

**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
15 CLARENCE STREET, 60 MILL STREET AND
185 MILL STREET
GEOGRAPHIC TOWNSHIP OF LEEDS
TOWN OF GANANOQUE, ONTARIO**

**PAST RECOVERY
ARCHAEOLOGICAL SERVICES INC.**

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AND 185 MILL STREET,
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TOWN OF GANANOQUE, ONTARIO**

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P.I.F. No.: P336-0031-2014

Date: February 24th, 2014
Original Report

ACKNOWLEDGMENTS

Mr. Brett Vukets, Clarence Street Developments Inc., provided site plans, information for the project context, photographs and previous environmental assessment reports.

Mr. Robert von Bitter, Data Coordinator, Ontario Ministry of Tourism, Culture and Sport, provided a current listing of archaeological sites within one kilometre of the study area.

PROJECT PERSONNEL

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EXECUTIVE SUMMARY

Past Recovery Archaeological Services Inc. was retained by Clarence Street Developments Inc. to undertake a Stage 1 archaeological assessment of 15 Clarence Street, 60 Mill Street and 185 Mill Street, Gananoque. This involved the examination of approximately 1.49 ha of land (see Figures 1, 2 and 3). The purpose of the Stage 1 assessment was to identify known heritage resources associated with the study area, to determine the archaeological potential of the property and to present recommendations for the mitigation of any significant known or potential archaeological resources.

The Stage 1 archaeological assessment involved a review of the local environment, historical maps, and local histories. In addition, the Ministry of Tourism, Culture and Sport's site registry listing for the region was consulted, as well as previous archaeological studies undertaken in the area. The assessment resulted in the determination that parts of the property exhibited potential for archaeological resources associated with pre-Contact and historic settlement and/or land uses. The results of the Stage 1 archaeological assessment documented in this report form the basis for the following recommendations:

- 1) Should proposed development proceed at 185 Mill Street, 60 Mill Street and 15 Clarence Street, all portions of the study area shown as retaining archaeological potential on Figure 20 should be subjected to Stage 2 archaeological assessment
- 2) Any future Stage 2 archaeological assessment should be undertaken by a licensed consultant archaeologist, in compliance with *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011), prior to any planned construction disturbance below the current grade. The lawn area at 60 Mill Street is recommended for hand test pit excavation. The majority of the area of archaeological potential for 185 Mill Street and 15 Clarence Street lies beneath gravel parking lot, driveway and/or fill. The Stage 2 assessment of these areas will require the excavation of mechanical trenches using a backhoe or equivalent heavy machinery at targeted areas and/or ten metre intervals in order to access deeply buried archaeological resources (see Figure 20). Any utility

locates must be completed before Stage 2 mechanical testing begins. The remaining lawn areas at 185 Mill Street and 15 Clarence Street should be tested by hand.

The reader is referred to Section 5.0 below to ensure compliance with the *Ontario Heritage Act* as it may relate to this project.

TABLE OF CONTENTS

	Page No.
ACKNOWLEDGMENTS	i
PROJECT PERSONNEL	i
EXECUTIVE SUMMARY	ii
LIST OF FIGURES	v
LIST OF TABLES	v
1.0 INTRODUCTION	1
2.0 PROJECT CONTEXT	2
2.1 Development Context	2
3.0 STAGE 1 ARCHAEOLOGICAL ASSESSMENT	3
3.1 Historical Context	3
3.1.1 Previous Historical Research	3
3.1.2 Regional Pre-Contact Cultural Overview	3
3.1.3 Regional Post-Contact Cultural Overview	5
3.1.4 Property History	9
3.2 Archaeological Context	13
3.2.1 Previously Recorded Archaeological Sites	13
3.2.2 Previous Archaeological Research	14
3.2.3 Identified Local Cultural Heritage Resources	14
3.2.4 Heritage Plaques and Monuments	15
3.2.5 Cemeteries	15
3.2.6 Local Environment	15
4.0 ANALYSIS AND CONCLUSIONS	17
4.1 Determination of Archaeological Potential	17
4.2 Stage 1 Recommendations	19
5.0 ARCHAEOLOGICAL COMPLIANCE	21
6.0 LIMITATIONS AND CLOSURE	22
7.0 REFERENCES	23
8.0 FIGURES (Images and Maps)	29
APPENDIX 1: Early Archaeological Finds in Leeds Township	49

