Stage 1-2 Archaeological Assessment
Alma Subdivision, 31 Church Street, Alma

Part of Lots 1–8, 10, 11, 25–35 and
Part of Lot 9, Registered Plan 134 and
Lot 1, Concession 1 West of Grand River,
Geographic Township of Pilkington,
Township of Mapleton, County of Wellington

Submitted to:
Exact Construction Ltd.
8262 Wellington 19,
Fergus, Ontario
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and

Ontario's Ministry of Citizenship and Multiculturalism

Submitted by:

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PIF Number: P389-0538-2021
CP Number: 2021-104

ORIGINAL REPORT

July 05, 2024

Executive Summary

Detritus Consulting Ltd. ('Detritus') was retained by Mr. Kevin Vanleeuwen of Exact Construction Ltd. (the 'Proponent') to conduct a Stage 1-2 archaeological assessment on part of Lots 1–8, 10, 11, 25–35 and part of Lot 9, Registered Plan 134 and Lot 1, Concession 1 West of Grand River in the Geographic Township of Pilkington within the Township of Mapleton in the County of Wellington, Ontario (Figure 1). This investigation was conducted in advance of a proposed residential development that spans the entire property at 31 Church Street, Alma, Ontario (the 'Study Area'; Figure 1) (Figure 6).

The 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 of the Study Area was conducted during the pre-approval phase of the development under archaeological consulting license P389 issued to Dr. Walter McCall 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 is an irregularly shaped parcel of land measuring 7.72 hectares ('ha'). At the time of the assessment, the majority of the Study Area comprised a large agricultural field. The southwestern edge of the Study Area contains a treed and overgrown strip that was once the Toronto, Grey & Bruce ('T. G. & B') Railway, now a disused railbed. A small portion of the Study Area overgrown with trees, tall grass, and bushes contained foundations of an old church, the former St. Andrews Presbyterian Church, built in 1854. The congregation was moved to the present stone church at 8 Peel Street, also in Alma, in 1894. A small cemetery was known to have existed adjacent to the Study Area to the southeast of the church on property belonging to the Presbyterian Church, but all interments were exhumed and moved to Elora. This is common knowledge within the church but there's no known written record of it. There is no known plot plan and all church records prior to the 1930s were lost (Scott, 2019). The southeastern edge of the property is comprised of a small creek and manicured lawns. The northern most corner of the Study Area contains a small portion of manicured lawn. The property is accessed by Church Street and is bound to the south at a diagonal by an old rail line, to the southeast, east, and northeast by residential properties, and to the northwest by Peel Street West.

The Stage 1 background research indicates that the Study Area exhibited moderate potential for the identification and recovery of archaeological resources. A Stage 2 field assessment was recommended for the large agricultural field, manicured lawns, and overgrown greenspace. The treed and overgrown strip of the disused railbed was evaluated as having no potential based on the identification of extensive and deep land alteration that has severely damaged the integrity of archaeological resources. The small creek and associated greenspace were determined to retain no archaeological potential due to the identification of a physical feature of low archaeological potential, in this case a permanently wet area. These permanently wet and 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).

According to the Registrar's Directive issued on March 1, 2019 by Carey Smith of the Bereavement Authority of Ontario ('BAO'), a Cemetery Investigation Authorization ('CIA') issued by the BAO is required whenever archaeological investigations are contemplated to verify and/or determine the boundaries of a cemetery or any similar situation where the records, maps, and plans of the cemetery cannot confirm the existence and exact locations of burials within that cemetery. In conversation with Michael D'Mello of the BAO, it was determined that since the Study Area was adjacent to an old cemetery whose boundaries are not clearly defined or known, a CIA was required. It was initially thought that Detritus had the CIA in hand prior to the assessment. Upon

further communication with Michael D'Mello it was determined that the CIA for this project was received by Detritus via email on September 12, 2023 (see the email chain in Section 1 of the Supplementary Documentation).

The subsequent Stage 2 assessment of the Study Area was conducted on July 7, 2022, and involved a standard pedestrian survey at a five-metre ('m') interval of the agricultural field component of the Study Area and a typical test pit survey at a 5m interval of the manicured lawns, and overgrown greenspace. This investigation resulted in the identification of two archaeological sites identified as H1 (AkHd-4) and H2 (AkHd-5).

The Stage 2 assessment of H1 (AkHd-4) produced 130 Euro-Canadian artifacts scattered across an area of approximately 34 metres ('m') east to west and 38m north to south (0.11ha) located at the edge of the agricultural field to the west of and within the overgrown greenspace of the old church foundations (Tile 4 of the Supplementary Documentation). The assemblage comprised primarily of structural artifacts (n=40; 30.77%), most of which were window glass shards, and household artifacts (n=38; 29.23), including mostly bottle glass. A fair number of ceramics (n=25; 19.23%) were recovered, as well as some miscellaneous metal (n=17; 13.08%) and personal artifacts (n=10; 7.69%). Analysis of the artifact assemblage suggests a period of occupation spanning the entire 19th century.

Based on the results of the Stage 2 assessment, H1 (AkHd-4) has been identified as a Euro-Canadian artifact scatter documenting a period of use spanning the 19th century, including the eventual occupations by the Pilkington, Sylec, McRae, and Thompson families in the latter half of the century. Given the identification of over 20 Euro-Canadian artifacts dating to a period of use prior to 1900, H1 (AkHd-4) **fulfills the criteria for a Stage 3 Site Specific Assessment as per Section 2.2 Standard 1c of the *Standards and Guidelines*** (Government of Ontario, 2011) **and retains further cultural heritage value or interest ('CHVI')**.

The Stage 2 assessment of H2 (AkHd-5) produced 63 Euro-Canadian artifacts from 30 findspots scattered across an area of approximately 9m east to west by 66m north to south (0.06ha) located in the southeastern portion of the agricultural field (Tile 4 of the Supplementary Documentation). The majority of the assemblage comprised household artifacts (n=39; 61.90%). Ceramics, structural, and miscellaneous metal artifacts make up the remainder of the assemblage. Analysis of the artifact assemblage suggests a period of occupation dating from the middle to late 19th century.

Based on the results of the Stage 2 assessment, H2 (AkHd-5) has been identified as a Euro-Canadian artifact scatter documenting a period of use from the middle to late 19th century, including the eventual occupations by the Pilkington, Sylec, McRae, and Thompson families in the latter half of the century. Given the identification of over 20 Euro-Canadian artifacts dating to a period of use prior to 1900, **H2 (AkHd-5) fulfills the criteria for a Stage 3 Site Specific Assessment as per Section 2.2 Standard 1c of the *Standards and Guidelines*** (Government of Ontario, 2011) **and retains further CHVI**.

The Stage 3 archaeological assessments of H1 (AkHd-4) and H2 (AkH2-5) will be conducted according to Section 3.2 of the *Standards and Guidelines* (Government of Ontario, 2011). Typically, a Stage 3 assessment for sites documented during a pedestrian survey of ploughed agricultural land begins with a controlled surface pickup ('CSP') across the Stage 2 limits of the site, conducted as per Section 3.2.1 of the *Standards and Guidelines* (Government of Ontario, 2011). The Stage 2 pedestrian survey, however, consisted of an intensive CSP across the entire site limits within the agricultural fields; all artifacts were mapped digitally and collected for laboratory analysis. Thus, the conditions for a Stage 3 CSP were met during the Stage 2 assessment. Instead, the Stage 3 assessments of H1 (AkHd-4) and H2 (AkH2-5) will consist of test unit excavation only, conducted according to Section 3.2.2 of the *Standards and Guidelines* (Government of Ontario, 2011).

The following test unit strategy was formulated based on advice provided by the MCM (see the Supplementary Documentation for email correspondence). The Stage 3 assessments of H1 (AkHd-4) and H2 (AkH2-5) will consist of the hand excavation of one 1m square test units every 10m across the Stage 2 site limits in systematic levels and into the first five centimetres ('cm') of subsoil, as per Table 3.1, Standard 3 of the *Standards and Guidelines* ((Government of Ontario,

2011). Additional 1m test units, amounting to 40% of the grid total, will be placed in areas of interest within the site extent as per Table 3.1, Standard 4 of the *Standards and Guidelines* (Government of Ontario, 2011). Should areas of artifact concentration or features be discovered during the excavation of the initial Stage 3 grid and infill units, the grid will be reduced to 5m intervals, with 20% infill in those areas as per Table 3.1, Standards 1 and 2 of the *Standards and Guidelines* (Government of Ontario, 2011). All excavated soil will be screened through six-millimetre mesh; all recovered artifacts will be recorded by their corresponding grid unit designation and collected for laboratory analysis. If a subsurface cultural feature is encountered the plan of the exposed feature will be recorded and geotextile fabric will be placed over the unit before backfilling the unit.

In addition, Section 2.2, Guideline 4 of the *Standards and Guidelines* (Government of Ontario, 2011) states that where a cemetery or an archaeological site with CHVI is known to be located immediately adjacent to the limits of the property that has been surveyed, Stage 3 assessment to confirm whether that cemetery or archeological site extends into the property under assessment may be recommended. The Stage 3 archaeological assessment may be recommended regardless of whether artifacts were recovered by the Stage 2 survey in the part of the Study Area adjacent to that cemetery or archaeological site.

Given that artifacts were recovered during the Stage 2 assessment, the Stage 3 assessment must also include the mechanical removal of all topsoil, as per Section 2.1.7, Standard 3 of the *Standards and Guidelines* (Government of Ontario, 2011) surrounding the property belonging to the Presbyterian Church, not assessed, between the agricultural field and the overgrown greenspace of the old church (Figure 4), in order to reveal any associated subsurface graves. As per Section 4.3, Standard 1, Table 4.1 of the *Standards and Guidelines* (Government of Ontario, 2011), mechanical topsoil removal ('MTR') must extend a minimum of 10m beyond uncovered cultural features. According to the MCM's FAQ#12 for Stage 3 assessments, this standard applies also to MTR adjacent to cemetery limits.

This mechanical excavation will be conducted in accordance with Section 4.2.3, Section 4.2.7, and Table 4.1 of the *Standards and Guidelines* (Government of Ontario, 2011). All portions of the Study Area recommended for MTR during the Stage 3 assessment will be subjected to mechanical excavation down to the topsoil/subsoil interface, employing a straight-edged ditching bucket that pulls the soil away from the exposed surface. The subsoil surface will then be immediately shovel-shined and examined for any evidence of graves. If features identified as graves begin to appear within the Study Area, all field work will cease.

Given the proximity of the remains of the old cemetery to the Study Area, even though the church and cemetery have been relocated, there is the possibility of encountering interred human remains. The *Funeral, Burial and Cremation Services Act* (Government of Ontario, 2002) and the *Cemeteries Act* (Government of Ontario, 1990d), when proclaimed in force, require anyone who uncovers a burial site containing human remains to cease fieldwork or construction activities and report the discovery to the appropriate authorities (police or coroner). If the police and coroner decide that the site has no forensic interest, the Registrar of Cemeteries will be notified of the discovery. The site then comes under the jurisdiction of the Registrar, who will notify the site's landowners of their obligations under the *Funeral, Burial and Cremation Services Act*. The terms and conditions of an archaeological license require licensees to comply with all relevant provisions of the *Cemeteries Act* and Ontario Regulation 133/92 (Burial Sites).

The Executive Summary highlights key points from the report only; for a more detailed discussion regarding the results of the current Stage 1-2 assessment, including a complete set of recommendations, the reader should examine the complete report.

