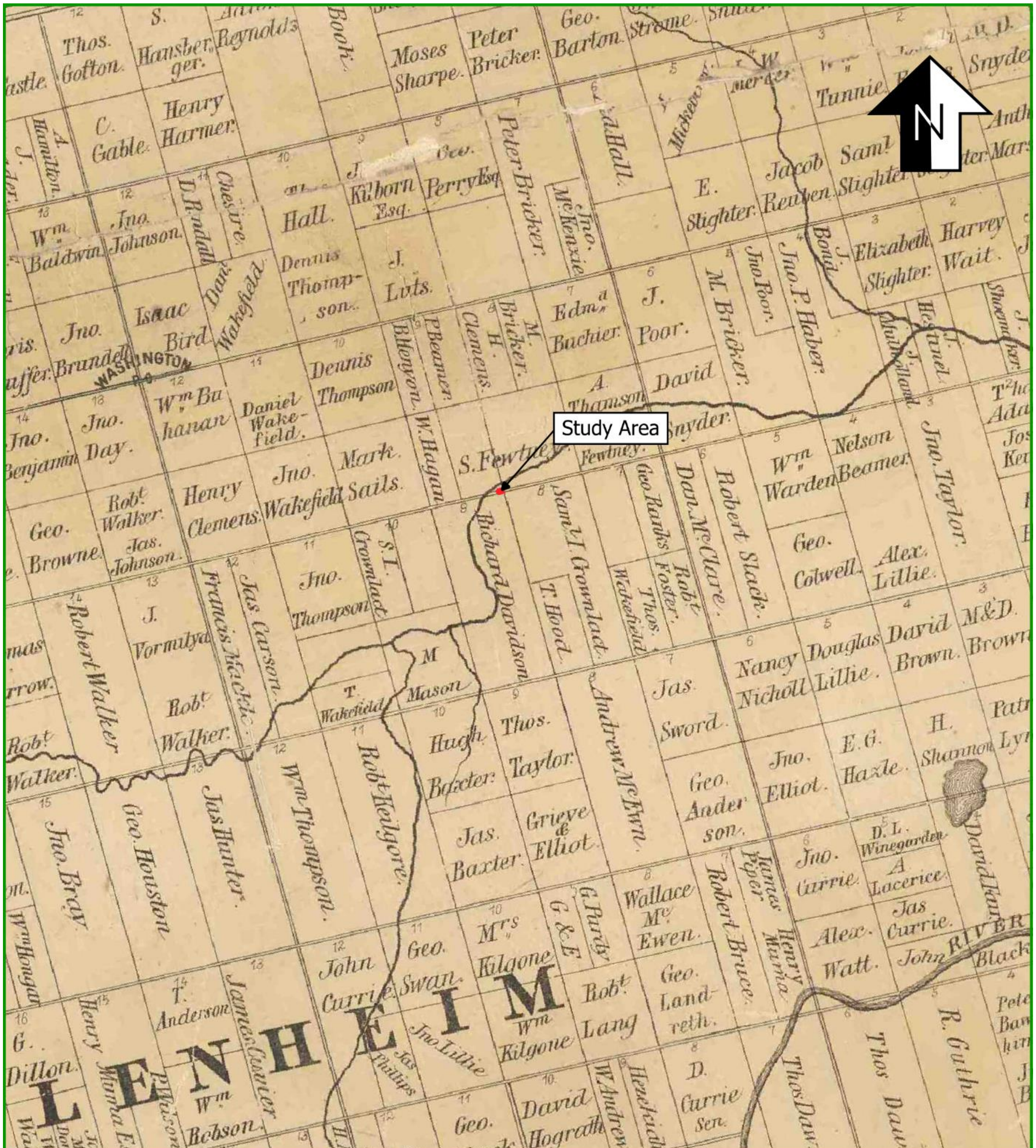
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8.0 Maps