TABLE OF CONTENTS, continued

	Page No.
APPENDIX 2: Glossary of Archaeological Terms	50

LIST OF FIGURES

Figure No.	Page No.
1. Location of the study area.	29
2. Satellite image of the study area.	30
3. Survey of the study area.	31
4. Surveyor's plan of the Gananoque River in 1787.	32
5. Portion of the 1858 plan of the Town of Gananoque.	33
6. Portion of the 1862 Walling Map of the Town of Gananoque.	34
7. Portion of the 1897 fire insurance key plan of the Town of Gananoque.	35
8. Portion of the 1917	36
9. Segment of a 1920 low level aerial photograph of Gananoque.	37
10. Segment of a 1920 low level aerial photograph of Gananoque.	38
11. Portion of the 1947 fire insurance plan of the Town of Gananoque.	39
12. Drawing of the Leeds Foundry and Machine Works, c. 1878.	40
13. Segment of a 1931 aerial photograph of Gananoque.	41
14. Segment of a 1990 aerial photograph of Gananoque.	42
15. Illustration of 15 Clarence Street c. 1967.	43
16. Photograph of the limestone structure at 185 Mill Street, facing southwest.	44
17. Portion of the soils map for Leeds County.	45
18. Historic overlay showing the foot-prints of historic buildings within the study area.	46
19. Historic overlay showing historic building foot-prints and approximate demolition dates.	47
20. Map of archaeological potential for the study area.	48

LIST OF TABLES

Table No.	Page No.
Table 1. List of Notable Nineteenth Century Industries within Gananoque.	9

1.0 INTRODUCTION

Past Recovery Archaeological Services Inc. (Past Recover) was retained by Clarence Street Developments Inc. to undertake a Stage 1 archaeological assessment of 15 Clarence Street, 60 Mill Street and 185 Mill Street, Gananoque. This involved the examination of approximately 1.49 ha of land (Figures 1, 2 and 3).

The objectives of the present Stage 1 archaeological assessment were as follows:

- To provide information concerning the study area's geography, history, previous archaeological fieldwork, and current land condition;
- To evaluate the study area's archaeological potential; and,
- To recommend appropriate strategies for Stage 2 archaeological assessment in the event further assessment is warranted.

2.0 PROJECT CONTEXT

This section of the report provides the context for the archaeological work undertaken, including a description of the study area, the related legislation or directives triggering the assessment, any additional development related information.

2.1 Development Context

The Town of Gananoque required a Stage 1 archaeological assessment as part of a Site Plan Control application by Clarence Street Developments Inc. for a proposed redevelopment of former industrial land (Figure 3). The property being assessed is comprised of 15 Clarence Street, 60 Mill Street and 185 Mill Street in the historic industrial core of the Town of Gananoque. The legal description of 185 Mill Street is "Lot 1020, part of lots 1021, 1017, 1018, 1019, West Gananoque River, Plan 86 as in G7817, Part of the Bed of the Gananoque River in Leeds County, Plan 86, Part of the Canal Reserve, West Gananoque River, Plan 86, Gananoque". The legal description of 60 Mill Street and 15 Clarence Street is "Lot 1015 and 1016 West of Gananoque River Plan 86 Part Lot 1017, 1018 and 1019 West of the Gananoque River Plan 86; Part of Mill Street, St Lawrence Street Plan 86 Closed by GA8108; Part of the Canal Reserve West of the Gananoque River Plan 86; Part of the Bed of the Gananoque River lying in front of part of Lot 1016, Lot 1017, 1018 and Part of Lot 1019 in Leeds County Plan 86 being Parts 7 to 14 Plan 28R-11463 except Part 1 on Plan 28R-11399 T/W LR322186 and LR350449; and Lots 597 and 599 West of the Gananoque River Plan 86; Part of Clarence Street Plan 86 being Part 1 on Plan 28R-11463; S/T LR322186; Town of Gananoque County of Leeds".

The proposal is for the development of this parcel into a residential area. The location and boundary of the study area were provided to Past Recovery on mapping supplied by Clarence Street Developments Inc. (see Figure 3).

The property is 1.49 ha in size. It is bordered to the east by the Gananoque River¹, to the south by parking lots, to the west by residential homes and to the north by a private marina (see Figure 2).