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Project Personnel

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Artifact Analysis:	Jon Cousins, R296
Report Preparation:	Tina Ross
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Acknowledgments

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- Kevin Vanleeuwen of Exact Construction LTD
- Mr. Michael D'Mello, Bereavement Authority of Ontario
- Ms. Shari Prowse, Ministry of Citizenship and Multiculturalism
- Jeff Scott, Board Member of St. Andrew's Presbyterian Church

1.0 Project Context

1.1 Development Context

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The 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 of the Study Area was conducted during the pre-approval phase of the development under archaeological consulting license P389 issued to Dr. Walter McCall 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 a 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 were 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 Property 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 Stage 2 Property Assessment were 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 Aboriginal 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, 2022). 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. 17-18)

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 S. , 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 S. , 1978; Tanner, 1987).

Throughout southern Ontario, the size and nature of the pre-contact settlements and the subsequent spread and distribution of Aboriginal 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 (Page, 1879; Weaver S. , 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 ('MCFN'), in 1847 (Smith, 2022).

Despite the encroachment of European settlers on previously established Aboriginal 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 Study Area is located within the Geographic Township of Pilkington, in the historical County of Wellington, now the Township of Mapleton (Figure 1).

The history of the area began on July 24, 1788, when 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, 2012-2024). Further change came in December 1791 when the former Province of Québec was rearranged into Upper Canada and Lower Canada under the *Constitutional Act*. Colonel John Graves Simcoe was appointed as Lieutenant-Governor of Upper Canada (Coyne, 1895, p. 33) and he introduced several initiatives to populate the province including the establishment of shoreline communities with effective transportation links between them.

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, pp. 17-8).

Later that year, the four districts originally established in 1788 were renamed the Western, Home, Midland, and Eastern Districts. As population levels in Upper Canada increased, smaller and

more manageable administrative bodies were needed resulting in the establishment of many new counties and townships. As part of this realignment, the boundaries of the Home and Western Districts were shifted and the West Riding District was established in 1798. Under this new territorial arrangement, the Study Area became part of the West Riding District; however, this district would undergo several realignments including the Gore and Wellington Districts, until 1849 when the districts were abolished (Archives of Ontario, 2012-2024).

Wellington County was originally created in 1837 as part the larger District of Wellington, which also contained Waterloo, Grey, and part of Dufferin Counties, and went through several administrative divisions before becoming its own county in 1854. The latest realignment of the boundaries of Wellington County, which give it its present size and shape, occurred in 1883 (Weaver E. , 1913, p. 184). The county is a midland area of ideal agricultural land and includes the town of Guelph, which became the main seat of the county when it was settled by the Canada Company in 1827 (Middleton & Landon, 1927).

Pilkington Township was named in honour of Lieutenant Robert Pilkington, a general who accompanied Simcoe to Canada. Lieut. Pilkington acquired 15,000 acres of land and the township was opened for settlement in 1851. The town of Elora in neighbouring Nichol Township was the community centre. The Study Area lies just to the west of the town of Alma, which was settled as early as 1840 when pioneers began settling on the Elora Saugeen Road, now the main street of Alma. The newly formed village, originally called McCrae's Corners, was located at the junction of Nichol, Peel, and Pilkington townships. In 1854 it was renamed Alma (St. Andrew's Presbyterian Church, n.d.)

The 1861 *Map of the County of Wellington, Canada West* ('*Map of Wellington County*') depicts Alma at the northeastern corner of Pilkington Township bordered by Nichol Township to the west and Peel township to the north (Leslie & Wheelock, 1861; Figure 2). At this time, Pilkington Township does not boast any other visible communities, but the Grand River and its tributaries flow through the majority of the central portion of the township. Landowners are listed for every lot within the township.

The *Illustrated Historical Atlas of the County of Wellington* ('*Historical Atlas*') demonstrates the extent to which Pilkington Township had been settled by 1877 (Walker & Miles, 1877; Figure 3). The township changed very little except many of the lots had been subdivided multiple times into smaller parcels to accommodate an increasing population throughout the late 19th century. A new railway is also shown in the southern half of the township before it turns north into Nichol Township crossing Pilkington Township again in the northeast corner as it passes through Alma. This railway forms the southwestern border of the Study Area. Originally built as a part of the T. G. & B. Railway in 1849, it was built through Alma in 1870 before becoming a part of the Georgian Bay and Wellington (G. B. &W.) Railway in 1877 (Cooper, 2014).

According to the *Map of Wellington County*, the southeast corner of the town of Alma occupied roughly one third of Lot 1, Concession 1 (Leslie & Wheelock, 1861). No names are listed for the lots within the town, but the remaining two thirds of the lot were owned by Joseph Thompson. Roughly sixteen years later, the *Historical Atlas* shows the town of Alma unchanged, except the T. G. & B. Railway, which now passes through the lot at the southwest corner of Alma (Walker & Miles, 1877). The majority of the lot is still owned by Joseph Thompson, but a small portion at the western end is now occupied by Alexander McRae. The Study Area is almost entirely within the portion belonging to J. Thompson, although some of the irregular portions in the northwest corner on the Study Area overlap with some of the lots within Alma.

Although significant and detailed landowner information is available on the current historical maps of Pilkington Township, 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).

A small portion of the Study Area contained foundations of an old church, the former St. Andrews Presbyterian Church. The church was built on the south side of Church Street made of white brick from the Trask farm. In 1892, the new minister had the church rebuilt at 8 Peel Street to meet the

demands of the growing congregation (St. Andrew's Presbyterian Church, n.d.). A cairn was erected on the site of the former church in 1993 by Bill Robinson, which is still present today and is inscribed with "Dedicated to the early pioneers of St. Andrews Presbyterian Church, Alma, 1854–1894" (Photos 12 and 13). A second sign is also present on the site at the corner of Church and Alexander Street that reads "Peel Historical Site, Alma Presbyterian Church" (Photo 9).

1.2.3 Land Registry Search

According to the records maintained by the Ontario Lands Registry Office, the original patent for all 200 acres of Lot 1, Concession 1 West of the Grand River was granted by the Crown to William Wallace in 1798. The records for the transactions, are quite legible and there are no gaps in the chain of title (Table 1).

Table 1: Land Registry Data for Lot 1, Concession 1 West of the Grand River, Alma

Instrument	Date of Instrument	Grantor	Grantee	Lands
Patent	5 February 1798	The Crown	William Wallace	86078 acres
Bargain and Sale	10 May 1799	William Wallace	Robert Pilkington	15000 acres
Will	15 May 1834	Robert Pilkington	*Ill.* Edward Sylec George Sylec and Hannah Pilkington *ill.*	15000 acres
Power of Attorney	26 August 1861	Edward Sylec	Frederick John Lapontierre	to sell and *ill.*
Bargain and Sale	19 October 1861	Edward Sylec by his attorney F. J. Lapontierre	Alexander McCrae	100 acres all
Bargain and Sale	5 May 1862	Alexander McCrae and wife	Joseph Thompson	50 acres SW 1/2
Bargain and Sale	30 August 1870	Alexander McCrae wife and William House	Wellington County and Bruce Railway	Part of NE 1/4
Bargain and Sale	11 Nov 1870	Joseph Thompson wife	Wellington County and Bruce Railway	pat of SE 1/4
Will	29 August 1871	Joseph Thompson	Joseph Thompson	W 1/2
Bargain and Sale	19 June 1893	Alexander McCrae and wife	John McGowan	NE 1/2 except part of village lots and ??
Bargain and Sale	19 June 1893	John McGowan and wife	Hannah McCrae	NE 1/2 except part of village lots and *ill.*
Quit Claim	3 October 1893	Alexander McCrae and wife	Hannah McCrae	called PR lots 6,7,8. Alma
Pro Will	28 March 1902	Hannah McCrae, widow	Antoniette McCrae	called PR lots 6,7,8. Alma
Quit Claim	01 May 1903	Various *ill.*	Joseph A McCrae	SW 1/2 50 acres
Quit Claim	01 May 1903	Various *ill.*	Antoniette McCrae	SW pt 76 acres
Bargain and Sale	01 February 1904	Various *ill.*	George Beudu (sp?)	all except NE pt laid out in village lots and part sold to of G &B railway

As indicated in the above table, a Crown Patent for 86078 acres in Wellington County, as well as neighbouring Woolwich Township in Waterloo County, was issued to William Wallace in 1798. Wallace subsequently sold 15000 acres to Robert Pilkington in 1799, which became Pilkington Township. Upon Pilkington's death in 1834, the land was willed to Edward Sylec, George Sylec and Hannah Pilkington, who had previously been mortgaging the land. After several additional mortgages the land equivalent to Lot 1 (100 acres) was sold to Alexander McRae in 1861. In 1862, McRae and his wife sold the southwestern half of the lot, containing the Study Area, to Joseph Thompson, which was then inherited by his son also named Joseph Thompson in 1871.

Throughout the first half of the 19th century Lot 1 is owned by the Pilkington and Sylec families and in the latter half of the 19th century, Lot 1 is owned by the Thompson and McRae families. The

portion comprising the Study Area is owned by Pilkington (1799), Sylec (1834), McRae (1861), and Thompson (1862).

A small portion of the lot is sold to the Wellington County and Bruce Railway in 1870. Portions in the northeast of the lot are owned and subdivided by the village of Alma or the railway from the middle of the 19th century. The railway and station begin operating in 1870. From 1893, the northeastern portion of the Lot is subdivided many times and the names become increasingly difficult to discern.

1.3 Archaeological Context

1.3.1 Property Description and Physical Setting

The Study Area is an irregularly shaped parcel of land measuring 7.72ha. At the time of the assessment, the majority of the Study Area comprised a large agricultural field. The southwestern edge of the Study Area contains a treed and overgrown strip that was once the T. G. & B Railway, now a disused railbed. A small portion of the Study Area overgrown with trees, tall grass, and bushes contained foundations of an old church, the former St. Andrews Presbyterian Church, built in 1854. The congregation was moved to the present stone church at 8 Peel Street, also in Alma, in 1894. A small cemetery was known to have existed adjacent to the Study Area to the southeast of the church on property belonging to the Presbyterian Church, but all interments were exhumed and moved to Elora. This is common knowledge within the church but there's no known written record of it. There is no known plot plan and all church records prior to the 1930s were lost (Scott, 2019). The southeastern edge of the property is comprised of a small creek and manicured lawns. The northern most corner of the Study Area contains a small portion of manicured lawn. The property is accessed by Church Street and is bound to the south at a diagonal by an old rail line, to the southeast, east, and northeast by residential properties, and to the northwest by Peel Street West.

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 land today continues to be used for agricultural purposes.

The Study Area is situated within, the Stratford Till Plain physiographic region. According to Chapman and Putnam the region is a

> *...broad clay plain of 1,370 square miles, extending from London in the south to Blyth and Listowel in the north with a projection toward Arthur and Grand Valley. It is an area of ground moraine interrupted by several terminal moraines. The moraines are more closely spaced in the southwestern portion of the region; consequently, that part resembles the Mount Elgin Ridges. Throughout the area the till is fairly uniform, being a brown calcareous silty clay whether on the ridges or the more level ground moraine. It is a product of the Huron ice lobe. Some of the silt and clay is calcareous rock flour, probably a good deal of it coming from previously deposited varved clays of the Lake Huron Basin.*
>
> Chapman & Putnam, 1984, pp. 133

The Stratford Plain rarely has summer droughts and the soils tend to be well drained and are naturally fertile. If proper drainage systems are in place, cultivation will thrive, making it one of the more productive agricultural regions in the province (Chapman & Putnam, 1984).

The closest source of potable water is an unnamed tributary of the Grand River that runs through the southeast corner of the Study Area.

