Stage 1-2 Archaeological Assessment
825 Garrison Road, Fort Erie

Part of Lot 2, Concession 3, Geographic Township of Bertie, Historical County of Welland, now the Regional Municipality of Niagara

Submitted to:

Paul Di Francesco
2541859 Ontario Inc.

and

Ontario's Ministry of Citizenship and Multiculturalism

Submitted by:

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

Licensee: Garth Grimes
License Number: P017
PIF Number: P017-1120-2024
CP Number: 2024-084

ORIGINAL REPORT

October 11, 2024

Executive Summary

Detritus Consulting Ltd. ('Detritus') was retained by Paul Di Francesco of 2541859 Ontario Inc. (the 'Proponent') to conduct a Stage 1-2 archaeological assessment on part of Lot 2, Concession 3, in the Geographic Township of Bertie, within the Historical County of Welland, now the Regional Municipality of Niagara, Ontario (Figure 1). This assessment was undertaken in advance of future development on the property at 825 Garrison Road, Fort Erie and the development will span the entire property (the 'Study Area;' Figure 5).

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

The Study Area comprises a rectangular-shaped parcel that fronts onto Garrison Road and measures approximately 1.3 hectares ('ha'). The Study Area is bound by Garrison Road to the north, forested area to the east, residential properties to the west, and an open field to the south. At the time of assessment, the Study Area included one residential building, a garage, a gravel driveway, and a drainage ditch that runs along the north side of the property. A manicured lawn with scattered trees makes up the remainder of the property (Figure 4).

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. This research also indicated that the Study Area is located within an area of archaeological potential, as indicated by the *Niagara Region Archaeological Management Plan* (Niagara Region, 2023). Therefore, a Stage 2 Property Assessment was recommended for the Study Area.

The subsequent Stage 2 field assessment of the Study Area was conducted on July 29th, 2024. This investigation began with a property inspection, conducted according to Section 2.1.8, which is informed by Section 1.2 of the *Standards and Guidelines* (Government of Ontario, 2011). The inspection revealed that the residential building, garage, gravel driveway, and drainage ditch along the north side of the property retained no, or low, archaeological potential based on the identification of extensive and deep land alteration that has severely damaged the integrity of archaeological resources as per Section 2.1, Standard 2b of the *Standards and Guidelines* (Government of Ontario, 2011). The previously disturbed areas, as confirmed during a Stage 2 property inspection, were mapped and photo documented only in accordance with Section 2.1, Standard 6, and Section 7.8.1, Standards 1a and 1b of the *Standards and Guidelines* (Government of Ontario, 2011).

The remainder of the Study Area comprised the manicured lawns with trees throughout the Study Area, which were assessed by means of a typical test pit survey at 5m intervals. This investigation resulted in the identification and documentation of two pre-contact Indigenous sites, registered with the MCM as P1 (AfGr-118) and P2 (AfGr-119), see Tile 4 of the Supplementary Documentation to this report.

The Stage 2 assessment of P1 (AfGr-118) resulted in the documentation of six pre-contact Indigenous artifacts from two positive test pits located 5m apart to the southeast of the residential building. All of the artifacts recovered from the site were manufactured from Onondaga chert and were identified as pieces of chipping detritus (n=14). Morphological analysis of the chert flakes suggests late-stage reduction for the production and maintenance of formal tools and projectile points.

Based on the results of the Stage 2 investigation, P1 (AfGr-118) has been interpreted as a small activity area for the late stages of lithic reduction activities. Given the presence of at least 5 non-diagnostic pre-contact Indigenous artifacts in a 10m by 10m test pit survey area, P1 (AfGr-118) **meets the criteria for a Stage 3 Site Specific Assessment, as per Section 2.2, Standard 1a(2) of the *Standards and Guidelines* (Government of Ontario, 2011) and retains cultural heritage value or interest ('CHVI').**

The Stage 2 assessment of P2 (AfGr-119) resulted in the documentation of one pre-contact Indigenous artifact from one test pit located to the west of the residential building and gravel driveway and north of the garage. Given the isolated nature of the artifacts, P2 (AfGr-119) does not fulfill any of the criteria for a Stage 3 assessment listed in Section 2.2 of the *Standards and Guidelines* (Government of Ontario, 2011); however, due to the proximity of P2 (AfGr-119) to P1 (AfGr-118), it is not clear whether the find is isolated or a part of the larger scatter identified as P1 (AfGr-118) that may have been disturbed by the residential development that took place on the property. Therefore, P2 (AfGr-119) is recommended for **a Stage 3 Site Specific Assessment, as per Section 2.2, Standard 1, Guideline 2 *Standards and Guidelines* (Government of Ontario, 2011) and retains cultural heritage value or interest 'CHVI').**

The Stage 3 archaeological assessments of P1 (AfGr-118) and P2 (AfGr-119) will be conducted according to 3.2 of the *Standards and Guidelines* (Government of Ontario, 2011). Typically, a Stage 3 assessment for sites documented during a pedestrian survey of ploughed agricultural land begins with a controlled surface pickup ('CSP') across the Stage 2 limits of site, conducted as per Section 3.2.1 of the *Standards and Guidelines* (Government of Ontario, 2011). Given that P1 (AfGr-118) and P2 (AfGr-119), were recovered during the test pit survey, a CSP is not required. Instead, the Stage 3 investigation of the site will comprise test unit excavation only.

The Stage 3 assessments of P1 (AfGr-118) and P2 (AfGr-119) will consist of the hand excavation of one 1m square test units every 10m across the Stage 2 site limits in systematic levels and into the first five centimetres of subsoil, as per Table 3.1, Standard 3 of the *Standards and Guidelines* (Government of Ontario, 2011). Additional 1m test units, amounting to 40% of the grid total, will be placed in areas of interest within the site extent as per Table 3.1, Standard 4 of the *Standards and Guidelines* (Government of Ontario, 2011). Should areas of artifact concentration or features be discovered during the excavation of the initial Stage 3 grid and infill units, the grid will be reduced to 5m intervals, with 20% infill in those areas as per Table 3.1, Standards 1 and 2 of the *Standards and Guidelines* (Government of Ontario, 2011). All excavated soil will be screened through six-millimetre mesh; all recovered artifacts will be recorded by their corresponding grid unit designation and collected for laboratory analysis. If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit.

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 6
1.1 Development Context 6
1.2 Historical Context 7
1.2.1 Post-Contact Indigenous Resources 7
1.2.2 Euro-Canadian Resources 8
1.3 Archaeological Context 10
1.3.1 Property Description and Physical Setting 10
1.3.2 Pre-Contact Indigenous Land Use 11
1.3.3 Previous Identified Archaeological Work 12
1.3.4 Archaeological Potential 12
2.0 Field Methods 14
3.0 Record of Finds 15
3.1 Cultural material 15
3.2 P1 (AfGr-118) 16
3.2.4 Artifact Catalogue 16
3.3 P2 (AfGr-119) 16
3.2.5 Artifact Catalogue 16
4.0 Analysis and Conclusions 17
4.1 Preliminary Indication of Site Possibly Requiring Stage 4 Archaeological Mitigation 18
5.0 Recommendations 19
6.0 Advice on Compliance with Legislation 20
7.0 Bibliography 21
8.0 Maps 24
9.0 Images 29
9.1 Field Photos 29
9.2 Artifacts 32
10.0 Appendix 33
10.1 Artifact Catalogue 33
10.1.1 P1 (AfGr-118) Stage 2 Artifact Catalogue 33
10.1.2 P2 (AfGr-119) Stage 2 Artifact Catalogue 33

Project Personnel

Project Manager:	Garth Grimes, P017
Field Director:	Jon Peart, P1263
Field Technician:	Jonah Schothuis, Kennedy Bell, Brandon McCabe, Jonathan VanDerVoort, and Stephen Heyerdahl
Artifact Analysis:	Jon Peart, P1263
Report Preparation:	Brittanee Mason, R1362 and Tina Ross
Mapping:	Brittanee Mason, R1362 and Tina Ross
Licensee Review:	Garth Grimes, P017

Acknowledgments

Generous contributions by Mr. Paul Di Francesco made this report possible.

