

**Stage 3 Archaeological Assessment
Alma Subdivision, 31 Church St, Alma
H1 (AkHd-4) and H2 (AkHd-5)**

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
N1M 2W4

and

Ontario's Ministry of Citizenship and Multiculturalism

Submitted by:



Detritus
CONSULTING LTD.
archaeology · heritage

196 Westheights Drive, Kitchener Ontario, N2N 1J9
Mobile/Office: 519-744-7018
e-mail: garth@golden.net
website: www.detritusconsulting.ca

Licensee: Walter McCall
License Number: P389
PIF Numbers: P389-0628-2022 [H1 (AkHd-4)]
P389-0629-2022 [H2 (AkHd-5)]
CP Number: 2022-169

ORIGINAL REPORT

July 9, 2024

Executive Summary

Detritus Consulting Ltd. ('Detritus') was retained by Mr. Kevin Vanleeuwen of Exact Construction Ltd. (the 'Proponent') to conduct Stage 3 archaeological assessments for H1 (AkHd-4) and H2 (AkHd-5), located 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). These investigations were conducted in advance of a proposed residential development that spans the entire property at 31 Church Street, Alma, Ontario (the 'Study Area') (Figure 7).

The assessments of the two sites were 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 the conditions of this legislation, a Stage 3 assessment was conducted at H1 (AkHd-4) and H2 (AkHd-5) 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 2011a).

H1 (AkHd-4) and H2 (AkHd-5) were discovered during a Stage 1-2 assessment of the Study Area, conducted by Detritus on July 7, 2022 (PIF# P389-0538-2021; Detritus 2024). The Stage 1 background research indicated that portions of the Study Area exhibited moderate to high potential for the identification and recovery of archaeological resources and were recommended for Stage 2 assessment.

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 34m east to west and 38m north to south 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 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.

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, 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.

The Stage 3 assessments of H1 (AkHd-4) and H2 (AkHd-5) were conducted between October 11, 2022 and November 7, 2022 under archaeological consulting license P389 issued to Dr. Walter McCall by the MCM.

The Stage 3 assessment of H1 (AkHd-4) produced 1,291 Euro-Canadian artifacts from the hand excavation of 29 test units (Figure 5). The unit excavation began in the southwestern corner of the site and along the western edges. When excavating these units, a plethora of small, non-diagnostic brick fragments were encountered. It was determined that the brick fragments were skewing the

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

artifact counts in the units therefore a sampling strategy was employed and one litre size samples of brick fragments were collected to ensure representative sample across brick colour, types, and sizes.

Even when excluding bricks from the assemblage, the majority of the recovered artifacts were still structural artifacts. The thick window glass fragments (n=240), which comprise 18.59% of the total assemblage, as well as a predominance of cut (n=141) and wire nails (n=25) supports a late 19th to 20th century occupation at the site. A single wrought nail was also documented during the Stage 3 assessment. The next most frequently occurring artifact type was ceramics (n=315). The majority of the ceramics comprise RWE, ironstone, and utilitarian wares. Lesser amounts of yellowware, semi-porcelain, and Jackfield-type were also recovered. Overall, the Stage 3 ceramic assemblage from H1 (AkHd-4) suggests a period of occupation ranging from the middle to late 19th century.

Artifact yields ranged from 5 to 143 per unit. One main activity area was observed at H1 (AkHd-4). The activity area was observed as connected hotspots in the eastern half of the site along the 225E, 230E, and 235E gridlines between 510N and 530N. The highest yielding units are located at 225E, 530N (n=143); 230E, 530N (n=138); 230E, 510N (n=106); 225E, 510N (n=86); and 235E, 530N (n=85).

Four features were observed during the Stage 3 assessment. Whereas the highest yielding artifact counts were encountered among the units along the eastern half of the site, the potential features documented at H1 (AkHd-4) were found predominantly in the western half of the site between 200E and 220E north-south running gridlines. Plan view drawings of these features can be found in Section 9.2 of this report.

Feature 1 is a compact layer of brick rubble layer observed within the contiguous units 210E, 510N (Photo 11, Drawing 1); 220E, 510N (Photo 14, Drawing 3); and 215E 520N (Photo 12, Drawing 2) encountered at a depth of 15 to 37 centimetres below the surface.

Feature 2 was observed in unit 215E, 530N and comprised another rubble layer made up of primarily clinker, featuring a wooden beam running north-south (Photo 13, Drawing 4). Feature 3 was observed 5m to the east in unit 220E, 530N. This feature included a plaster layer with miscellaneous metal scattered across the entire unit (Photo 15, Drawing 6). This plaster layer extended into the southern half of unit 230E, 535N (Photo 16, Drawing 5), although it was not apparent in unit 225E, 530N (Photo 18). Finally, Feature 4 comprised a charcoal smear on top of the subsoil within in the southwestern corner of unit 200E, 520N (Photo 10, Drawing 7).

Overall, the distribution of artifacts and features at H1 (AkHd-4) suggests the site was subject to a demolition event sometime in the late 19th century, pushing structural components such as brick, mortar, and slag towards the western half of the site, while the higher artifact counts remained relatively intact along the eastern half of the site.

Based on the available evidence, H1 (AkHd-4) has been interpreted as a demolition event that occurred at the original church building, located at 31 Church St, prior to or around the time of its relocation in 1892 to 8 Peel Street to meet the demands of the growing congregation. Some artifacts found at this site could also be related to the nearby occupations by the Pilkington, Sylec, McRae, and Thompson families, dumped at this location prior to the demolition event.

The Stage 3 assessment of H2 (AkHd-5) produced 468 Euro-Canadian Artifacts from the hand excavation of 54 test units. Artifact yields ranged from 0 to 26 per unit, although less than a third produced more than ten artifacts, and only three produced more than 18 artifacts. The artifacts at H2 (AkHd-5) were relatively evenly distributed across the site, with the highest counts occurring in the centre of the site, and generally decreasing towards the edges on all sides.

Several units had creek bed gravel immediately above the subsoil, as a result of being adjacent to the existing permanently wet creek approximately 5m to 7m to the east of the 290E north-south running gridline. Unit 295E, 345N incurred minimal amounts of groundwater penetration near the subsoil interface, and was considerably deeper than the other units at H2 (AkHd-5).

No specific activity areas could be identified due to the relatively even distribution of the artifacts over the site. However, the low artifact yields among the units along the southwestern edge of the

site suggest that the site does not extend farther in that direction. Furthermore, neighbours told Detritus archaeologists at the time of the assessment that much of the H2 (AkHd-5) grid is an area that incurs seasonal flooding, as shown by its designation as a stormwater management area in the development plans. It is possible that the assemblage's provenience has been altered by the seasonal flooding and extensive agricultural use on the westerly units, also considering the 36 recent material items found in the hand excavation including plastics, and other 20th and 21st century refuse.

Given the available evidence, H2 (AkHd-5) has been interpreted 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. However, due to its location on a seasonal floodplain and currently cultivated agricultural field and the relative quantities of artifacts recovered, their provenance is speculative.

Based on the results of the Stage 3 assessment, H1 (AkHd-4) has been interpreted as a Euro-Canadian site occupied from the middle of the 19th century until the early 20th century. Given the presence of four possible subsurface cultural features, **H1 (AkHd-4) meets the criteria for a Stage 4 Mitigation of Developmental Impacts, as per Section 3.4, Standard 1g of the Standards and Guidelines (Government of Ontario 2011a).**

Finally, based on the results of the Stage 3 assessment, wherein 80% of the artifacts recovered do not predate 1870, **H2 (AkHd-5) does not meet any of the criteria for a Stage 4 Mitigation of Developmental Impacts, as they are outlined in Sections 3.4 and 3.4.2 of the Standards and Guidelines (Government of Ontario 2011a).**

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.

Table of Contents

1.0	Project Context.....	1
1.1	Development Context	1
1.2	Historical Context	1
1.2.1	Post-Contact Indigenous Resources	1
1.2.2	Euro-Canadian Resources	3
1.2.3	Land Registry Record	4
1.2.4	Recent Reports.....	6
1.3	Archaeological Context	6
1.3.1	Property Description and Physical Setting.....	6
1.3.2	Pre-Contact Indigenous Land Use	7
1.3.3	Previous Identified Archaeological Work	7
1.3.4	Summary of Previous Investigations.....	8
1.3.5	Archaeological Potential	8
2.0	Field Methods	10
3.0	Record of Finds	13
3.1	Introduction	13
3.2	H1 (AkHd-4)	13
3.2.1	Structural Artifacts (see Appendix 10.3.1)	13
3.2.2	Ceramics (see Appendix 10.3.2 and 10.3.3).....	14
3.2.3	Household Artifacts (see Appendix 10.3.4)	16
3.2.4	Miscellaneous Metal.....	17
3.2.5	Personal Items (see Appendix 10.3.5)	17
3.2.6	Recent Material	17
3.3	H2 (AkHd-5) Euro-Canadian Cultural Material	17
3.3.1	Structural Artifacts (see Appendix 10.3.1)	17
3.3.2	Ceramics (see Appendix 10.3.2 and 10.3.3).....	18
3.3.3	Household Artifacts (see Appendix 10.3.4)	20
3.3.4	Miscellaneous Metal.....	21
3.3.5	Recent Material	21
3.4	Artifact Distribution and Settlement Pattern	21
3.4.1	H1 (AkHd-4)	21
3.4.2	H2 (AkHd-2)	22
3.5	Artifact Catalogue	22
4.0	Analysis and Conclusions	23
5.0	Recommendations	25
6.0	Advice on Compliance with Legislation	26

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

7.0	Bibliography and Sources	27
8.0	Maps	30
9.0	Images	37
9.1	Photos	37
9.2	H1 (AkHd-4) Feature Drawings	41
9.3	H1 (AkHd-4) Artifacts	43
9.4	H2 (AkHd-5) Artifacts	48
10.0	Appendices	55
10.1	H1 (AkHd-4) Stage 3 Artifact Catalogue.....	55
10.2	H2 (AkHd-5) Stage 3 Artifact Catalogue	64
10.3	Euro-Canadian Artifact Descriptions	73
10.3.1	Structural Artifacts	73
10.3.2	Ceramic Ware Types.....	73
10.3.3	Ceramic Decorative Styles	75
10.3.4	Household Artifacts.....	76
10.3.5	Personal Artifacts	76

Project Personnel

Project Manager:	Garth Grimes, P017
Field Director:	Isaac Bender, R1325
Team Lead:	Timothy Wenn
Field Technicians:	Jasmine Behnood; Jon Cousins, R296; Kristyn Crocker; Erica Ferguson; Luke Krauss; Mackenzie Oja; Jessica Rae; Torben Russo; Ken Sej; Jonathan Vandervoort
Artifact Analysis:	Isaac Bender, R1325
Report Preparation:	Isaac Bender, R1325
Mapping and GIS:	Isaac Bender, R1325, Amanda McCall, R470
Licensee Review:	Walter McCall, P389

Acknowledgments

Generous contributions by the following individuals and agencies made this report possible.

- Kevin Vanleeuwen of Exact Construction LTD
- Michael D'Mello, Bereavement Authority of Ontario
- 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

Detritus Consulting Ltd. ('Detritus') was retained by Mr. Kevin Vanleeuwen of Exact Construction Ltd. (the 'Proponent') to conduct Stage 3 archaeological assessments for H1 (AkHd-4) and H2 (AkHd-5), located 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). These investigations were conducted in advance of a proposed residential development that spans the entire property at 31 Church Street, Alma, Ontario (the 'Study Area') (Figure 7).

The assessments of the two sites were 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 the conditions of this legislation, a Stage 3 assessment was conducted at H1 (AkHd-4) and H2 (AkHd-5) 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 2011a).

The purpose of a Stage 3 Site Specific Assessment is to assess the cultural heritage value or interest ('CHVI') of a site through a controlled collection of material. This information is used to support a determination of whether the site has been sufficiently documented or if further measures are required to protect or document it fully. In compliance with the *Standards and Guidelines* (Government of Ontario 2011a), the objectives of the Stage 3 assessment at H1 (AkHd-4) and H2 (AkHd-5) are:

- To collect a representative sample of artifacts;
- to determine the extent of each archaeological site and the characteristics of the artifacts;
- to assess the CHVI of each archaeological site; and
- to determine the need for mitigation of development impacts and recommend appropriate strategies for mitigation and future conservation.

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

1.2 Historical Context

1.2.1 Post-Contact Indigenous Resources

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

H1 (AkHd-4) and H2 (AkHd-5) first entered the Euro-Canadian historical record on December 7th, 1792 as part of Treaty No. 3, which included land acquired in the 'Between the Lakes Purchase' dating to May 22, 1784. According to the terms of the treaty, the Mississaugas ceded to the Crown approximately 3,000,000 acres of land between Lake Huron, Lake Erie, and Lake Ontario in return for trade goods valued at £1180.

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

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

Morris, 1943, pp. 17-8

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

Throughout southern Ontario, the size and nature of the pre-contact settlements and the subsequent spread and distribution of 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, 1978; Tanner, 1987). Following the population decline and the surrender of most of their lands along the Credit River, the Mississaugas were given 6000 acres of land on the Six Nations Reserve, establishing the Mississaugas of New Credit First Nation, now the Mississaugas of the Credit First Nation, in 1847 (Smith, 2022).

Despite the encroachment of European settlers on previously established Indigenous territories, “written accounts of material life and livelihood, the correlation of historically recorded villages to their archaeological manifestations, and the similarities of those sites to more ancient sites have revealed an antiquity to documented cultural expressions that confirms a deep historical continuity to Iroquoian systems of ideology and thought” (Ferris, 2009, pp. 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

H1 (AkHd-4) and H2 (AkHd-5) are 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, 2012-2015). 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, H1 (AkHd-4) and H2 (AkHd-5) 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, 2012-2015).

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, 1913, pp. 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. H1 (AkHd-4) and H2 (AkHd-5) lie 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 *Historical Atlas*, 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". 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".

1.2.3 Land Registry Record

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 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	<i>ill.</i> Edward Sylec George Sylec and Hannah Pilkington <i>ill.</i>	15000 acres
Power of Attorney	26 August 1861	Edward Sylec	Frederick John Lapontierre	to sell and <i>ill.</i>
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	part 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 <i>ill.</i>
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 <i>ill.</i>	Joseph A McCrae	SW 1/2 50 acres
Quit Claim	01 May 1903	Various <i>ill.</i>	Antoniette McCrae	SW pt 76 acres
Bargain and Sale	01 February 1904	Various <i>ill.</i>	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 McCrae in 1861. In 1862, McCrae and his wife sold the southwestern half of the lot, containing H1 (AkHd-4) and H2 (AkHd-5), 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 was owned by the Pilkington and Sylec families; in the latter half of the 19th century, Lot 1 was owned by the Thompson and McCrae families. The portion of the lot containing H1 (AkHd-4) and H2 (AkHd-5) was owned by Pilkington (1799), Sylec (1834), McCrae (1861), and Thompson (1862).

A small portion of the lot was sold to the Wellington County and Bruce Railway in 1870. Portions in the northeast of the lot were owned and subdivided by the village of Alma or the railway from the middle of the 19th century onwards. The railway and station began operating in 1870. From

1893, the northeastern portion of Lot 1 was subdivided many times and the names become increasingly difficult to discern.

1.2.4 Recent Reports

H1 (AkHd-4) and H2 (AkHd-5) were discovered during a Stage 1-2 assessment of the Study Area, conducted by Detritus on July 7, 2022 (PIF# P389-0538-2021) and documented in the following assessment report;

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 (Detritus 2024)

The results of this investigation will be discussed in greater detail below in Section 1.3.4.

1.3 Archaeological Context

1.3.1 Property Description and Physical Setting

H1 (AkHd-4) and H2 (AkHd-5) were documented during a Stage 2 assessment of the Study Area located at 31 Church Street in the community of Alma.

The Study Area is an irregularly shaped parcel of land measuring 7.72 hectares ('ha'). At the time of the Stage 1-2 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 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 consists of a small creek and manicured lawns. The northernmost 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, pp. 134).

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 Indigenous Land Use

H1 (AkHd-4) and H2 (AkHd-5) occupy 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 provides a general outline of the cultural chronology of Pilkington Township (Ellis and Ferris 1990).

Table 2: Cultural Chronology for the 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 is stored in the Archaeological Sites Database (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.

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

According to the ASDB, no sites have been registered within 1km of H1 (AkHd-4) and H2 (AkHd-5). Furthermore, to the best of Detritus' knowledge, no assessments have been conducted on lands adjacent to the Study Area.

1.3.4 Summary of Previous Investigations

H1 (AkHd-4) and H2 (AkHd-5) were discovered during a Stage 1-2 assessment of the Study Area, conducted by Detritus on July 7, 2022 (PIF# P389-0538-2021; Detritus 2024). The Stage 1 background research indicated that portions of the Study Area exhibited moderate to high potential for the identification and recovery of archaeological resources and was recommended for Stage 2 assessment.

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 34m east to west and 38m north to south 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 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.

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 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, both H1 (AkHd-4) and H2 (AkHd-5) have been identified as Euro-Canadian artifact scatters 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) and H2 (AkHd-5) fulfilled the criteria for Stage 3 Site Specific Assessments.

1.3.5 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 the Study Area. According to Section 1.3.1 of the *Standards and Guidelines* (Government of Ontario, 2011), these variables include proximity to previously identified archaeological sites, distance to various types of water sources, soil texture and drainage, glacial geomorphology, elevated topography, and the general topographic variability of the area.

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

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

- 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 to H1 (AkHd-4) and H2 (AkHd-5) 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. H1 (AkHd-4) and H2 (AkHd-5) are 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 Indigenous artifacts at H1 (AkHd-4) and H2 (AkHd-5) 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* map (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. H1 (AkHd-4) and H2 (AkHd-5) are 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 at H1 (AkHd-4) and H2 (AkHd-5) 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 an area of potential disturbance within the Study Area, in the form a treed and overgrown strip of the disused railbed. This area of previous disturbance is located over 100m from H1 (AkHd-4) and H2 (AkHd-5). No portion of H1 (AkHd-4) and H2 (AkHd-5) demonstrated evidence of previous disturbance. However, a small creek is located along the northeastern edge of the Study Area, running adjacent to H2 (AkHd-5). This was identified as a permanently wet area of low or no archaeological potential during a Stage 2 property inspection (Detritus 2024).

2.0 Field Methods

The Stage 3 assessment of H1 (AkHd-4) and H2 (AkHd-5) was conducted between October 11, 2022 and November 7, 2022 under archaeological consulting license P389 issued to Dr. Walter McCall by the MCM. This investigation began with a review of all relevant reports of previous fieldwork on the property as per Section 3.2, Standard 1 of the *Standards and Guidelines* (Government of Ontario 2011a).

At no time during the investigation were field or weather conditions detrimental to the recovery of archaeological material, as per Section 3.2, Standard 2 of the *Standards and Guidelines* (Government of Ontario 2011a). Lighting and soil conditions were suitable and visibility was excellent, as per Section 7.9.1, Standard 1 of the *Standards and Guidelines* (Government of Ontario 2011a). Table 4 provides a summary of the weather and field conditions during the Stage 3 archaeological assessment; Photos 1 to 15 illustrate field conditions.