¹ For the ease of description the Gananoque River has been assigned a north-south orientation rather than its actual northwest to southeast alignment

3.0 STAGE 1 ARCHAEOLOGICAL ASSESSMENT

3.1 Historical Context

This section of the report includes an overview of human settlement in the region with the intention of providing a context for the evaluation of known and potential archaeological sites, as well as a review of property-specific detailed archival research presenting a record of land use history.

3.1.1 Previous Historical Research

A number of historical studies have been conducted for Gananoque and the surrounding area. Among the many studies, accounts of a general nature include the *History of Leeds and Grenville* by Thaddeus Leavitt (1879), *Leeds and Grenville: Their First Two Hundred Years* by Ruth Mackenzie (1967), *Illustrated Historical Atlas of the Counties of Leeds and Grenville* (Mika Publishing 1973), *Historic Gananoque* by William Hawke (1974), *The Irish in Ontario: A Study in Rural History* by Donald Akenson (1987), *The Rear of Leeds and Lansdowne* by Glenn Lockwood (1996), and *Our Living History: An Historical Guide to the United Counties of Leeds and Grenville* by the Leeds and Grenville Community History Project (2000).

3.1.2 Regional Pre-Contact Cultural Overview

The objective of this section is to summarize human settlement in the region with the intention of providing a context for the evaluation of known and potential archaeological sites.

The earliest human occupation of southern Ontario began approximately 11,000 years ago with the arrival of small groups of hunter-gatherers referred to by archaeologists as Palaeo-Indians. These groups gradually moved northward as the glaciers and glacial lakes retreated. While very little is known about their lifestyle; it is likely that Palaeo-Indian groups travelled widely relying on the seasonal migration of caribou as well as small animals and wild plants for subsistence. They produced a variety of distinctive stone tools including fluted projectile points, scrapers, burins and graters.

Most archaeological evidence for the Palaeo-Indian period has been found in south-western and south-central Ontario at sites located on the former shorelines of glacial Lake Algonquin. First Nations settlement of eastern Ontario was late in comparison to these other parts of the province as a result of the high water levels of the St. Lawrence Marine Embayment of the post-glacial Champlain Sea (Hough 1958:204). Palaeo-Indian find spots in this region include fragments of a Plano (Late Palaeo-Indian) point from the 1000 Islands, two fluted points from the Rideau Lakes, two lanceolate points from Lanark County, two sites with Palaeo-Indian components near the Yarker Training Area along the Napanee River and a late Palaeo-Indian point found near Kingston Mills (Heritage Quest Inc. 2000a; Watson 1999a:35-38).

During the succeeding Archaic period (c. 7000 to 1000 B.C.), populations continued to follow a mobile hunter-gatherer subsistence strategy, although there appears to have been a greater

reliance on fishing and gathered food (e.g. plants and nuts) and more diversity between regional groups. The tool kit also became increasingly diversified, reflecting an adaptation to environmental conditions similar to those of today. This included the presence of adzes, gouges and other ground stone tools believed to have been used for heavy woodworking activities such as the construction of dug-out canoes, grinding stones for processing nuts and seeds, specialized fishing gear including net sinkers and plummets, and a general reduction in the size of projectile points. The middle and late portions of the Archaic period saw the development of trading networks spanning the Great Lakes, and by 6,000 years ago copper was being mined in the Upper Great Lakes and traded into southern Ontario. There is increasing evidence of ceremonialism and elaborate burial practices, and a wide variety of non-utilitarian items such as gorgets, pipes and ‘birdstones’ were being manufactured. By the end of this period populations had increased substantially over the preceding Palaeo-Indian occupation.

More extensive First Nations settlement of eastern Ontario began during this period, sometime between 5,500 and 4,500 B.C. (Ellis, Kenyon and Spence 1990:93; Kennedy 1970:61). Artifacts from Archaic sites in eastern Ontario suggest a close relationship to the Laurentian Archaic stage peoples of New York State. Laurentian peoples occupied the Canadian biotic province transition zone between the deciduous forests to the south and the boreal forests to the north. The Laurentian Archaic artifact complex contains large, broad bladed, chipped stone and ground slate projectile points, and heavy ground stone tools. This stage is also known for the extensive use of cold-hammered copper tools including “bevelled spear points, bracelets, pendants, axes, fishhooks, and knives” (Kennedy 1970:59). Sites from the Archaic period are more common in the eastern Ontario region. Archaic components have been identified on Brophey’s Point and in Button Bay (both on Wolfe Island), at Collins Bay, along the Napanee, Rideau, Gananoque, and Upper St. Lawrence Rivers, and within the Westbrook Subdivision (Heritage Quest Inc. 1994:14; Mount McGovern Co. Ltd. 1998; Watson 1999b).