1.0 Project Context

1.1 Development Context

Detritus Consulting Ltd. ('Detritus') was retained by Paul Di Francesco of 2541859 Ontario Inc. (the 'Proponent') to conduct a Stage 1-2 archaeological assessment on part of Lot 2, Concession 3, in the Geographic Township of Bertie, within the Historical County of Welland, now the Regional Municipality of Niagara, Ontario (Figure 1). This assessment was undertaken in advance of future development on the property at 825 Garrison Road, Fort Erie and the development will span the entire property (the 'Study Area;' Figure 5).

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

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

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

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

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

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

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

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

1.2 Historical Context

1.2.1 Post-Contact Indigenous Resources

The earliest documented pre-European settlers arrived to the Niagara Peninsula from southwestern Ontario during the 14th century AD, at the peak of Iroquois culture. By 1400, the majority of the region was occupied by an Iroquoian-speaking tribe referred to as the Attawandaran (aka the Atiquandaronk or Attouanderonks), who exploited the fertile land and abundant water sources throughout the region for fishing, hunting and agriculture (Niagara Falls Info, 2022). This moniker was given to the community by the neighbouring Wendat as a slur against their unusual dialect. Those Attawandaran tribes who settled along the Niagara River were referred to as the Onguiaahra (later the Ongiara), which has been loosely translated as one of "the Straight," "the Throat," or "the Thunder of Waters" (Niagara-on-the-Lake, 2016; Niagara-on-the-Lake Realty, 2022). The name 'Neutral' was given to the Attawandaran by French explorers who began arriving in the 17th century. This new designation referred to the community's status as peacekeepers between the warring Huron and Iroquois tribes (Niagara Falls Info, 2022).

The earliest recorded European visit to the Niagara region was undertaken by Étienne Brûlé, an interpreter and guide for Samuel de Champlain. In June 1610, Brûlé requested permission to live among the Algonquin people and to learn their language and customs. In return, Champlain agreed to take on a young Huron named Savignon and to teach him the language and customs of the French. The purpose of this endeavour was to establish good relations with Indigenous communities in advance of future military and colonial enterprises in the area. In 1615, Brûlé joined twelve Huron warriors on a mission to cross enemy territory and seek out the Andaste people, allies of the Huron, to ask for their assistance in an expedition being planned by Champlain (Heidenreich, 1978). It is believed that Brûlé first visited the future site of Niagara-on-the-Lake during this excursion (Niagara-on-the-Lake, 2016). The mission was a success but took much longer than anticipated. Brûlé returned with the Andaste two days too late to help Champlain and the Hurons, who had already been defeated by the Iroquois (Heidenreich, 1978).

Throughout the middle of the 17th century, the Iroquois of the Five Nations sought to expand upon their territory and to monopolise the local fur trade as well as trade between the European markets and the tribes of the western Great Lakes. A series of bloody conflicts followed known as the Beaver Wars, or the French and Iroquois Wars, were contested between the Iroquois and the French with their Huron and other Algonquian-speaking allies of the Great Lakes region. Many communities were destroyed during this protracted conflict including the Huron, Neutral, Erie, 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. By 1667, all members of the Five Nations had signed a peace treaty with the French and allowed their missionaries to visit their villages (Heidenreich, 1978).

Ten years later, hostilities between the French and the Iroquois resumed after the latter formed an alliance with the British through an agreement known as the Covenant Chain (Heidenreich, 1978). In 1696, an aging Louis de Buade, Comte de Frontenac et de Palluau, the Governor General of New France, rallied the Algonquin forces and drove the Iroquois out of the territories north of Lake Erie, as well as those to the west of present-day Cleveland, Ohio. A second treaty was concluded between the French and the Iroquois in 1701, after which the Iroquois remained mostly neutral (Jamieson, 1992; Noble, 1978).

Throughout the late 17th and early 18th centuries, various Iroquoian-speaking communities had been migrating into southern Ontario from New York State. In 1722, the Five Nations adopted the Tuscarora in New York becoming the Six Nations (Pendergast, 1995). This period also marks the arrival of the Mississaugas into Southern Ontario and, in particular, the watersheds of the lower Great Lakes (Konrad, 1981; Schmalz, 1991). The oral traditions of the Mississaugas, as told by Chief Robert Paudash 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 and, at the end of the 17th century, the Mississaugas settled permanently in Southern Ontario (Praxis Research Associates, n.d.). Around this same time, members of the Three Fires

Confederacy (the Chippewa, Ottawa, and Potawatomi) began immigrating from Ohio and Michigan into southwestern Ontario (Feest & Feest, 1978).

The Study Area first enters the Euro-Canadian historic record on May 9th, 1781, as part of the Niagara Treaty No. 381 with the Mississauga and Chippewa (Morris, 1943). This treaty involved the surrender of,

> *…all that certain tract of land situated on the west side of the said strait or river, leading from Lake Erie to Lake Ontario, beginning at a large white oak tree, forked six feet from the ground, on the bank of the said Lake Ontario, at the distance of four English miles measured in a straight line, from the West side of the bank of the said straight, opposite to the Fort Niagara and extending from thence by a southerly course to the Chipeweigh River, at the distance of four miles on a direct line from where the said river falls into the said strait about the great Fall of Niagara or such a line as will pass at four miles west of the said Fall in its course to the said river and running from thence by a southeasterly course to the northern bank of Lake Erie at the distance of four miles on a straight line, westerly from the Post called Fort Erie, thence easterly along the said Lake by the said Post, and northerly up the west side of the said strait to the said lake Ontario, thence westerly to the place of beginning.*
>
> Morris, 1943, pp. 15-16

Throughout southern Ontario, the size and nature of the pre-contact settlements and the subsequent spread and distribution of Indigenous material culture began to shift with the establishment of European settlers. By 1834 it was accepted by the Crown that losses of portions of the Haldimand Tract to Euro-Canadian settlers were too numerous for all lands to be returned. Lands in the Lower Grand River area were surrendered by the Six Nations to the British Government in 1832, at which point most Six Nations people moved into Tuscarora Township in Brant County and a narrow portion of Oneida Township (Page, The Illustrated Historical Atlas of the County of Haldimand, Ontario, 1879; Tanner, 1987; Weaver, 1978). 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, p. 114). As Ferris observes, despite the arrival of a competing culture, First Nations communities throughout Southern Ontario have left behind archaeologically significant resources that demonstrate continuity with their pre-contact predecessors, even if they have not been recorded extensively in historical Euro-Canadian documentation.

1.2.2 Euro-Canadian Resources

The current Study Area is located on part of Lot 2, Concession 3, in the Geographic Township of Bertie, within the Historical County of Welland, which is now the Regional Municipality of Niagara, Ontario.