Table 4: Field and Weather Conditions

Date	Site	Activity	Weather	Field Conditions
October 11, 2022	H1 (AkHd-4)	established grid	mixed, 22 °C	optimal visibility and low wind
October 12, 2022	H1 (AkHd-4)	unit excavation	mixed, 17 °C	soil dry and screens easily
October 13, 2022	H1 (AkHd-4)	unit excavation	overcast, 9 °C	soil dry and screens easily
October 14, 2022	H1 (AkHd-4)	unit excavation	mixed, 9 °C	soil dry and screens easily
October 18, 2022	H2 (AkHd-5)	established grid	overcast, 3 °C	optimal visibility and low wind
October 21, 2022	H1 (AkHd-4)	unit excavation	sunny, 15 °C	soil dry and screens easily
October 22, 2022	H1 (AkHd-4)	unit excavation	sunny, 18 °C	soil dry and screens easily
October 24, 2022	H1 (AkHd-4) and H2 (AkHd-5)	unit excavation	sunny, 20 °C	soil dry and screens easily
October 25, 2022	H2 (AkHd-5)	unit excavation	sunny, 21 °C	soil dry and screens easily
October 27, 2022	H2 (AkHd-5)	unit excavation	mixed, 9 °C	soil dry and screens easily
November 1, 2022	H2 (AkHd-5)	unit excavation	mixed, 16 °C	soil dry and screens easily
November 2, 2022	H2 (AkHd-5)	unit excavation	sunny, 16 °C	soil dry and screens easily
November 3, 2022	H2 (AkHd-5)	unit excavation	sunny, 15 °C	soil dry and screens easily
November 4, 2022	H2 (AkHd-5)	unit excavation	mixed, 20 °C	soil dry and screens easily
November 7, 2022	H2 (AkHd-5)	unit excavation	sunny, 10 °C	soil dry and screens easily

Upon arrival at the site, geographic reference markers that were established during the Stage 2 archaeological assessment were relocated using a Detritus 9.7" Apple iPad tablet paired with a "Bad Elf" GPS Pro with a stationary accuracy of 2.5m and georeferenced shapefiles. Two permanent datum stakes were placed in the ground and a 5m-by-5m grid was established across the Stage 2 site limits, as per Section 3.2.2, Standard 2 of the *Standards and Guidelines* (Government of Ontario 2011a). All coordinates taken during the Stage 3 assessment are listed in the Supplementary Documentation that accompanies this report.

For archaeological sites documented through a pedestrian survey of open ploughed fields, a Stage 3 field investigation typically begins with a controlled surface pick-up ("CSP"), conducted as per Section 3.2.1 of the *Standards and Guidelines* (Government of Ontario 2011a). A portion of H1 (AkHd-4) was identified during a test pit assessment over overgrown greenspace; therefore, no CSP was required for that portion. The remainder of the site and all of H2 (AkHd-5) were documented during a pedestrian survey. During this investigation, however, the surface artifacts from both sites were digitally mapped individually and collected for laboratory analysis. Thus, the conditions for a Stage 3 CSP at H1 (AkHd-4) and H2 (AkHd-5) were met during the Stage 2 assessment. The Stage 3 assessments of H1 (AkHd-4) and H2 (AkHd-5) consisted of test unit excavation only, conducted as per Section 3.2.2 of the *Standards and Guidelines* (Government of Ontario 2011a). Photographs of the Stage 3 test unit excavation are provided in Section 9.1 of this report.

The Stage 3 assessment at H1 (AkHd-4) included the hand excavation of 29 test units strategically positioned to test the nature and density of the subsurface artifact distribution at the site.

Given that it was not evident that the level of CHVI at the site would result in a recommendation to proceed to Stage 4, the Stage 3 assessment initially consisted of the hand excavation of test

units every 5m across the site limits, as per Section 3.2.3, Table 3.1, Standard 1 of the *Standards and Guidelines* (Government of Ontario 2011a). Over the course of the test unit excavation, it became clear that the level of CHVI at the site would result in a recommendation to proceed to Stage 4. Therefore, 19 test units were positioned every 10m across the site limits, as per Section 3.2.3, Table 3.1, Standard 3 of the *Standards and Guidelines* (Government of Ontario 2011a). An additional 10 test units amounting to 52% of the original grid total were excavated in areas of interest within the site extent as per Section 3.2.3, Table 3.1, Standard 4 of the *Standards and Guidelines* (Government of Ontario 2011a).

The unit excavation began in the southwestern corner of the site and along the western edge. When excavating these units, a plethora of small, non-diagnostic brick fragments were encountered. It was determined that the brick fragments were skewing the artifact counts in the units therefore a sampling strategy was employed and one litre size samples of brick fragments were collected to ensure representative sample across brick colour, types, and sizes.

The eastern and southern limits of the H1 (AkHd-4) Stage 3 grid were determined by the edges of the Study Area. To the north and west, the Stage 3 grid was expanded until artifact yields dropped below 62 artifacts, which represents two standard deviations ($\sigma=24.80$) below the mean average of the five highest yielding Stage 3 units on site (mean=111.6 artifacts). These units are the only ones to yield over 85 artifacts and correspond with the primary artifact concentration observed within the site limits. Combined these five units produced almost half of the artifacts within the Stage 3 assemblage (43.22%; n=558). Two standard deviations correspond with 95% of the data set.

The Stage 3 assessment at H2 (AkHd-5) included the hand excavation of 54 test units strategically positioned to test the nature and density of the subsurface artifact distribution at the site.

Upon beginning the test unit excavation at H2 (AkHd-5), it became clear that the level of CHVI at the site would not result in a recommendation to proceed to Stage 4. In turn, 45 test units were positioned every 5m across the site limits, as per Section 3.2.3, Table 3.1, Standard 1 of the *Standards and Guidelines* (Government of Ontario 2011a). An additional 9 test units amounting to 20% of the original grid total were excavated in areas of possible interest within the site extent as per Section 3.2.3, Table 3.1, Standard 2 of the *Standards and Guidelines* (Government of Ontario 2011a).

The limits of the H2 (AkHd-5) Stage 3 grid were determined by artifact yields dropped below 16 artifacts, which represents two standard deviations ($\sigma=2.87$) below the mean average of the five highest yielding Stage 3 units on site (mean=20.4 artifacts). These units are the only ones to yield over 17 artifacts and correspond with the primary artifact concentration observed within the site limits. Combined these five units produced approximately one fifth of the artifacts within the Stage 3 assemblage (21.79%; n=102). Two standard deviations correspond with 95% of the data set. Only three of the edge units, however, yielded more than seven artifacts, which is more than four standard deviations below the mean average of the five highest yielding Stage 3 units on site.

All of the Stage 3 test units at H1 (AkHd-4) and H2 (AkHd-5) were excavated in systematic levels as per Section 3.2.2, Standard 4 of the *Standards and Guidelines* (Government of Ontario 2011a); those units not containing traces of a cultural feature were excavated into the first five centimetres ('cm') of subsoil as per Section 3.2.2, Standard 5 of the *Standards and Guidelines* (Government of Ontario 2011a). Each test unit contained a single stratigraphic layer (the 'topsoil') that ranged in thickness from 16cm to 60cm. All excavated soil from the Stage 3 test units was screened through six-millimetre ('mm') hardware cloth to facilitate the recovery of small artifacts, as per Section 3.2.2, Standard 7 of the *Standards and Guidelines* (Government of Ontario 2011a).

All artifacts recovered during the Stage 3 excavations at H1 (AkHd-4) and H2 (AkHd-5) were recorded and catalogued with reference to their corresponding 1m unit number and retained for laboratory analysis and description, as per Section 3.2.3, Standard 8 of the *Standards and Guidelines* (Government of Ontario 2011a). The subsoil surface of each excavated unit was shovel shined and examined for any evidence of subsurface cultural features, of which four were observed in the test units located at 200E, 520N; 210E, 510N; 220E, 510N; 215E, 520N; 215E, 530N; 230E, 535N at the H1 (AkHd-4) site (see Section 3.4, below). The exposed plan of each feature was recorded as per Section 3.2.2, Standard 6a of the *Standards and Guidelines*

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

(Government of Ontario 2011a) and can be seen in Sections 9.1 and 9.2 of this report. Geotextile fabric was placed over the unit floors and the units were backfilled as per Section 3.2.2, Standard 6b of the *Standards and Guidelines* (Government of Ontario 2011a). No such features were observed at H2 (AkHd-5).

3.0 Record of Finds

3.1 Introduction

The Stage 3 archaeological assessments of H1 (AkHd-4) and H2 (AkHd-5) were conducted employing the methods described in Section 2.0 above. Figures 5 and 6 provide the results of this investigation. Maps indicating the exact site location of the site, and all UTM coordinates recorded during the assessment, are included in the Supplementary Documentation to this report. An inventory of the documentary record generated by the fieldwork is provided in Table 5 below.

Table 5: Inventory of Document Record

Document Type	Current Location	Additional Comments
7 Pages 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
21 Digital Photographs	Detritus office	stored digitally in project file

All of the material culture collected during the Stage 3 archaeological assessment of H1 (AkHd-4) and H2 (AkHd-5) are contained in one box and will be temporarily housed in a Detritus office 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 site's owners.

3.2 H1 (AkHd-4)

The Stage 3 assessment of H1 (AkHd-4) produced 1,291 Euro-Canadian artifacts (Table 6). No Aboriginal pottery or fire cracked rock were observed. A sample of the artifacts recovered from the Stage 3 assessment is depicted in Section 9.3 of this report.

Table 6: H1 (AkHd-4) Artifact Summary

Artifacts	Frequency	%
structural	555	42.99
ceramics	315	24.40
household	293	22.70
miscellaneous metal	103	7.98
personal	13	1.01
recent material	12	0.93
Total	1,291	100.00

3.2.1 Structural Artifacts (see Appendix 10.3.1)

Almost half of the artifacts recovered from H1 (AkHd-4) were structural. The structural artifact assemblage is made up of over 40% window glass (43.24%; n=240), and smaller amounts of brick and cut nails, representing approximately a quarter of all structural artifacts each. Smaller samples of mortar and wrought and wire nails were also observed (see Table 7).

Table 7: Structural Artifact Summary

Structural	Frequency	%
glass, window	240	43.24
nail, cut	141	25.41
brick	126	22.70
nail, wire	25	4.50
mortar	22	3.96
nail, wrought	1	0.18
Total	555	100.00

Although not diagnostic, the brick fragments were primarily red fragments (n=118) with a lesser amount of yellow brick (n=8). Over 90% of the window glass pieces (92.08%; n=221) were greater than 1.6mm in thickness, suggestive of a post-1845 occupation. Furthermore, the predominance of cut nails, when considered with the 26 wire nails, supports a middle 19th to 20th century

occupation. A single wrought nail was also recovered at the site, but this specimen represents less than 1% of the structural artifact assemblage and less than 0.1% of the Stage 3 assemblage as a whole.

3.2.2 Ceramics (see Appendix 10.3.2 and 10.3.3)

Three quarters of the Stage 3 ceramic assemblage (75.23%) comprised either refined white earthenware ('RWE') or ironstone. Utilitarian wares such as earthenwares and stoneware, Jackfield-type, semi-porcelain, and yellowware were also represented in smaller quantities. Table 8 provides a summary of ceramic assemblage by ware type and Table 9, by surface decoration technique.

Table 8: Ceramic Assemblage by Ware Type (see Appendix 10.3.2)

Ceramics	Frequency	%
RWE	148	46.98
ironstone	89	28.25
utilitarian	64	20.32
yellowware	7	2.22
semi-porcelain	6	1.90
Jackfield-type	1	0.32
Total	315	100.00

Table 9: Ceramic Assemblage by Decorative Style (see Appendix 10.3.3)

Ceramics	Frequency	%
RWE, undecorated	125	39.68
ironstone, undecorated	63	20.00
red earthenware	55	17.46
ironstone, moulded	23	7.30
RWE, painted	15	4.76
yellowware	7	2.22
RWE, transfer printed	5	1.59
semi-porcelain, moulded	4	1.27
RWE, flow-transfer printed	3	0.95
stoneware, salt glazed	3	0.95
stoneware, slip glazed	3	0.95
yellow earthenware	3	0.95
ironstone, painted	2	0.63
semi-porcelain, painted	1	0.32
semi-porcelain, undecorated	1	0.32
Jackfield-type	1	0.32
ironstone, edged	1	0.32
Total	315	100.00

A total of 39.68% of the ceramic sherds are undecorated RWE fragments. Most of the decorated pieces within the Stage 3 ceramic assemblage comprised transfer printed and painted RWE sherds (5.71%, n=18). Blue was the most common colour observed among the transfer printed fragments; it was also the most popular colour for transfer printed ceramic vessels throughout the 19th century, although black and brown were also observed, which suggest a period of occupation at the site from 1830 to 1845, during which all five colours were commonly used.

Blue, green, and mulberry were the common colours observed among the hand painted sherds, which suggests a period of occupation at the site from 1830 to 1870, during which all these colours were commonly used.

A middle to late 19th century occupation is also supported by the ironstone (28.25%; n=89) and yellowware (2.22%; n=7) sherds which were popular after 1840, and the flow transfer printed RWE and ironstone sherds, which were popular between 1845 and 1870.

The six semi-porcelain pieces and single instance of Jackfield-type ware extends this occupation into the later 19th and early 20th century.

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Included in the assemblage are 55 pieces of red earthenware, 6 pieces of stoneware, and three pieces of yellow earthenware. Earthenware cannot be used to precisely 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. The presence of red earthenware and stoneware in the Stage 3 assemblage suggests that the occupation of H1 (AkHd-4) spanned the middle of the 19th century.

Overall, the Stage 3 ceramic assemblage from H1 (AkHd-4) suggests a period of occupation ranging from the middle of the 19th century until the early 20th century.

Furthermore, as part of their analysis, all ceramic sherds within the Stage 3 assemblage were examined in order to describe the function of the item from which the ceramic sherd originated. 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 archaeologically 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). Hollowwares and flatwares were differentiated based on the presence or absence, respectively, of curvature in the ceramic cross-section of each sherd. The classification system used here is based upon Beaudoin (2013:78-82), but teas were differentiated as teacups and tea saucers as necessary. If Beaudoin's classifications could not be applied, then the broader definitions of Voss (2008:209) were used. Ultimately, if sherds were small enough that even a general functional or formal ware type could not be determined, and then the sherd was simply classified as a rim fragment, a non-rim fragment, a base fragment, or indeterminate.

In terms of form, 64 pieces were determined to be flat, 19 pieces were determined to be hollow and 232 were unknown. In terms of function, most of the ceramic pieces were unidentifiable, however, of those that could be identified, 32 were determined to be from plates, 15 from platters, three from cups, two from inkwells, and one from a pot. Table 10 provides a summary of the ceramic assemblage by form and Table 11, by function.

Table 10: Ceramic Assemblage by Form

Ceramic	Flat	Hollow	Unknown
RWE, undecorated	20	1	104
ironstone, undecorated	23		40
red earthenware	1	11	43
ironstone, moulded	15		8
RWE, painted	1		14
yellowware		3	4
RWE, transfer printed	1		4
semi-porcelain, moulded		2	2
RWE, flow-transfer printed			3
stoneware, salt glazed			3
stoneware, slip glazed		2	1
yellow earthenware			3
ironstone, painted			2
semi-porcelain, painted	1		
semi-porcelain, undecorated			1
jackfield-type	1		
ironstone, edged	1		
Total	64	19	232

Table 11: Ceramic Assemblage by Function

Artifact	Cup	Ink Well	Plate	Platter	Pot	Unknown
RWE, undecorated			15			110
ironstone, undecorated			17			46
red earthenware					1	54
ironstone, moulded				15		8
RWE, painted						15
yellowware	3					4
RWE, transfer printed						5
semi-porcelain, moulded						4
RWE, flow-transfer printed						3
stoneware, salt glazed						3
stoneware, slip glazed		2				1
yellow earthenware						3
ironstone, painted						2
semi-porcelain, painted						1
semi-porcelain, undecorated						1
Jackfield-type						1
ironstone, edged						1
Total	3	2	32	15	1	262

3.2.3 Household Artifacts (see Appendix 10.3.4)

A total of 305 household artifacts were observed within the Stage 3 assemblage, 80.88% of which comprised glassware. The remainder of the assemblage comprised faunal remains (10.92%; n=32), clinker (5.46%; n=16), charcoal (2.39%; n=7), and a wooden stake (Table 12).

Table 12: Household Artifact Summary

Household	Frequency	%
glass, bottle	234	79.86
faunal remains, mammalian	27	9.22
clinker	16	5.46
charcoal	7	2.39
faunal remains, avian	5	1.71
glass, bottle complete	1	0.34
glass, bottle finish	1	0.34
glass, decanter base	1	0.34
wooden stake	1	0.34
Total	293	100.00

Over 60% of the glass pieces (62.44%; n=148) were clear, which is indicative of a post-1870 date of occupation. Other colours represented in the bottle glass assemblage include amber, aqua, blue, brown, green, olive, and violet; the most frequent of which being aqua representing 20.25% of the glassware assemblage (n=48). The presence of extensive glassware, meanwhile, is suggestive of an upper-class occupation.

Cat#260 from unit 235E, 530N, contained 36 pieces of what was identified as glass from the same mason jar. The mason jar fragments show indication of the Crown Imperial logo and a pressed, two-piece moulded manufacturing process which dates to between 1883 and 1890, when it was manufactured by the North American Glass Company (McCord Stewart Museum 2022).

Furthermore, Cat#270 is an intact chemist/medicine vial that is clear and measures 7.51cm long, by 2.23cm wide. The bottle has a patent finish but no clear maker's mark or usage designation on the exterior of the body. It was likely used to store different liquids used in medicinal contexts including homeopathy (Lindsey 2022).

None of the glass fragments showed evidence of knapping or additional working, typically indicative of a post-contact Indigenous occupation.

Faunal remains were also well represented in the assemblage 27 of which were mammalian animal bone fragments, and five were avian animal bone fragments. The majority of the animal bones were too small or broken to identify a taxonomy, however they are likely from an array of commonly found livestock used in Southern Ontario Agriculture throughout the 19th century including cow (*Bos taurus*) pig (*Sus domesticus*), and horse (*Equus ferus caballus*). Of the fragments in the assemblage, four pieces were calcified and one was burnt.

3.2.4 Miscellaneous Metal

Also included within the Stage 3 assemblage were 57 pieces of unidentifiable miscellaneous metal, 15 were pieces of barbed wire, seven were pieces of metal sheeting, six were miscellaneous metal wire, four metal bolts, two metal bands, two metal eyelets, two metal screws, two metal stakes, one metal pin, one metal can, one metal can lid, one metal chain link, one metal hook, one metal ornament, one metal pipe, one metal ring, and one metal rod. None of the metal was temporally diagnostic.

3.2.5 Personal Items (see Appendix 10.3.5)

A total of 13 personal items were represented in the Stage 3 artifact assemblage, six of which are buttons including three Prosser buttons, two wooden buttons, and one bone button; and five of which are white clay pipe fragments. Also included was a single porcelain doll face and a slate writing tablet.

Generally white clay tobacco pipes were in use throughout the majority of the 19th century before dropping off in popularity at the turn of the century. None of the pieces were decorated or showed any evidence of the manufacturer.

3.2.6 Recent Material

Twelve pieces of recent material were recovered including plastic containers, a Colgate Brand “Ribbon Dental Cream” package from the mid 20th century (Cat#290), a metal gear, and miscellaneous plastic refuse.

3.3 H2 (AkHd-5) Euro-Canadian Cultural Material

The Stage 3 assessment of H2 (AkHd-5) produced 468 Euro-Canadian artifacts (Table 13). No Indigenous pottery or fire cracked rock were observed. A sample of the artifacts recovered from the Stage 3 assessment is depicted in Section 9.3 of this report.

Table 13: H2 (AkHd-5) Artifact Summary

Artifacts	Frequency	%
household	263	56.20
ceramics	97	20.73
structural	47	10.04
recent material	37	7.91
miscellaneous metal	24	5.13
Total	468	100.00

3.3.1 Structural Artifacts (see Appendix 10.3.1)

Over 50% of the artifacts in the Stage 3 structural artifact assemblage comprised window glass (53.19%; n=25). Bricks, nails, mortar, and a slate tile were also represented (Table 14).