The introduction of ceramics marks the beginning of the Woodland period (c. 1000 B.C. to A.D. 1550). These populations continued to participate in an extensive trade network that, at its zenith c. A.D. 200, spanned much of North America and included the movement of conch shell, fossilized shark teeth, mica, copper and silver. Social structure appears to have become increasingly complex, with some status differentiation evident in burials. It was in the Middle Woodland period (c. 300 B.C. to A.D. 900) that distinctive trends or ‘traditions’ evolved in different parts of Ontario for the first time, noted by archaeologists through variations in the artifacts left behind. The Middle Woodland tradition found in eastern and south-central Ontario has become known as ‘Point Peninsula’ (Spence, Pihl and Murphy 1990:157). A greater number of sites from this period has allowed archaeologists to develop a better picture of the seasonal round followed in order to exploit a variety of resources within a home territory. Through the late fall and winter, small groups would occupy an inland ‘family’ hunting area. In the spring, these dispersed families would congregate at specific lakeshore sites to fish, hunt in the surrounding forest and socialize. This gathering would last through to the late summer when large quantities of food would be stored up for the approaching winter.

Towards the end of the Woodland period (c. A.D. 800) domesticated plants were introduced in areas to the south of the Canadian Shield. Initially only a minor addition to the diet, the cultivation of corn, beans, squash, sunflowers and tobacco gained economic importance for late Woodland peoples. Along with this shift in subsistence, settlements located adjacent to the corn fields began to take on greater permanency as sites with easily tillable farmland became more important. Eventually, semi-permanent and permanent villages were built, many of which were surrounded by palisades, evidence of growing hostilities between neighbouring groups.

The proliferation of sites suggests an increase in the population of eastern Ontario and it would appear that the Thousand Islands was an attractive location for Middle Woodland populations. A number of Middle Woodland sites, attributed to the Point Peninsula complex, have been identified throughout the Thousand Islands and along the South Nation Drainage Basin. More specifically, Woodland period materials have been located in the Pike Farm collection, in the Brophy's Point collection from Wolfe Island, on Gordon Island, in the Prescott-Spencerville area, and in the interior reaches of the Gananoque River Basin. Burials reported from Tremont Island are also believed to date to this period. The Ault Park site near Cornwall is one of the most significant sites in eastern Ontario with other important sites from this period including the Long Sault Mounds and the Malcolm Site (Dailey and Wright 1955a; Heritage Quest Inc. 1995:9; Fox 1990:183-186; Ritchie and Drago 1960).

Three pre-Contact stage tribal groups occupied eastern Ontario in the final decades prior to the arrival of Europeans. Agricultural villages, dating to A.D. 1400, of an Iroquoian people referred to as "proto-Huron" have been found in southern Hastings and Frontenac Counties (Pendergast 1972). By A.D. 1500, the easternmost settlements of the Huron were located between Balsam Lake and Lake Simcoe. St. Lawrence Iroquois occupied the upper St. Lawrence River valley. Finally, various Algonquin groups occupied the Ottawa Valley (Day and Trigger 1978:793).

The material culture and settlement patterns of the fourteenth and fifteenth century Iroquoian sites found in the Prescott area of Ontario are directly related to the Iroquoian-speaking groups that Jacques Cartier and his crew encountered in 1535 at Stadacona (Quebec City) and Hochelaga (Montreal Island) (Jamieson 1990:386). Following Cartier's initial voyages, subsequent journeys by Europeans found only abandoned settlements along the St. Lawrence River. At this time, there was a significant increase of St. Lawrence Iroquoian ceramic vessel types on Huron sites, and segments of the St. Lawrence Iroquois population may have relocated to the north and west either as captives or refugees (Sutton 1990:54; Wright 1966:70-71). The tumultuous events of the late sixteenth and early seventeenth centuries were certainly in part a result of the disruption of traditional trade and exchange patterns among all First Nation peoples brought about by the arrival of the French, Dutch and British along the Atlantic seaboard.