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

On July 24, 1788, Sir Guy Carleton, the Governor-General of British North America, divided the Province of Québec into the administrative districts of Hesse, Nassau, Mecklenburg, and Lunenburg (Archives of Ontario, 2012-2024). Further change came in December 1791 when the former Province of Québec was rearranged into Upper Canada and Lower Canada under the provisions of the Constitutional Act. Colonel John Graves Simcoe was appointed as Lieutenant-

Governor of Upper Canada and he spearheaded several initiatives to populate the province including the establishment of shoreline communities with effective transportation links between them (Coyne, 1895).

In July 1792, Simcoe divided Upper Canada into 19 counties, including Welland County, 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).

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 London and Niagara Districts were established. Under this new territorial arrangement, the Study Area became part of the Niagara District (Archives of Ontario, 2012-2024). In 1845, after years of increasing settlement that began after the War of 1812, the southern portion of Lincoln County was severed to form Welland County, of which Bertie Township was a part. The two counties would be amalgamated once again in 1970 to form the Regional Municipality of Niagara.

Settlement within Bertie Township began in 1764, immediately following the end of the Seven Years' War. To help defend his newly acquired territory, King George III built a series of military forts along the Niagara River. Fort Erie was the first to be constructed and represents earliest permanent British Army Fort in Ontario. The Military Reserve around the fort was also set aside by the Crown at that time to demarcate the ordinance boundary for the garrison stationed there (Bradford, 1988).

During the American Revolutionary War, contested between 1775 and 1783, Fort Erie was used as a supply depot for British troops. In 1784, following the conflict, the land around the fort, later designated as the Town of Fort Erie, was granted to members of the disbanded Butler's Rangers. A number of Loyalist settlements emerged including the village of Ridgeway, which was named after the limestone ridge that passes through it from north to south (Niagara Parks, n.d.).

The earliest roads throughout the township followed existing Indigenous trails along the river and along the Onondaga Escarpment. Lakeshore Road connected Fort Erie and its occupants to growing community around it. The first survey of Bertie Township was completed in 1789 by Amos Chapman, who referred to the area as 'Quaker Township'; the name Bertie was not used until 1793 (Archaeological Services, Inc., 2003). Settlers continued to arrive throughout the remainder of the 18th and early 19th centuries, attracted by the fertile soil throughout the township, which was suitable for growing barley, wheat, oats amongst other crops (Niagara Parks, n.d.). In 1808, approximately 40 homes were located throughout the township. By 1812, the township boasted several mills, schools, and churches. Stevensville was the largest community at that time (Archaeological Services, Inc., 2003).

Following the winter of 1803, a new stone fort was constructed inland from the site of the original Fort Erie, which was made of wood and susceptible to ice damage. This new fort remained incomplete at the start of the War of 1812. American troops captured the new Fort Erie on two occasions during the War of 1812. In 1814, following a long, protracted siege by British forces, the Americans destroyed the fort before retreating back to Buffalo (Niagara Parks, n.d.).

In 1850, Bertie was officially incorporated as a township. Later, on June 2, 1866, between 1,000 and 1,350 Irish American invaders known as the Fenians crossed the Niagara River and defeated the local militia at the Battle of Ridgeway. The next day, as they were withdrawing back to America, the Fenian raiders met with another small force of Canadian volunteers and defeated them at the Battle of Fort Erie. Eventually, the Fenians retired back across the river and surrendered to American authorities. This conflict was the largest engagement of the Fenian raids and the only armed victory for the Irish during their battle for Irish Independence between 1798 and 1919 (Niagara Parks, n.d.).

Much of the development of Bertie Township during the second half of the 19th century can be attributed to the advancement of the railroad. In the 1850s, Ridgeway received an arm of the Buffalo, Brantford and Goderich Railway, the earliest railway to be built in southwestern Ontario.

Later, in 1873, the Grand Trunk Railway built the International Railway Bridge, resulting in large population increases throughout the township and the establishment of a new town just north of the original settlement of Fort Erie. This town was originally called Victoria but would later be renamed Bridgeburg. By 1876, Victoria had three railway stations (Scrimgeour, 1990). The population of Fort Erie, meanwhile, had reached approximately 1,200 and the village of Ridgeway, 800. A decade later the population of Fort Erie had climbed to around 4,000 while Victoria boasted nearly 700 residents. Ridgeway, conversely, experienced a slight decrease in its growth, with a population of around 600 at that time. The following year witnessed the opening of a new amusement park at Crystal Beach. The park remained active for just over a century before closing its doors in 1989. In 1970, Bertie Township amalgamated with Fort Erie and Crystal Beach to form the Town of Fort Erie (Niagara Parks, n.d.).

George Tremaine's Map of the Counties of Lincoln and Welland, Canada West ('*Tremaine Map*') demonstrates the extent to which the region had been settled by 1862 (Tremaine, 1862). Landowners are listed for most of the lots throughout the township, many of which had been subdivided multiple times into smaller parcels to accommodate an increasing population throughout the second half of the 19th century. The Study Area occupies a portion of the northern end of Lot 2 Concession 3. According to the Tremaine Map, the lot is owned in its entirety by an S. Woolover with a single structure in the northwest corner of the Lot (Figure 2). The Grand Trunk Railway runs to the east and south of the Study Area.

The *Illustrated Historical Atlas of the Counties of Lincoln and Welland* ('*Historical Atlas*'), demonstrates the extent to which Bertie Township had been settled by 1876 (Page, The Illustrated Historical Atlas of the Counties of Lincoln and Welland, 1876). Landowners are listed for most of the lots within the township, many of which had been subdivided multiple times into smaller parcels to accommodate an increasing population throughout the late 19th century. Structures and orchards are prevalent throughout the township, almost all of which front early roads and waterways, especially the Niagara River and Lake Erie.

According to the *Historical Atlas* map of Bertie Township, the Study Area is located in the northeastern part of Lot 2 Concession 3. The Lot is owned in its entirety by Jacob Shisler, and an orchard and structure are depicted fronting what is now Garrison Road (Figure 3). The Grand Trunk Railway passes the Study Area to the east. Various other railways crisscross the township, including the Canadian Southern Railway to the north of the Study Area. The historic community of Fort Erie is visible on the Niagara River to the east of the Study Area, along the eastern edge of the township.

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

1.3 Archaeological Context

1.3.1 Property Description and Physical Setting

The Study Area comprises a rectangular-shaped parcel that fronts onto Garrison Road and measures approximately 1.3 hectares ('ha'). The Study Area is bound by Garrison Road to the north, forested area to the east, residential properties to the west, and an open field to the south. At the time of assessment, the Study Area included one residential building, a garage, a gravel driveway, and a drainage ditch that runs along the north side of the property. A manicured lawn with scattered trees makes up the remainder of the property (Figure 4).

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

The Study Area is located within Haldimand Clay Plain physiographic region (Chapman & Putnam, 1984). During pre-contact and early contact times, this area comprised a mixture of deciduous trees and open areas. In the early 19th century, Euro-Canadian settlers began to clear

the forests for agricultural purposes, which have been ongoing in the vicinity of the Study Area for over 100 years.

Haldimand Clay is slowly permeable, imperfectly drained with medium to high water-holding capacities. Surface runoff is usually rapid, but water retention of the clayey soils can cause it to be droughty during dry periods (Kingston & Presant, 1989). According to Chapman and Putnam,

> ...although it was all submerged in Lake Warren, the till is not all buried by stratified clay; it comes to the surface generally in low morainic ridges in the north. In fact, there is in that area a confused intermixture of stratified clay and till. The northern part has more relief than the southern part where the typically level lake plains occur.
>
> Chapman & Putnam, 1984, p. 156

Huffman and Dumanski add that the soil within the region is suitable for corn and soybeans in rotation with cereal grains as well as alfalfa and clover (Huffman & Dumanski, 1986).