1.3.2 Pre-Contact Aboriginal Land Use

The Study Area occupies a portion of southwestern Ontario that 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 2 below provides a general outline of the cultural chronology of Pilkington Township (Ellis & Ferris, 1990)

Table 2: Cultural Chronology for Pilkington 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 were consulted. In Ontario, information concerning archaeological sites stored in the ASDB (Government of Ontario, n.d.), which 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 AkHd.

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, no sites have been registered within 1km of the Study Area. To the best of Detritus' knowledge, no sites have been observed within 50m of the Study Area and no assessments have been conducted on lands adjacent to it.

1.3.4 Archaeological Potential

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. Detritus applied archaeological potential criteria commonly used by the MCM to determine areas of archaeological potential within 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 an unnamed tributary of the Grand River that runs through the southeast corner 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 Stratford Till Plain physiographic region. As was discussed earlier, the primary soils within the Study Area tend to be well drained and are naturally fertile. If proper drainage systems are in place cultivation will thrive. Considering also the length of occupation in the area prior to the arrival of European settlers, the potential for pre-contact and post-contact Aboriginal artifacts within 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 *Map of Wellington County* (Figure 2) and the *Historical Atlas* (Figure 3) demonstrate that Pilkington Township was occupied by Euro-Canadian farmers by the late 19th century (Leslie & Wheelock, 1861; Walker & Miles, 1877). Much of the established road system and agricultural settlement from that time is still visible today. The Study Area is notably close to the early town of Alma and the T. G. & B Railway borders the southeastern edge of the Study Area. Accordingly, the Euro-Canadian archaeological potential of the Study Area is judged to be moderate to high.

Finally, despite the factors mentioned above, extensive land disturbance can eradicate archaeological potential within a Study Area, as per Section 1.3.2 of the *Standards and Guidelines* (Government of Ontario, 2011). Current aerial imagery of the Study Area identified areas of potential disturbance within the Study Area, in the form treed and overgrown strip of the disused railbed. It is recommended that these areas be subject to a Stage 2 property inspection, conducted according to Section 2.1.8, Standard 1 of the *Standards and Guidelines* (Government of Ontario, 2011) Section 1.2 of the *Standards and Guidelines* (Government of Ontario, 2011), to confirm and document the level of disturbance.

Additionally, a small creek is located within the Study Area. It is recommended that this area also be subject to a Stage 2 property inspection, conducted according to Section 2.1.8, Standard 1 of the *Standards and Guidelines* (Government of Ontario, 2011) to confirm if it represents a permanently wet area of low or no archaeological potential, as per Section 2.1, Standard 2.a.i. of the *Standards and Guidelines* (Government of Ontario, 2011).

2.0 Field Methods

According to the Registrar's Directive issued on March 1, 2019 by Carey Smith of the Bereavement Authority of Ontario ('BAO'), a Cemetery Investigation Authorization ('CIA') issued by the BAO is required whenever archaeological investigations are contemplated to verify and/or determine the boundaries of a cemetery or any similar situation where the records, maps, and plans of the cemetery cannot confirm the existence and exact locations of burials within that cemetery. In conversation with Michael D'Mello of the BAO, it was determined that since the Study Area was adjacent to an old cemetery whose boundaries are not clearly defined or known, a CIA was required. It was initially thought that Detritus had the CIA in hand prior to the assessment. Upon further communication with Michael D'Mello it was determined that the CIA for this project was received by Detritus via email on September 12, 2023 (see the email chain in Section 1 of the Supplementary Documentation).

The Stage 2 assessment of the Study Area was conducted on July 7, 2022. During the Stage 2 assessment, the weather was sunny and 25°C. Assessment conditions were excellent; at no time were the field, weather, or lighting conditions detrimental to the recovery of archaeological material. Photos 1 to 15 demonstrate the land and weather conditions throughout the Study Area at the time of the assessment, including areas that met the requirements for a Stage 2 archaeological assessment, as per Section 7.8.6, Standards 1a and b of the *Standards and Guidelines* (Government of Ontario, 2011). Figure 4 illustrates the Stage 2 assessment methods, including all photograph locations and directions; Figure 5 illustrates that Stage 2 assessment methods in relation to the development of the Study Area.

Approximately 80% (6.15ha) of the Study Area comprised an agricultural field that was accessible to ploughing, and thus met the criteria for a Stage 2 pedestrian survey, as per Section 2.1.1, Standard 1 of the *Standards and Guidelines* (Government of Ontario, 2011). The field was ploughed and allowed to weather prior to the pedestrian survey, as per Section 2.1.1, Standards 2 and 3 of the *Standards and Guidelines* (Government of Ontario, 2011). The ploughing was deep enough to provide total topsoil exposure and a minimum of 80% surface visibility as per Section 2.1.1, Standards 4 and 5 of the *Standards and Guidelines* (Government of Ontario, 2011). The ploughed land was subject to pedestrian survey at a five-metre ('m') interval in accordance with Section 2.1.1, Standard 6 of the *Standards and Guidelines* (Government of Ontario, 2011; Photos 1 to 9). During the pedestrian survey, when archaeological resources were recovered, survey intervals were intensified to 1m within a 20m radius of the find as per Section 2.1.1, Standard 7 of the *Standards and Guidelines* (Government of Ontario, 2011). This approach was taken to establish whether or not the artifact was an isolated find or part of a larger artifact scatter. The Stage 2 pedestrian survey resulted in the identification of two archaeological sites identified as H1 (AkHd-4) and H2 (AkH2-5) (Tile 4 in the Supplementary Documentation).

Despite an intensified pedestrian survey of all agricultural fields within 20m of the artifacts, no other archaeological materials were identified. All of the artifacts recovered from H1 (AkHd-4) and H2 (AkHd-5) were digitally mapped and collected for laboratory analysis. A UTM reading was taken for each artifact as per Section 2.1, Standard 4 of the *Standards and Guidelines* (Government of Ontario, 2011). H1 (AkHd-4) and H2 (AkHd-5) were registered with the MCM as per Section 7.12 of the *Standards and Guidelines* (Government of Ontario, 2011).

Approximately 6% (0.46ha) of the Study Area consisted of manicured lawns and overgrown greenspace that were considered to be inaccessible for ploughing. These areas were subject to a typical test pit survey at 5m intervals in accordance with Section 2.1.2 of the *Standards and Guidelines* (Government of Ontario, 2011; Photos 8 to 12). The test pit survey was conducted to within 1m of the built structures or until test pits showed 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. The excavated soil was then examined for stratigraphy, cultural features, or evidence of fill. All soil was screened through six-millimetre mesh hardware cloth to facilitate the recovery of small artifacts and then used to backfill the pit. During the property inspection and test pit survey of the area of the old church, the ground was found to be raised and uneven. Test pitting here revealed disturbances amid the topsoil including a heavy brick layer, most likely the foundations of the

former building of the church. This was reinforced by numerous artifacts found in several test pits, which were incorporated with the surface finds in the agricultural field and previously discussed above as H1 (AkHd-4).

The Stage 2 test pit and pedestrian surveys resulted in the identification of two archaeological sites identified as H1 (AkHd-4) and H2 (AkHd-5) (Tile 4 in the Supplementary Documentation). The Stage 2 assessment of H1 (AkHd-4) resulted in the documentation of 130 Euro-Canadian artifacts from nineteen findspots and nine positive test pits across an area of approximately 34m east to west and 38m north to south (0.11ha) located at the edge of the agricultural field to the west of and within the overgrown greenspace of the old church foundations. The Stage 2 assessment of H2 (AkHd-5) produced 63 Euro-Canadian artifacts from 30 findspots scattered across an area of approximately 9.3m east to west and 6.6m north to south (0.06ha) located in the southeast portion of the agricultural field.

Approximately 12% of the Study Area comprised the possible disturbance area identified on the current aerial imagery of the Study Area (see Section 1.3.4 above). Following a Stage 2 property inspection, conducted according to Section 2.1.8, Standard 1 of the *Standards and Guidelines* (Government of Ontario, 2011), the treed and overgrown strip of the disused railbed (Photos 14 and 15) was 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 visibly disturbed area documented within the Study Area was 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).

The remaining 2% of the Study Area was determined to be permanently wet during the Stage 2 property inspection, conducted according to Section 2.1.8, Standard 1 of the *Standards and Guidelines* (Government of Ontario, 2011). This area includes a small creek and associated greenspace in the southeast corner of the Study Area. This area was determined to retain no archaeological potential due to the identification of physical features of low archaeological potential, in this case a permanently wet area, as per Section 2.1, Standard 2.a.i of the *Standards and Guidelines* (Government of Ontario, 2011). The permanently wet area was mapped and photo documented in accordance with Section 2.1, Standard 6 and Section 7.8.1, Standard 1a of the *Standards and Guidelines* (Government of Ontario, 2011).

3.0 Record of Finds

The Stage 2 archaeological assessment was conducted employing the methods described in Section 2.0 and resulted in the identification of two archaeological sites identified as H1 (AkHd-4) and H2 (AkHd-5). An inventory of the documentary record generated by fieldwork is provided in Table 3, below. Maps indicating the exact site location of H1 (AkHd-4) and H2 (AkHd-5) as well as all UTM coordinates recorded during the assessment are included in the Supplementary Documentation to this report. A description of the locations and the recovered artifacts are provided in Sections 3.2 and 3.3.

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	Detritus' office	Stored digitally in project file
1 Field Map	Detritus' office	Stored digitally in project file
77 Digital Photographs	Detritus' office	Stored digitally in project file

All of the material culture collected during the Stage 2 survey is contained in one box and will be temporarily housed in the offices of Detritus until formal arrangements can be made for its transfer to His Majesty the King in right of the Province of Ontario or another suitable public institution acceptable to the MCM and the Study Area's owners.

3.1 Cultural Material

3.2 H1 (AkHd-4)

The Stage 2 assessment of H1 (AkHd-4) resulted in the documentation of 130 Euro-Canadian artifacts from 19 findspots and 9 positive test pits across an area approximately 34m east to west and 38m north to south (0.11ha) located at the edge of the agricultural field to the west of and within the overgrown greenspace of the old church foundations. Table 4 below provides a summary of the artifacts recovered during the Stage 2 assessment at H1 (AkHd-4).

Table 4: H1 (AkHd-4) Artifact Summary (see Appendix 10.1.1 for full catalogue)

Artifacts	Frequency (n)	Percentage (%)
structural	40	30.77
household	38	29.23
ceramic	25	19.23
metal	17	13.08
personal	10	7.69
Total	**130**	**100.00**

3.2.1 Structural Artifacts (see Appendix 10.2.1)

Just over 30% of the artifacts recovered from H1 (AkHd-4) were structural artifacts. Table 5 provides a summary of the Stage 2 structural artifact assemblage.

Table 5: Structural Artifact Summary

Artifact	Frequency (n)	Percentage (%)
window glass	26	65.00
nails, cut	12	30.00
slate, roofing	2	5.00
brick, undetermined	1	2.94
Total	**40**	**100.00**

The majority of the structural artifacts (65%) were window glass fragments (n=26). The remainder of the structural assemblage comprised 12 cut nails, 2 fragments of roofing slate, and 1 undetermined brick.

All except two of the window glass fragments (n=24) were greater than 1.6mm suggestive of a post-1845 occupation. The twelve cut nail fragments suggest an occupation date between 1830 and 1890. The brick fragment, red in colour, and the roofing slate were not temporally diagnostic.