3.1.3 Regional Post-Contact Cultural Overview

In the early seventeenth century, French explorers such as Samuel de Champlain and Etienne Brule encountered groups of people speaking an Algonquian language along the Ottawa Valley. These were the Weskarini, Onontcharonon, Kishesipirini, Matouweskarini, and

Otaguottouemin Algonquins (Trigger 1976:279). The loosely aligned bands subsisted by hunting, fishing and gathering, and undertook limited horticulture. Champlain, while searching for the Northwest Passage in 1613, entered Algonquin territory and explored the Ottawa Valley as far north as Morrison and Allumette Islands (Trigger 1976). The summer village of the Matouweskariini was recorded at the mouth of the Madawaska River, but nothing more is known of this group other than their name and the general location of their hunting territory (Day and Trigger 1978:793; Hessel 1993:20). While their main summer settlements were near the mouth of the Madawaska, their winter hunting grounds extended far inland, possibly covering much of the Madawaska River watershed to the north of the study area. Since at least the late sixteenth century, all the Algonquin peoples were at war with the Mohawk Iroquois, the easternmost Five Nations Iroquois group. This warfare intensified over control of the St. Lawrence River trade.

The endemic warfare of the age and severe smallpox epidemics in 1623-24 and again between 1634 and 1640 brought about drastic population decline among all First Nation peoples (Hessel 1993:63-65). Between 1640 and 1650, French unwillingness to provide direct military support against their natural enemy, the Mohawk, led to the defeat and dispersal of the Algonquin and Huron by the Five Nations Iroquois of New York State (Trigger 1976:610, 637-638). Survivors of the various groups often coalesced as a single First Nation people to the north and west of the Ottawa Valley, and at the French posts of Montreal, Sillery and Trois Rivières.

Following the dispersal of the Ontario Iroquois and the Ottawa Valley Algonquin, the Five Nations of New York State (Mohawk, Oneida, Onondaga, Cayuga, and Seneca) eventually occupied a series of winter hunting bases and trading settlements near the mouths of the major rivers flowing into the north shore of Lake Ontario (Konrad 1981). The first recorded Five Nations settlements to relocate northward were two Cayuga villages established at the northeastern end of Lake Ontario. Two French Sulpician missionaries joined the Cayuga in 1668 at their settlement known as Kente, now Carrying Place, near the narrows separating the western end of Prince Edward County from the Hastings County mainland. A second Cayuga settlement, known as Ganneious, may have been near the mouth of the Napanee River, or further south on the Bay of Quinte (Edwards 1984:10). As a result of increased tensions between the Five Nations and the French, and declining population from disease and warfare, the Cayuga settlements were abandoned in 1680 (Edwards 1984:17).

The construction of the French outpost of Fort Frontenac near the mouth of the Cataraqui River in 1673 resulted in a sporadic European presence at the eastern end of Lake Ontario during the late seventeenth century and throughout the eighteenth century. The main function of the fort was to store supplies intended for the interior military and trading posts on the Niagara, Detroit, Illinois, and (American) Mississippi Rivers. This French military garrison readily abandoned the fort whenever disputes with the Iroquois seemed to escalate. While a Native village and a Recollet Mission were established outside the fort and some land was surveyed and settled by civilians, the French did not encourage the development of an extensive settlement in the Kingston area (Figure 4). In 1758 Fort Frontenac was surrendered to a British force during the Seven Years' War (Preston 1959).

At first, the end of the French regime in 1760 brought little change to eastern Ontario. Between 1763 and 1776 some British traders traveled to the Cataraqui area, but the British presence remained sporadic until 1783 when Fort Frontenac was officially re-occupied. The need for land on which to settle refugees of the American Revolution led the British government into hasty negotiations with their military allies, the Mississauga, who were assumed, erroneously, to be the only Native peoples inhabiting eastern Ontario.² Captain William Redford Crawford, who enjoyed the trust of the Mississauga chiefs living in the Bay of Quinte region, negotiated on behalf of the British government. In the so-called 'Crawford Purchase,' the Mississauga were cajoled into giving up Native title to most of eastern Ontario, including what would become the counties of Stormont, Dundas, Glengarry, Prescott, Russell, Leeds, Grenville and Prince Edward, as well as the front townships of Frontenac, Lennox, Addington and Hastings and much of what is now the City of Ottawa (Lockwood 1996:24). Settlement along the north bank of the St. Lawrence River and the eastern end of Lake Ontario began in earnest about his time. Land from the Cataraqui River west to the Bay of Quinte was laid out in townships to be settled by some of the more than ten thousand United Empire Loyalists from Vermont, Connecticut, and New York who had gathered throughout Lower Canada, awaiting supplies and transport to what was to become Upper Canada.