The Niagara Region as a whole is located within the Deciduous Forest Region of Canada and contains tree species which are typical of the more northern Great Lakes-St. Lawrence Biotic zone, such as beech, sugar maple, white elm, basswood, white oak, and butternut (MacDonald & Cooper, 1997). During pre-contact and early contact times, the land in the vicinity of the Study Area comprised a mixture of hardwood trees such as sugar maple, beech, oak, and cherry. This pattern of forest cover is characteristic of areas of clay soil within the Maple-Hemlock Section of the Great Lakes-St. Lawrence Forest Province-Cool Temperate Division (McAndrews & Manville, 1987). In the early 19th, Euro-Canadian settlers began to clear the forests for agricultural purposes.

The closest source of potable water is an unnamed creek that lies 40m to the east of the Study Area.

1.3.2 Pre-Contact Indigenous Land Use

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

Table 1: Cultural Chronology for Bertie Township

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

1.3.3 Previous Identified Archaeological Work

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

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

According to the ASDB, four archaeological sites have been registered within a 1km radius of the Study Area (Table 2). All four are Euro-Canadian sites.

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

Borden Number	Site Name	Time Period	Affinity	Site Type
AfGr-13	AfGr-13	Post-Contact	Euro-Canadian	house
AfGr-103		Post-Contact	Euro-Canadian	scatter
AfGr-104		Post-Contact	Euro-Canadian	scatter
AfGr-105		Post-Contact	Euro-Canadian	scatter

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

1.3.4 Archaeological Potential

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

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

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

As was discussed above, the closest source of potable water is an unnamed tributary to Lake Erie that lies 0.4 km to the east of the Study Area.

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

For Euro-Canadian sites, archaeological potential can be extended to areas of early Euro-Canadian settlement, including places of military or pioneer settlements; early transportation routes; and properties listed on the municipal register or designated under the *Ontario Heritage Act* (Government of Ontario, 1990b) or property that local histories or informants have identified with possible historical events. The *Tremaine Map* from 1862 and the *Historical Atlas* of Bertie Township from 1876 show the Study Area in close proximity to historical infrastructure, including the Grand Trunk Railway. Considering the location of the Study Area near to the town of Fort Erie, as well as the four post-contact Euro-Canadian registered within 1km, the potential for post-contact Euro-Canadian archaeological resources is judged to be moderate to high. Additionally, Detritus reviewed the *Niagara Region Archaeological Management Plan* (Niagara Region, 2023) which indicates that portions of the Study Area retain archaeological potential.

Finally, despite the factors mentioned above, extensive land disturbance can eradicate archaeological potential within a Study Area, as outlined in Section 1.3.2 of the *Standards and Guidelines* (Government of Ontario, 2011). Aerial imagery identified a possible disturbance area within the Study Area in the form of the one residential building, a garage, a gravel driveway, and a drainage ditch along the north side of the property. It is recommended that these potential disturbances be subject to a Stage 2 property inspection to confirm the limits of the disturbance. Detritus determined that the remainder of the Study Area, including the manicured lawns with trees, demonstrated the potential for the recovery of pre-contact Indigenous, post-contact Indigenous, and Euro-Canadian archaeological resources, and were recommended for Stage 2 assessment.

2.0 Field Methods

The Stage 2 assessment of the Study Area was conducted on July 29th, 2024, under archaeological consulting license P017 issued to Mr. Garth Grimes by the MCM. The limits of the Study Area were established in the field using a georeferenced shapefile produced using QGIS and uploaded to a hand-held GPS device running Qfield. Buried utility locates were obtained prior to initiating fieldwork.

During the Stage 2 assessment conditions were excellent and at no time were the field, weather, or lighting conditions detrimental to the recovery of archaeological material as per Section 2.1, Standard 3 of the *Standards and Guidelines* (Government of Ontario, 2011). The weather during the assessment was sunny and 32°Celsius and the soil was dry and screened easily. Photos 1 to 21 demonstrate the land conditions at the time of the survey throughout the Study Area, including areas that met the requirements for a Stage 2 archaeological assessment, as per Section 7.8.6, Standards 1a of the *Standards and Guidelines* (Government of Ontario, 2011). Figure 4 illustrates the Stage 2 assessment methods, as well as photograph locations and directions all in relation to the proposed development of the Study Area.

The Stage 2 field assessment began with a property inspection conducted as per Section 2.1.8, of the *Standards and Guidelines* (Government of Ontario, 2011). According to the results of this inspection, approximately 10% of the Study Area comprised the possible disturbance areas identified on the current aerial imagery (see Section 1.3.4 above). The disturbed areas, which includes one residential building, a garage, a gravel driveway, and a drainage ditch along the north side of the property were evaluated as having no potential based on the identification of extensive and deep land alteration that has severely damaged the integrity of archaeological resources, as per Section 2.1, Standard 2b of the *Standards and Guidelines* (Government of Ontario, 2011). The areas of previous disturbance observed within the Study Area were mapped and photo documented in accordance with Section 2.1, Standard 6 and Section 7.8.1, Standard 1b of the *Standards and Guidelines* (Government of Ontario, 2011).

Approximately 90% (1.2ha) of the Study Area comprised the manicured lawns with trees that were deemed inaccessible to ploughing. These areas were subject to a typical test pit survey at 5m intervals in accordance with Section 2.1.2 of the *Standards and Guidelines* (Government of Ontario, 2011; Photos 1 to 15) The test pit survey was conducted to within 1m of the built structures or until test pits show evidence of recent ground disturbance, as per Section 2.1.2, Standard 4 of the *Standards and Guidelines* (Government of Ontario, 2011). Each test pit was at least 30 centimetres ('cm') in diameter and excavated 5cm into sterile subsoil as per Section 2.1.2, Standards 5 and 6 of the *Standards and Guidelines* (Government of Ontario, 2011). The soils were then examined for stratigraphy, cultural features, or evidence of fill.

The test pits ranged in total depth from 25cm to 35cm and featured a medium brown clay loam soil layer (topsoil) above the orange/brown clay subsoil (Photos 16 to 19). Considering that each test pit was excavated 5cm into sterile subsoil, the observed topsoil layer ranged in depth from 20cm to 30cm. All soil was checked for stratigraphy and screened through six-millimetre mesh hardware cloth to facilitate the recovery of small artifacts, and then the screened material used to backfill the pit as per Section 2.1.2, Standards 7 and 9 of the *Standards and Guidelines* (Government of Ontario, 2011).

The test pit survey resulted in the identification of two pre-contact Indigenous sites. The first is located in the southeastern portion of the manicured lawn approximately 30m to the east of the driveway and was registered with the MCM as P1 (AfGr-118) as per Section 7.12 of the *Standards and Guidelines* (Government of Ontario, 2011). The second site is located to the west of the gravel driveway and to the north of the garage. The site was registered with the MCM as P2 (AfGr-119) as per Section 7.12 of the *Standards and Guidelines* (Government of Ontario, 2011). All of the artifacts recovered from P1 (AfGr-118) and P2 (AfGr-119) were digitally mapped and collected for laboratory analysis. A UTM reading was taken for each positive test pit as per Section 2.1, Standard 4 of the *Standards and Guidelines* (Government of Ontario, 2011).