Table 14: Structural Artifact Summary

Structural	Frequency	%
glass, window	25	53.19
brick	11	23.40
nail, wire	7	14.89
mortar	2	4.26
nail, cut	1	2.13

Structural	Frequency	%
slate roofing tile	1	2.13
Total	47	100.00

All but one of the window glass pieces (96%; n=24) were greater than 1.6mm in thickness, suggestive of a post-1845 occupation. Although not diagnostic, the brick fragments were exclusively red fragments (n=11). The frequency of wire nails and presence of a slate roofing tile supports a middle 19th to 20th century occupation.

3.3.2 Ceramics (see Appendix 10.3.2 and 10.3.3)

Just over three quarters of the Stage 3 ceramic assemblage (77.32%) comprised either ironstone or utilitarian wares. Refined White Earthenware ('RWE'), creamware, pearlware, yellowware, Jackfield-type, Rockinghamware, semi-porcelain, and porcelain were also represented in trace amounts. Table 15 provides a summary of ceramic assemblage by ware type and Table 16, by surface decoration technique.

Table 15: Ceramic Assemblage by Ware Type (see Appendix 10.3.2)

Ceramics	Frequency	%
ironstone	58	59.79
utilitarian	17	17.53
semi-porcelain	9	9.28
RWE	4	4.12
porcelain	4	4.12
Jackfield-type	2	2.06
creamware	1	1.03
pearlware	1	1.03
Rockinghamware	1	1.03
Total	97	100.00

Table 16: Ceramic Assemblage by Decorative Style (see Appendix 10.3.3)

Ceramics	Frequency	%
ironstone, undecorated	45	46.39
ironstone, transfer printed	7	7.22
red earthenware	6	6.19
semi-porcelain, undecorated	6	6.19
stoneware, salt glazed	6	6.19
ironstone, sponged	3	3.09
terra cotta	3	3.09
RWE, undecorated	3	3.09
Jackfield-type	2	2.06
porcelain, moulded	2	2.06
porcelain, undecorated	2	2.06
semi-porcelain, moulded	2	2.06
stoneware, slip glazed	2	2.06
creamware, undecorated	1	1.03
ironstone, flow-transfer printed	1	1.03
ironstone, moulded transfer printed	1	1.03
ironstone, painted	1	1.03
Rockinghamware	1	1.03
RWE, flow-transfer printed	1	1.03
pearlware, edged	1	1.03
semi-porcelain, transfer printed	1	1.03
Total	97	100.00

A total of 47.42% of the ceramic sherds are undecorated ironstone fragments. Most of the decorated pieces within the Stage 3 ceramic assemblage comprised transfer printed ironstone sherds (11.56%, n=6). Blue and teal were the most common colour observed among the transfer printed fragments; however, blue was also the most popular colour for transfer printed ceramic vessels throughout the 19th century, although green and mulberry were also observed, suggesting

a period of occupation between 1845 and 1870 when these styles were popular. It should also be noted that flow transfer vessels made a resurgence in southern Ontario after 1890, of which one sherd of ironstone and one sherd of RWE boasted this decorative style.

The nine semi-porcelain pieces and five porcelain pieces extends this occupation into the later 19th and early 20th century. Furthermore, the two sherds of Jackfield-type ware, while typically associated with an early 19th century occupation, may also support a later 19th and early 20th century occupation due to Jackfield-type's resurgence in popularity in the late 19th century when terra cotta or white earthenware bodies were used.

Smaller instances of diagnostically earlier ceramic wares such as creamware, pearlware, and Rockinghamware were recovered at H2 (AkHd-5), suggestive of an early 19th century occupation, however due to their relative infrequency across the site it is likely that these examples are heirloom items or were deposited as refuse at a later time and turned into the soil through Euro-Canadian agricultural practices, rather than a late 18th and early 19th century occupation of H2 (AkHd-5).

Included in the assemblage are six pieces of red earthenware and eight pieces of stoneware. Earthenwares cannot be used to precisely 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. The presence of red earthenware and stoneware in the Stage 3 assemblage suggests that the occupation of H2 (AkHd-5) spanned the middle of the 19th century.

Overall, the Stage 3 ceramic assemblage from H2 (AkHd-5) suggests a period of occupation ranging from the middle 19th century and lasting until the 20th century.

As aforementioned, as part of their analysis, all ceramic sherds within the Stage 3 assemblage were examined in order to describe the function of the item from which the ceramic sherd originated. For those sherds that were too fragmentary for a functional assignment, an attempt was made to at least provide a formal description. Hollowwares and flatwares were differentiated based on the presence or absence, respectively, of curvature in the ceramic cross-section of each sherd. The classification system used here is based upon Beaudoin (2013:78-82), but teas were differentiated as teacups and tea saucers as necessary. If Beaudoin's classifications could not be applied, then the broader definitions of Voss (2008:209) were used. Ultimately, if sherds were small enough that even a general functional or formal ware type could not be determined, and then the sherd was simply classified as a rim fragment, a non-rim fragment, a base fragment, or indeterminate.

In terms of form, 71 were indeterminable, 16 pieces were determined to be flat, and seven pieces were determined to be hollow. For function, most of the ceramic pieces were unidentifiable, however three pieces were determined to be part of a cup, two from a plate, and one from a pot. Table 17 provides a summary of the ceramic assemblage by form and Table 18, by function.

Table 17: Ceramic Assemblage by Form

Ceramics	Flat	Hollow	Unknown
ironstone, undecorated	3	2	40
ironstone, transfer printed	4	-	3
red earthenware	-	2	4
semi-porcelain, undecorated	1	1	4
stoneware, salt glazed	3	-	3
ironstone, sponged	-	-	3
RWE, undecorated	-	-	3
Jackfield-type	1	-	1
porcelain, moulded	-	-	2
porcelain, undecorated	-	1	1
semi-porcelain, moulded	-	-	2
stoneware, slip glazed	-	1	1
creamware, undecorated	1	-	-
ironstone, flow-transfer printed	1	-	-
ironstone, moulded transfer printed	-	-	1

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Ceramics	Flat	Hollow	Unknown
ironstone, painted	1	-	-
Rockinghamware	-	-	1
RWE, flow-transfer printed	-	-	1
pearlware, edged	1	-	-
semi-porcelain, transfer printed	-	-	1
Total	16	7	71

Table 18: Ceramic Assemblage by Function

Ceramics	Cup	Plate	Pot	Unknown
ironstone, undecorated	2	-	-	44
ironstone, transfer printed	-	-	-	6
red earthenware	-	-	1	5
semi-porcelain, undecorated	-	-	-	6
stoneware, salt glazed	-	-	-	6
ironstone, sponged	-	-	-	3
RWE, undecorated	-	-	-	3
Jackfield-type	-	-	-	2
porcelain, moulded	-	-	-	2
porcelain, undecorated	1	-	-	1
semi-porcelain, moulded	-	-	-	2
stoneware, slip glazed	-	-	-	2
creamware, undecorated	-	1	-	
ironstone, flow-transfer printed	-	-	-	1
ironstone, moulded transfer printed	-	-	-	1
ironstone, painted	-	1	-	-
Rockinghamware	-	-	-	1
RWE, flow-transfer printed	-	-	-	1
pearlware, edged	-	-	-	1
semi-porcelain, transfer printed	-	-	-	1
Total	3	2	1	88

3.3.3 Household Artifacts (see Appendix 10.3.4)

A total of 263 household artifacts were observed within the Stage 3 assemblage, over 92% of which comprised glassware (n=242). Further, glassware made up over 50% of the entire Stage 3 assemblage at H2 (AkHd-5). The remainder of the household assemblage comprised lightbulb glass, petrified wood, charcoal, and faunal remains (Table 19).

Table 19: Household Artifact Summary

Household	Frequency	%
glass, bottle	236	89.73
charcoal	11	4.18
glass, lightbulb	5	1.90
faunal remains, mammalian	4	1.52
glass, bottle finish	3	1.14
glass, bottle stopper	1	0.38
glass, bowl	1	0.38
glass, decanter	1	0.38
petrified wood	1	0.38
Total	263	100.00

Almost 70% of the glass pieces (66.94%; n=242) were clear, which is indicative of a post-1870 date of occupation. Other colours represented in the bottle glass assemblage include amber, aqua, blue, green, olive, and violet.

Cat#28 is a machine-made patent bottle finish that is clear in colour and is indicative of an early 20th century occupation, further exemplified by Cat#51 which is another machine-made patent bottle finish that is amber in colour, reminiscent of modern alcohol bottles. Likewise, Cat#112 is an olive-green partial bottle finish, also reminiscent of modern alcohol bottles.

None of the glass fragments showed evidence of knapping or additional working.

Four pieces of faunal remains, specifically animal bones were present at H2 (AkHd-5). Only one could be identified as a rib from a cow (*Bos taurus*). The remaining fragments were indeterminate and two fragments were calcified. None showed signs of butchering or burning.

3.3.4 Miscellaneous Metal

Also included within the Stage 3 assemblage were nine pieces of metal sheeting, seven pieces of miscellaneous metal, two pieces of metal wire, a metal band, a piece of metal barbed wire, a metal cylinder, a metal screw, a metal stake, and a piece of tin sheeting.

None of the metal pieces were temporally diagnostic.

3.3.5 Recent Material

Thirty-six pieces of recent material were recovered from H2 (AkHd-5) including a AAA battery, melted plastic, plastic wrappers, electronic fuse, disposable pie pan, metal wire, plastic wire caps, and other miscellaneous plastic pieces.

3.4 Artifact Distribution and Settlement Pattern

3.4.1 H1 (AkHd-4)

The Stage 3 assessment of H1 (AkHd-4) yielded 1,291 Euro-Canadian artifacts from the hand excavation of 29 Stage 3 test units. Additionally, four possible features were observed. Artifact yields ranged from 5 to 143, including three units that yielded more than 100 artifacts. One of the Stage 3 test units, located at 220E, 520N, yielded a plastic bag approximately 35cm below the surface showing signs of localized disturbance and land alteration (Photo 17).

As mentioned previously, the unit excavation began in the southwestern corner of the site and along the western edges. When excavating these units, a plethora of small non diagnostic brick fragments were discovered. It was determined that the bricks were skewing the artifact counts in the units therefore a sampling strategy was employed and one liter size samples of brick were collected to ensure representative sample across brick colour, types and sizes.

When excluding bricks from the assemblage, the majority of the recovered artifacts were structural artifacts, particularly the 240 window glass fragments, which alone comprises 18.59% of the total assemblage as well as the predominance of cut nails (n=141), when considered with the 25 wire nails and one wrought nail, also supports a mid 19th century occupation at the site. The next most frequently occurring artifact type was ceramics (n=315). The majority of the ceramics comprise RWE and ironstone, and utilitarian wares. A lesser amount of yellowware, semi-porcelain, and Jackfield-type were also recovered. Overall, the Stage 3 ceramic assemblage from H1 (AkHd-4) suggests a period of occupation ranging from the middle to late 19th century.

One main activity area was observed at H1 (AkHd-4). The activity area was observed as connected hotspots in the eastern half of the site along the 225E and 230E north-south running gridlines between 510N and 530N. The highest yielding units are located at 225E, 530N (n=143); 230E, 530N (n=138); 230E, 510N (n=106); 225E, 510N (n=86); and 235E, 530N (n=85). By contrast, the highest yielding artifact counts are found in units along the eastern half of the site, whereas features found at H1 (AkHd-4) are found predominantly along the western half of the site between 200E and 220E north-south running gridlines.

Four features were observed during the Stage 3 assessment. Feature 1 is a compact layer of brick rubble layer observed within the contiguous units 210E, 510N (Photo 11, Drawing 1); 220E, 510N (Photo 14, Drawing 3); and 215E 520N (Photo 12, Drawing 2) encountered at a depth of 15 to 37 centimetres below the surface.

Feature 2 was observed in unit 215E, 530N and comprised another rubble layer made up of primarily clinker, featuring a wooden beam running north-south (Photo 13, Drawing 4). Feature 3 was observed 5m to the east in unit 220E, 530N. This feature included a plaster layer with miscellaneous metal scattered across the entire unit (Photo 15, Drawing 6). This plaster layer

extended into the southern half of unit 230E, 535N (Photo 16, Drawing 5), although it was not apparent in unit 225E, 530N (Photo 18). Finally, Feature 4 comprised a charcoal smear on top of the subsoil within in the southwestern corner of unit 200E, 520N (Photo 10, Drawing 7).

Overall, the distribution of artifacts and features at H1 (AkHd-4) suggests the site was subject to a demolition event sometime in the late 19th century, pushing structural components such as brick, mortar, and slag towards the western half of the site, while the higher artifact counts stay relatively intact along the eastern half of the site.

3.4.2 H2 (AkHd-2)

The Stage 3 assessment of H2 (AkHd-5) yielded 468 Euro-Canadian artifacts from the hand excavation of 54 Stage 3 test units. No pre-contact Indigenous pottery, post-contact Indigenous artifacts, or fire cracked rock were recovered. Additionally, no features were observed. Artifact yields ranged from 0 to 25, including three units that yielded more than 20 artifacts.

Artifacts are relatively evenly distributed amongst the central units at H2 (AkHd-5), with the exception of unit 290E, 345N that had an artifact count of 22. Generally, artifacts quickly diminish in frequency towards the west, along the 280E north-south running gridline, and to the northern and southern extent of the site.

Units 290E, 360N; 290E, 370N; 290E, 395N; 295E, 363N; and 295E, 345N were all found to have creek bed gravel immediately above the subsoil, as a result of being adjacent to the existing permanently wet creek approximately 5m to 7m to the east of the 290E north-south running gridline. Unit 295E, 345N incurred minimal amounts of groundwater penetration near the subsoil interface, and was considerably deeper than the other units at H2 (AkHd-5).

No specific activity areas could be identified due to the relatively even distribution of the artifacts over the site. Furthermore, neighbours told Detritus archaeologists at the time of the assessment that much of the H2 (AkHd-5) grid is an area that incurs seasonal flooding, as shown by its designation as a stormwater management area in the development plans. It is possible that the assemblage's provenience has been altered by the seasonal flooding and extensive agricultural use on the westerly units, also considering the 36 recent material items found in the hand excavation including plastics, and other 20th and 21st century refuse.

3.5 Artifact Catalogue

Appendix 10.1 below provides a complete catalogue of the Stage 3 artifact assemblage recovered from both H1 (AkHd-4) and H2 (AkHd-5).

4.0 Analysis and Conclusions

Detritus was retained by the Proponent to conduct a Stage 3 archaeological assessment at H1 (AkHd-4) and H2 (AkHd-5) in advance of a large residential development at 31 Church Street in Alma.

The Stage 3 assessment of H1 (AkHd-4) and H2 (AkHd-5) was conducted between October 11, 2022 and November 7, 2022 under archaeological consulting license P389 issued to Dr. Walter McCall by the MCM. This investigation resulted in the recovery of 1,291 Euro-Canadian artifacts from the hand excavation of 29 Stage 3 1m test units at H1 (AkHd-4) and 468 Euro-Canadian artifacts from the hand excavation of 54 Stage 3 1m test units at H2 (AkHd-4).

One main activity area was observed at H1 (AkHd-4). The activity area was observed as connected hotspots in the eastern half of the site along the 225E and 230E north-south running gridlines between 510N and 530N. The highest yielding units are located at 225E, 530N (n=143); 230E, 530N (n=138); 230E, 510N (n=106); 225E, 510N (n=86); and 235E, 530N (n=85). By contrast, the highest yielding artifact counts are found in units along the eastern half of the site, whereas features found at H1 (AkHd-4) are found predominantly along the western half of the site between 200E and 220E north-south running gridlines.

The majority of the recovered artifacts were structural artifacts, particularly the 240 window glass fragments, which alone comprises 18.59% of the total assemblage as well as the predominance of cut nails (n=141), when considered with the 25 wire nails and one wrought nail, also supports a mid 19th century occupation at the site. The next most frequently occurring artifact type was ceramics (n=315). The majority of the ceramics comprise RWE and ironstone, and utilitarian wares. A lesser amount of yellowware, semi-porcelain, and Jackfield-type were also recovered. Overall, the Stage 3 ceramic assemblage from H1 (AkHd-4) suggests a period of occupation ranging from the middle to late 19th century.

Four features were observed during the Stage 3 assessment. Feature 1 is a compact layer of brick rubble layer observed within units 210E, 510N; 220E, 510N; and 215E 520N. Feature 2 was observed in unit 215E, 530N and comprised another rubble layer made up of primarily clinker, featuring a wooden beam running north-south. Feature 3 was observed 5m to the east in unit 220E, 530N. This feature included a plaster layer with miscellaneous metal scattered across the entire unit. This plaster layer extended into the southern half of unit 230E, 535N. Finally, Feature 4 comprised a charcoal smear on top of the subsoil within in the southwestern corner of unit 200E, 520N.

Overall, the distribution of artifacts and features at H1 (AkHd-4) suggests the site was subject to a demolition event sometime in the late 19th century, pushing structural components such as brick, mortar, and slag towards the western half of the site, while the higher artifact counts stay relatively intact along the eastern half of the site.

Based on the available evidence, H1 (AkHd-4) has been interpreted as a demolition event that occurred at the original church building, located at 31 Church St, prior to or around the time of its relocation in 1892 to 8 Peel Street to meet the demands of the growing congregation. Some artifacts found at this site could also be related to the nearby occupations by the Pilkington, Sylec, McRae, and Thompson families, dumped at this location prior to the demolition event.

The Stage 3 assessment of H2 (AkHd-5) produced 468 Euro-Canadian Artifacts from the hand excavation of 54 test units. The artifacts at H2 (AkHd-5) were relatively evenly distributed amongst the central units, with the exception of unit 290E, 345N that had an artifact count of 22. Generally, artifacts quickly diminish in frequency towards the west, along the 280E north-south running gridline, and to the northern and southern extent of the site.

Several units had creek bed gravel immediately above the subsoil, as a result of being adjacent to the existing permanently wet creek approximately 5m to 7m to the east of the 290E north-south running gridline. Unit 295E, 345N incurred minimal amounts of groundwater penetration near the subsoil interface, and was considerably deeper than the other units at H2 (AkHd-5).

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

No specific activity areas could be identified due to the relatively even distribution of the artifacts over the site. Furthermore, neighbours told Detritus archaeologists at the time of the assessment that much of the H2 (AkHd-5) grid is an area that incurs seasonal flooding, as shown by its designation as a stormwater management area in the development plans. It is possible that the assemblage's provenience has been altered by the seasonal flooding and extensive agricultural use on the westerly units, also considering the 36 recent material items found in the hand excavation including plastics, and other 20th and 21st century refuse.

Given the available evidence, H2 (AkHd-5) has been interpreted 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. However, due to its location on a seasonal floodplain and currently cultivated agricultural field and the relative quantities of artifacts recovered, their provenance is speculative.