Leeds Township was opened for settlement in 1788 when it was first surveyed (Mika Publishing 1973:8). The majority of the lots were granted to United Empire Loyalists, which resulted in little initial settlement of the area. Gananoque itself was a good example of these land grants with the 700 acres on the west bank of the Gananoque River abutting the St. Lawrence River being granted to Joel Stone and the 1,000 acres on the east bank being granted to Sir John Johnson in 1792, both of whom were United Empire Loyalists (Leavitt 1879:126).

Sir John Johnson never settled in the area as he was the first superintendant of Indian Affairs and held considerable land around Montreal. Stone had lost his holdings in the United States during the War of Independence and fought a lengthy court battle in London, England for compensation for his losses (Hawke 1974:11). With little direct compensation forthcoming from the British government he sailed for Quebec in 1785 and purchased land in Cornwall. He would continue to search for a considerable grant of land and petitioned the government for the Gananoque plot in 1787. Stone is generally considered the founder of Gananoque and from the time of his grant in 1792 to the War of 1812 he started numerous business projects which served to grow the area into the industrial town it would become. Notable early projects included the construction of the first general store, an inn, an orchard, the Gananoque River ferry and bridge, construction of a seventeen ton schooner, numerous dams and canals on the Gananoque River and a Customs House (Hawke 1974:9, 13-14; Akenson 1987:71). Stone would also serve as Justice of the Peace and a Colonel of the 2nd Leeds Militia during this time (Hawke 1974:14; Akenson 1987:71-72).

While Stone was the undisputed founder of Gananoque, the McDonald family provided the rapid growth of industry in the town in the first half of the nineteenth century. Charles McDonald was

² At this time, there was a significant Algonquin presence in eastern Ontario and Mohawk Reserves had been established at Tyendinaga near Desoronto and at St. Regis near Cornwall.

the first McDonald, arriving in the area in 1810, having heard of Stone's need for a business partner after he lost his only son (Hawke 1974:15). Charles gained a controlling interest in the area by marrying Stone's daughter and purchasing much of Johnson's claim. He built a sawmill and grist mill at the mouth of the river and began shipping large quantities of lumber to Quebec and Kingston from the Gananoque watershed (Leavitt 1879:126).

By 1826, Charles and his recently arrived brothers had started the firm C. & J. McDonald & Brother and, among many business interests, had constructed the largest flouring mill in the province with a capacity of 250 barrels per day, supplying one quarter of all the flour received annually at the Port of Montreal at that time. On the strength of the mills powered by the Gananoque River, the settlement had grown to 768 by 1832 (Leavitt 1879:131).

Gananoque was deemed important enough in these early years to be the scene of one of the opening skirmishes of the War of 1812. The details of the skirmish are vague; however a force of roughly two hundred Americans traded volleys with some 110 British regulars and Leeds militia to the west of the village. Being largely outnumbered, the British force quickly retreated (Hawke 1974:18-20). The Americans destroyed the supply depot, the King Street bridge and Colonel Stone's residence before leaving the area. While the action was not significant, it resulted in the rapid construction of a blockhouse by Charles McDonald under the instruction of the government, which was completed in 1813.

Industrial development was responsible for the growth of the town through the nineteenth century, largely controlled by the McDonald family but with many other large factories being established through competing interests (Hawke 1974:33-39). The power of the Gananoque River appears to have been the impetus for this as it was of an ideal size and flow rate for the creation of mills. A short list of the industries which the town supported is included below (Table 1).

Manufacturing remained a strong force in the community into the twentieth century; however, with other sources of power coming to the forefront in the Canadian economy, the rapid growth seen in Gananoque during the nineteenth century slowed significantly. The population of Gananoque at the end of the nineteenth century was 4,000, but by 1917 had dropped to 3,307 (NMC 151438 and NMC 9452). In 1947 the population had increased to 4,294, not far below the current population of 5,194 (NMC 9453 and SC 2011).