3.0 Record of Finds

The Stage 2 archaeological assessment was conducted employing the methods described in Section 2.0 and resulted in the identification of two pre-contact Indigenous sites P1 (AfGr-118) and P2 (AfGr-119). An inventory of the documentary record generated by fieldwork is provided in Table 3 below. Maps indicating the exact site location of P1 (AfGr-118) and P2 (AfGr-119) and all UTM coordinates recorded during the assessment are included in the Supplementary Documentation to this report. A description of the locations and the recovered artifacts are provided in Sections 3.2 and 3.3.

Table 3: Inventory of Document Record

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

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

3.1 Cultural material

As was discussed above, two pre-contact Indigenous sites, registered with the MCM as P1 (AfGr-118) and P2 (AfGr-119), were identified within the Study Area. Photographs of the artifacts recovered from the Stage 2 assessment are depicted in Section 9.2 of this report.

The entirety of the artifacts collected during the Stage 2 assessment were manufactured from Onondaga chert. Chert type identifications were accomplished visually using reference materials located in the Detritus office.

Onondaga chert is a dense non-porous rock that derives from the Middle Devonian age, with outcrops occurring along the north shore of Lake Erie between Long Point and the Niagara River. (Eley & von Bitter, 1989). Primary outcrops have also been reported along the banks of the Grand River (Ellis & Ferris, 1990). Onondaga chert typically occurs in nodules or irregular thin beds, and may appear light to dark grey, bluish grey, brown, or black. It can also be mottled with a dull to vitreous or waxy lustre. Onondaga chert is often found at archaeological sites in southern Ontario and is commonly recognised as a high-quality raw material that was frequently utilized by pre-contact Indigenous people (Eley & von Bitter, 1989).

Furthermore, all pieces of chipping detritus were subject to morphological analysis following the classification scheme described by Lennox, Dodd and Murphy for the Wiacek Site (Lennox, Dodd, & Murphy, 1986) and expanded upon by Fisher for the Adder Orchard site (Fisher, 1997). The flake types that were identified during the analysis of the current Stage 4 assemblage include primary, secondary, shatter, thinning, micro, and fragmentary flakes.

Primary and secondary flakes, along with cortical removal flakes, are a product of percussion flaking undertaken during the initial reduction phases of raw material into blanks, bifaces and preforms. These early-stage reduction flakes tend to exhibit minimal dorsal flake scarring, and are often characterized by the presence of cortex, or the original unflaked chert exterior, on their dorsal surfaces and proximal ends. For cortical removal flakes, over half of the dorsal surface comprises cortex; for primary flakes, less than half. Secondary flakes, meanwhile, may not contain any cortex. Thinning flakes are produced during the latter stages of lithic reduction, when blanks, bifaces, and preforms are shaped into projectile points and formal tools. They are the result of pressure flaking, where the maker uses a softer material such as antler, wood or bone to apply direct pressure onto a specific part of the tool. Pressure flaking generally produces smaller, thinner flakes than does percussion flaking. Thinning flakes also exhibit more flake scars on their dorsal surface than do primary or secondary flakes. Fragmentary flakes are flakes that may have

some identifiable flake characteristic but cannot be classified with certainty into a specific category.

Chipping detritus is the waste product from the production of stone tools and is the most frequently recovered artifact on pre-contact Indigenous sites in southern Ontario. Chipping detritus has a low significance and interpretive value when it is not associated with any diagnostic material, therefore they cannot be used to determine the cultural affiliation or time period of the occupation of a site.

3.2 P1 (AfGr-118)

The Stage 2 assessment of P1 (AfGr-118) resulted in the documentation of six pre-contact Indigenous artifacts from two positive test pits located 5m apart to the southeast of the residential building. All of the artifacts recovered from the site were manufactured from Onondaga chert and were identified as pieces of chipping detritus (n=14).

The results of the morphological analysis of the chipping detritus recovered from P1 (AfGr-118) are detailed in Table 4.

Table 4: Flake Analysis for P1 (AfGr-118)

Chert type	Secondary		Tool Thinning		Fragment		Total Analyzed	
	n	%	n	%	n	%	**n**	**%**
Onondaga	3	50%	1	16.7%	2	33.3%	**6**	**100**

According to the morphological analysis presented above, the flake assemblage from P1 (AfGr-118) featured primarily secondary flakes (n=3; 50%) with lesser amounts of fragmented flakes (n=3; 33.3%). In addition, a tool thinning flake (16.7%) was also recovered. No other artifacts were documented during the test pit survey in the vicinity of P1 (AfGr-118). This variety of flake types suggests late-stage reduction for the production and maintenance of formal tools and projectile points.

3.2.4 Artifact Catalogue

The complete Stage 2 artifact assemblage from P1 (AfGr-118) is provided below in Appendix 10.1.1 below.

3.3 P2 (AfGr-119)

The Stage 2 assessment of P2 (AfGr-119) resulted in the documentation of one pre-contact Indigenous artifact from one test pit located to the west of the residential building and gravel driveway and north of the garage. The artifact was manufactured from Onondaga chert (Cat#1).

According to the morphological analysis, the flake from P2 (AfGr-119) was identified as a secondary flake. No other artifacts were documented during the test pit survey in the vicinity of P2 (AfGr-119).

3.2.5 Artifact Catalogue

The complete Stage 2 artifact assemblage from P2 (AfGr-119) is provided below in Appendix 10.1.2 below.

4.0 Analysis and Conclusions

Detritus was retained by the Proponent to conduct a Stage 1-2 archaeological assessment on 825 Garrison Road, Fort Erie.

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. This research also indicated that the Study Area is located within an area of archaeological potential, as indicated by the *Niagara Region Archaeological Management Plan* (Niagara Region, 2023). Therefore, a Stage 2 Property Assessment was recommended for the Study Area.

The subsequent Stage 2 field assessment of the Study Area was conducted on July 29th, 2024. This investigation began with a property inspection, conducted according to Section 2.1.8, which is informed by Section 1.2 of the *Standards and Guidelines* (Government of Ontario, 2011). The inspection revealed that the residential building, garage, gravel driveway, and drainage ditch along the north side of the property retained no, or low, archaeological potential based on the identification of extensive and deep land alteration that has severely damaged the integrity of archaeological resources as per Section 2.1, Standard 2b of the *Standards and Guidelines* (Government of Ontario, 2011). The previously disturbed areas, as confirmed during a Stage 2 property inspection, were mapped and photo documented only in accordance with Section 2.1, Standard 6, and Section 7.8.1, Standards 1a and 1b of the *Standards and Guidelines* (Government of Ontario, 2011).

The remainder of the Study Area comprised the manicured lawns with trees throughout the Study Area, which were assessed by means of a typical test pit survey at 5m intervals. This investigation resulted in the identification and documentation of two pre-contact Indigenous sites, registered with the MCM as P1 (AfGr-118) and P2 (AfGr-119), see Tile 4 of the Supplementary Documentation to this report.

The Stage 2 assessment of P1 (AfGr-118) resulted in the documentation of six pre-contact Indigenous artifacts from two positive test pits located 5m apart to the southeast of the residential building. All of the artifacts recovered from the site were manufactured from Onondaga chert and were identified as pieces of chipping detritus (n=14). Morphological analysis of the chert flakes suggests late-stage reduction for the production and maintenance of formal tools and projectile points. Based on the results of the Stage 2 investigation, P1 (AfGr-118) has been interpreted as a small activity area for the late stages of lithic reduction activities.