5.0 Recommendations

Based on the results of the Stage 3 assessment, H1 (AkHd-4) has been interpreted as a Euro-Canadian site occupied from the middle of the 19th century until the early 20th century. Given the period of occupation represented within the Stage 3 assemblage, in addition to the presence of four possible subsurface cultural features, **H1 (AkHd-4) meets the criteria for a Stage 4 Mitigation of Developmental Impacts, as per Section 3.4, Standard 1g of the Standards and Guidelines (Government of Ontario 2011a).**

The MCM prefers that sites recommended for Stage 4 mitigation of impacts be avoided and protected rather than excavated, as per Section 7.9.4, Standard 2 of the *Standards and Guidelines* (Government of Ontario 2011a). Options to reduce or eliminate impacts to archaeological sites include redesigning the Study Area; excluding the archaeological site area from the Study Area; or incorporating the area of the archaeological site into the Study Area but without alteration, as outlined in Section 3.5 of the *Standards and Guidelines* (Government of Ontario 2011a). If these options are not feasible, Stage 4 archaeological mitigation by hand excavation is an alternative. In consultation with the client, the Stage 4 mitigation of H1 (AkHd-4) by avoidance and protection is not a viable option. As such, a Stage 4 archaeological mitigation by hand excavation is recommended, conducted according to Section 4.2 of the *Standards and Guidelines* (Government of Ontario 2011a).

According to Section 4.2.7, Standard 2 of the *Standards and Guidelines* (Government of Ontario 2011a), the Stage 4 mitigation of archaeological sites that mostly date after 1830 must include the hand excavation of all midden areas, followed by mechanical topsoil removal ('MTR') across the remainder of the site. As was noted above, the wealth of structural and ceramic items in both the Stage 2 and Stage 3 assemblages, supports the presence of a domestic scatter at H1 (AkHd-4). Therefore, the Stage 4 excavation will consist of a hand excavated block of 1m units surrounding the highest yielding Stage 3 test units at 215E, 520N; 220E, 515N; 225E, 510N; 230E, 510N; and 235E, 510N as well as the units containing evidence of sub-surface cultural features. The extent of the block excavations will be determined in accordance with Section 4.3, Standard 1 and Table 4.1 of the *Standards and Guidelines* (Government of Ontario 2011a).

Soil from all Stage 4 units will be screened through 6mm hardware cloth to facilitate the recovery of any small artifacts that may be present. All artifacts will be bagged and tagged by provenience. The exposed subsoil surface will be cleaned by shovel or trowel and will be examined for cultural features. If any subsurface cultural features are encountered, they will be recorded and excavated by hand in accordance with Section 4.2.2 of the *Standards and Guidelines* (Government of Ontario 2011a). As noted above, block excavation will continue to 2m beyond any cultural feature identified in accordance with Section 4.2.2, Standard 7c of the *Standards and Guidelines* (Government of Ontario 2011a).

Following the block excavation, MTR down to the topsoil/subsoil interface will occur across the unexcavated portion of the site in order to identify and document any additional sub-surface features or evidence of original architecture. The Stage 4 MTR must be completed in accordance with Section 4.2.3, Section 4.2.7, and Table 4.1 of the *Standards and Guidelines* (Government of Ontario 2011a). The entire limits of the site, as determined by the previous Stage 2 and Stage 3 assessments, will be subject to MTR 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 subsurface cultural features. If any subsurface cultural features are encountered, they will be recorded and excavated by hand in accordance with Section 4.2.2, Standard 7 of the *Standards and Guidelines* (Government of Ontario 2011a).

Finally, based on the results of the Stage 3 assessment, wherein 80% of the artifacts recovered do not predate 1870, **H2 (AkHd-5) does not meet any of the criteria for a Stage 4 Mitigation of Developmental Impacts, as they are outlined in Sections 3.4 and 3.4.2 of the Standards and Guidelines (Government of Ontario 2011a).**

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. 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.

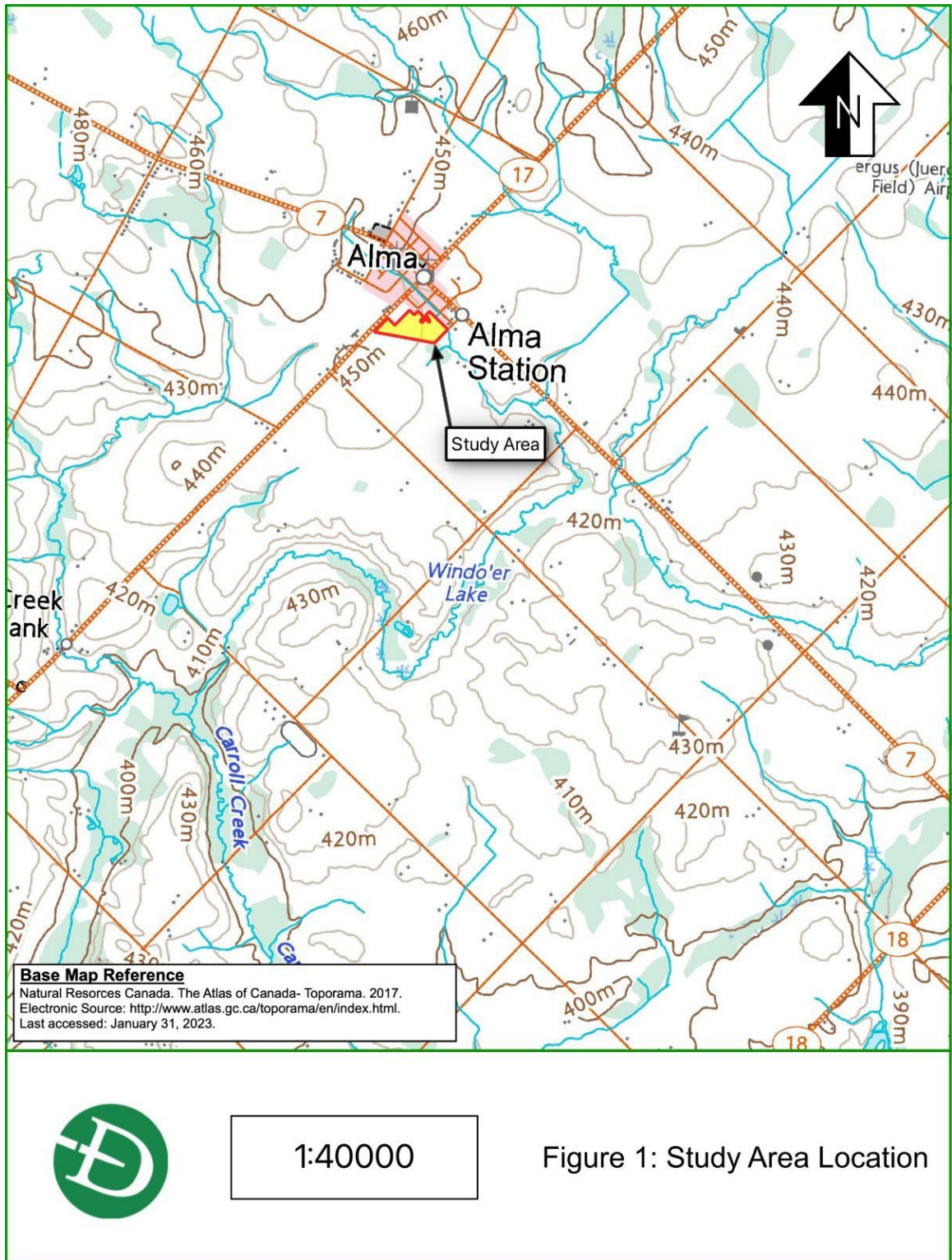
7.0 Bibliography and Sources

- Adams, N. (1994). *Field Manual for Avocational Archaeologists in Canada*. Ontario Archaeological Society Inc., Archaeological Stewardship Project.
- Archives of Ontario. (2012-2015). *The Evolution of the District and County System, 1788-1899*. Retrieved January 24, 2022, from <http://www.archives.gov.on.ca/en/maps/ontario-districts.aspx>
- Beaudoin, M. A. (2013). *De-essentializing the Past: Deconstructing Colonial Categories in 19th-Century Ontario*. Unpublished Ph. D. thesis. London: University of Western Ontario.
- Birch, J. (2010). *Coalescence and Conflict in Iroquoian Ontario*. Retrieved January 20, 2022, from http://uga.academia.edu/JenniferBirch/Papers/183903/Coalescence_and_Conflict_in_Iroquoian_Ontario
- Caston, W. A. (1997). *Evolution in the Mapping of Southern Ontario and Wellington County*. *Wellington County History*, 10, 91-106.
- Chapman, L. J., & Putnam, D. F. (1984). *The Physiography of Southern Ontario*. *Ontario Geological Survey*. Special Volume 2 (3rd Edition ed.). Ontario Ministry of Natural Resources.
- Cooper, C. (2014). *Wellington County*. Retrieved October 31, 2022, from Railway Pages: <https://railwaypages.com/wellington-county>
- Coyne, J. H. (1895). *The Country of Neutrals (As Far as Comprised in the County of Elfin): From Champlain to Talbot*. St. Thomas: The St. Thomas Print.
- Detritus. (2024). *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*. Report under review with the MCM.
- Ellis, C. J., & Ferris, N. (1990). *The Archaeology of Southern Ontario to A.D. 1650. (Vol. 5)*. Occasional Publication of the London Chapter, Ontario Archaeology Society Inc.
- Ferris, N. (2009). *The Archaeology of Native-Lived Colonialism: Challenging History in the Great Lakes*. Tucson: University of Arizona.
- Gentilcore, L. R., & Head, G. (1984). *Ontario's History in Maps*. Toronto: University of Toronto Press.
- Gibson, M. M. (2006). *In the Footsteps of the Mississaugas*. Mississauga: Mississauga Heritage Foundation.
- Government of Ontario. (2002). *Funeral, Burial and Cremation Services Act*, S.O. 2002, c33. Last amendment: 2012, c. 8, Sched. 18. Retrieved 01 24, 2022, from <https://www.ontario.ca/laws/statute/02f33>
- Government of Ontario. (1990a). *Ontario Planning Act*, R.S.O. 1990, CHAPTER P. 13. Last Amendment: 2021, c. 25, Sched. 24. Retrieved 01 24, 2022, from <https://www.ontario.ca/laws/statute/90p13>
- Government of Ontario. (1990b). *Ontario Heritage Act*, R.S.O. 1990, CHAPTER O.18. Last amendment: 2021, c. 4, Sched. 6, s. 74. Retrieved 01 24, 2022, from <https://www.ontario.ca/laws/statute/90o18>
- Government of Ontario. (1990c). *Freedom of Information and Protection of Privacy Act*, R.S.O. 1990, CHAPTER F.31. Last amendment: 2021, c. 4, Sched. 11, s. 11. Retrieved 01 24, 2022, from <https://www.ontario.ca/laws/statute/90f31>

- Government of Ontario. (1990d). *Cemeteries Act*, R.S.O. 1990, CHAPTER C.4. Last amendment: 2012, c. 8, Sched. 11, s. 44. Retrieved 01 24, 2022, from <https://www.ontario.ca/laws/statute/90c04>
- Government of Ontario. (2011a). *Standards and Guidelines for Consultant Archaeologists*. Toronto: MCM.
- Government of Ontario. (2011b). *Engaging Aboriginal Communities in Archaeology* draft technical bulletin. Toronto: MCM.
- Government of Ontario. (n.d.). *Archaeological Sites Database Files*. MCM.
- Heidenreich, C. (1990). *History of the St. Lawrence–Great lakes Area to 1650*. In C. J. Ellis, & N. Ferris (Ed.), *The Archaeology of Southern Ontario*, Occasional papers of the London Chapter. 5, pp. 475–92. OAS.
- Jervis, W. P. (1911). *A Pottery Primer*. New York: The O’Gorman Publishing Company.
- Kenyon, I. (1980). 19th Century Notes. KEWA, 80(2).
- Lamb, L. N. (2003). *Historical Archaeology of the Indian Key (8M015) Warehouse: An Analysis of Nineteenth-Century Ceramics*. Tampa: University of South Florida.
- Leslie, G., & Wheelock, C. J. (1861). *Map of the County of Wellington, Canada West*. Orangeville: Guy & Wheelock.
- Lindsey, B. (2022). *Historic Glass Bottle Identification and Information Website*. Retrieved 03 21, 2022, from <http://www.sha.org/bottle/index.htm>
- Majewski, T., & O'Brien, M. J. (1987). *The Use and Misuse of Nineteenth-Century English and American Ceramics in Archaeological Analysis*. In M. Schiffer (Ed.), *Advances in Archaeological Method and Theory*, 11, 98-209.
- McCord Stewart Museum. 2022. Preserving Jar - Crown Imperial. *Collections and Research*. Retrieved Feb 3rd 2022 from <https://collections.musee-mccord-stewart.ca/en/objects/81786/crown-imperial>
- Middleton, J. E., & Landon, F. (1927). *The Province of Ontario: A History, 1615 – 1927*. Toronto: Dominion Publishing Company.
- Miller, G. L. (1980a). *Ceramics - The ACO Guide to 19th C. Sites*. Ontario Ministry of Culture and Recreation, Historical Planning and Research Branch.
- Miller, G. L. (1980b). *Classification and Economic Scaling of 19th Century Ceramics*. *Historical Archaeology*, 14, 1-40.
- Morris, J. L. (1943). *Indians of Ontario (1964 reprint)*. Ontario Department of Lands and Forests.
- Page, H. R. (1879). *The Illustrated Historical Atlas of the County of Haldimand, Ontario*. Toronto: H. R. Page & Co.
- Pendergast, J. (1995). The Identity of Jacques Cartier’s Stadaconans and Hochelagans: The Huron-Iroquois Option. In A. Bekerman, & G. Warrick (Ed.), *Origins of the People of the Longhouse: Proceedings of the 21st Annual Symposium of the Ontario Archaeological Society* (pp. 106-118). Ontario Archaeological Society Inc.
- Powell, J. R., & Coffman, F. (1956). *Lincoln County, 1856–1956*. St. Catharines: Lincoln County Council.
- Praxis Research Associates. (n.d.). *The History of the Mississaugas of the New Credit First Nation*. Hagersville: Lands, Research, and Membership: Mississaugas of the New Credit First Nation.
- Schmalz, P. S. (1991). *The Ojibwa of Southern Ontario*. Toronto: University of Toronto Press.
- Scott, J. (2019, August 19). St. Andrews Presbyterian Church, Board Member.

- Shaw, S. (1829). *History of the Staffordshire Potteries and the Rise and Progress of the Manufacture of Pottery and Porcelain; with Reference to Genuine Specimens and Notices of Eminent Potter* (1968 reprint). Great Neck: Beatrice C. Weinstock.
- Smith, D. (2022). Their Century and a Half on the Credit: The Mississaugas. In F. Dieterman (Ed.), *Mississauga: The First 10,000 Years* (pp. 107-122). Toronto: Eastend Books.
- St. Andrew's Presbyterian Church. (n.d.). *About*. Retrieved October 31, 2022, from The Presbyterian Church in Canada: <https://pccweb.ca/standrewsalma/about/>
- Tanner, H. (Ed.). (1987). *Atlas of Great Lakes Indian History*. Norman: University of Oklahoma Press.
- Tharp, L. (n.d.). *The Origins of Ironstone*. Retrieved 03 21, 2021, from Stoke on Trent: Resources on the North Staffordshire Pottery Industry: <http://www.thepotteries.org/features/ironstone.htm>
- The Potteries.org. (2003). *Ironstone*. Retrieved 03 21, 2022, from Stoke on Trent: Resources on the North Staffordshire Pottery Industry: <http://www.thepotteries.org/types/ironstone.htm>
- Voss, B. L. (2008). *The Archaeology of Ethnogenesis: Race and Sexuality in Colonial San Francisco*. Berkeley: University of California.
- Walker & Miles. (1877). *The Illustrated Historical Atlas of the County of Wellington, Ont.* Toronto: Walker & Miles.
- Warrick, G. A. (2000). *The Precontact Iroquoian Occupation of Southern Ontario*. *Journal of World Prehistory*, 14(4), 415-66.
- Warrick, G. A. (2013). The Aboriginal Population of Ontario in Late Prehistory. In M. K. Munson, & S. M. Jamieson (Ed.), *Before Archaeology: The Archaeology of a Province*. Kingston: Queen's University Press.
- Weaver, E. (1913). *The Story of the Counties of Ontario*. Toronto: Bell & Cockburn.
- Weaver, S. (1978). *Six Nations of the Grand River, Ontario. Handbook of North American Indians*. Vol. 15 Northeast (pp. 525-536). Washington: Smithsonian Institute Press.

8.0 Maps



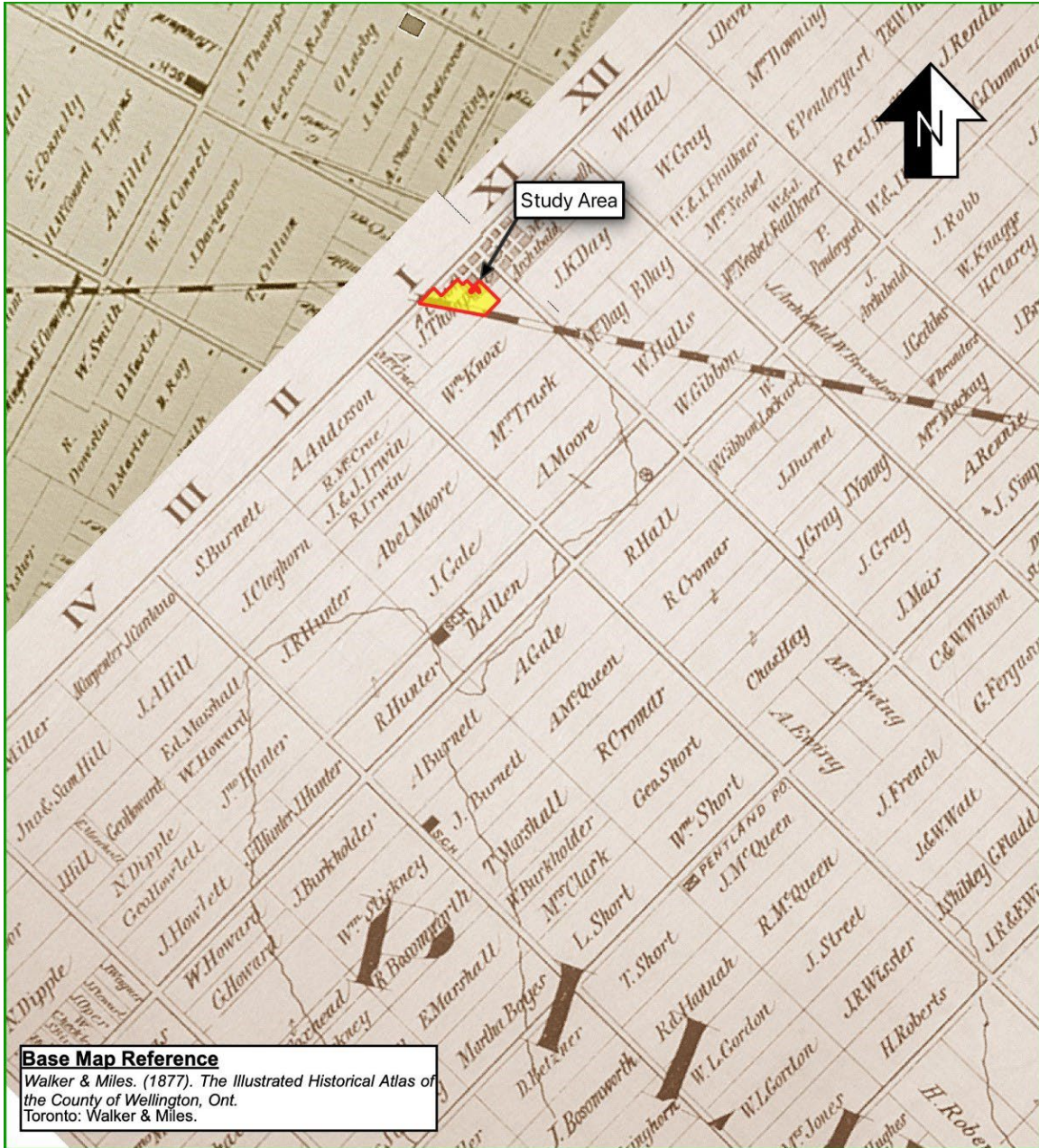


Base Map Reference
Guy, Leslie, and Charles J. Wheelock. 1861. Map of the County of Wellington, Canada West. Orangeville: Guy & Wheelock.