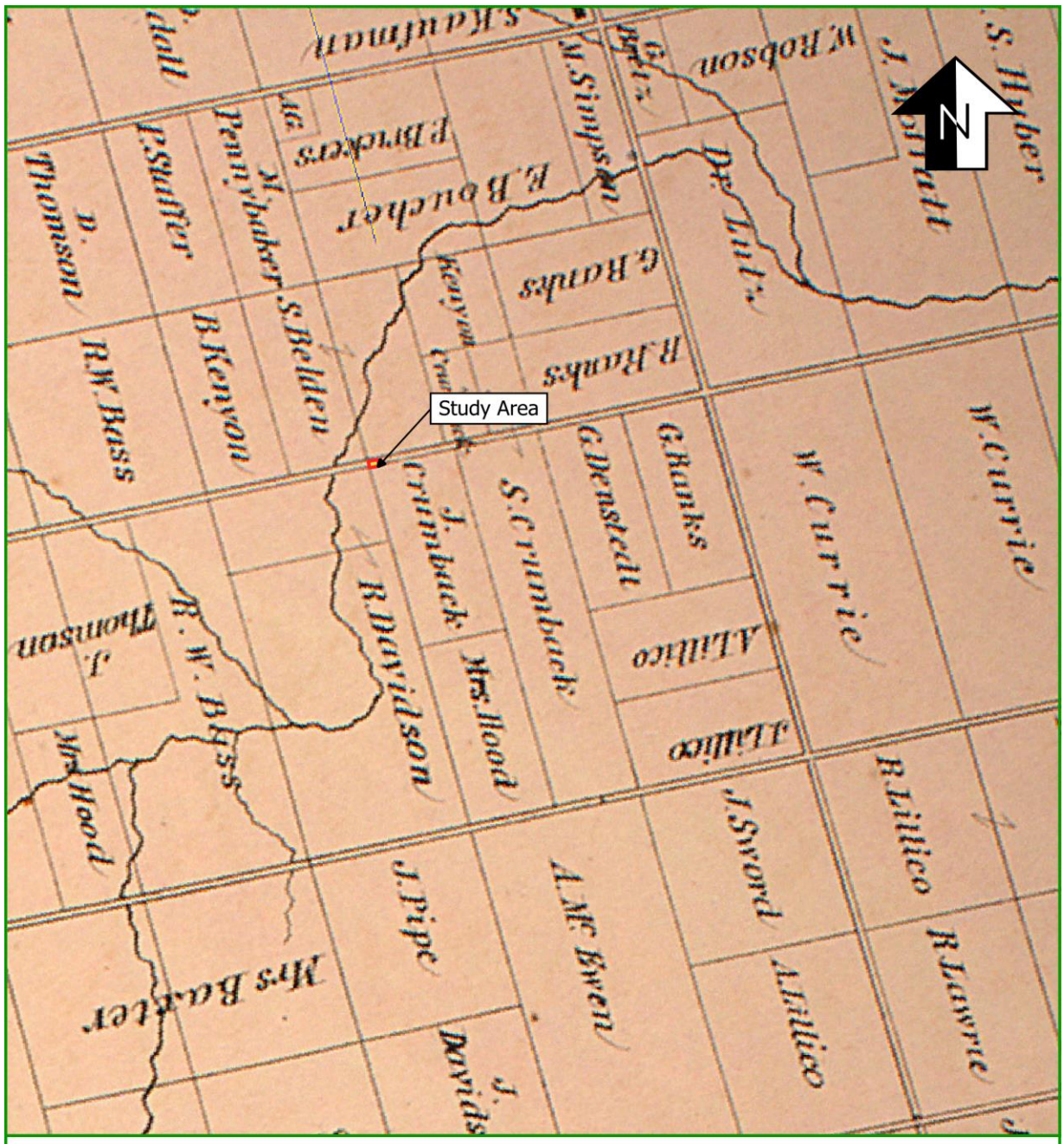
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Figure 1: Study Area Location



Not to Scale

Figure 2: Portion of Termaines 1857 Map of Oxford County Canada West



Not to Scale

Figure 3: Portion of Walker and Miles. 1876 Historical Atlas of Blenheim Township