3.2.2 Household artifacts (See Appendix 10.2.2)

A total of 38 household artifacts were recovered during the Stage 2 assessment of H1 (AkHd-4). Most were fragments of bottle glass (n=28; 74%). The majority of the bottle glass fragments were clear in colour (n=17; 61%), which is indicative of a post-1870 date of occupation. The remaining fragments were aqua (n=7), purple (n=1), and olive green (n=2), one of which was finished with an externally threaded finish (Cat. #44; Plate 7). The remaining household artifacts comprised four mammalian faunal remains, three coal fragments, and three clear drinking glass fragments, none of which were temporally diagnostic. The mammal bones were too small to classify.

3.2.3 Ceramics (See Appendix 10.2)

A total of 25 sherds of Euro-Canadian ceramics were documented during the Stage 2 assessment of H1 (AkHd-4). Over 50% of the recovered sherds were refined white earthenware ('RWE'; n=14; 56%). The remainder of the assemblage comprised seven earthenware, two stoneware, one ironstone, and one pearlware fragments. Table 6 provides a summary of the Stage 2 ceramic assemblage by ware type, and Table 6 provides a summary of the Stage 2 ceramic assemblage by decorative style.

Table 6: Ceramic Assemblage by Ware Type (See Appendix 10.2.3)

Artifact	Frequency (n)	Percentage (%)
RWE	14	56.00
earthenware	7	28.00
stoneware	2	8.00
ironstone	1	4.00
pearlware	1	4.00
Total	**25**	**100.00**

Table 7: Ceramic Assemblage by Decorative Style (See Appendix 10.2.4)

Artifact	Frequency (n)	Percentage (%)
RWE, undecorated	10	40.00
RWE, transfer printed	2	8.00
RWE, flow transfer printed	1	4.00
RWE, painted	1	4.00
earthenware, white	5	20.00
earthenware, red	2	8.00
stoneware, ink well	2	8.00
ironstone, undecorated	1	4.00
pearlware, undecorated	1	4.00
Total	**25**	**100.00**

The majority of the RWE fragments within the Stage 2 assemblage were undecorated (n=10; 40%), but two featured green transfer printed designs (Cat. #56; Plate 5), one featured blue flow transfer printed designs, and one was painted with blue crosshatch pattern (Cat. #58; Plate 5). The presence of red and white earthenware cannot be used to date the site, but the frequency of fragments (n=28; 26%) may point to a lower economic status (Cat. #s 51 and 52; Plate 5). The presence of two stoneware inkwell fragments with Albany slip and one ironstone fragment point

to a middle to late 19th century date, although there are too few fragments to be certain. The presence of one pearlware fragment is generally indicative of an early 19th century occupation.

Ceramic Form and Function

Additionally, all of the ceramic fragments from H1 (AkHd-4) were examined in order to describe the function of the item from which the ceramic sherd originated. However, for those sherds that were too fragmentary for a functional assignment, an attempt was made to at least provide a formal description, such as to which portion of an item the sherd belonged. For example, what used to be a porcelain teacup but now found in an archaeological context could be classified in the artifact catalogue in a descending order of specificity depending on preservation and artifact size: a teacup (function), a cup (function), a hollowware (form), or a rim fragment (form). Flatware was differentiated based on the absence of curvature in the ceramic cross-section of each sherd. The classification used in the current investigation is based upon the system established by Matthew Beaudoin (Beaudoin, 2013). If Beaudoin's classifications could not be applied, then the broader definitions established by Barbara Voss were used (Voss, 2008). Ultimately, if sherds were small enough that even a general functional or formal ware type could not be determined, then the sherd was simply classified as a rim fragment, a non-rim fragment, a base fragment, or indeterminate.

Table 8 provides a summary of the Stage 2 ceramic assemblage of H1 (AkHd-4) by form, and Table 9 provides a summary of the Stage 2 ceramic assemblage of H1 (AkHd-4) by function.

Table 8: Ceramic Assemblage by Form

Ceramic	Flat	Hollow	Unknown
earthenware, red		2	
earthenware, white		5	
ironstone, undecorated	1		
pearlware, undecorated	1		
RWE, flow transfer printed		1	
RWE, painted			1
RWE, transfer printed		1	1
RWE, undecorated	1	1	8
stoneware, ink well		2	
Total	**3**	**12**	**10**

Table 9: Ceramic Assemblage by Function

Ceramic	Bowl	Cup	Plate	Storage	Unknown
earthenware, red				2	
earthenware, white	5				
ironstone, undecorated			1		
pearlware, undecorated			1		
RWE, flow transfer printed		1			
RWE, painted					1
RWE, transfer printed		1			1
RWE, undecorated		1	1		8
stoneware, ink well				2	
Total	**5**	**3**	**3**	**4**	**10**

3.2.4 Miscellaneous Metal

The majority of miscellaneous metal fragments recovered from H1 (AkHd-4) were indeterminate metal, none of which are temporally diagnostic (n=12; 65%). The remaining metal fragments comprised five metal fencing fragments and one metal screw bolt.

3.2.5 Personal Artifacts (See Appendix 10.2.5)

Ten white clay pipe fragments were recovered from H1 (AkHd-4). All the fragments recovered were plain with no maker's marks and consisted of nine pipe bowl and one pipe stem fragment. The white clay pipe stems are indicative of an early to middle 19th century occupation.

3.3 H2 (AkHd-5)

The Stage 2 assessment of H2 (AkHd-5) produced 63 Euro-Canadian artifacts from 30 findspots scattered across an area of approximately 9m east to west and 66m north to south (0.06ha) located in the southeast portion of the agricultural field. Table 10 below provides a summary of the artifacts recovered during the Stage 2 assessment at H2 (AkHd-5).

Table 10: H2 (AkHd-5) Artifact Summary (see Appendix 10.1.2 for full catalogue)

Artifact	Frequency (n)	Percentage (%)
household	39	61.90
ceramic	15	23.81
structural	5	7.94
metal	4	6.35
Total	**63**	**100.00**

3.3.1 Household artifacts (See Appendix 10.2.2)

A total of 39 household artifacts were recovered during the Stage 2 assessment of H2 (AkHd-5). Most were fragments of bottle glass (n=33; 85%) of various colours; fifteen aqua, seven purple, four clear, three blue, two brown, one forest green, and one olive green. The clear glass fragments are indicative of a late 19th century date of occupation, but the aqua and other coloured glass fragments suggest pre-1880s. The remaining household artifacts comprised one mason glass jar embossed with the letters "WAT" (Cat. #5; Plate 8), two coal fragments, and one mammalian faunal remain. The mammal bone was too small to classify.

3.3.2 Ceramics (See Appendix 10.2)

A total of fifteen sherds of Euro-Canadian ceramics were documented during the Stage 2 assessment of H2 (AkHd-5). Over 50% of the recovered sherds were ironstone (53%). The remainder of the assemblage comprised six RWE and one stoneware fragments. Table 11 provides a summary of the Stage 2 ceramic assemblage by ware type, and Table 12 provides a summary of the Stage 2 ceramic assemblage by decorative style.

Table 11: Ceramic Assemblage by Ware Type (See Appendix 10.2.3)

Artifact	Frequency (n)	Percentage (%)
ironstone	8	53.33
RWE	6	40.00
stoneware	1	6.67
Total	**15**	**100.00**

Table 12: Ceramic Assemblage by Decorative Style (See Appendix 10.2.4)

Artifact	Frequency (n)	Percentage (%)
ironstone, undecorated	6	40.00
ironstone, moulded	1	6.67
ironstone, transfer printed	1	6.67

Artifact	Frequency (n)	Percentage (%)
RWE, undecorated	4	26.67
RWE, flow transfer printed	1	6.67
RWE, transfer printed	1	6.67
stoneware, Albany slip	1	6.67
Total	**15**	**100.00**

The majority of the ironstone fragments within the Stage 2 assemblage were undecorated (n=6), but one was moulded with a wheat sheaf pattern and one ironstone sherd was decorated with blue transfer print (Cat #s 14 and 15; Plate 9). This transfer printed sherd included the maker's mark "THOMAS FURNIVAL &" along with crown and unicorn motif (Cat. #15; Plate 9). Thomas Furnival & Sons operated out of Stoke-on-Trent, England, between 1871 and 1890 (The Potteries.org, 2003). The majority of the RWE fragments was undecorated while one was decorated with a light blue transfer print and one was decorated with blue flow transfer print indicating a middle to late 19th century date (Cat #s 12 and 6; Plate 10). The remaining stoneware fragment was finished with Albany slip (Cat # 11; Plate 10) indicating a period of use between 1850-1890.

The various decorative styles of the ironstone and RWE fragments, as well as the presence of Albany slipped stoneware suggests a middle to late 19th century occupation.

Ceramic Form and Function

Additionally, all of the ceramic fragments from H2 (AkHd-5) were examined in order to describe the function of the item from which the ceramic sherd originated. See analysis description of form and function in Section 3.2.3 above. Table 13 provides a summary of the Stage 2 ceramic assemblage of H2 (AkHd-5) by form, and Table 14 provides a summary of the Stage 2 ceramic assemblage of H2 (AkHd-5) by function.

Table 13: Ceramic Assemblage by Form

Ceramic	Flat	Hollow	Unknown
ironstone, moulded		1	
ironstone, transfer printed	1		
ironstone, undecorated	1	5	
RWE, flow transfer printed		1	
RWE, transfer printed	1		
RWE, undecorated	2		2
stoneware, Albany slip			1
Total	**5**	**7**	**3**

Table 14: Ceramic Assemblage by Function

Ceramic	Bowl	Plate	Unknown
ironstone, moulded	1		
ironstone, transfer printed		1	
ironstone, undecorated	5	1	
RWE, flow transfer printed	1		
RWE, transfer printed		1	
RWE, undecorated		2	2
stoneware, Albany slip			1
Total	**7**	**5**	**3**

3.3.3 Structural Artifacts (see Appendix 10.2.1)

A total of five structural artifacts were documented during the Stage 2 assessment of H2 (AkHd-5). Table 15 provides a summary of the Stage 2 structural artifact assemblage.

Table 15: Structural Artifact Summary

Artifact	Frequency (n)	Percentage (%)
window glass	3	60
brick, undetermined	1	20
nails, wire	1	20
Total	**5**	**100**

The majority of structural artifacts recovered from H2 (AkHd-5) were window glass fragments (n=3; 60%). The remainder of the structural assemblage comprised one undetermined brick and one wire nail.

Two of the window glass fragments (67%) were greater than 1.6mm suggestive of a post-1845 occupation. The brick fragment was red in colour and not temporally diagnostic. The wire nail fragments suggest a post-1890 date of occupation.

3.3.4 Miscellaneous Metal

A total of four fragments of miscellaneous metal were recovered from H2 (AkHd-5). These comprised two fencing metal fragments, one barbed wire fragment, and one undetermined fragment, which were not temporally diagnostic.

3.4 Artifact Catalogues

See Appendix 10.1.1 for the Stage 2 artifact assemblage catalogue for H1 (AkHd-4) and Appendix 10.1.2 for the Stage 2 artifact assemblage catalogue for H2 (AkHd-5). A sample of artifacts from both catalogues are depicted in Section 9.2 of this report.

4.0 Analysis and Conclusions

Detritus was retained by the Proponent to conduct a Stage 1-2 archaeological assessment in advance of a proposed residential development at 31 Church Street, Alma, Ontario (Figure 6).

The Stage 1 background research indicated that the Study Area exhibited moderate potential for the identification and recovery of archaeological resources. A Stage 2 field assessment was recommended for the large agricultural field, manicured lawns, and overgrown greenspace. The treed and overgrown strip of the disused railbed was evaluated as having no potential based on the identification of extensive and deep land alteration that has severely damaged the integrity of archaeological resources. The small creek and associated greenspace were determined to retain no archaeological potential due to the identification of a physical feature of low archaeological potential, in this case a permanently wet area. These permanently wet and disturbed areas, as confirmed during a Stage 2 property inspection, were mapped and photo documented only.