The Stage 2 assessment of P2 (AfGr-119) resulted in the documentation of one pre-contact Indigenous artifact from one test pit located to the west of the residential building and gravel driveway and north of the garage.

4.1 Preliminary Indication of Site Possibly Requiring Stage 4 Archaeological Mitigation

As is discussed below in Section 5.0, P1 (AfGr-118) and P2 (AfGr-119) retain CHVI and are recommended for Stage 3 assessment. A preliminary indication of whether the sites could be eventually recommended for Stage 4 archaeological mitigation is required under Section 7.8.3 Standard 2c of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario, 2011). No firm recommendation for, or against, Stage 4 archaeological mitigation will be made until the forthcoming Stage 3 archaeological assessments have been conducted. P1 (AfGr-118) and P2 (AfGr-119) will be recommended for Stage 3 archaeological assessment.

5.0 Recommendations

Given the presence of at least five non-diagnostic pre-contact Indigenous artifacts in a 10m by 10m test pit survey area, P1 (AfGr-118) **meets the criteria for a Stage 3 Site Specific Assessment, as per Section 2.2, Standard 1a(2) of the *Standards and Guidelines* (Government of Ontario, 2011) and retains cultural heritage value or interest ('CHVI').**

Given the isolated nature of the artifacts, P2 (AfGr-119) does not fulfill any of the criteria for a Stage 3 assessment listed in Section 2.2 of the *Standards and Guidelines* (Government of Ontario, 2011); however, due to the proximity of P2 (AfGr-119) to P1 (AfGr-118), it is not clear whether the find is isolated or a part of the larger scatter identified as P1 (AfGr-118) that may have been disturbed by the residential development that took place on the property. Therefore, P2 (AfGr-119) is recommended for **a Stage 3 Site Specific Assessment, as per Section 2.2, Standard 1, Guideline 2 *Standards and Guidelines* (Government of Ontario, 2011) and retains cultural heritage value or interest 'CHVI').**

The Stage 3 archaeological assessments of P1 (AfGr-118) and P2 (AfGr-119) will be conducted according to 3.2 of the *Standards and Guidelines* (Government of Ontario, 2011). Typically, a Stage 3 assessment for sites documented during a pedestrian survey of ploughed agricultural land begins with a controlled surface pickup ('CSP') across the Stage 2 limits of site, conducted as per Section 3.2.1 of the *Standards and Guidelines* (Government of Ontario, 2011). Given that P1 (AfGr-118) and P2 (AfGr-119), were recovered during the test pit survey, a CSP is not required. Instead, the Stage 3 investigation of the site will comprise test unit excavation only.

The Stage 3 assessments of P1 (AfGr-118) and P2 (AfGr-119) will consist of the hand excavation of one 1m square test units every 10m across the Stage 2 site limits in systematic levels and into the first five centimetres of subsoil, as per Table 3.1, Standard 3 of the *Standards and Guidelines* (Government of Ontario, 2011). Additional 1m test units, amounting to 40% of the grid total, will be placed in areas of interest within the site extent as per Table 3.1, Standard 4 of the *Standards and Guidelines* (Government of Ontario, 2011). Should areas of artifact concentration or features be discovered during the excavation of the initial Stage 3 grid and infill units, the grid will be reduced to 5m intervals, with 20% infill in those areas as per Table 3.1, Standards 1 and 2 of the *Standards and Guidelines* (Government of Ontario, 2011). All excavated soil will be screened through six-millimetre mesh; all recovered artifacts will be recorded by their corresponding grid unit designation and collected for laboratory analysis. If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit.

6.0 Advice on Compliance with Legislation

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

Archaeological Services, Inc. (2003). *The Archaeological Master Plan of the Town of Fort Erie*. Technical Report.

Archives of Ontario. (2012-2024). *The Evolution of the District and County System, 1788-1899*. Retrieved July 24, 2024, from http://www.archives.gov.on.ca/en/maps/ontario-districts.aspx

Bradford, R. (1988). *Historic Forts of Ontario. Belleville*. Belleville: Mika Publishing Company.

Calarco, T. (2011). *Places of the Underground Railroad: A Geographical Guide*. Santa Barbara: ABC Clio.

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 ed.). Toronto: Ontario Ministry of Natural Resources.

Coyne, J. H. (1895). *The Country of Neutrals (As Far as Comprised in the County of Elgin): From Champlain to Talbot*. St. Thomas: The St. Thomas Print.

Eley, B., & von Bitter, P. H. (1989). *Cherts of Southern Ontario*. Toronto: Royal Ontario Museum.

Ellis, C. J., & Ferris, N. (1990). *The Archaeology of Southern Ontario to A.D. 1650. Occasional Publication No. 5*. London: Ontario Archaeology Society, London Chapter.

Feest, C. F., & Feest, J. E. (1978). Ottawa. In B. G. Trigger (Ed.), *Handbook of North American Indians* (Vol. 15: Northeast, pp. 772-786). Washington: Smithsonian Institute.

Ferris, N. (2009). *The Archaeology of Native-Lived Colonialism: Challenging History in the Great Lakes*. Tucson: University of Arizona.

Fisher, J. A. (1997). The Adder Orchard Site: Lithic Technology and Spatial Organization in the Broadpoint Late Archaic. *Occasional Publications of the London Chapter, Ontario Archaeological Society* (Number 3).

Gentilcore, L. R., & Head, G. (1984). *Ontario's History in Maps*. Toronto: University of Toronto Press.

Government of Ontario. (1990a). *Ontario Planning Act, R.S.O. 1990, CHAPTER P. 13. Last Amendment: 2024, c. 18, Sched. 5.* Retrieved July 3, 2024, from https://www.ontario.ca/laws/statute/90p13

Government of Ontario. (1990b). *Ontario Heritage Act, R.S.O. 1990, CHAPTER O.18. Last amendment: 2024, c. 18, Sched. 2*. Retrieved July 3, 2024, from https://www.ontario.ca/laws/statute/90018

Government of Ontario. (1990c). *Freedom of Information and Protection of Privacy Act, R.S.O. 1990, CHAPTER F.31. Last amendment: 2023, c. 21, Sched. 10, s. 13.* Retrieved July 3, 2024, from https://www.ontario.ca/laws/statute/90f31

Government of Ontario. (2002). *Funeral, Burial and Cremation Services Act, S.O. 2002, c33. Last amendment: 2021, c. 4, Sched. 6, s. 49*. Retrieved July 3, 2024, from https://www.ontario.ca/laws/statute/02f33

Government of Ontario. (2011). *Standards and Guidelines for Consultant Archaeologists*. Toronto: Ministry of Citizenship and Multiculturalism.

Government of Ontario. (n.d.). *Archaeological Sites Database Files*. Ministry of Citizenship and Multiculturalism.

Heidenreich, C. (1978). Huron. In B. G. Trigger (Ed.), *Handbook of North American Indians* (Vol. 15: Northeast, pp. 368-88). Washington: Smithsonian Institute.

Huffman, E., & Dumanski, J. (1986). *Agricultural Land Use Systems in the Regional Municipality of Niagara*. Ottawa: Land Resource Research Institute.

Jamieson, S. M. (1992). Regional Interaction and Ontario Iroquois Evolution. *Canadian Journal of Archaeology, 16*, 70–88.

Kingston, M. S., & Presant, E. W. (1989). *The Soils of the Regional Municipality of Niagara* (Vol. 2). Guelph: Ontario Institute of Pedology.

Konrad, V. (1981). An Iroquois Frontier: the North Shore of Lake Ontario During the Late Seventeenth Century. *Journal of Historical Geography, 7*(2), 129-144.