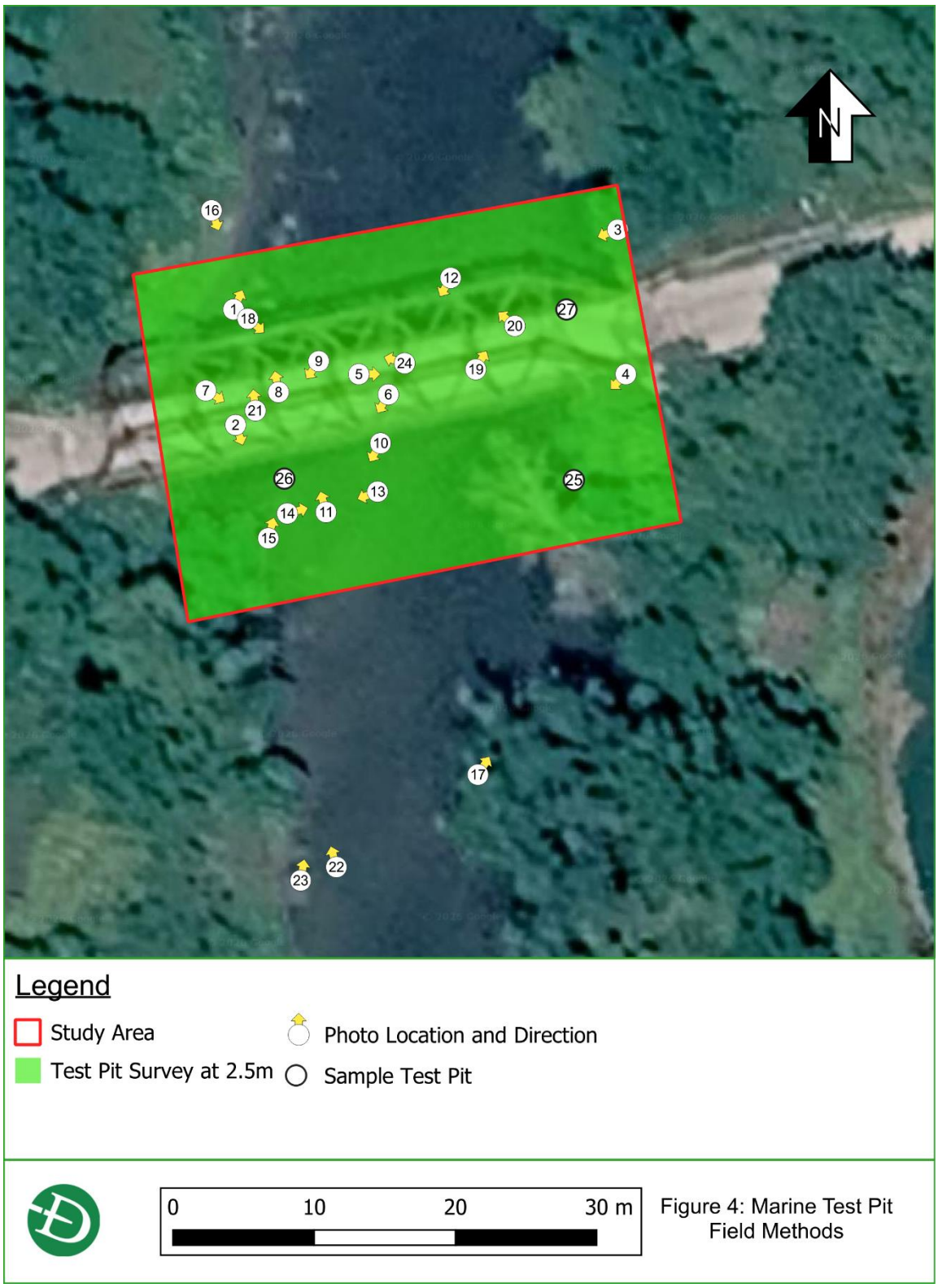