According to the Registrar's Directive issued on March 1, 2019 by Carey Smith of the BAO, a CIA issued by the BAO is required whenever archaeological investigations are contemplated to verify and/or determine the boundaries of a cemetery or any similar situation where the records, maps, and plans of the cemetery cannot confirm the existence and exact locations of burials within that cemetery. In conversation with Michael D'Mello of the BAO, it was determined that since the Study Area was adjacent to an old cemetery whose boundaries are not clearly defined or known, a CIA was required. It was initially thought that Detritus had the CIA in hand prior to the assessment. Upon further communication with Michael D'Mello it was determined that the CIA for this project was received by Detritus via email on September 12, 2023 (see the email chain in Section 1 of the Supplementary Documentation).

The subsequent Stage 2 assessment of the Study Area was conducted on July 7, 2022 and involved a typical pedestrian survey at a 5m interval of the agricultural field component of the Study Area and a typical test pit survey at a 5m interval of the manicured lawns and overgrown greenspace. This investigation resulted in the identification of two archaeological sites registered as H1 (AkHd-4) and H2 (AkHd-5).

The Stage 2 assessment of H1 (AkHd-4) produced 130 Euro-Canadian artifacts scattered across an area of approximately 34m east to west and 38m north to south (0.11ha) located at the edge of the agricultural field to the west of and within the overgrown greenspace of the old church foundations. The assemblage was comprised primarily of structural artifacts (n=40, 30.77%) such as window glass and household artifacts (n=38; 29.23%) including mostly bottle glass. A fair number of ceramics (n=25; 19.23%) were recovered, as well as some miscellaneous metal (n=17; 13.08%) and personal artifacts (n=10; 7.69%). Analysis of the artifact assemblage suggests period of occupation spanning the entire 19th century.

Based on the results of the Stage 2 assessment, H1 (AkHd-4) has been identified as a Euro-Canadian artifact scatter documenting a period of use spanning the 19th century, including the eventual occupations by the Pilkington, Sylec, McRae, and Thompson families by Mr. J. Thompson in the latter half of the century.

The Stage 2 assessment of H2 (AkHd-5) produced 63 Euro-Canadian artifacts from 30 findspots scattered across an area of approximately 9m east to west and 66m north to south (0.06ha) located in the southeast portion of the agricultural field. The majority of the assemblage was comprised of household artifacts (n=39; 61.90%). Ceramics, structural, and miscellaneous metal artifacts make up the remainder of the assemblage. Analysis of the artifact assemblage suggests period of occupation from the middle to late 19th century.

Based on the results of the Stage 2 assessment, H2 (AkHd-5) has been identified as a Euro-Canadian artifact scatter documenting a period of use from the middle to late 19th century, including the eventual occupations by the Pilkington, Sylec, McRae, and Thompson families in the latter half of the century.

In addition, Section 2.2, Guideline 4 of the *Standards and Guidelines* (Government of Ontario, 2011) states that where a cemetery or an archaeological site with CHVI is known to be located immediately adjacent to the limits of the property that has been surveyed, Stage 3 assessment to

confirm whether that cemetery or archeological site extends into the property under assessment may be recommended. The Stage 3 archaeological assessment may be recommended regardless of whether artifacts were recovered by the Stage 2 survey in the part of the Study Area adjacent to that cemetery or archaeological site.

5.0 Recommendations

Given the identification of over 20 Euro-Canadian artifacts dating to a period of use prior to 1900, **H1 (AkHd-4) and H2 (AkHd-5) fulfill the criteria for a Stage 3 Site Specific Assessment as per Section 2.2 Standard 1c of the *Standards and Guidelines* (Government of Ontario 2011) and retain further CHVI.**

The Stage 3 archaeological assessments of H1 (AkHd-4) and H2 (AkHd-5) will be conducted according to Section 3.2 of the *Standards and Guidelines* (Government of Ontario, 2011). Typically, a Stage 3 assessment for sites documented during a pedestrian survey of ploughed agricultural land begins with a CSP across the Stage 2 limits of site, conducted as per Section 3.2.1 of the *Standards and Guidelines* (Government of Ontario, 2011). The Stage 2 pedestrian survey, however, consisted of an intensive surface collection across the entire site limits within the agricultural fields; all artifacts were mapped digitally and collected for laboratory analysis. Thus, the conditions for a Stage 3 CSP were met during the Stage 2 assessment. Instead, the Stage 3 assessments of H1 (AkHd-4) and H2 (AkH2-5) will consist of test unit excavation only, conducted according to Section 3.2.2 of the *Standards and Guidelines* (Government of Ontario, 2011).

The following test unit strategy was formulated based on advice provided by the MCM (see the Supplementary Documentation for email correspondence). The Stage 3 assessments of H1 (AkHd-4) and H2 (AkH2-5) will consist of the hand excavation of one 1m square test units every 10m across the Stage 2 site limits in systematic levels and into the first 5cm of subsoil, as per Table 3.1, Standard 3 of the *Standards and Guidelines* (Government of Ontario, 2011). Additional 1m test units, amounting to 40% of the grid total, will be placed in areas of interest within the site extent as per Table 3.1, Standard 4 of the *Standards and Guidelines* (Government of Ontario, 2011). Should areas of artifact concentration or features be discovered during the excavation of the initial Stage 3 grid and infill units, the grid will be reduced to five-metre intervals, with 20% infill in those areas as per Table 3.1, Standards 1 and 2 of the *Standards and Guidelines* (Government of Ontario, 2011). All excavated soil will be screened through six-millimetre mesh; all recovered artifacts will be recorded by their corresponding grid unit designation and collected for laboratory analysis. If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded and geotextile fabric will be placed over the unit before backfilling the unit.

Given that artifacts were recovered during the Stage 2 assessment, the Stage 3 assessment must also include the mechanical removal of all topsoil, as per Section 2.1.7, Standard 3 of the *Standards and Guidelines* (Government of Ontario, 2011), surrounding the property belonging to the Presbyterian Church, not assessed, between the agricultural field and the overgrown greenspace of the old church (Figure 4), in order to reveal any associated subsurface graves. As per Section 4.3, Standard 1, Table 4.1 of the *Standards and Guidelines* (Government of Ontario, 2011), MTR must extend a minimum of 10m beyond uncovered cultural features. According to the MCM's FAQ#12 for Stage 3 assessments, this standard applies also to MTR adjacent to cemetery limits.

This mechanical excavation will be conducted in accordance with Section 4.2.3, Section 4.2.7, and Table 4.1 of the *Standards and Guidelines* (Government of Ontario, 2011). All portions of the Study Area recommended for MTR during the Stage 3 assessment will be subjected to mechanical excavation down to the topsoil/subsoil interface, employing a straight-edged ditching bucket that pulls the soil away from the exposed surface. The subsoil surface will then be immediately shovel-shined and examined for any evidence of graves. If features identified as graves begin to appear within the Study Area, all field work will cease.

Given the proximity of the remains of the old cemetery to the Study Area, even though the church and cemetery have been relocated, there is the possibility of encountering interred human remains. The *Funeral, Burial and Cremation Services Act* (Government of Ontario, 2002) and the *Cemeteries Act* (Government of Ontario, 1990d), when proclaimed in force, require anyone who uncovers a burial site containing human remains to cease fieldwork or construction activities and report the discovery to the appropriate authorities (police or coroner). If the police and coroner decide that the site has no forensic interest, the Registrar of Cemeteries will be notified of the discovery. The site then comes under the jurisdiction of the Registrar, who will notify the site's

landowners of their obligations under the *Funeral, Burial and Cremation Services Act*. The terms and conditions of an archaeological license require licensees to comply with all relevant provisions of the *Cemeteries Act* and Ontario Regulation 133/92 (Burial Sites).

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 Archaeology 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.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological license.