Not to Scale

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



Base Map Reference
Walker & Miles. (1877). *The Illustrated Historical Atlas of the County of Wellington, Ont.*
Toronto: Walker & Miles.



Not to Scale

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



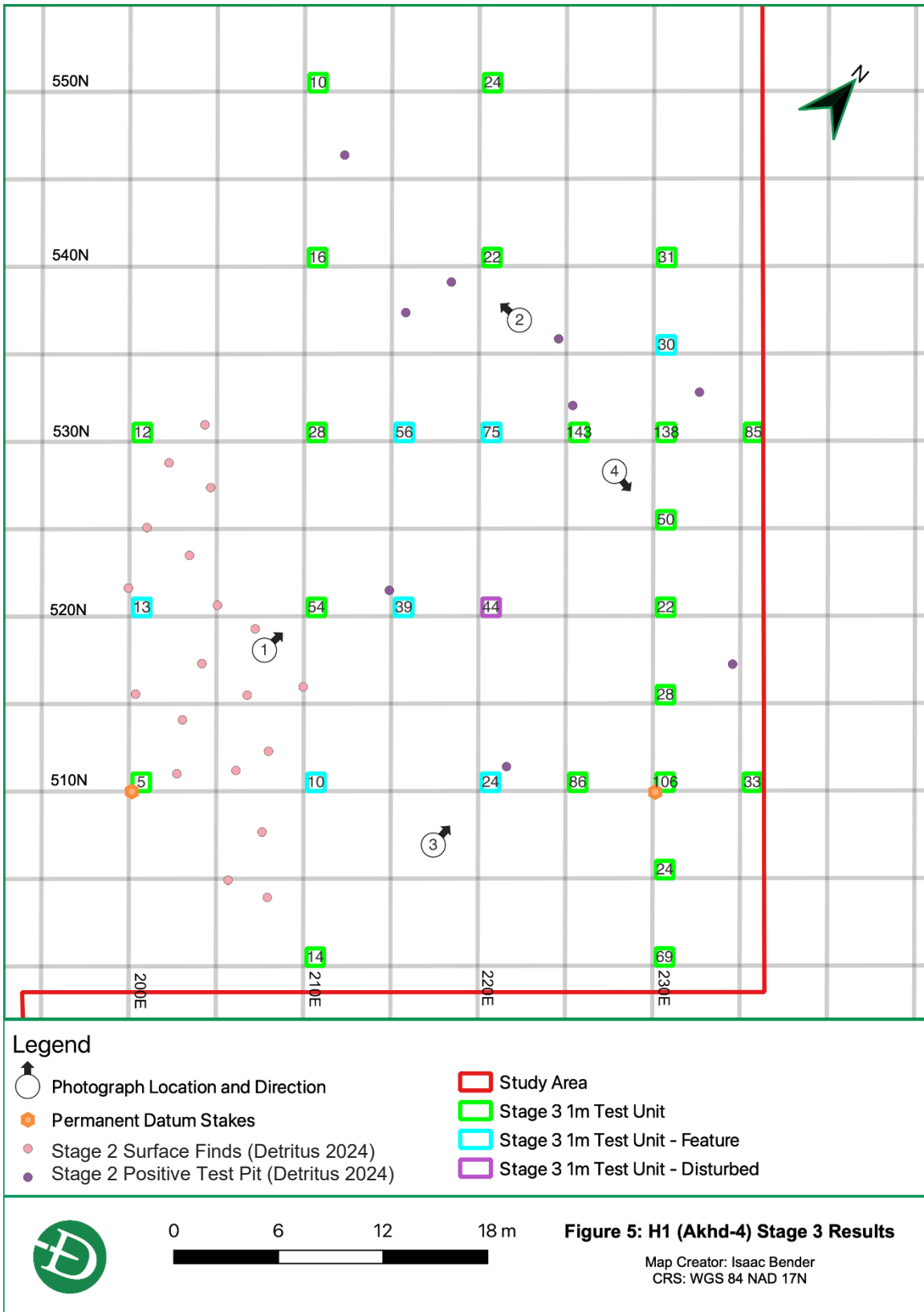
Legend

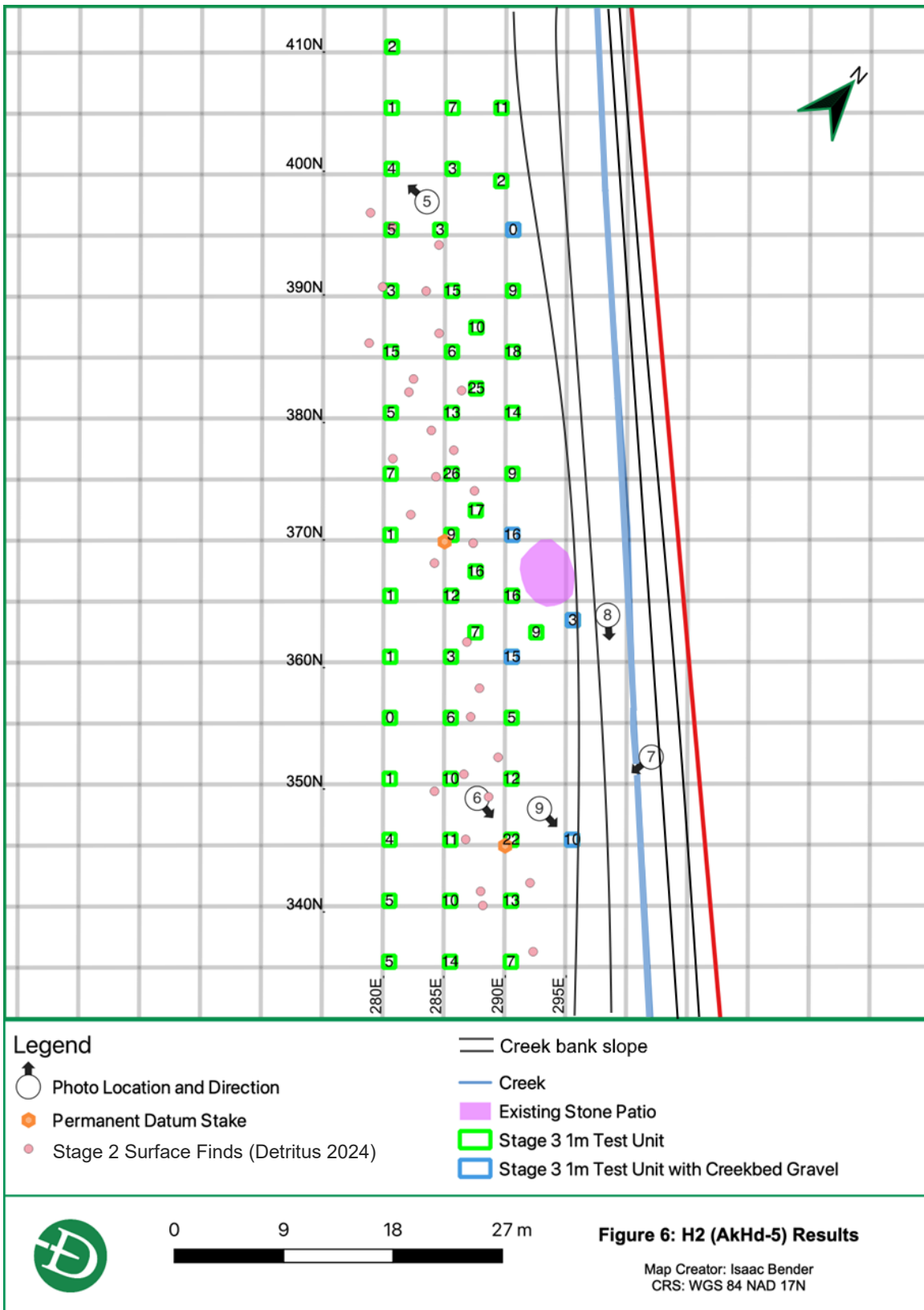
 Stage 1-2 Archaeological Assessment (Detritus 2023)



Figure 4: Previous Archaeological Assessment

Map Creator: Isaac Bender
CRS: WGS 84 NAD 17N
Baselayer: Google Satellite Imagery





Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Figure 7: Development Map



9.0 Images

9.1 Photos

Photo 1: Stage 3 Unit Excavation at H1 (AkHd-4), facing northeast



Photo 2: Stage 3 Unit Excavation at H1 (AkHd-4), facing northwest



Photo 3: Stage 3 Unit Excavation at H1 (AkHd-4), facing northeast



Photo 4: Stage 3 Unit Excavation at H1 (AkHd-4), facing southeast



Photo 5: Stage 3 Unit Excavation at H2 (AkHd-5), facing northwest



Photo 6: Stage 3 Unit Excavation at H2, facing southeast



Photo 7: Stage 3 Unit Excavation at H2 near existing creek, facing southwest



Photo 8: Stage 3 Unit Excavation at H2 showing creek running through Study Area, facing south



Photo 9: Stage 3 Unit Excavation at H2, facing southeast



Photo 10: Unit 200E, 520N Plan View; Feature 4 in Southwestern Corner of Unit; facing grid north at H1 (AkHd-4)



Photo 11: Unit 210E, 510N Plan View; Possible Extent of Brick Rubble Layer (Feature 1) in Southern Half of Unit; facing grid north at H1 (AkHd-4)



Photo 12: Unit 215E, 520N Plan View; Possible Extent of Brick Rubble Layer (Feature 1) in Southern Half of Unit; facing grid north at H1 (AkHd-4)



Photo 13: Unit 215E, 530N Plan View; Rubble Layer in Northern Half of Unit including Wooden Beam and Clinker (Feature 2); facing grid north at H1 (AkHd-4)



Photo 14: Unit 220E, 510N Plan View; Brick Rubble Layer (Feature 1) Throughout Unit; facing grid north at H1 (AkHd-4)



Photo 15: Unit 220E, 530N Plan View; Mortar Layer and Miscellaneous Metal Objects Throughout Unit (Feature 3); facing grid west at H1 (AkHd-4)



Photo 16: Unit 230E, 535N Plan View; Possible Extent of Mortar Layer (Feature 3) in Southern Half of Unit; facing grid west at H1 (AkHd-4)



Photo 17: Unit 220E, 520N Profile; Plastic Bag Disturbance in Centre of Unit; facing grid west at H1 (AkHd-4)



Photo 18: Unit 225E, 530N Profile; Typical Stratigraphy; facing grid east at H1 (AkHd-4)



Photo 19: Unit 285E, 375N Profile; Typical Stratigraphy; facing grid west at H2 (AkHd-5)

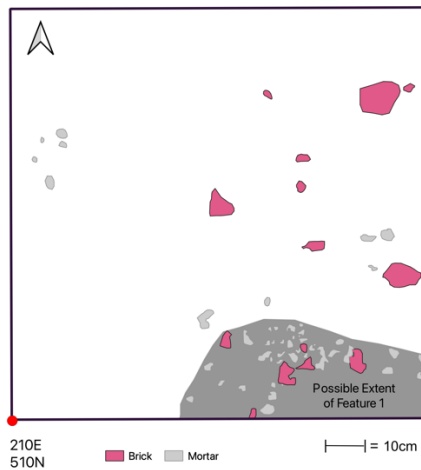


Photo 20: Unit 290E, 345N Profile; Typical Stratigraphy; facing grid north H2 (AkHd-5)

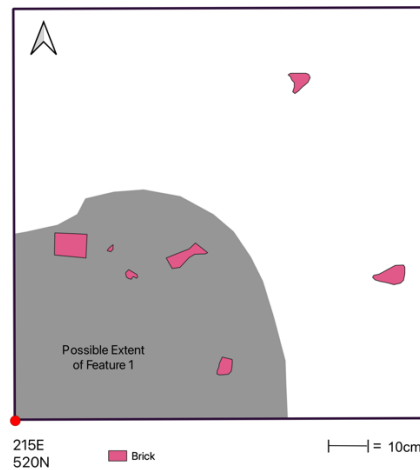


9.2 H1 (AkHd-4) Feature Drawings

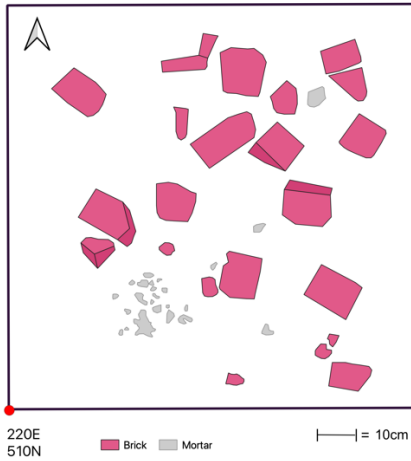
Drawing 1: Possible Extent of Feature 1 in Unit 210E 510N at H1 (AkHd-4)



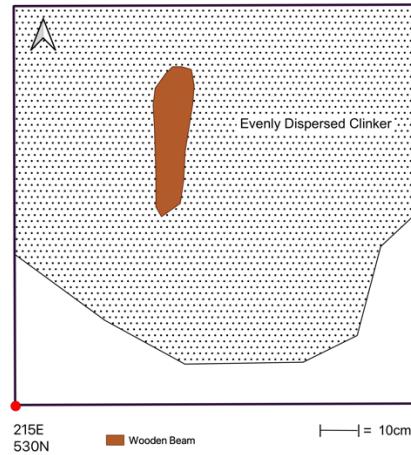
Drawing 2: Possible Extent of Feature 1 in Unit 215E 520N at H1 (AkHd-4)



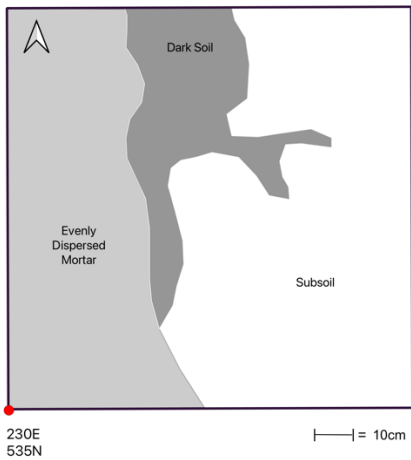
Drawing 3: Portion of Feature 1 in Unit 220E 510N at H1 (AkHd-4)



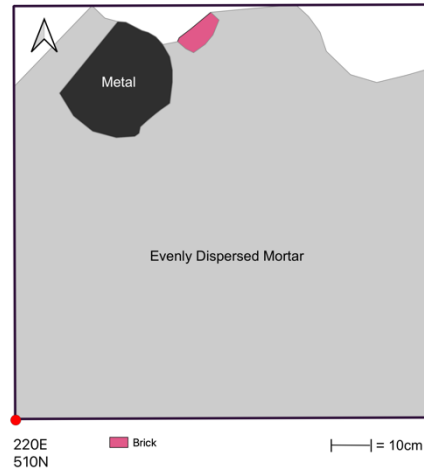
Drawing 4: Possible Extent of Feature 2 in Unit 215E 530N at H1 (AkHd-4)



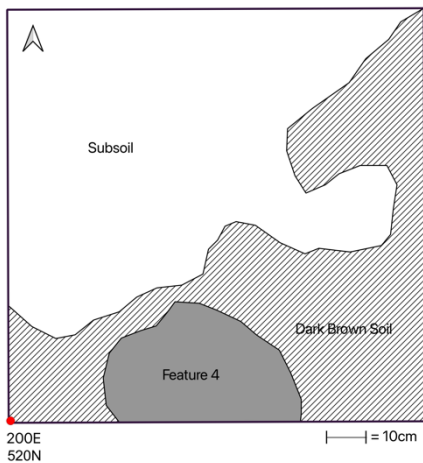
Drawing 5: Portion of Feature 1 in Unit 230E 535N at H1 (AkHd-4)



Drawing 6: Portion of Feature 3 in Unit 220E 530N at H1 (AkHd-4)



Drawing 7: Portion of Feature 4 in Unit 200E 520N at H1 (AkHd-4)



9.3 H1 (AkHd-4) Artifacts

Plate 1: Wooden Stake (Cat#54)



Plate 2: Metal Eyelets (L; Cat#53) and Cut Nails (R; Cat#52)



Plate 3: Glass Bottle Finish (Cat#63)



Plate 4: Recent Material, Plastic Bottle (Cat#78)



Plate 5: Blue Transfer Printed RWE (L; Cat#86) and Blue Flow-Transfer Printed RWE (R; Cat#87)

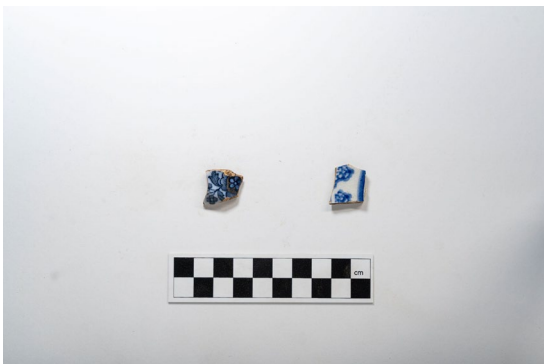


Plate 6: White Clay Pipe Stem (T; Cat#105) and Metal Bolt (B; Cat#98)



Plate 7: Moulded Ironstone (Cat#114)



Plate 8: Ironstone with Partial Makers Mark "GE JON" and "ONT" (Cat#115)



Plate 9: 1970's style "Coor's" Beer Brand Push Tab Can Top (Cat#125)



Plate 10: Green Painted Semi-Porcelain (Cat#128)



Plate 11: Wire Nails (Cat#129)



Plate 12: Clinker (Cat#133)



Plate 13: Recent Material, Broken Plastic (Cat#134)



Plate 14: Yellow Earthenware (Cat#146)



Plate 15: White Clay Pipe Bowl (Cat#157)



Plate 16: Transfer Printed RWE (TL; Cat#168) and Undecorated RWE (Rest; Cat#166)



Plate 17: Metal Screw (T; Cat#187) and Wire Nails (B; Cat#186)



Plate 18: Violet Glass Bottle with writing "DRU" and "ELORA" (Cat#181)



**Plate 19: Blue Glass Bottle (L;Cat#190)
and Clear Glass Decanter Base
(R;Cat#191)**



Plate 20: Red Partial Brick (Cat#195)



Plate 21: Metal Ring (Cat#199)



**Plate 22: Aqua Glass Bottle with text "NS"
and "WASHIN" (Cat#203)**



Plate 23: Red Earthenware (Cat#207)



**Plate 24: Flow-Transfer Printed RWE
(L;Cat#216) and Green Painted RWE
(R;Cat#217)**

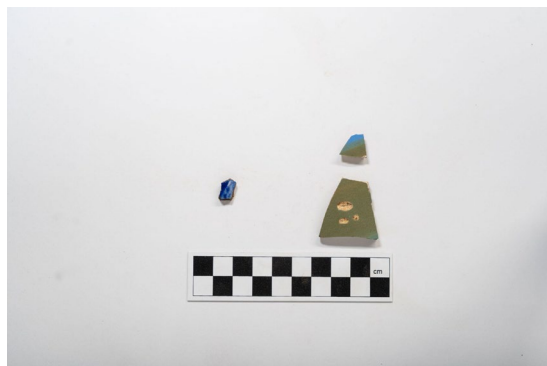


Plate 25: Metal Band (Cat#222)



Plate 26: Prosser Buttons (L;Cat#242) and Wooden Buttons (R;Cat#243)