Lennox, P., Dodd, C., & Murphy, C. (1986). *The Wiacek Site: A Late Middleport Component, Simcoe County*. London: Ontario Ministry of Transportation and Communications.

MacDonald, R., & Cooper, M. S. (1997). Environmental Context. In R. F. Williamson, & R. I. MacDonald (Ed.), *The Shadow of the Bridge—The Archaeology of the Peace Bridge Site (AfGr-9), 1994–1996 Investigations. Occasional Publications. 1*. Toronto: Archaeological Services, Inc.

McAndrews, J. H., & Manville, G. C. (1987). Descriptions of Ecological Regions. In R. C. Harris (Ed.), *Historical Atlas of Canada from the Beginning to 1800*. Toronto: University of Toronto Press.

Morris, J. L. (1943). *Indians of Ontario (1964 reprint)*. Ontario Department of Lands and Forests.

Niagara Falls Info. (2022). *Native American Settlement in Niagara*. Retrieved August 2022, from https://www.niagarafallsinfo.com/niagara-falls-history/niagara-falls-municipal-history/the-chronicles-of-settlement-in-niagara/native-american-settlement-in-niagara/

Niagara Historical Society and Museum. (2008). *Our Glory, A Brief History of Niagara-on-the-Lake*. Niagara-on-the-Lake: Niagara Historical Society and Museum.

Niagara Parks. (n.d.). *Old Fort Erie History*. Retrieved October 12, 2018, from Niagara Parks: http://www.niagaraparks.com/niagara-falls-attractions/old-fort-erie-history.html

Niagara Region. (2023). *New Niagara Official Plan: Niagara Region Archaeological Management Plan*. Niagara Region.

Niagara-on-the-Lake. (2016). *Queen-Picton Streets Heritage Conservation District Expansion Study (Second Draft)*.

Noble, W. (1978). The Neutral Indians. In Essays in Northeastern Anthropology in Memory of Marian E. White, Occasional Publications. In W. Englebrecht, & G. Donald (Ed.), *Northeastern Anthropology 5* (pp. 152-164). Rindge, NH: Department of Anthropology, Franklin Pierce College.

Page, H. R. (1876). *The Illustrated Historical Atlas of the Counties of Lincoln and Welland*. Toronto: H. R. Page & Co.

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.

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.

Scrimgeour, P. (1990). Historical Outlines of Railways in Southwestern Ontario. *Upper Canada Railway Society Newsletter*(489).

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). Mississauga: Eastendbooks.

Tanner, H. (Ed.). (1987). *Atlas of Great Lakes Indian History*. Norman: University of Oklahoma Press.

Tremaine, G. M. (1862). *Tremaine's Map of the Counties of Lincoln and Welland, Canada West*. Toronto: Geo. R. & G.M. Tremaine.

Weaver, S. (1978). Six Nations of the Grand River, Ontario. In B. Trigger (Ed.), *Handbook of North American Indians* (Vol. 15: Northeast, pp. 525-536). Washington: Smithsonian Institute Press.