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8.0 Maps

Figure 1: Study Area Location Map

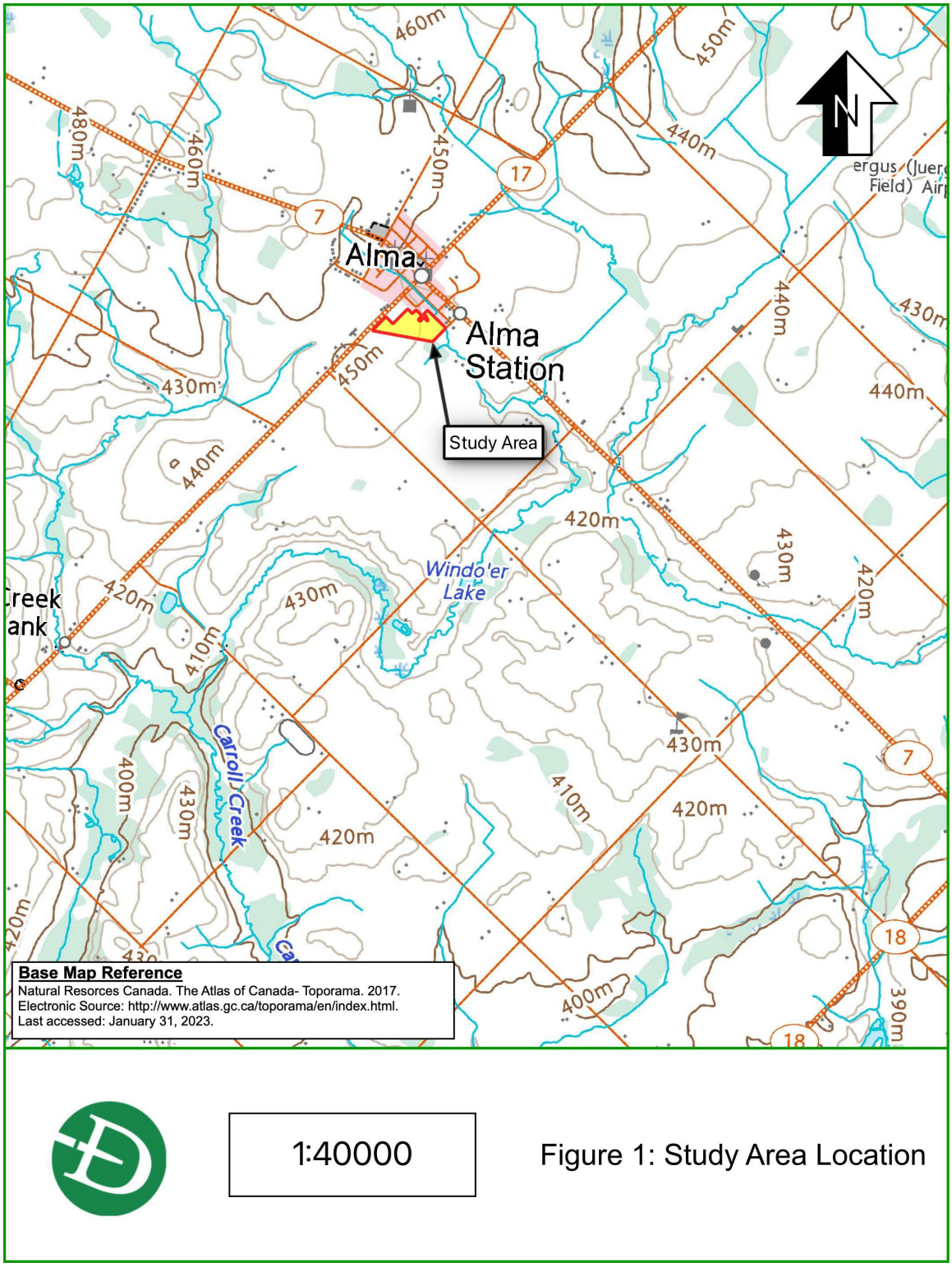
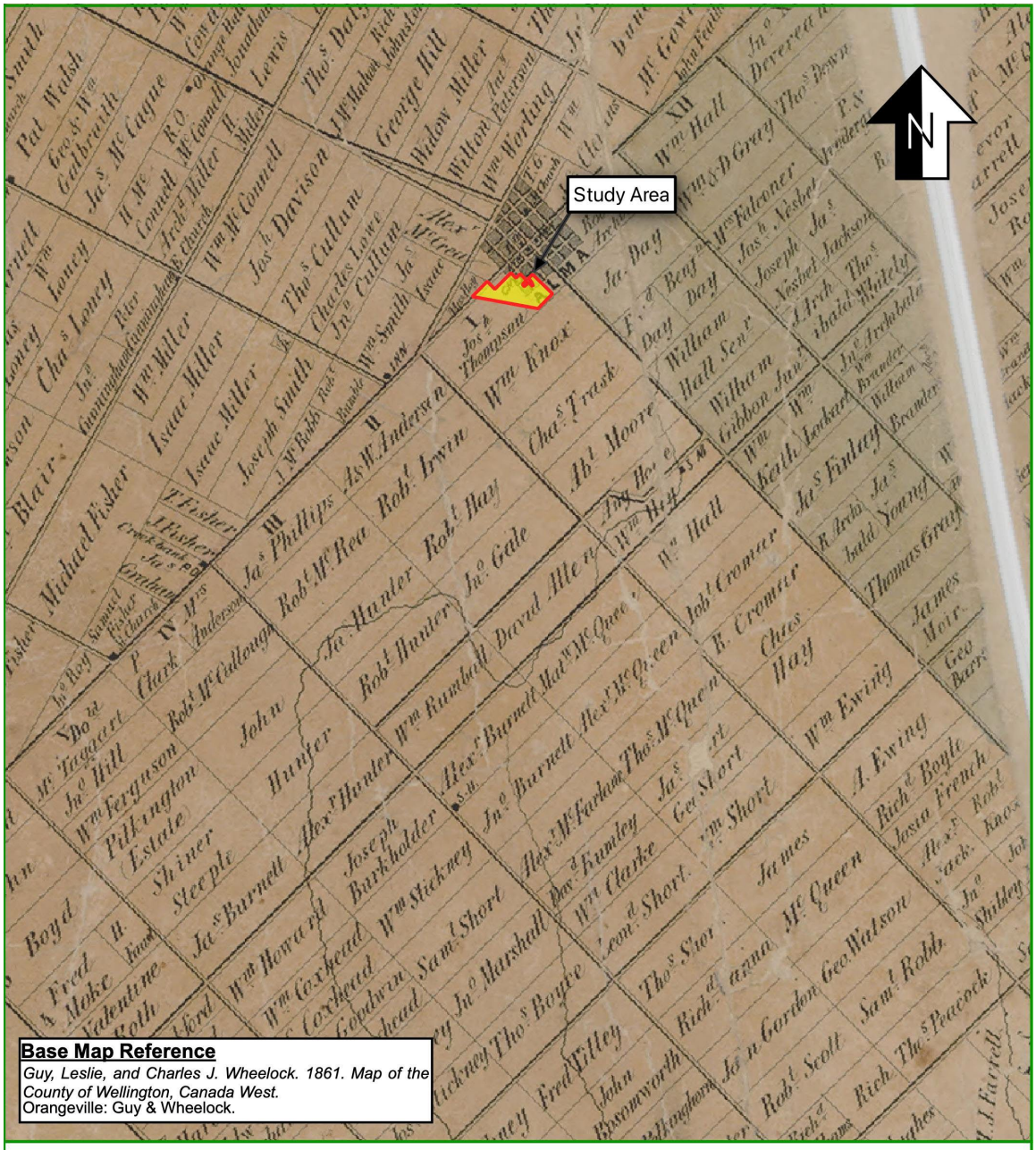


Figure 2: Historic Map Showing the Study Area Location



Not to Scale

Figure 2: Portion of Guy Leslie's 1861 Map of the County of Wellington, Canada West

Figure 3: Additional Historic Map Showing the Study Area Location

Not to Scale

Figure 3: Portion of Walker and Miles 1877 Illustrated Historical Atlas of the County of Wellington, Ont.