Plate 27: Yellowware Cup Handle (BL;Cat#244), Blue Transfer Printed RWE (TL;Cat#246), and Green, Blue, and Mulberry Painted RWE (R;Cat#245)



Plate 28: Slip Glazed Stoneware Inkwell (Cat#248)



Plate 29: Clear Crown Imperial Glass Bottle (Cat#260)



Plate 30: Clear Complete Glass Bottle (Cat#270)



Plate 31: Metal Can Lid (Cat#283)



Plate 32: Recent Material "Ribbon Dental Cream" package (Cat#290)



9.4 H2 (AkHd-5) Artifacts

Plate 1: Teal Transfer Printed Ironstone (Cat#2)



Plate 2: Sample of Bottle Glass (Clockwise from TL; Cat#4, 5, 6, 3)



Plate 3: Salt Glazed Stoneware (L; Cat#7) and Undecorated Ironstone (R; Cat#8)



Plate 4: Blue Bottle Glass (Cat#9)



Plate 5: Mulberry Transfer Printed Ironstone (Cat#11)



Plate 6: Rockinghamware (Cat#13)



Plate 7: Cut Nail (L; Cat#21) and Metal Piping Connector (R; Cat#23)



Plate 8: AAA Battery (Cat#22)



Plate 9: Machine-Made Clear Glass Bottle Finish (Cat#28)



Plate 10: Metal Mounting Bracket (Cat#32)



Plate 11: Sample of Recent Material (Cat#33)



Plate 12: Aqua Bottle Glass (Cat#400)



Plate 13: Moulded Porcelain (Cat#43)



Plate 14: Petrified Wood (Cat#49)



Plate 15: Amber Glass Bottle Finish (Cat#51)



Plate 16: Undecorated Ironstone Cup Handle (Cat#58)



Plate 17: Undecorated Ironstone Cup (C; Cat#64), Transfer Printed Ironstone (L; Cat#67), and Flow-Transfer Printed Ironstone (R; Cat#68)



Plate 18: Jackfield-Type Ware (Cat#77)



Plate 19: Metal Screw (Cat#80)



Plate 20: Red Earthenware (Cat#81)



Plate 21: Clear Glass Bottle Stopper (Cat#87)



Plate 22: Porcelain Cup Handle (Cat#94)



Plate 23: Clear Glass Bottle Base (Cat#96)



Plate 24: Partially Burnt Undecorated Ironstone (Cat#97)



Plate 25: Electronics Fuse (Cat#103)



Plate 26: Edged Pearlware (Cat#107)



Plate 27: Partial Olive Glass Bottle Finish (Cat#112)



Plate 28: Recent Material (L; Cat#124), Terra Cotta Sherd (BR; Cat#123), and Blue Transfer Printed Ironstone (TR; Cat#122)



Plate 29: Slip Glazed Stoneware Rim (Cat#131)



Plate 30: Charcoal (TL;Cat#145), Moulded Semi-Porcelain (TR;Cat#147), Red Brick (BL;Cat#144), and Mortar (BR;Cat#143)



Plate 31: Metal Pot (L;Cat#158) and sponged ironstone (R;Cat#159)



Plate 32: Clear Glass Bottle (L;Cat#179), Glass Bowl Fragment (TR;Cat#181), and Glass Decanter (BR;Cat#180)



Plate 33: Flow-Transfer Printed Ironstone (Cat#190)

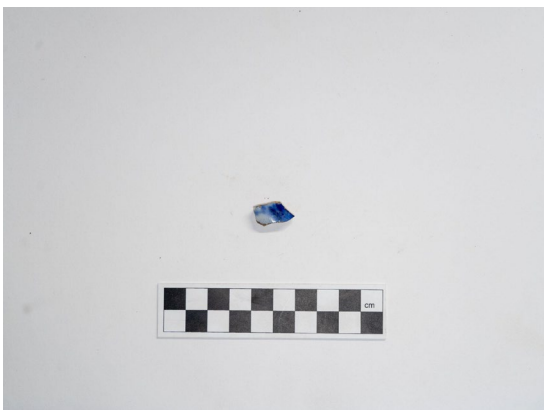


Plate 34: Red Earthenware (T;Cat#195), Jackfield-Type (BL;Cat#193), and Blue Transfer Printed Ironstone (BR;Cat#194)



Plate 35: Metal Tin Sheet (R; Cat#211), Wire Nail (TL; Cat#209), and Transfer Printed Ironstone (BL; Cat#203)



Plate 36: Clear Bottle Glass (Cat#212)



Plate 37: Painted Ironstone (Cat#236)



Plate 38: Undecorated Creamware (L; Cat#243) and Orange Transfer Printed Semi-Porcelain (R; Cat#244)



Plate 39: Red Brick, no frog (Cat#253)



10.0 Appendices

10.1 H1 (AkHd-4) Stage 3 Artifact Catalogue

Cat#	Context	Easting	Northing	Artifact	Freq.	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
1	Unit Excavation	230	530	white clay pipe, bowl	2	0.34				
2	Unit Excavation	230	530	button, bone	1	0.34				four holes, round
3	Unit Excavation	230	530	button, prosser	1	0.34				four holes, round
4	Unit Excavation	230	530	faunal remains, mammalian	4	0.34				
5	Unit Excavation	230	530	metal, hook	1	0.34				
6	Unit Excavation	230	530	metal, undetermined	10	0.34				
7	Unit Excavation	230	530	nail, cut	22	0.34				
8	Unit Excavation	230	530	nail, wire	4	0.34				
9	Unit Excavation	230	530	nail, wrought	1	0.34				
10	Unit Excavation	230	530	metal, bolt	1	0.34				
11	Unit Excavation	230	530	ironstone, undecorated	17	0.34	flat	plate		
12	Unit Excavation	230	530	ironstone, painted	2	0.34	unknown	unknown	mulberry	looks like a flower or a leaf
13	Unit Excavation	230	530	RWE, undecorated	5	0.34	flat	unknown		
14	Unit Excavation	230	530	RWE, transfer printed	1	0.34	unknown	unknown	brown	
15	Unit Excavation	230	530	ironstone, edged	1	0.34	flat	unknown	blue	
16	Unit Excavation	230	530	yellowware	4	0.34	unknown	unknown		
17	Unit Excavation	230	530	red earthenware	1	0.34	unknown	unknown		glazed on both sides
18	Unit Excavation	230	530	red earthenware	1	0.34	flat	unknown		
19	Unit Excavation	230	530	Jackfield-type	1	0.34	flat	unknown		glazed on both sides
20	Unit Excavation	230	530	stoneware, salt glazed	1	0.34	unknown	unknown		salt glazed
21	Unit Excavation	230	530	semi-porcelain, moulded	2	0.34	unknown	unknown		signs of surface burning
22	Unit Excavation	230	530	ironstone, moulded	1	0.34	unknown	unknown		egg-shaped exterior decoration from larger vessel
23	Unit Excavation	230	530	glass, bottle	1	0.34			brown	
24	Unit Excavation	230	530	glass, bottle	1	0.34			blue	
25	Unit Excavation	230	530	glass, bottle	3	0.34			green	
26	Unit Excavation	230	530	glass, bottle	22	0.34			clear	five pieces slightly UV tinted
27	Unit Excavation	230	530	glass, bottle	8	0.34			aqua	
28	Unit Excavation	230	530	glass, window	16	0.34			clear	a l l ≥ 1.6mm
29	Unit Excavation	230	530	charcoal	3	0.34				
30	Unit Excavation	230	510	ironstone, undecorated	2	0.53	unknown	unknown		
31	Unit Excavation	230	510	RWE, undecorated	1	0.53	unknown	unknown		

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Cat#	Context	Easting	Northing	Artifact	Freq.	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
32	Unit Excavation	230	510	nail, cut	3	0.53				
33	Unit Excavation	230	510	faunal remains, mammalian	3	0.53				
34	Unit Excavation	230	510	charcoal	1	0.53				
35	Unit Excavation	230	510	metal, undetermined	10	0.53				
36	Unit Excavation	230	510	barbed wire	4	0.53				
37	Unit Excavation	230	510	glass, bottle	20	0.53			aqua	all appear to be from the same vessel
38	Unit Excavation	230	510	glass, bottle	6	0.53			clear	
39	Unit Excavation	230	510	glass, window	56	0.53			clear	all ≥ 1.6 mm
40	Unit Excavation	230	535	nail, wire	1	0.24				
41	Unit Excavation	230	535	nail, cut	1	0.24				
42	Unit Excavation	230	535	metal, undetermined	2	0.24				
43	Unit Excavation	230	535	porcelain doll face	1	0.24				
44	Unit Excavation	230	535	faunal remains, mammalian	1	0.24				tooth, possibly cow or horse
45	Unit Excavation	230	535	glass, bottle	5	0.24			aqua	including one intact bottle stem, with no signs of machine manufacturing (has no seam and has bubbles)
46	Unit Excavation	230	535	glass, bottle	1	0.24			clear	
47	Unit Excavation	230	535	glass, bottle	1	0.24			green	
48	Unit Excavation	230	535	red earthenware	2	0.24	unknown	unknown		glazed
49	Unit Excavation	230	535	RWE, undecorated	12	0.24	unknown	unknown		
50	Unit Excavation	230	535	RWE, painted	2	0.24	unknown	unknown		late pallet colours (mulberry and blue)
51	Unit Excavation	230	535	RWE, transfer printed	1	0.24	unknown	unknown		
52	Unit Excavation	230	520	nail, cut	2	0.35				
53	Unit Excavation	230	520	metal, eyelets	2	0.35				
54	Unit Excavation	230	520	wooden stake	1	0.35				23cm in length, 3cm wide
55	Unit Excavation	230	520	RWE, undecorated	11	0.35	unknown	unknown		
56	Unit Excavation	230	520	brick	4	0.35				three yellow, one red
57	Unit Excavation	230	520	glass, bottle	2	0.35			clear	
58	Unit Excavation	220	530	glass, window	33	0.15			clear	>1.6mm
59	Unit Excavation	220	530	RWE, painted	1	0.15	unknown	unknown		
60	Unit Excavation	220	530	red earthenware	1	0.15	unknown	unknown		glazed on one side
61	Unit Excavation	220	530	nail, cut	13	0.15				
62	Unit Excavation	220	530	glass, bottle	11	0.15			amber	possible modern beer bottle

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Cat#	Context	Easting	Northing	Artifact	Freq.	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
63	Unit Excavation	220	530	glass, bottle finish	1	0.15			amber	see cat62
64	Unit Excavation	220	530	metal, rod	1	0.15				bent 180degrees
65	Unit Excavation	220	530	faunal remains, mammalian	3	0.15				too small to identify
66	Unit Excavation	220	530	brick	8	0.15			yellow	
67	Unit Excavation	220	530	brick	2	0.15			red	
68	Unit Excavation	220	530	clinker	1	0.15				
69	Unit Excavation	220	520	brick	17	0.37			red	
70	Unit Excavation	220	520	RWE, undecorated	4	0.37	unknown	unknown		some pieces burnt
71	Unit Excavation	220	520	faunal remains, mammalian	1	0.37				burnt
72	Unit Excavation	220	520	charcoal	2	0.37				
73	Unit Excavation	220	520	glass, bottle	3	0.37			clear	
74	Unit Excavation	220	520	glass, bottle	1	0.37			violet	
75	Unit Excavation	220	520	glass, window	1	0.37			clear	<1.6mm
76	Unit Excavation	220	520	miscellaneous metal	4	0.37				heavily corroded, unidentifiable
77	Unit Excavation	220	520	nail, cut	11	0.37				
78	Unit Excavation	210	540	recent material	7	0.40				plastic container
79	Unit Excavation	210	540	brick	1	0.40			red	
80	Unit Excavation	210	540	nail, cut	1	0.40				
81	Unit Excavation	210	540	glass, window	4	0.40				>1.6mm
82	Unit Excavation	210	540	glass, bottle	1	0.40			clear	
83	Unit Excavation	210	540	RWE, undecorated	1	0.40	unknown	unknown		
84	Unit Excavation	210	540	charcoal	1	0.40				
85	Unit Excavation	220	540	glass, window	5	0.42			clear	>1.6mm
86	Unit Excavation	220	540	RWE, transfer printed	1	0.42	unknown	unknown	blue	
87	Unit Excavation	220	540	RWE, flow-transfer printed	1	0.42	unknown	unknown	blue	
88	Unit Excavation	220	540	RWE, undecorated	9	0.42	unknown	unknown		
89	Unit Excavation	220	540	red earthenware	3	0.42	unknown	unknown		two have glaze on exterior
90	Unit Excavation	220	540	brick	1	0.42			red	
91	Unit Excavation	220	540	glass, bottle	1	0.42			amber	
92	Unit Excavation	220	540	metal pin	1	0.42				bent at 90 degrees
93	Unit Excavation	220	550	glass, window	5	0.52			clear	one <1.6mm, rest >1.6mm
94	Unit Excavation	220	550	RWE, undecorated	11	0.52	unknown	unknown		
95	Unit Excavation	220	550	RWE, painted	1	0.52	unknown	unknown	mulberry	
96	Unit Excavation	220	550	clinker	1	0.52				

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Cat#	Context	Easting	Northing	Artifact	Freq.	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
97	Unit Excavation	220	550	brick	6	0.52			red	
98	Unit Excavation	200	530	metal, bolt	1	0.26				14cm long
99	Unit Excavation	200	530	glass, bottle	3	0.26			aqua	
100	Unit Excavation	200	530	glass, bottle	1	0.26			clear	
101	Unit Excavation	200	530	glass, window	1	0.26			violet	>1.6mm
102	Unit Excavation	200	530	red earthenware	2	0.26	unknown	unknown		one has exterior glaze
103	Unit Excavation	200	530	RWE, undecorated	1	0.26	unknown	unknown		
104	Unit Excavation	200	530	brick	2	0.26			red	
105	Unit Excavation	200	530	white clay pipe stem	1	0.26				no maker's mark
106	Unit Excavation	200	520	brick	7	0.31			red	
107	Unit Excavation	200	520	glass, bottle	1	0.31			aqua	
108	Unit Excavation	200	520	stoneware, salt glazed	1	0.31	unknown	unknown		
109	Unit Excavation	200	520	RWE, undecorated	1	0.31	unknown	unknown		
110	Unit Excavation	200	520	glass, bottle	1	0.31			clear	
111	Unit Excavation	200	520	nail, wire	2	0.31				
112	Unit Excavation	200	510	ironstone, undecorated	1	0.35	unknown	unknown		
113	Unit Excavation	200	510	brick	4	0.35			red	
114	Unit Excavation	210	520	ironstone, moulded	15	0.37	flat	platter		form and function are assuming all are from same vessel
115	Unit Excavation	210	520	ironstone, undecorated	1	0.37	unknown	unknown		makers mark saying "GE JON" and "ONT"
116	Unit Excavation	210	520	red earthenware	1	0.37	unknown	unknown		glazed on one side
117	Unit Excavation	210	520	brick	4	0.37			red	
118	Unit Excavation	210	520	nail, cut	22	0.37				most are heavily corroded
119	Unit Excavation	210	520	nail, wire	1	0.37				
120	Unit Excavation	210	520	metal, bolt	1	0.37				
121	Unit Excavation	210	520	faunal remains, avian	1	0.37				too small to identify, also calcified
122	Unit Excavation	210	520	glass, bottle	6	0.37			clear	
123	Unit Excavation	210	520	glass, bottle	1	0.37			aqua	
124	Unit Excavation	210	520	glass, bottle	1	0.37			olive	
125	Unit Excavation	215	530	metal, can	1	0.37				1970's style Coor's "push tab" can top
126	Unit Excavation	215	530	glass, window	35	0.37			clear	>1.6mm
127	Unit Excavation	215	530	glass, bottle	1	0.37			amber	
128	Unit Excavation	215	530	semi-porcelain, painted	1	0.37	flat	unknown	green	
129	Unit Excavation	215	530	nail, wire	2	0.37				

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Cat#	Context	Easting	Northing	Artifact	Freq.	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
130	Unit Excavation	215	530	nail, cut	2	0.37				
131	Unit Excavation	215	530	metal, stake	1	0.37				
132	Unit Excavation	215	530	metal, sheet	5	0.37				0.72mm thick
133	Unit Excavation	215	530	clinker	7	0.37				
134	Unit Excavation	215	530	recent material	1	0.37				broken piece of plastic
135	Unit Excavation	210	510	nail, cut	1	0.38				
136	Unit Excavation	210	510	metal, wire	1	0.38				
137	Unit Excavation	210	510	brick	5	0.38			red	
138	Unit Excavation	210	510	glass, bottle	1	0.38			aqua	9.35mm thick
139	Unit Excavation	210	510	ironstone, undecorated	2	0.38	unknown	unknown		
140	Unit Excavation	210	530	glass, window	4	0.38			clear	>1.6mm
141	Unit Excavation	210	530	glass, bottle	1	0.38			aqua	
142	Unit Excavation	210	530	glass, bottle	1	0.38			violet	
143	Unit Excavation	210	530	brick	2	0.38			red	
144	Unit Excavation	210	530	ironstone, undecorated	7	0.38	unknown	unknown		
145	Unit Excavation	210	530	semi-porcelain, undecorated	1	0.38	unknown	unknown		
146	Unit Excavation	210	530	yellow earthenware	3	0.38	unknown	unknown		hollow
147	Unit Excavation	210	530	nail, cut	3	0.38				
148	Unit Excavation	210	530	metal, bolt	1	0.38				heavily corroded, hard to confirm
149	Unit Excavation	210	530	miscellaneous metal	1	0.38				
150	Unit Excavation	210	530	faunal remains, mammalian	4	0.38				three are calcified
151	Unit Excavation	210	550	glass, window	4	0.38				>1.6mm
152	Unit Excavation	210	550	RWE, undecorated	2	0.38	unknown	unknown		
153	Unit Excavation	210	550	RWE, painted	1	0.38	unknown	unknown	blue	
154	Unit Excavation	210	550	brick	1	0.38			red	
155	Unit Excavation	210	550	miscellaneous metal	1	0.38				possibly mounting bracket
156	Unit Excavation	210	550	faunal remains, mammalian	1	0.38				long bone cut
157	Unit Excavation	230	505	white clay pipe, bowl	1	0.60				partial pipe bowl
158	Unit Excavation	230	505	brick	3	0.60			red	
159	Unit Excavation	230	505	mortar	3	0.60				
160	Unit Excavation	230	505	nail, cut	4	0.60				
161	Unit Excavation	230	505	RWE, undecorated	1	0.60	hollow	unknown		
162	Unit Excavation	230	505	glass, bottle	2	0.60			aqua	
163	Unit Excavation	230	505	glass, bottle	10	0.60			clear	