8.0 Maps

Figure 1: Study Area Location Map

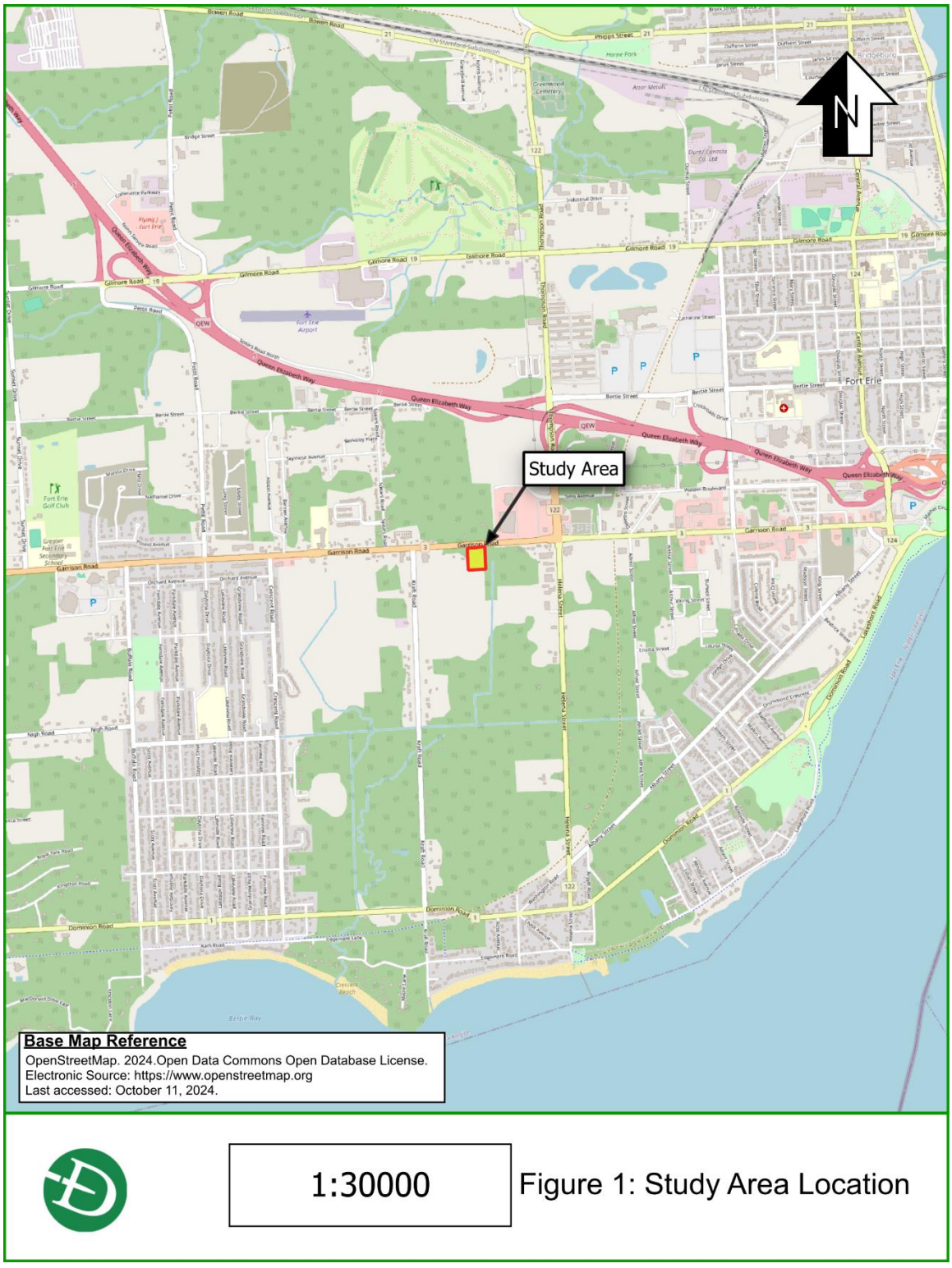

Figure 2: Historic Map Showing Study Area Location

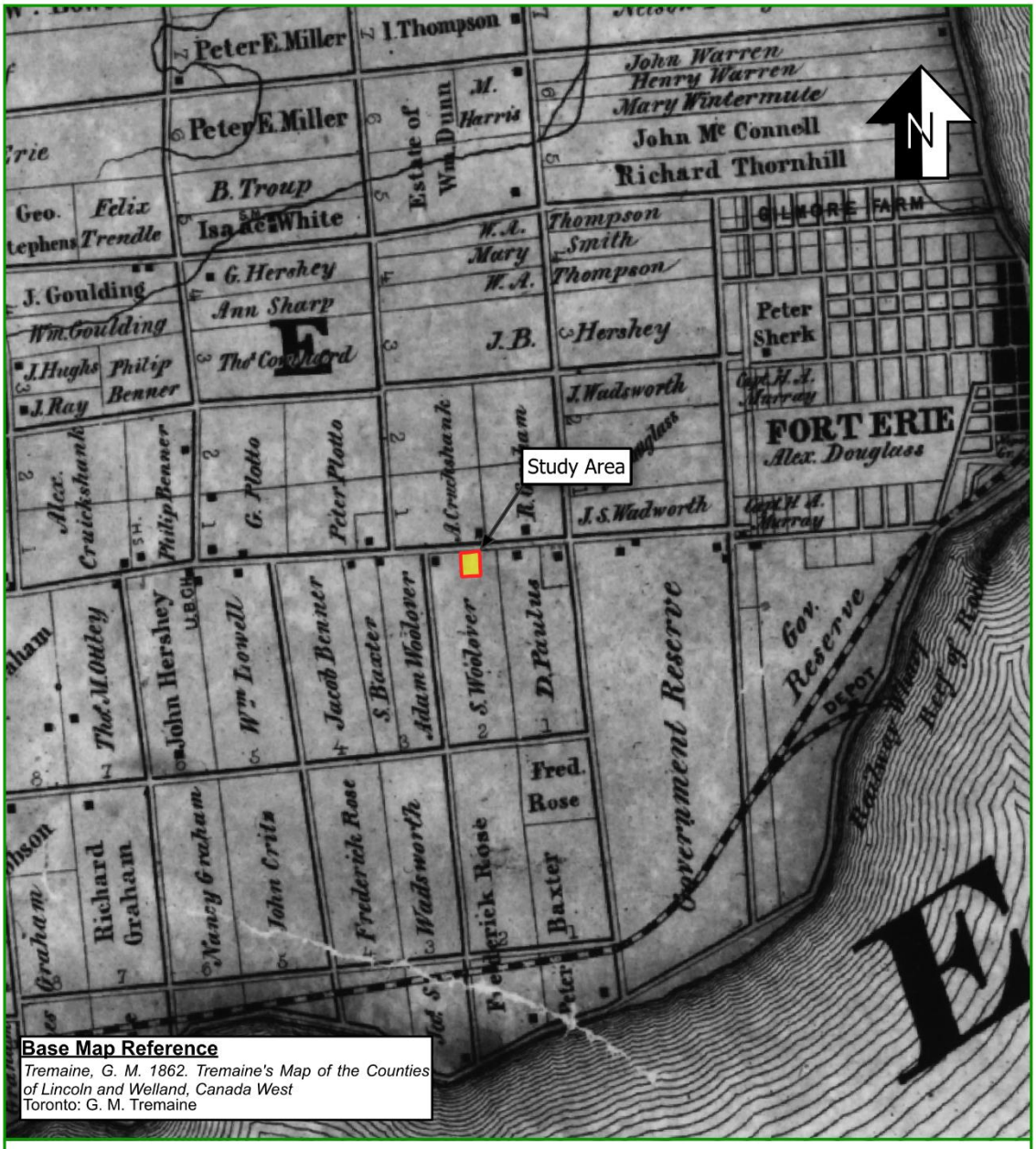

Figure 3: Historic Map Showing Study Area Location

Not to Scale

Figure 3: Portion of H. R. Page & Co. 1876 Historical Atlas Map of Bertie Township

Figure 4: Stage 2 Field Methods

Figure 5: Development Plan

9.0 Images

9.1 Field Photos

Photo 1: Manicured Lawn with scattered trees, Test Pit Surveyed at 5m Intervals, looking south

Photo 2: Manicured Lawn with scattered trees, Test Pit Surveyed at 5m Intervals, looking north

Photo 3: Manicured Lawn with scattered trees, Test Pit Surveyed at 5m Intervals, and Residential Building and Gravel Driveway, Previously Disturbed, looking southeast

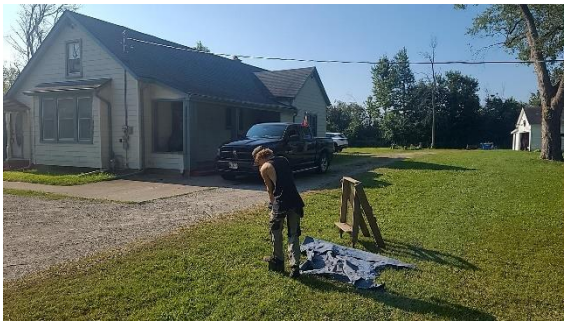

Photo 4: Manicured Lawn with scattered trees, Test Pit Surveyed at 5m Intervals, and Residential Building and Gravel Driveway, Previously Disturbed, looking northeast

Photo 5: Manicured lawn, Test Pit Surveyed at 5m Intervals, and Gravel Driveway and Garage, Previously Disturbed, looking south

Photo 6: Manicured lawn, Test Pit Surveyed at 5m Intervals, and Gravel Driveway and Garage, Previously Disturbed, looking west

Photo 7: Manicured Lawn with scattered trees, Test Pit Surveyed at 5m Intervals, and Garage, Previously Disturbed, looking east

Photo 8: Manicured Lawn with scattered trees, Test Pit Surveyed at 5m Intervals, looking west

Photo 9: Manicured Lawn with scattered trees, Test Pit Surveyed at 5m Intervals, and Residential Building, Previously Disturbed looking north

Photo 10: Manicured Lawn with scattered trees, Test Pit Surveyed at 5m Intervals, looking west

Photo 11: Drainage Ditch, looking west

Photo 12: Manicured Lawn with scattered trees, Test Pit Surveyed at 5m Intervals, looking south

Photo 13: Drainage Ditch, looking east

Photo 14: Drainage Ditch, looking east

Photo 15: Manicured Lawn with scattered trees, Test Pit Surveyed at 5m Intervals, and Residential Building and Gravel Driveway, Previously Disturbed, looking south

Photo 16: Sample Test Pit

Photo 17: Sample Test Pit

Photo 18: Sample Test Pit

Photo 19: Sample Test Pit

9.2 Artifacts

Plate 1: Chipping detritus, from P1 (AfGr-118); Cat #s 1 and 2 (top to bottom)

Plate 2: Chipping detritus, from P2 (AfGr-119); Cat # 1

10.0 Appendix

10.1 Artifact Catalogue

10.1.1 P1 (AfGr-118) Stage 2 Artifact Catalogue

Cat#	Context	Artifact	Frequency	Chert Type	Morphology	Comments
1	Test Pit Survey P1	chipping detritus	1	Onondaga	fragment	
2	Test Pit Survey P1	chipping detritus	2	Onondaga	secondary	
3	Test Pit Survey P1	chipping detritus	1	Onondaga	tool thinning	
4	Test Pit Survey P1	chipping detritus	1	Onondaga	fragment	
5	Test Pit Survey P1	chipping detritus	1	Onondaga	secondary	Edges are weathered

10.1.2 P2 (AfGr-119) Stage 2 Artifact Catalogue

Cat#	Context	Artifact	Frequency	Chert Type	Morphology	Comments
1	Test Pit Survey P2	chipping detritus	1	Onondaga	secondary	Some cortex present on dorsal surface