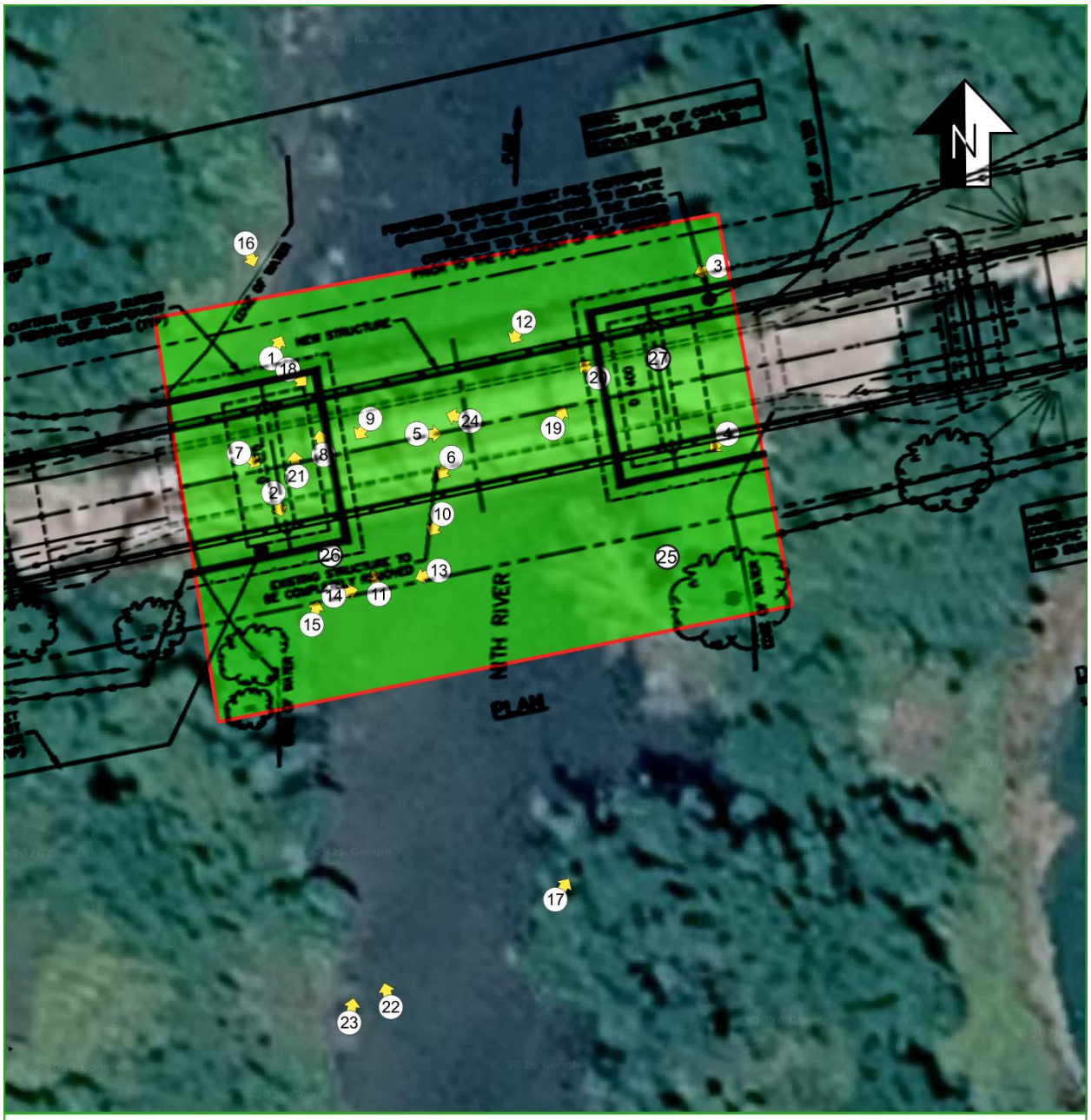