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Cat#	Context	Easting	Northing	Artifact	Freq.	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
164	Unit Excavation	215	520	red earthenware	1	0.37	hollow	pot		glazed on both sides
165	Unit Excavation	215	520	semi-porcelain, moulded	2	0.37	hollow	unknown		
166	Unit Excavation	215	520	RWE, undecorated	10	0.37	unknown	unknown		four had surface burning
167	Unit Excavation	215	520	recent material	2	0.37				plastic bits
168	Unit Excavation	215	520	RWE, transfer printed	1	0.37	unknown	unknown	black	
169	Unit Excavation	215	520	glass, bottle	4	0.37			clear	
170	Unit Excavation	215	520	glass, bottle	1	0.37			olive	
171	Unit Excavation	215	520	glass, window	5	0.37			clear	two <1.6mm
172	Unit Excavation	215	520	nail, cut	2	0.37				
173	Unit Excavation	215	520	nail, wire	2	0.37				
174	Unit Excavation	215	520	brick	4	0.37			red	
175	Unit Excavation	215	520	mortar	1	0.37				
176	Unit Excavation	215	520	metal, barbed wire	1	0.37				
177	Unit Excavation	215	520	slate writing tablet	1	0.37				
178	Unit Excavation	215	520	faunal remains, mammalian	1	0.37				bovine tooth
179	Unit Excavation	215	520	faunal remains, avian	1	0.37				long bone, cut
180	Unit Excavation	235	510	glass, bottle	2	0.29			amber	
181	Unit Excavation	235	510	glass, bottle	6	0.29			violet	writing "DRU" and "ELORA"
182	Unit Excavation	235	510	glass, bottle	14	0.29			clear	
183	Unit Excavation	235	510	stoneware, salt glazed	1	0.29	unknown	unknown		
184	Unit Excavation	235	510	red earthenware	1	0.29	unknown	unknown		glazed on one side
185	Unit Excavation	235	510	brick	3	0.29			red	
186	Unit Excavation	235	510	nail, wire	2	0.29				
187	Unit Excavation	235	510	metal, screw	1	0.29				
188	Unit Excavation	235	510	clinker	1	0.29				
189	Unit Excavation	235	510	metal, sheet	2	0.29				
190	Unit Excavation	230	515	glass, bottle	1	0.29			blue	
191	Unit Excavation	230	515	glass, decanter base	1	0.29			clear	
192	Unit Excavation	230	515	glass, bottle	3	0.29			clear	
193	Unit Excavation	230	515	glass, window	6	0.29			clear	>1.6mm
194	Unit Excavation	230	515	nail, cut	6	0.29				
195	Unit Excavation	230	515	brick	6	0.29			red	
196	Unit Excavation	230	515	mortar	1	0.29				
197	Unit Excavation	230	515	miscellaneous metal	2	0.29				
198	Unit Excavation	230	515	faunal remains, mammalian	2	0.29				two pieces of same cut rib bone fragment
199	Unit Excavation	230	540	metal, ring	1	0.47				door knocker or cow ring

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Cat#	Context	Easting	Northing	Artifact	Freq.	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
200	Unit Excavation	230	540	miscellaneous metal	2	0.47				two long frame rods bent 90 degrees
201	Unit Excavation	230	540	metal, wire	2	0.47				
202	Unit Excavation	230	540	nail, cut	1	0.47				
203	Unit Excavation	230	540	glass, bottle	2	0.47			aqua	writing "NS" and "WASHIN"
204	Unit Excavation	230	540	glass, bottle	3	0.47			clear	
205	Unit Excavation	230	540	glass, bottle	1	0.47			blue	
206	Unit Excavation	230	540	glass, bottle	1	0.47			amber	
207	Unit Excavation	230	540	red earthenware	10	0.47	hollow	unknown		both sides glazed
208	Unit Excavation	230	540	RWE, undecorated	4	0.47	unknown	unknown		
209	Unit Excavation	230	540	ironstone, undecorated	3	0.47	unknown	unknown		
210	Unit Excavation	230	540	RWE, painted	1	0.47	flat	unknown	blue and green	
211	Unit Excavation	225	510	glass, bottle	1	0.65			olive	
212	Unit Excavation	225	510	glass, bottle	2	0.65			clear	
213	Unit Excavation	225	510	glass, bottle	4	0.65			aqua	
214	Unit Excavation	225	510	glass, window	18	0.65			clear	seven <1.6mm
215	Unit Excavation	225	510	red earthenware	18	0.65	unknown	unknown		some glazed
216	Unit Excavation	225	510	RWE, flow-transfer printed	1	0.65	unknown	unknown	blue	
217	Unit Excavation	225	510	RWE, painted	2	0.65	unknown	unknown	green	early palette?
218	Unit Excavation	225	510	RWE, undecorated	2	0.65	unknown	unknown		
219	Unit Excavation	225	510	nail, cut	22	0.65				
220	Unit Excavation	225	510	miscellaneous metal	8	0.65				
221	Unit Excavation	225	510	metal, barbed wire	1	0.65				
222	Unit Excavation	225	510	metal, band	1	0.65				bent in an s shape
223	Unit Excavation	225	510	brick	4	0.65			red	
224	Unit Excavation	225	510	mortar	1	0.65				
225	Unit Excavation	225	510	white clay pipe, bowl	1	0.65				fragment
226	Unit Excavation	210	500	metal, chain link	1	0.39				
227	Unit Excavation	210	500	stoneware, slip glazed	1	0.39	unknown	unknown	orange	
228	Unit Excavation	210	500	nail, cut	1	0.39				
229	Unit Excavation	210	500	glass, window	7	0.39			clear	
230	Unit Excavation	210	500	brick	4	0.39			red	two almost intact bricks
231	Unit Excavation	225	530	nail, cut	14	0.40				
232	Unit Excavation	225	530	nail, wire	6	0.40				
233	Unit Excavation	225	530	brick	4	0.40			red	
234	Unit Excavation	225	530	mortar	3	0.40				

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Cat#	Context	Easting	Northing	Artifact	Freq.	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
235	Unit Excavation	225	530	glass, window	27	0.40			clear	eight <1.6mm
236	Unit Excavation	225	530	glass, bottle	10	0.40			clear	
237	Unit Excavation	225	530	glass, bottle	1	0.40			olive	
238	Unit Excavation	225	530	recent material	1	0.40				metal gear
239	Unit Excavation	225	530	miscellaneous metal	2	0.40				one plug and one possible ornamental piece
240	Unit Excavation	225	530	metal, wire	1	0.40				
241	Unit Excavation	225	530	faunal remains, mammalian	1	0.40				partial cranium, unknown taxonomy
242	Unit Excavation	225	530	button, Prosser	2	0.40				both four-hole
243	Unit Excavation	225	530	button, wood	2	0.40				both four-hole
244	Unit Excavation	225	530	yellowware	3	0.40	hollow	cup		cup handle
245	Unit Excavation	225	530	RWE, painted	6	0.40	unknown	unknown	green, blue, and mulberry	
246	Unit Excavation	225	530	RWE, transfer printed	1	0.40	flat	unknown	blue	
247	Unit Excavation	225	530	RWE, flow-transfer printed	1	0.40	unknown	unknown		
248	Unit Excavation	225	530	stoneware, slip glazed	1	0.40	hollow	ink well		
249	Unit Excavation	225	530	red earthenware	4	0.40	unknown	unknown		glazed on both sides
250	Unit Excavation	225	530	RWE, undecorated	26	0.40	unknown	unknown		
251	Unit Excavation	225	530	ironstone, undecorated	21	0.40	unknown	unknown		
252	Unit Excavation	225	530	ironstone, moulded	6	0.40	unknown	unknown		one possible teacup base
253	Unit Excavation	235	530	metal, barbed wire	4	0.32				
254	Unit Excavation	235	530	nail, wire	3	0.32				
255	Unit Excavation	235	530	miscellaneous metal	5	0.32				
256	Unit Excavation	235	530	faunal remains, avian	3	0.32				partial long bone and partial hip
257	Unit Excavation	235	530	faunal remains, mammalian	2	0.32				fragments too small to determine
258	Unit Excavation	235	530	brick	1	0.32			red	
259	Unit Excavation	235	530	RWE, undecorated	8	0.32	unknown	unknown		
260	Unit Excavation	235	530	glass, bottle	45	0.32			clear	36 of which are from same glass "Crown Imperial" Jar
261	Unit Excavation	235	530	clinker	1	0.32				
262	Unit Excavation	235	530	glass, window	2	0.32			clear	>1.6mm
263	Unit Excavation	235	530	red earthenware	10	0.32	unknown	unknown		
264	Unit Excavation	235	530	stoneware, slip glazed	1	0.32	hollow	ink well		

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Cat#	Context	Easting	Northing	Artifact	Freq.	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
265	Unit Excavation	220	510	nail, cut	2	0.15				
266	Unit Excavation	220	510	nail, wire	1	0.15				
267	Unit Excavation	220	510	metal, barbed wire	5	0.15				
268	Unit Excavation	220	510	brick	12	0.15			red	
269	Unit Excavation	220	510	mortar	4	0.15				
270	Unit Excavation	230	525	glass, bottle complete	1	0.46			clear	machine made/has seam
271	Unit Excavation	230	525	RWE, undecorated	15	0.46	flat	plate		
272	Unit Excavation	230	525	ironstone, undecorated	3	0.46	unknown	unknown		
273	Unit Excavation	230	525	ironstone, moulded	1	0.46	unknown	unknown		
274	Unit Excavation	230	525	RWE, painted	1	0.46	unknown	unknown	blue	
275	Unit Excavation	230	525	glass, window	2	0.46			aqua	
276	Unit Excavation	230	525	glass, bottle	3	0.46			clear	
277	Unit Excavation	230	525	glass, bottle	1	0.46			olive	
278	Unit Excavation	230	525	glass, bottle	1	0.46			blue	
279	Unit Excavation	230	525	nail, cut	6	0.46				
280	Unit Excavation	230	525	miscellaneous metal	7	0.46				
281	Unit Excavation	230	525	metal, wire	2	0.46				
282	Unit Excavation	230	525	metal, band	1	0.46				
283	Unit Excavation	230	525	metal, can lid	1	0.46				
284	Unit Excavation	230	525	metal, pipe	1	0.46				heavily corroded
285	Unit Excavation	230	525	faunal remains, mammalian	1	0.46				leg or arm joint, unknown taxonomy
286	Unit Excavation	230	525	brick	2	0.46			red	
287	Unit Excavation	230	525	mortar	1	0.46				
288	Unit Excavation	230	500	ironstone, undecorated	6	0.40	flat	unknown		
289	Unit Excavation	230	500	RWE, undecorated	1	0.40	unknown	unknown		
290	Unit Excavation	230	500	recent material	1	0.40				ribbon dental cream package
291	Unit Excavation	230	500	glass, bottle	9	0.40			clear	
292	Unit Excavation	230	500	glass, bottle	2	0.40			olive	
293	Unit Excavation	230	500	glass, window	9	0.40			clear	>1.6mm
294	Unit Excavation	230	500	clinker	5	0.40				
295	Unit Excavation	230	500	nail, wire	1	0.40				bent 180 degrees
296	Unit Excavation	230	500	miscellaneous metal	3	0.40				
297	Unit Excavation	230	500	nail, cut	2	0.40				
298	Unit Excavation	230	500	faunal remains, mammalian	3	0.40				too small to identify
299	Unit Excavation	230	500	brick	19	0.40			red	

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Cat#	Context	Easting	Northing	Artifact	Freq.	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
300	Unit Excavation	230	500	mortar	8	0.40				

10.2 H2 (AkHd-5) Stage 3 Artifact Catalogue

Cat#	Context	Easting	Northing	Artifact	Freq.	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
1	Unit Excavation	287	387	glass, window	2	0.41			clear	>1.6mm
2	Unit Excavation	287	387	ironstone, transfer printed	1	0.41	unknown	unknown	teal	
3	Unit Excavation	287	387	glass, bottle	2				clear	one appears melted
4	Unit Excavation	287	387	glass, bottle	1				amber	
5	Unit Excavation	287	387	glass, bottle	1				aqua	
6	Unit Excavation	287	387	glass, bottle	1				violet	
7	Unit Excavation	287	387	stoneware, salt glazed	1		flat	unknown		
8	Unit Excavation	287	387	ironstone, undecorated	1		unknown	unknown		
9	Unit Excavation	285	360	glass, bottle	1	0.63			blue	
10	Unit Excavation	285	360	glass, window	1				clear	>1.6mm
11	Unit Excavation	285	360	ironstone, transfer printed	1		unknown	unknown	pink	
12	Unit Excavation	285	405	glass, bottle	7	0.41			clear	
13	Unit Excavation	292	362	Rockinghamware	1	0.5	unknown	unknown	red	tortoise shell
14	Unit Excavation	292	362	semi-porcelain, undecorated	1		hollow	unknown		
15	Unit Excavation	292	362	glass, window	1				aqua	>1.6mm
16	Unit Excavation	292	362	glass, bottle	2				green	
17	Unit Excavation	292	362	glass, bottle	2				clear	
18	Unit Excavation	292	362	nail, wire	1					
19	Unit Excavation	292	362	glass, bottle	1				blue	
20	Unit Excavation	280	340	glass, bottle	1	0.35			clear	threaded partial finish
21	Unit Excavation	280	340	nail, cut	1					
22	Unit Excavation	280	340	recent material	1					AAA battery
23	Unit Excavation	280	340	metal, cylinder	1					piping connection
24	Unit Excavation	280	340	faunal remains, mammalian	1					unknown taxonomy
25	Unit Excavation	280	380	glass, bottle	2	0.36			violet	
26	Unit Excavation	280	380	glass, window	1				aqua	>1.6mm

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Cat#	Context	Easting	Northing	Artifact	Freq	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
27	Unit Excavation	280	380	glass, window	1				clear	>1.6mm
28	Unit Excavation	280	380	glass, bottle finish	1				clear	machine manufactured
29	Unit Excavation	280	360	glass, bottle	1	0.5			clear	
30	Unit Excavation	280	390	RWE, undecorated	1	0.44	unknown	unknown		
31	Unit Excavation	280	390	brick	1				red	red brick fragment
32	Unit Excavation	280	390	miscellaneous metal	1					possible mounting bracket
33	Unit Excavation	287	382	recent material	7	0.41				misc. plastics and rubber
34	Unit Excavation	287	382	glass, bottle	4				amber	
35	Unit Excavation	287	382	glass, window	2				clear	>1.6mm
36	Unit Excavation	287	382	glass, bottle	3				clear	
37	Unit Excavation	287	382	ironstone, undecorated	4		unknown	unknown		
38	Unit Excavation	287	382	brick	3				red	red brick fragments
39	Unit Excavation	287	382	mortar	1					
40	Unit Excavation	287	382	miscellaneous metal	1					possible drawer handle
41	Unit Excavation	280	370	stoneware, salt glazed	1	0.5	unknown	unknown		
42	Unit Excavation	285	390	glass, bottle	3	0.37			aqua	one piece has sans serif font "ER" and "S"
43	Unit Excavation	285	390	porcelain, moulded	2		unknown	unknown		
44	Unit Excavation	285	390	stoneware, salt glazed	1		unknown	unknown		
45	Unit Excavation	285	390	glass, bottle	5				clear	
46	Unit Excavation	285	390	glass, window	1				violet	>1.6mm
47	Unit Excavation	285	390	glass, window	1				clear	>1.6mm
48	Unit Excavation	285	390	metal, sheet	1					unknown function
49	Unit Excavation	285	390	petrified wood	1					
50	Unit Excavation	287	362	glass, bottle	1	0.63			amber	
51	Unit Excavation	287	362	glass, bottle finish	1				amber	no seam but appears machine made
52	Unit Excavation	287	362	porcelain, undecorated	1		unknown	unknown		
53	Unit Excavation	287	362	ironstone, undecorated	2		unknown	unknown		
54	Unit Excavation	287	362	recent material	2					plastic and thin metal piece
55	Unit Excavation	285	400	glass, bottle	2	0.4			clear	
56	Unit Excavation	285	400	glass, bottle	1				amber	
57	Unit Excavation	289	399	glass, bottle	1				clear	
58	Unit Excavation	289	399	ironstone, undecorated	1		hollow	cup		cup handle

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Cat#	Context	Easting	Northing	Artifact	Freq	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
59	Unit Excavation	280	350	glass, bottle	1	0.43			violet	
60	Unit Excavation	280	400	glass, bottle	1	0.48			olive green	
61	Unit Excavation	280	400	glass, bottle	1				clear	
62	Unit Excavation	280	400	metal, wire	1					
63	Unit Excavation	280	400	miscellaneous metal	1					possible drawer handle
64	Unit Excavation	285	370	ironstone, undecorated	1	0.57	hollow	cup		
65	Unit Excavation	285	370	ironstone, undecorated	2		flat	unknown		
66	Unit Excavation	285	370	glass, lightbulb	2				clear	too thin to be window glass, has slight bend
67	Unit Excavation	285	370	ironstone, transfer printed	1		flat	unknown	teal	
68	Unit Excavation	285	370	ironstone, flow-transfer printed	1		flat	unknown	blue	
69	Unit Excavation	285	370	glass, bottle	2				amber	
70	Unit Excavation	285	365	glass, bottle	3	0.55			clear	
71	Unit Excavation	285	365	recent material	2					white plastic
72	Unit Excavation	285	365	red earthenware	1		unknown	unknown		glazed on both sides
73	Unit Excavation	285	365	glass, bottle	2				amber	
74	Unit Excavation	285	365	glass, bottle	1				aqua	
75	Unit Excavation	285	365	glass, bottle	1				violet	
76	Unit Excavation	285	365	metal, wire	1					
77	Unit Excavation	285	365	Jackfield-type	1		flat	unknown		purplish refined interior, bicolour glaze
78	Unit Excavation	285	340	glass, window	3	0.38			clear	>1.6mm
79	Unit Excavation	285	340	glass, bottle	3				clear	
80	Unit Excavation	285	340	metal, screw	1					
81	Unit Excavation	285	340	red earthenware	1		unknown	unknown		glazed exterior
82	Unit Excavation	285	340	charcoal	2					
83	Unit Excavation	285	350	ironstone, undecorated	1	0.45	flat	unknown		
84	Unit Excavation	285	350	glass, bottle	7				clear	
85	Unit Excavation	285	350	glass, bottle	1				blue	
86	Unit Excavation	285	350	recent material	1					plastic wire cap
87	Unit Excavation	285	335	glass, bottle stopper	1	0.4			clear	

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Cat#	Context	Easting	Northing	Artifact	Freq	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
88	Unit Excavation	285	335	recent material	2					plastics
89	Unit Excavation	285	335	metal, sheet	2					1.1mm thick
90	Unit Excavation	285	335	glass, bottle	2				violet	
91	Unit Excavation	285	335	glass, bottle	5				clear	
92	Unit Excavation	285	335	charcoal	2					
93	Unit Excavation	290	390	miscellaneous metal	1	0.45				possible mounting bracket (see cat 32)
94	Unit Excavation	290	390	porcelain, undecorated	1		hollow	cup		cup handle
95	Unit Excavation	290	390	stoneware, salt glazed	1		flat	unknown		
96	Unit Excavation	290	390	glass, bottle	6				clear	one partial bottle base
97	Unit Excavation	287	367	ironstone, undecorated	4	0.48	unknown	unknown		one partially burnt
98	Unit Excavation	287	367	glass, bottle	2				amber	
99	Unit Excavation	287	367	brick	2				red	red brick fragments
100	Unit Excavation	287	367	nail, wire	1					
101	Unit Excavation	287	367	glass, bottle	5				clear	
102	Unit Excavation	287	367	glass, bottle	1				violet	
103	Unit Excavation	287	367	recent material	1					electronics fuse?
104	Unit Excavation	285	380	ironstone, transfer printed	1	0.45	unknown	unknown	blue	
105	Unit Excavation	285	380	glass, bottle	3				clear	three appear partially melted
106	Unit Excavation	285	380	glass, window	1				clear	<1.6mm
107	Unit Excavation	285	380	pearlware, edged	1		flat	unknown	blue	
108	Unit Excavation	285	380	stoneware, salt glazed	1		flat	unknown		
109	Unit Excavation	285	380	ironstone, undecorated	3		unknown	unknown		
110	Unit Excavation	285	380	metal, sheet	1					3.97mm thick
111	Unit Excavation	285	380	glass, bottle	1				violet	partial threaded lip
112	Unit Excavation	285	380	glass, bottle finish	1				olive green	partial finish
113	Unit Excavation	285	375	glass, bottle	6	0.39			aqua	
114	Unit Excavation	285	375	glass, bottle	1				violet	
115	Unit Excavation	285	375	glass, bottle	1				olive green	
116	Unit Excavation	285	375	glass, bottle	3				clear	
117	Unit Excavation	285	375	metal, wire						