Figure 4: Stage 2 Field Methods Map

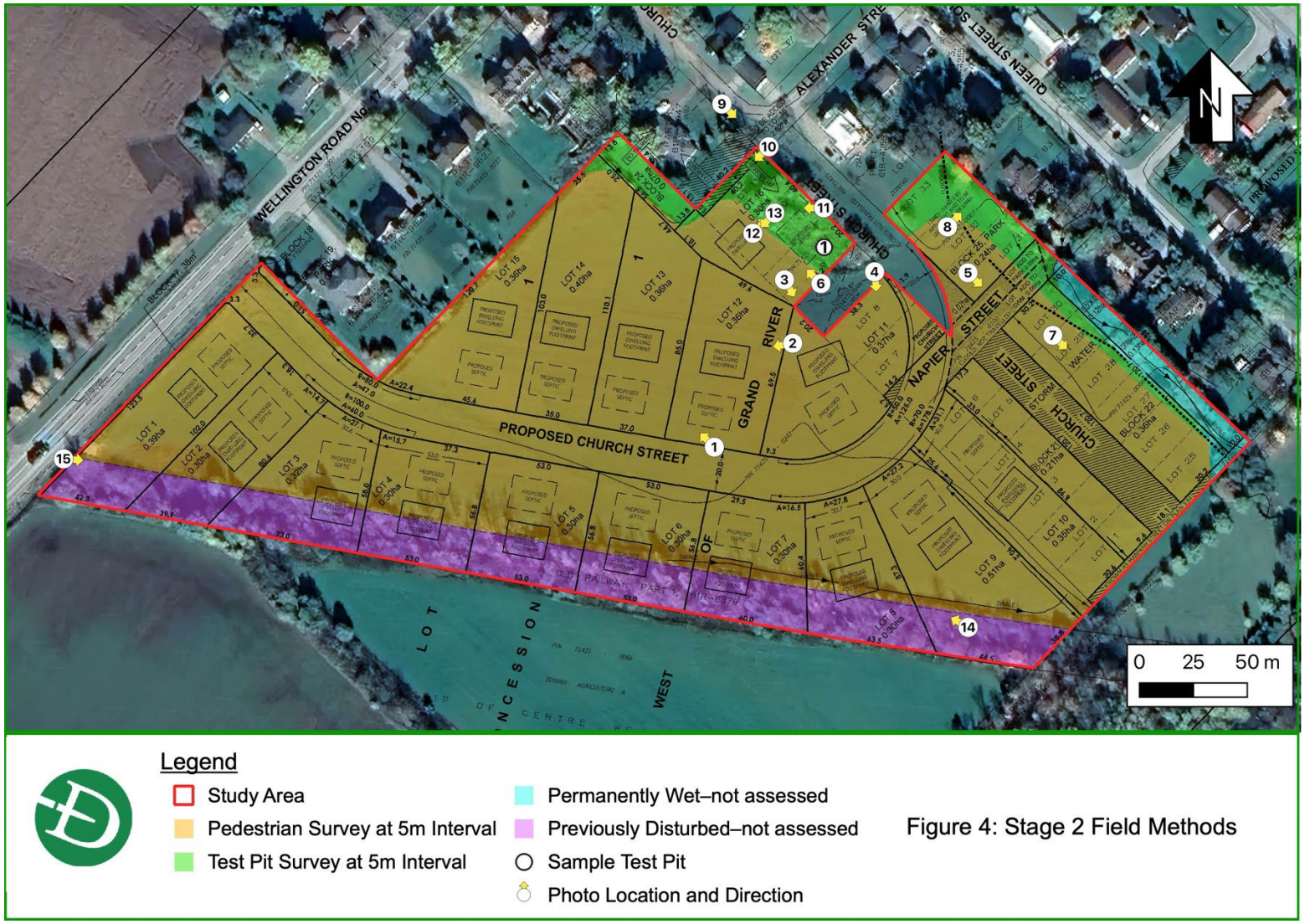


Figure 5: Stage 2 Field Methods in Relation to Development Plan

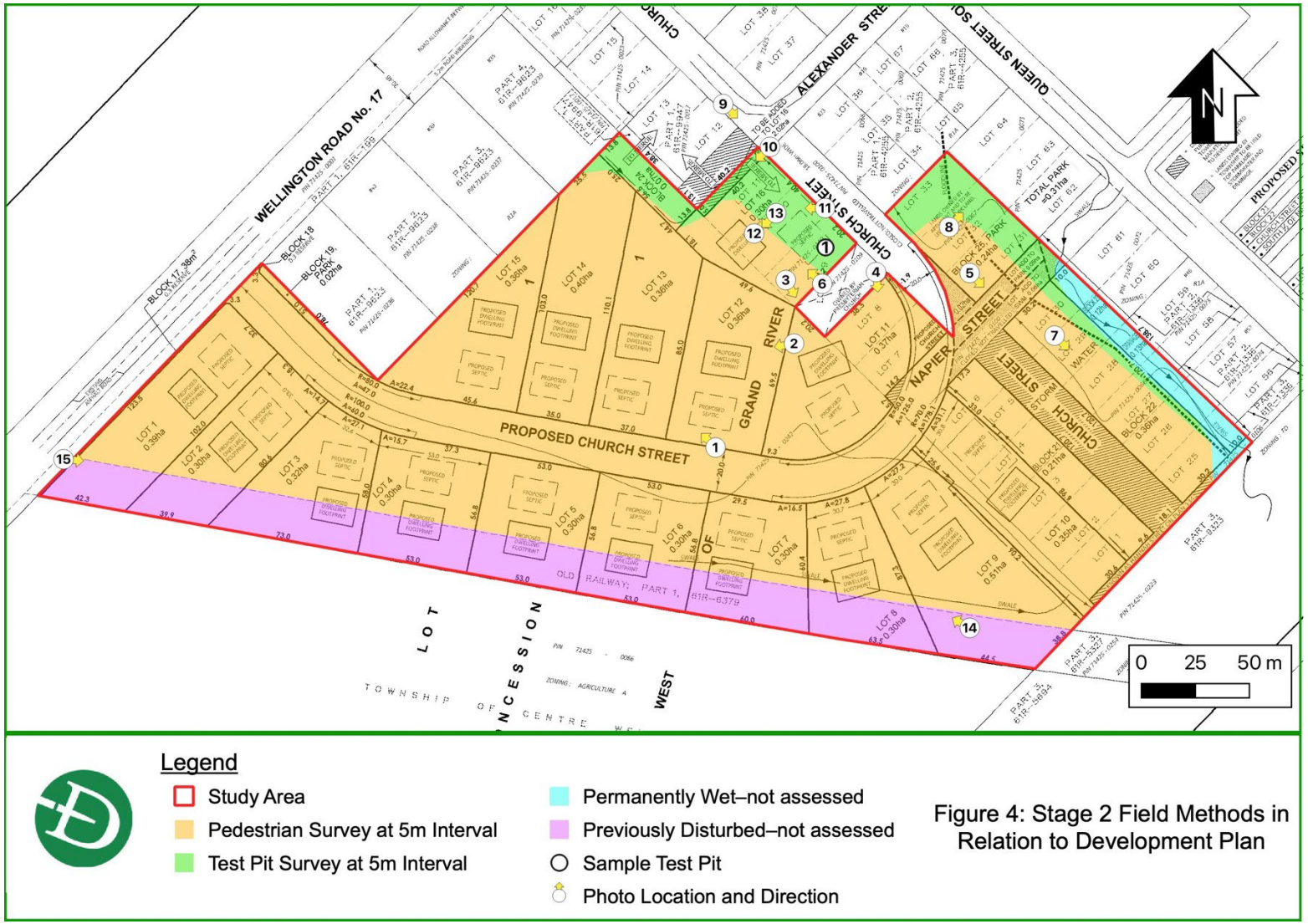
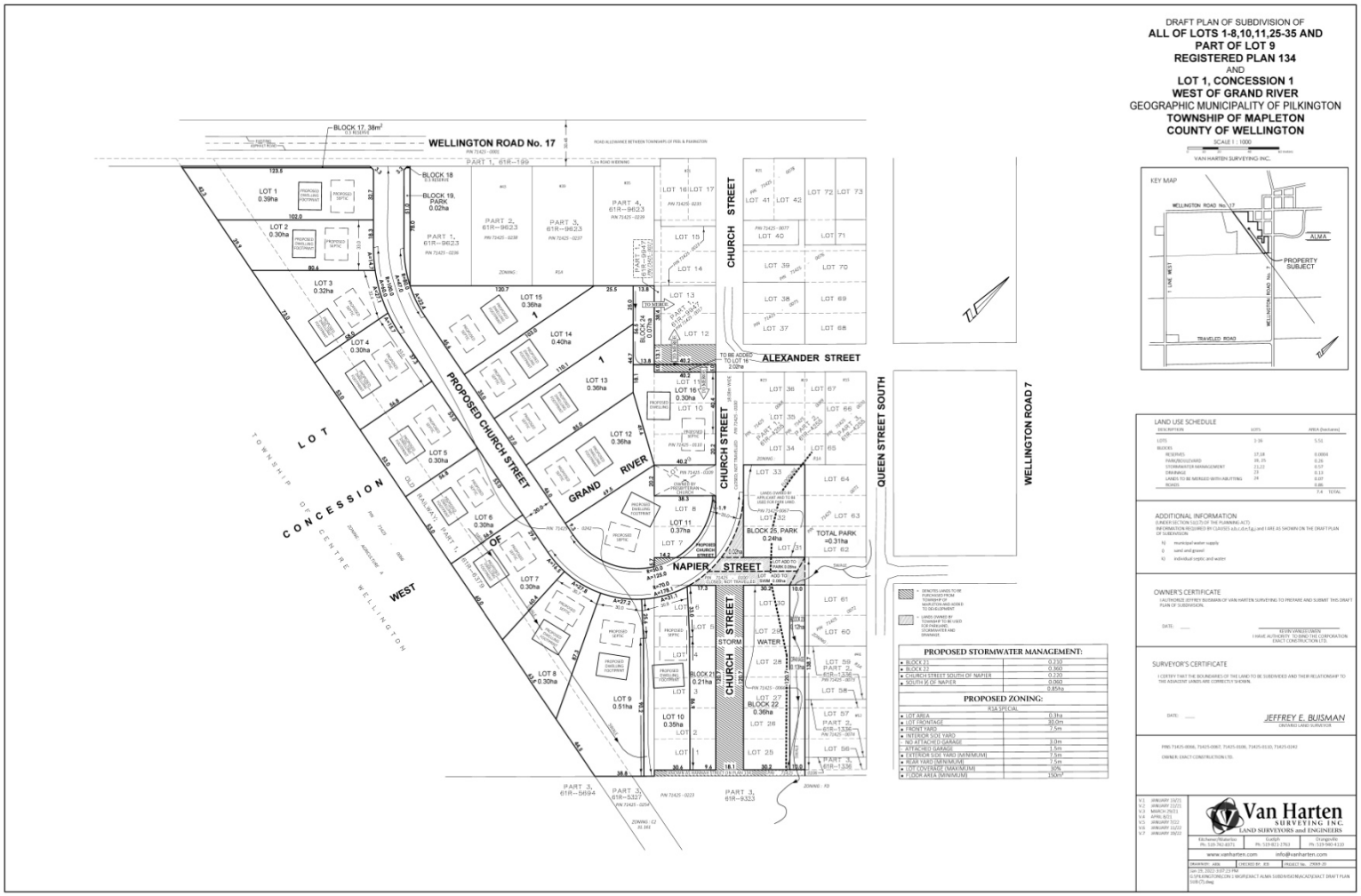


Figure 6: Development Plan



9.0 Images

9.1 Field Photos

Photo 1: Agricultural Field, Pedestrian Surveyed at 5m Intervals, looking northwest

Photo 2: Agricultural Field, Pedestrian Surveyed at 5m Intervals, looking west

Photo 3: Agricultural Field, Pedestrian Surveyed at 5m Intervals, Lawn belonging to Property of the Old Church, Not Assessed, looking southeast

Photo 4: Agricultural Field, Pedestrian Surveyed at 5m Intervals, looking south

Photo 5: Agricultural Field, Pedestrian Surveyed at 5m Intervals, looking southeast

Photo 6: Agricultural Field, Pedestrian Surveyed at 5m Intervals, and Overgrown Greenspace, Test Pit Surveyed at 5m Intervals, looking northwest

Photo 7: Agricultural field, Pedestrian Surveyed at 5m Intervals, and Manicured Lawn Test Pit Surveyed at 5m Intervals, looking south southeast

Photo 8: Manicured Lawn, Test Pit Surveyed at 5m Intervals, looking northeast

Photo 9: Peel Historic Site sign, reads: "Alma Presbyterian Church," Located at Corner of Alexander and Church Street, looking southeast

Photo 10: Overgrown Greenspace, Test Pit Surveyed at 5m Intervals, looking southwest

Photo 11: Overgrown Greenspace, Test Pit Surveyed at 5m Intervals, looking west

Photo 12: Location of Dedication to Early Pioneers of St. Andrews Presbyterian Church 1854-1894, looking northeast

Photo 13: Cairn Dedicated to Early Pioneers of St. Andrews Presbyterian Church 1854-1894, looking southwest

Photo 14: Overgrown, Disused Railbed, Previously Disturbed, Not Assessed, looking northwest

Photo 15: Overgrown, Disused Railbed, Previously Disturbed, Not Assessed, looking southeast

Photo 16: Sample Test Pit Photo

9.2 Artifact Photos

Plate 1: H1 (AkHd-4) fragments of White Clay Pipe Bowl and Stem; Cat. #20 (left) and Cat. #19 (right)

Plate 2: H1 (AkHd-4) Ceramics; Cat. #6 (left) and Cat. #4 (right)

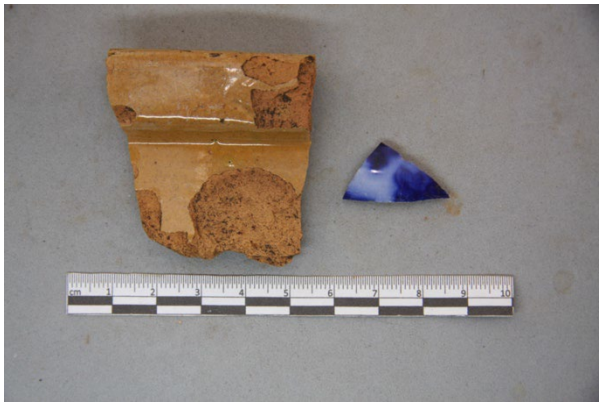


Plate 3: H1 (AkHd-4) Cut Nail; Cat. #37

Plate 4: H1 (AkHd-4) Glass Fragments; Cat. #30 (left) and Cat. #8 (right)

Plate 5: H1 (AkHd-4) Ceramics; Cat. #51, Cat. #52, Cat. #56, and Cat. #58 (left to right)

Plate 6: H1 (AkHd-4) Cat. #46 (top) and Cat. #41 (bottom)

Plate 7: H1 (AkHd-4) Glass Fragments; Cat. # 47, Cat. #44, and Cat. #43 (left to right)

Plate 8: H2 (AkHd-5) Glass Fragments; Cat. #5, Cat. #4, Cat. #2 (left to right)

Plate 9: H2 (AkHd-5) Ceramics; Cat. #14 (left), Cat. #15 (right)

Plate 10: H2 (AkHd-5) Ceramics; Cat. #16, Cat. #11, and Cat. #12 (left to right)

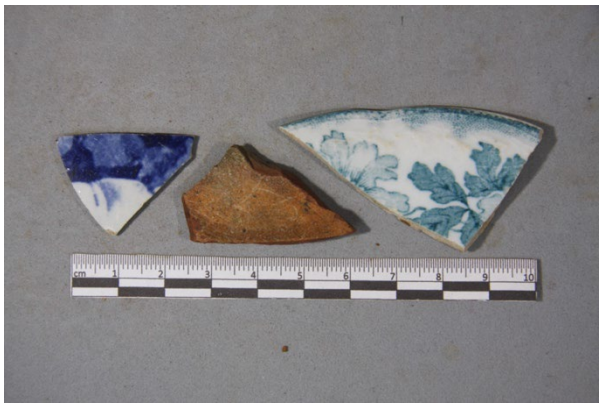


Plate 11: H2 (AkHd-5) Glass Fragments; Cat. #18, Cat. #22, and Cat. #21 (left to right)

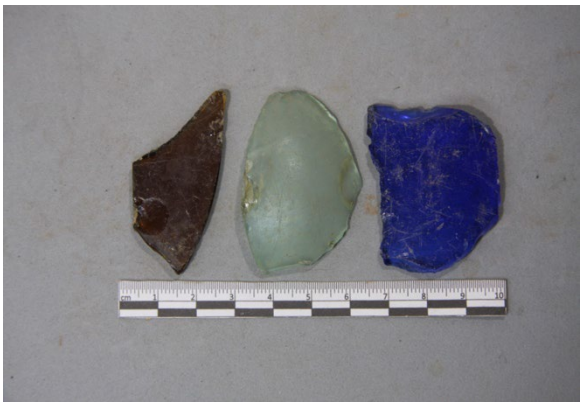


Plate 12: H2 (AkHd-5) Wire Nail; Cat. #26

Plate 13: H2 (AkHd-5) Ceramics; Cat. #27 (left) and Cat. #28 (right)

10.0 Appendix

10.1 Artifact Catalogues

10.1.1 H1 (AkHd-4) Stage 2 Artifact Catalogue

Cat#	Context	Artifact	Frequency	Depth(m)	Ceramic Form	Ceramic Function	Colour	Comments
1	PTP 6	nails, cut	2	0.41				
2	PTP 6	glass, bottle	1	0.41			aqua	
3	PTP 6	metal, undetermined	8	0.41				tin
4	PTP 6	RWE, flow transfer printed	1	0.41	hollow	cup	blue	
5	PTP 6	window glass	12	0.41			aqua	>1.6 mm
6	PTP 9	earthenware, red	2	0.15	hollow	storage	yellow	
7	PTP 9	brick, undetermined	1	0.15			red	
8	PTP 9	glass, bottle	1	0.15			clear	
9	PTP 2	RWE, undecorated	1	0.15	unknown	unknown		
10	PTP 2	nails, cut	2	0.15				
11	PTP 2	glass, bottle	3	0.15			clear	
12	PTP 2	glass, drinking	2	0.15			clear	
13	PTP 2	window glass	3	0.15			clear	>1.6 mm
14	PTP 2	window glass	4	0.15			aqua	>1.6 mm
15	PTP 1	nails, cut	1	0.12				
16	PTP 3	RWE, undecorated	1	0.27	unknown	unknown		
17	PTP 3	glass, bottle	1	0.27			clear	
18	PTP 3	window glass	2	0.27			aqua	<1.6 mm
19	PTP 7	white clay pipe, bowl	9	0.24				mendable
20	PTP 7	white clay pipe, stem	1	0.24				"BANN" & "REAL" visible on sides
21	PTP 7	nails, cut	1	0.24				