Figure 4: Marine Test Pit Field Methods



Legend

Study Area

Test Pit Survey at 2.5m

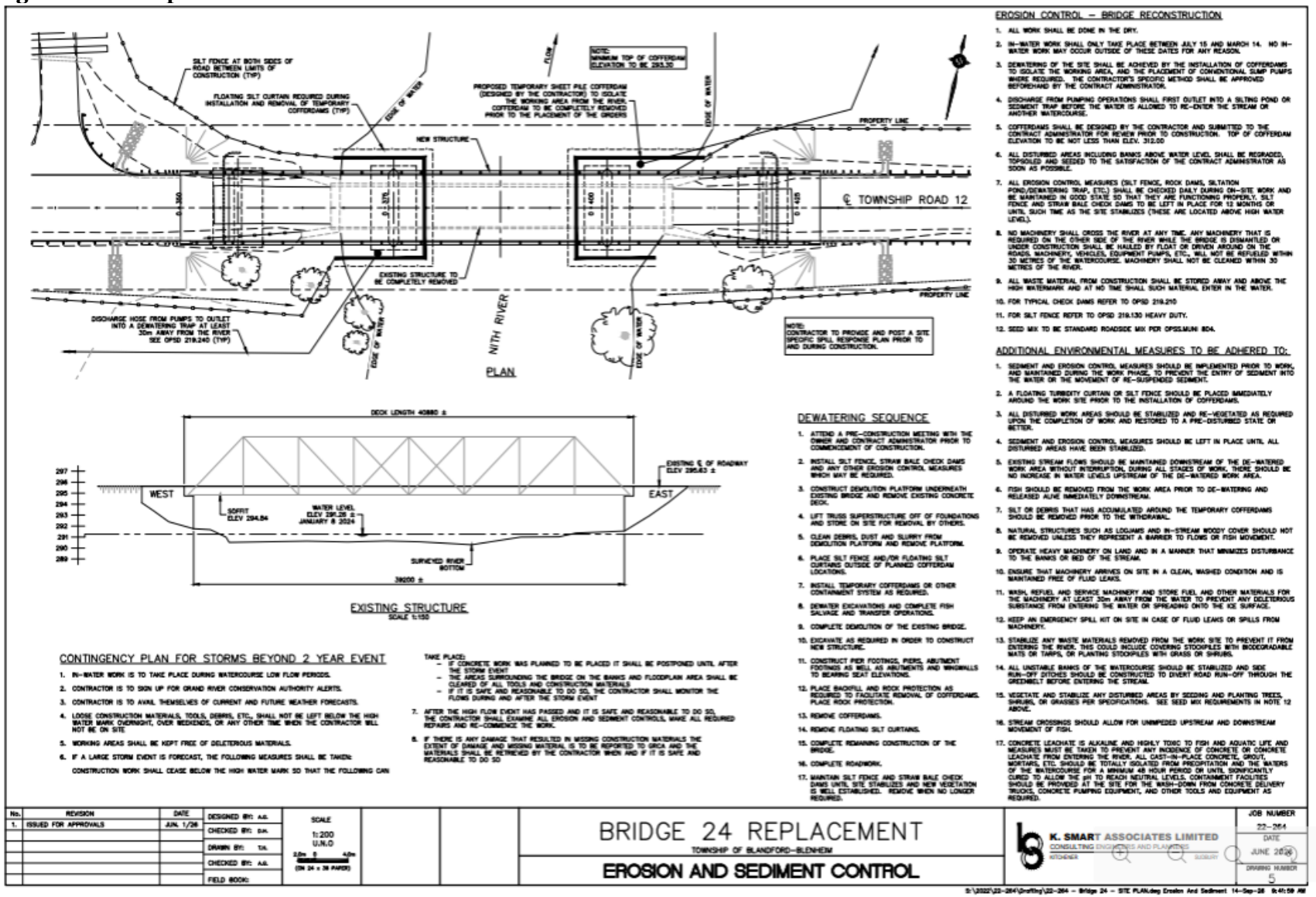
Photo Location and Direction

Sample Test Pit

0 10 20 30 m

Figure 5: Development Plan Overlay

Figure 6: Development Plan



9.0 Field Photographs

Photo 1: Nith River and Foreshore, facing northeast



Photo 2: Nith River and Foreshore Facing southeast



Photo 3: Nith River and Foreshore Facing west



Photo 4: Nith River and Foreshore Facing southwest



Photo 5: Nith River and Foreshore, test pitting river bottom Facing east



Photo 6: Nith River and Foreshore, test pitting river bottom Facing east



Photo 7: Nith River and Foreshore, test pitting river bottom Facing southeast



Photo 8: Nith River and Foreshore, Facing north



Photo 9: Nith River and Foreshore, test pitting river bottom Facing southwest



Photo 10: Nith River and Foreshore, test pitting river bottom Facing southwest



Photo 11: Nith River and Foreshore, test pitting river bottom Facing north



Photo 12: Nith River and Foreshore, test pitting river bottom Facing southwest



Photo 13: Nith River and Foreshore, test pitting river bottom Facing west



Photo 14: Nith River and Foreshore, test pitting river bottom Facing east



Photo15: Nith River and Foreshore, test pitting river bottom Facing northeast



Photo 16: Nith River and Foreshore, test pitting river bottom Facing southeast



Photo 17: Nith River and Foreshore, test pitting river bottom Facing northeast



Photo 18: Nith River bottom composition Facing southeast



Photo 19: Nith River and Foreshore, test pitting the foreshore Facing Northeast



Photo 20: Nith River and Foreshore, test pitting river bottom Facing northwest



Photo 21: Nith River and Foreshore, test pitting river bottom Facing north



Photo 22: Nith River and Foreshore, test pitting river bottom Facing north



Photo 23: Nith River and Foreshore, test pitting river bottom Facing north



Photo 24: Nith River and Foreshore, test pitting river bottom Facing northwest



Photo 25: Sample Test Pit



Photo 26: Sample Test Pit



Photo 27: Sample Test Pit