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Cat#	Context	Easting	Northing	Artifact	Freq	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
118	Unit Excavation	285	375	ironstone, undecorated	3		unknown	unknown		
119	Unit Excavation	285	375	glass, window	3				clear	>1.6mm
120	Unit Excavation	285	375	recent material	2					plastic pieces
121	Unit Excavation	285	375	slate tile	1					
122	Unit Excavation	287	372	ironstone, transfer printed	2	0.47	unknown	unknown	blue	one piece has partial makers mark
123	Unit Excavation	287	372	terra cotta	1		unknown	unknown		
124	Unit Excavation	287	372	recent material	2					green plastic and metal ring
125	Unit Excavation	287	372	glass, bottle	2				green	
126	Unit Excavation	287	372	glass, bottle	6				clear	very small fragments
127	Unit Excavation	287	372	glass, bottle	1				violet	
128	Unit Excavation	287	372	glass, bottle	1				amber	
129	Unit Excavation	287	372	charcoal	1					
130	Unit Excavation	287	372	miscellaneous metal	1					partial metal barb
131	Unit Excavation	290	380	stoneware, slip glazed	1	0.47	hollow	unknown	yellow	rim sherd
132	Unit Excavation	290	380	glass, bottle	8				clear	
133	Unit Excavation	290	380	glass, bottle	1				amber	
134	Unit Excavation	290	380	nail, wire	1					
135	Unit Excavation	290	380	ironstone, undecorated	1		unknown	unknown		
136	Unit Excavation	290	380	recent material	2					one wrapper with text "DER'S" and another piece of plastic
137	Unit Excavation	290	375	recent material	1	0.41			green	melted plastic
138	Unit Excavation	290	375	glass, bottle	6				clear	
139	Unit Excavation	290	375	nail, wire	1					
140	Unit Excavation	290	375	RWE, undecorated	1		unknown	unknown		
141	Unit Excavation	280	375	glass, bottle	1	0.32			blue	
142	Unit Excavation	280	375	glass, bottle	1				clear	
143	Unit Excavation	280	375	mortar	1					
144	Unit Excavation	280	375	brick	1				red	red brick fragment
145	Unit Excavation	280	375	charcoal	1					
146	Unit Excavation	280	375	ironstone, undecorated	1		unknown	unknown		
147	Unit Excavation	280	375	semi-porcelain, moulded	1		unknown	unknown		
148	Unit Excavation	285	355	glass, window	2	0.35			clear	>1.6mm

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Cat#	Context	Easting	Northing	Artifact	Freq	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
149	Unit Excavation	285	355	glass, bottle	2				clear	
150	Unit Excavation	285	355	metal, sheet	1					1.7mm thick
151	Unit Excavation	285	355	semi-porcelain, moulded	1		unknown	unknown		
152	Unit Excavation	290	335	glass, bottle	3	0.4			amber	one possible beer bottle
153	Unit Excavation	290	335	glass, bottle	2				clear	
154	Unit Excavation	290	335	glass, lightbulb	1					0.6mm thick
155	Unit Excavation	290	335	ironstone, undecorated	1		unknown	unknown		
156	Unit Excavation	280	395	ironstone, undecorated	1	0.38	unknown	unknown		
157	Unit Excavation	280	395	glass, bottle	2				clear	one has threading
158	Unit Excavation	280	395	metal, sheet	1					possible pot
159	Unit Excavation	280	395	ironstone, sponged	1		unknown	unknown	blue	
160	Unit Excavation	280	345	glass, lightbulb	1	0.37			clear	0.5mm thick
161	Unit Excavation	280	345	glass, bottle	1				clear	
162	Unit Excavation	280	345	glass, window	1				clear	>1.6mm
163	Unit Excavation	280	345	ironstone, undecorated	1		unknown	unknown		
164	Unit Excavation	280	335	recent material	3	0.45				plastic bits
165	Unit Excavation	280	335	terra cotta	1		unknown	unknown		
166	Unit Excavation	280	335	metal, band	1					76mm long, 23mm wide, 2.7mm thick
167	Unit Excavation	290	355	glass, bottle	1	0.47			amber	
168	Unit Excavation	290	355	glass, bottle	3				clear	
169	Unit Excavation	290	355	recent material	1					plastic
170	Unit Excavation	280	365	ironstone, undecorated	1	0.41	unknown	unknown		
171	Unit Excavation	280	405	glass, bottle	1	0.38			green	
172	Unit Excavation	280	410	glass, bottle	1	0.41			clear	
173	Unit Excavation	280	410	glass, bottle	1	0.41			violet	
174	Unit Excavation	285	395	glass, bottle	2	0.45			clear	
175	Unit Excavation	285	395	ironstone, undecorated	1		unknown	unknown		
176	Unit Excavation	285	385	ironstone, sponged	2	0.33	unknown	unknown	blue	very likely from same vessel
177	Unit Excavation	285	385	glass, bottle	3				clear	
178	Unit Excavation	285	385	glass, bottle	1				aqua	

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Cat#	Context	Easting	Northing	Artifact	Freq	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
179	Unit Excavation	290	345	glass, bottle	7	0.45			clear	one has sans-serif font "CK" and another has "ZE"
180	Unit Excavation	290	345	glass, decanter	1				clear	machine made
181	Unit Excavation	290	345	glass, bowl	1				clear	partial base fragment
182	Unit Excavation	290	345	glass, bottle	1				aqua	
183	Unit Excavation	290	345	glass, bottle	1				violet	
184	Unit Excavation	290	345	glass, bottle	1				amber	
185	Unit Excavation	290	345	glass, window	2				clear	>1.6mm
186	Unit Excavation	290	345	nail, wire	1					
187	Unit Excavation	290	345	charcoal	1					
188	Unit Excavation	290	345	semi-porcelain, undecorated	1		unknown	unknown		
189	Unit Excavation	290	345	ironstone, undecorated	2		unknown	unknown		
190	Unit Excavation	290	345	RWE, flow-transfer printed	1		unknown	unknown	blue	
191	Unit Excavation	290	345	terra cotta	1		unknown	unknown		
192	Unit Excavation	290	345	glass, lightbulb	1				clear	0.6mm thick
193	Unit Excavation	290	365	Jackfield-type	1	0.5	unknown	unknown	brown and white	
194	Unit Excavation	290	365	ironstone, transfer printed	1		flat	unknown	blue	
195	Unit Excavation	290	365	red earthenware	1		hollow	pot		both sides glazed
196	Unit Excavation	290	365	glass, bottle	2				amber	
197	Unit Excavation	290	365	glass, bottle	5				clear	
198	Unit Excavation	290	365	glass, bottle	1				green	
199	Unit Excavation	290	365	glass, bottle	1				violet	
200	Unit Excavation	290	365	glass, bottle	1				aqua	
201	Unit Excavation	290	365	semi-porcelain, undecorated	2		unknown	unknown		
202	Unit Excavation	290	365	metal, sheet	1					unknown purpose
203	Unit Excavation	290	370	ironstone, transfer printed	1	0.54	flat	unknown	green	floral design
204	Unit Excavation	290	370	recent material	4				yellow	plastic sherds
205	Unit Excavation	290	370	charcoal	3					
206	Unit Excavation	290	370	ironstone, undecorated	1		flat	unknown		

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Cat#	Context	Easting	Northing	Artifact	Freq	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
207	Unit Excavation	290	370	semi-porcelain, undecorated	1		flat	unknown		
208	Unit Excavation	290	370	red earthenware	1		hollow	unknown		
209	Unit Excavation	290	370	nail, wire	1					
210	Unit Excavation	290	370	glass, bottle	3				clear	
211	Unit Excavation	290	370	metal, tin sheet	1				blue	possible tin packaging
212	Unit Excavation	290	385	glass, bottle	10	0.45			clear	two partial bottle bases (one patent bottle)
213	Unit Excavation	290	385	ironstone, moulded transfer printed	1		unknown	unknown	blue	
214	Unit Excavation	290	385	glass, bottle	3				violet	
215	Unit Excavation	290	385	miscellaneous metal	1					
216	Unit Excavation	290	385	faunal remains, mammalian	2					calcified
217	Unit Excavation	290	385	recent material	1					garden plant seed ID tab
218	Unit Excavation	290	340	glass, bottle	2	0.36			aqua	
219	Unit Excavation	290	340	glass, bottle	3				amber	
220	Unit Excavation	290	340	glass, bottle	5				clear	
221	Unit Excavation	290	340	ironstone, undecorated	3		unknown	unknown		
222	Unit Excavation	289	405	ironstone, undecorated	3	0.4	unknown	unknown		
223	Unit Excavation	289	405	nail, wire	1					
224	Unit Excavation	289	405	stoneware, salt glazed	1		unknown	unknown		
225	Unit Excavation	289	405	glass, bottle	4				clear	
226	Unit Excavation	289	405	glass, bottle	1				violet	
227	Unit Excavation	289	405	metal, sheet	1					
228	Unit Excavation	280	385	semi-porcelain, undecorated	1	0.35	unknown	unknown		
229	Unit Excavation	280	385	ironstone, undecorated	2		unknown	unknown		
230	Unit Excavation	280	385	glass, bottle	5				clear	one piece is melted
231	Unit Excavation	280	385	glass, bottle	1				aqua	
232	Unit Excavation	280	385	glass, window	2				aqua	>1.6mm
233	Unit Excavation	280	385	glass, bottle	1				amber	
234	Unit Excavation	280	385	metal, stake	1					
235	Unit Excavation	280	385	brick	2				red	red brick fragments

Stage 3 Archaeological Assessment, Alma Subdivision, H1 (AkHd-4) and H2 (AkHd-5)

Cat#	Context	Easting	Northing	Artifact	Freq	Depth (m)	Ceramic Form	Ceramic Function	Colour	Comments
236	Unit Excavation	285	345	ironstone, painted	1	0.4	flat	plate	pink and blue	
237	Unit Excavation	285	345	ironstone, undecorated	3		unknown	unknown		
238	Unit Excavation	285	345	glass, bottle	6				clear	
239	Unit Excavation	285	345	recent material	1					metal wire one would use to close a bread bag
240	Unit Excavation	290	350	glass, bottle	6	0.4			clear	
241	Unit Excavation	290	350	glass, bottle	1				aqua	
242	Unit Excavation	290	350	glass, bottle	1				violet	
243	Unit Excavation	290	350	creamware, undecorated	1		flat	plate		
244	Unit Excavation	290	350	semi-porcelain, transfer printed	1		unknown	unknown	orange	
245	Unit Excavation	290	350	RWE, undecorated	1		unknown	unknown		
246	Unit Excavation	290	350	metal, barbed wire	1					
247	Unit Excavation	295	345	ironstone, undecorated	1	0.65	unknown	unknown		
248	Unit Excavation	295	345	red earthenware	2		unknown	unknown		one has exterior glazing
249	Unit Excavation	295	345	miscellaneous metal	1					
250	Unit Excavation	295	345	recent material	1					plastic
251	Unit Excavation	295	345	glass, window	1				clear	>1.6mm
252	Unit Excavation	295	345	glass, bottle	4				clear	
253	Unit Excavation	295	363	brick	2	0.46			red	one almost intact, no frog
254	Unit Excavation	295	363	metal, sheet	1					possible crock
255	Unit Excavation	290	360	recent material	2	0.51				disposable pie pan plus one small bit of plastic
256	Unit Excavation	290	360	asphalt	1					one large chunk
257	Unit Excavation	290	360	glass, bottle	6				clear	
258	Unit Excavation	290	360	faunal remains, mammalian	1					possible rib
259	Unit Excavation	290	360	glass, bottle	2				amber	
260	Unit Excavation	290	360	charcoal	1					
261	Unit Excavation	290	360	stoneware, slip glazed	1		unknown	unknown		
262	Unit Excavation	290	360	glass, bottle	1				olive	

10.3 Euro-Canadian Artifact Descriptions

10.3.1 Structural Artifacts

Nails

Originally, all nails were hand made (wrought) and required skill, as well as a forge. As a result, nails were relatively expensive and methods were sought to have them machine made. Whereas 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 thin panes. Most window glass manufactured before 1845 tended to be thinner, while later glass was thicker. However, because window glass thickness varied even within a single pane, an assemblage of ten specimens is required to provide an adequate sample (Kenyon 1980).

10.3.2 Ceramic Ware Types

Creamware

Creamware is a refined, thin bodied earthenware with a clear lead-glaze that appears creamy yellow to yellowish-green in colour. It was first produced in the 1750s and was later perfected by Josiah Wedgwood in the 1760s. By 1770, creamware became a common variety of tableware in Upper Canada; it remained popular until 1820 after which pearlware and whiteware types were introduced (Adams 1994).

Jackfield-type Ware

Jackfield-type wares take their name from the Shropshire village of Jackfield where they were first produced by the potter Richard Thursfield from 1751-72 (Downman 1896). The wares were initially made with a red clay fabric, but Thomas Whieldon and other Staffordshire potters used purplish and greyish clays (Maryland Archaeological Conservation Lab 2002b). The Jackfield style began being produced again in the early 1800s and again often using a red clay fabric. Unlike red earthenware, however, the walls are thin, similar to refined earthenwares. The wares feature a glossy black glaze and were almost exclusively tea service items, although Toby jugs also feature. The wares were commonly embossed and sometimes highlighted with yellow patterns. Jacobite-era vessels often had inspirational writing, and the Jackfield-type revival in the Victorian era as mourning period ware was often gilded with personal inscriptions. A resurgence of Jackfield-type ware occurred in the late 19th century when terra cotta or white earthenware body were used.

Pearlware

The term pearlware denotes an early variety of refined white tableware that was first produced in 1779 by Josiah Wedgwood. 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).

Porcelain

Porcelain is a variety of RWE that was first manufactured in China in the 16th century. Porcelain wares are produced using very high firing temperatures resulting in a partial vitrification of the paste. Vessel bodies tend to be translucent and can be very thin. Because of its prohibitive cost,

porcelain is rare on 19th century sites in Ontario, but became relatively common by the 20th century as less expensive production techniques were developed in England, Germany and Holland (Kenyon 1980).

Throughout the 19th century, potters in Staffordshire, England, sought to replicate Chinese porcelain resulting in the creation of many variations of RWE including creamware, pearlware, whiteware, and ironstone. English porcelain, also known as 'bone China' or 'English soft-paste porcelain', was the most common variety of porcelain represented in Euro-Canadian sites throughout the 19th century. It was a vitreous ceramic with high silicon oxide content, although not as high as Chinese porcelain, that maintained glass-like sharpness on breakage (Majewski and O'Brien 1987). Given its cost, its presence of porcelain in large numbers on Euro-Canadian sites in Southern Ontario usually indicates a higher economic status.

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, the white appearance of whiteware was caused by reducing the amount of cobalt added to the glaze and adding it instead to the paste (Miller 1980a). Because whiteware was manufactured by many different recipes it 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: 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 approach gives a conservative date to any pearlware sherds not correctly identified.

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).

Red and Yellow Earthenware

Red and yellow earthenware are utilitarian wares that are 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:9). Earthenware vessels were also less expensive than other, more refined tablewares. As a result, an abundance of earthenware pieces relative to other ware types, especially on a late 19th century site, may indicate lower economic status.

Rockinghamware

Rockinghamware vessels were first manufactured in England the 1770s and feature a mottled brown and yellow glaze over a yellow earthenware or stoneware fabric. Imported Rockinghamware vessels were popular in Southern Ontario from the 1840s until the 1880s, at which time they began to be manufactured locally. Rockinghamware vessel are still produced in small quantities today (Adams 1994).

Semi-Porcelain

Semi-porcelain is a also variety of RWE featuring a thick body and hard, opaque paste. It was developed by English potters during the first half of the 19th century in an attempt to create a less expensive alternative to imported porcelain. By the latter half of the century, semi-porcelain vessels became widespread throughout North America. Decoration with hand-painted lustrous gold over glaze or 'gilding' became popular in the 1880s and persisted until the 1940s (Hughes 1961).

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).

Yellowware

Yellowware is a type of coarse earthenware that was produced in England in the late 18th century. It first appeared on sites in Southern Ontario in the 1840s, and remained popular throughout the remainder of the century. In addition to the distinctive mustard-yellow glaze, yellowware vessels can be identified by their porous, buff-coloured fabric. They were often slip decorated and commonly used for utilitarian kitchen bowls (Adams 1994).

10.3.3 Ceramic Decorative Styles

Edging

Edging is used to describe ceramics where decoration is concentrated on moulding or colouring the rim of the vessel, most commonly plates and other flatware. The earliest edged vessels bore asymmetrical, rococo shell-edging and date from roughly 1775. Over time, the style of the edge design changed, becoming symmetrical scalloping from around 1800, to straight-edged with feathering by 1840 and non-embossed, straight edges by 1860. Dates vary somewhat for the popularity of the dominant colours – blue and green – but blue scalloped edged vessels date from 1820 to 1840, blue unscalloped edged vessels from after 1860 (Hunter and Miller 2009).

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 is the most predominant colour used in flow-transfer printing, although examples in black do exist (Adams 1994).

Hand Painting

Hand painted floral tea and dinner ware sets were a staple ceramic item in the 1800s. From 1785 to 1815, potters used metal oxide colours that produced subdued, earth tones including brownish orange, olive-green, raw umber, and a limited use of blue. Cobalt blue, often referred to as Early Palette Blue, was the most dominant colour observed between 1815 and 1830, and typically featured large brushstrokes. Between 1830 and 1870, a growing variety of chrome colours, often

referred to as Late Palette colours, were popular for RWE and ironstone dinner and tea sets. By the end of the century, blue had once again emerged as the post popular colour for hand painted vessels (Adams 1994).

Sponging and Stamping

Sponging and stamping were inexpensive ways of decorating ceramics by using a sponge to transfer ink to the vessel giving it a mottled effect. All over sponging and stamping became popular in the 1840s. A lack of sponged and stamped vessels on a site often indicates the occupants could afford more expensive decorated ceramics (Adams 1994).

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 1829). 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 and O'Brien 1987). 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).

10.3.4 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).

10.3.5 Personal Artifacts

Buttons

Buttons fashioned from freshwater or tropical shells were commonly used as shirt buttons in the 1840s until they were replaced by more affordable varieties such as Prosser buttons (Adams 1994). The patent for the Prosser button method provides a *terminus post quem* of 1840. The method involves pressure moulding powdered minerals common in the recipe of ceramics, such as clay, flint and feldspar, and firing them at high temperatures to achieve a vitrified finish. While the Prosser buttons were moulded in various patterns or embossed and decorated with transfer and hand-painted glazes, the most common are simple white, sew-through, dish type varieties used on men's shirts (Sprague 2002). They were the most inexpensive buttons available in the 19th century, and remained popular through to the 1920s. Prosser buttons were still being produced in France until the 1960s (Venovcevs 2013).

Slate Tablets and Pencils

The value of paper, especially writing quality paper, in the 1800s prevented its use for junior schoolwork and everyday household use. Instead, both adults and children commonly used slate boards and pencils. Boards comprised a flat sheet of fine quality slate (typically 2.5mm thick) bounded in a wood frame. The pencils were typically 3-5mm thick and composed of slate or shale softer than the board. There were several methods of pencil manufacture, from reducing slices it by forcing them through tubes (the evidence of which can be seen as flat facets along the pencil length); turning slices of slate (Davies 2005:64), or by grinding slate or shale to a powder to then compress it in moulds (Evening Standard 1891). Given the expense of slate for roofing purposes, most thin slate fragments on historic sites are likely to be from writing boards.

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).