Cat#	Context	Artifact	Frequency	Depth(m)	Ceramic Form	Ceramic Function	Colour	Comments
22	PTP 7	ironstone, undecorated	1	0.24	flat	plate		
23	PTP 7	glass, bottle	2	0.24			clear	ribbed
24	PTP 7	glass, bottle	10	0.24			clear	
25	PTP 7	glass, drinking	1	0.24			clear	
26	PTP 5	metal, fencing	3	0.3				
27	PTP 5	nails, cut	1	0.3				
28	PTP 5	RWE, undecorated	3	0.3	unknown	unknown		
29	PTP 5	window glass	1	0.3			aqua	>1.6 mm
30	PTP 4	glass, bottle	3	0.41			aqua	
31	PTP 4	window glass	1	0.41			aqua	>1.6 mm
32	PTP 4	faunal remains, mammalian	1	0.41				unknown
33	PTP 4	nails, cut	2	0.41				
34	PTP 4	metal, fencing	1	0.41				
35	PTP 4	metal, undetermined	1	0.41				
36	PTP 8	RWE, undecorated	1	0.34	flat	plate		
37	PTP 8	nails, cut	1	0.34				
38	PTP 8	coal	3	0.34				
39	PTP 8	faunal remains, mammalian	2	0.34				unknown
40	CSP 1	window glass	3				aqua	>1.6 mm greater
41	CSP 2	nails, cut	2					
42	CSP 3	glass, bottle	1				clear	
43	CSP 4	glass, bottle	3				aqua	
44	CSP 5	glass, bottle	2				olive green	finished, external thread
45	CSP 6	faunal remains, mammalian	1					unknown
46	CSP 7	slate, roofing	1					
47	CSP 8	glass, bottle	1				purple	

Cat#	Context	Artifact	Frequency	Depth(m)	Ceramic Form	Ceramic Function	Colour	Comments
48	CSP 9	metal, fencing	1					
49	CSP 10	metal, undetermined	2					
50	CSP 11	metal, bolt screw	1					
51	CSP 12	stoneware, ink well	2		hollow	storage	light brown	Albany Slipware
52	CSP 13	earthenware, white	5		hollow	bowl	light brown	calico pattern
53	CSP 14	pearlware, undecorated	1		flat	plate		
54	CSP 15	RWE, undecorated	3		unknown	unknown		
55	CSP 16	RWE, transfer printed	1		unknown	unknown	green	
56	CSP 17	RWE, transfer printed	1		hollow	cup	green	handle
57	CSP 18	RWE, undecorated	1		hollow	cup		
58	CSP 19	RWE, painted	1		unknown	unknown	blue	cross hatch pattern

10.1.2 H2 (AkHd-5) Stage 2 Artifact Catalogue

Cat#	Context	Artifact	Frequency	Ceramic Form	Ceramic Function	Colour	Comments
1	CSP 1	glass, bottle	1			olive green	
2	CSP 2	glass, bottle	1			forest green	
3	CSP 3	glass, bottle	9			aqua	
4	CSP 4	glass, bottle	4			purple	
5	CSP 5	glass, mason jar	3			aqua	"WAT" embossed
6	CSP 6	glass, bottle	3			clear	
7	CSP 7	coal	1				
8	CSP 8	faunal remains, mammalian	1				
9	CSP 9	metal, barbed wire	1				
10	CSP 10	metal, fencing	2				
11	CSP 11	stoneware, Albany slip	1				
12	CSP 12	RWE, transfer printed	1	flat	plate	light blue	moulded
13	CSP 13	RWE, undecorated	2	flat	plate		
14	CSP 14	ironstone, moulded	1	hollow	bowl		wheat sheaf pattern
15	CSP 15	ironstone, transfer printed	1	flat	plate	green	maker's mark, "THOMAS FURNIVAL" with crown and unicorn motif
16	CSP 16	RWE, flow transfer printed	1	hollow	bowl	blue	
17	CSP 17	metal, undetermined	1				
18	CSP 18	glass, bottle	2			brown	
19	CSP 19	glass, bottle	1			clear	
20	CSP 20	glass, bottle	3			purple	
21	CSP 21	glass, bottle	3			blue	
22	CSP 22	glass, bottle	6			aqua	
23	CSP 23	window glass	2			aqua	>1.6 mm
24	CSP 24	window glass	1			aqua	<1.6 mm

Cat#	Context	Artifact	Frequency	Ceramic Form	Ceramic Function	Colour	Comments
25	CSP 25	brick, undetermined	1			red	
26	CSP 26	nails, wire	1				
27	CSP 27	ironstone, undecorated	5	hollow	bowl		
28	CSP 28	ironstone, undecorated	1	flat	plate		
29	CSP 29	RWE, undecorated	2	unknown	unknown		
30	CSP 30	coal	1				

10.2 Euro Canadian Artifact Descriptions

10.2.1 Structural Artifacts

Nails

Originally, all nails were handmade and required skill, as well as a forge to manufacture. As a result, early nails were relatively expensive and methods were sought to have them machine made. Whereas machine cut, or square nail manufacture began in the late 1790s, cut nails only become readily available in Upper Canada by the 1830s. Cut nails revolutionized house framing and were common for a long period, from approximately 1830 to 1890 by which time they had been largely supplanted by wire nails. Wire drawn nails are identical to the type of nails used today, with their round heads and wire shafts (Adams, 1994).

Window Glass

Window glass can be temporally diagnostic in a limited manner, but only if at least ten specimens are available. In the 1840s, window glass thickness changed dramatically, in large part due to the lifting of the English import tax on window glass in 1845. This tariff taxed glass by weight and encouraged manufacturers to produce thinner panes. Most window glass manufactured before 1845 tended to be thinner, measuring less than 1.6mm; later window glass was thicker. Because window glass thickness varied even within a single pane an assemblage of at least ten specimens is required to provide an adequate sample (Kenyon, 1980).

10.2.2 Household Artifacts

Bottle Glass

Bottle glass fragments are generally not diagnostic and are often simply categorized according to colour. Clear, or colourless glass was uncommon prior to the 1870s. Until 1880, clear glass bottles often displayed an aqua tinge that resulted from the iron additives used to de-colourise it. Clear or colourless glass came into much more widespread use after the development of automatic bottle manufacturing machines in the early 20th century (Lindsey, 2021).

10.2.3 Ceramic Ware Types

RWE

In the 1820s, the blue-tinted pearlware glaze gave way to a whiter variety that some archaeologists have taken to calling whiteware; like pearlware, however, this term was not used by manufacturers. According to Miller (1980a, p. 18), the white appearance of whiteware was caused by reducing the amount of cobalt added to the glaze and adding it instead to the paste. It was manufactured by many different recipes, however, and can be difficult to distinguish from other ceramics in the period, including sherds of pearlware, especially when examining small sherds. As Miller suggests,

> *...if an assemblage of ceramics from the first half of the 19th Century is placed before six archaeologists and they are asked for counts of creamware, pearlware, whiteware, and stone china wares, the results will probably be six different enumerations*
>
> Miller, 1980a, p. 2

Accordingly, the term RWE is used in this report to identify whiteware sherds as well as any sherds that are too small to distinguish between whiteware, pearlware or ironstone (noting that this gives a conservative date to any pearlware sherds not correctly identified).

Red Earthenware

Red earthenware is a utilitarian ware manufactured from a more porous and course paste than that used for more refined RWE varieties. Earthenware vessels were also fired at a lower temperature. The presence of earthenware cannot be used to date an archaeological assemblage since they were in use throughout the entirety of the 19th century. Their frequency on sites began

to decline slowly, however, from the 1850s onwards with the importation of stoneware from the United States, and then dramatically after 1890 when they were replaced by glass jars (Miller, 1980b, p. 9). Earthenware vessels were also less expensive than other, more refined tablewares. As a result, an abundance of earthenware fragments relative to other ware types, especially on a late 19th century site, may indicate lower economic status.

Stoneware

Stoneware ceramics are made from a heavy, non-porous paste and, although naturally impermeable, were usually glazed with a grey or brown slip. Early 19th century varieties were manufactured in England, Germany and the United States and featured a salt glaze. Stoneware vessels were relatively infrequent in Southern Ontario until the mid-1800s; by 1850, at least two potteries in Ontario (Brantford and Toronto) were producing stoneware. Because they were large and durable, stoneware vessels were typically utilitarian, functioning as food storage containers, beer jugs and tankards, butter crocks, and cream jars (Lamb, 2003).

Ironstone

Ironstone was a variety of RWE designed by the Turner family in the late 1700s (Tharp, n.d.). Like its contemporaries, it featured a white surface, but with a bluish tint. Furthermore, ironstone vessels were usually thicker than earlier whiteware varieties with a dense, heavy paste. The impetus behind their development was a desire among Staffordshire potters to find a cheap alternative to imported porcelain. By 1813 James Mason had reworked and patented 'ironstone China.' The patent lasted only fourteen years; by that time a variety of Staffordshire potteries were producing a similar product. Nevertheless, the Mason's brand name had become associated with all of the various stone China ceramics that were in production. Ironstone began to be imported from England to Canada during the 1840s and came to dominate the ceramic trade during the middle part of the century (The Potteries.org, 2003). In terms of appearance, ironstone vessels were commonly left plain with infrequent applied surface decoration, although moulded designs were common (Adams, 1994).

Pearlware

The term pearlware denotes an early variety of refined white tableware that was first produced in 1779 by Josiah Wedgewood. It remained popular on Euro-Canadian sites in Southern Ontario until the 1830s, when it was supplanted by later RWE varieties such as whiteware and ironstone. Pearlware can be easily identified by a bluish glaze that appears along footing crevices due to the addition of cobalt to the glaze in an attempt to imitate Chinese porcelain (Adams, 1994).

10.2.4 Ceramic Decorative Styles

Transfer Printing

The technique of transferring a pattern from an engraved metal plate to the surface of a ceramic vessel is thought to have developed in the mid-18th century (Jervis, 1911); it became more widely used among Staffordshire potteries in the 1790s (Shaw, 1968). In Southern Ontario, transfer printing was popular through the first half of the 19th Century before simpler techniques or no decoration whatsoever became popular. It underwent a revival after 1870 until the end of the Century (Majewski & O'Brien, 1987, pp. 145, 147). Blue transfer print ware was a popular decorated ceramic ware manufactured throughout the 19th century on various wares and it was the dominant colour available for printed wares before 1830. Brown and black transfer print wares were popular for a long span roughly between 1830 and 1870 (Adams, 1994, p. 103).

Flow Transfer Printing

Flow transfer printing was similar to regular transfer printing, with the exception that designs were allowed to bleed into the glaze giving them a misty appearance. Flow transfer printing was popular in the late 1840s and 1850s and was later revived in the 1890s. Traditionally, blue was the most predominant colour used in flow-transfer printing, although examples in black do exist (Adams, 1994).

10.2.5 Personal Artifacts

White Clay Pipes

White clay pipes were popular throughout the 19th century, with a decline in use around 1880 due to the rise in popularity of briar pipes and cigarettes. Most white clay pipes were manufactured in either Québec or Scotland, with occasional examples from English, Dutch, French, and American manufacturers. The maker's name is commonly impressed on one side of the stem with the city of manufacture on the opposite side, although this did not become common practice until after 1840 (Kenyon, 1980).