Table 1. List of Notable Nineteenth Century Industries within Gananoque.³

Company Name(s)	Industry/Factory	Person(s) Associated	Known Dates
Unknown	Tannery	Alexander Auchinvole	1823-
Unknown	Metal work, farm machinery	Richard Colton	1830-1841
Unknown	Leatherworks	Sylvester Skinner	1831-
C. & J. McDonald & Brother	Flour mill, custom mill, stave machine, tannery, pail factory, carding and cloth dressing dorks, turning shop, shoe and boot last and tackle factory, nail works, saw mill	McDonald Family	1810-1868
D.F. Jones Shovel Co.	Shovel manufacture	David Ford Jones	1852-1963
Spring and Axle Co., eventually Ontario Steel Products	Metalworking	Isaac Bridges	1855-
Mitchell and Wilson	Wood-working	George Mitchell	1833-1960s
Unknown, Leeds Foundry and Machine Works	Machine products	E.E. Abbott	1858-1889
Steel Co.	Metalworking	Wm. Byers, W.G. Matthew	1865-

3.1.4 Property History

The following discussion will focus on the main developments of the nineteenth and twentieth centuries, particularly as they relate to the archaeological potential of the study area. Documents reviewed in order to develop the property history include available nineteenth and twentieth century maps, aerial photographs, census records and the Leeds County Land Registry Office Abstract Index records (LCLRO)⁴.

The histories of Gananoque and Leeds County indicate that the Crown patent for 1100 acres of land along the western bank of the Gananoque River was granted to Joel Stone in 1792 (Figure 4; Leavitt 1879; Akenson 1987). The land registry abstract index, however, reports that Sir John Johnson was granted the Crown patent for the study area in 1802. By 1825 the study area was owned by John MacDonald. The MacDonald Family, as stated above, was linked to Joel Stone through marriage between Charles MacDonald, his business partner, and Mary, his only surviving child (Akenson 1987:73). It appears that the MacDonald family did not develop the land within the study area, concentrating their business efforts in the area adjacent to the dam circa 250 metres upstream (Leavitt 1879:126).

³ This table was compiled from Hawke 1974, Leavitt 1879 and McKenzie 1967.

⁴ LCLRO abstracts were taken from the appendices of the Phase 1 environmental site assessment reports for the study area (EXP Services Inc. 2013a and 2013b).

185 Mill Street and 15 Clarence Street

The portion of the study area known as 185 Mill Street consists of Lots 1020, 1019, 1018 and part of Lots 1017 and 1021, and a portion of the canal reserve (see Figure 3). It is located east Mill Street on the west shore of the Gananoque River, and measures approximately 0.57 hectares. The portion of the study area known as 15 Clarence Street consists of Lots 589, 591, 593, 595, 1015, 1016 and part of Lot 1017, and a portion of the canal reserve and St. Lawrence Street (see Figure 3). It is located at the southwest corner of Clarence and Mill Streets and includes a portion of land north of Mill Street extending to the west bank of the Gananoque River. It measures approximately 0.85 hectares.

A plan of Gananoque dating to 1858 shows that most of the industrial development had taken place near the dam, leaving the study area fairly undeveloped, with two small structures possibly within its boundaries. Given the scale of this historical map and inaccuracies with nineteenth and early twentieth century surveying, however, the locations of these structures are likely approximate (Figure 5). The 1862 Walling map of the Town of Gananoque shows a water raceway running through the study area. This raceway provided the water power necessary for the development of industry along the western bank of the Gananoque River. The plan also shows a flouring mill owned by William MacDonald to the north of the study area and one structure within the study area, labelled as a turning mill associated with Robert Brough (Figure 6). This structure was likely located on Lot 1015. In the 1861 census Robert Brough is listed as a manufacturer owning one factory for turning wood (LAC microfilm reel MS-2550). The Brough family, however, appears only briefly in the land registry abstract index for the study area. Robert Brough had the deed to part of the study area for one day in 1870 (LCLRO G386 and G390), which resulted in the transfer of the land from William A. MacDonald to Charles L. Parmenter and William Bullock. Another member of the Brough family, William, purchased part of the study from William A. MacDonald in 1868 (LCLRO G235). This deed was later transferred by power of sale from John Forsyth to Charles L. Parmenter in 1887 (LCLRO 8-2124). It is not clear why there is a discrepancy between the Walling map and the land registry abstract index; it is possible that Robert Brough was a tenant of the turning mill marked on the Walling map rather than the owner of the property.

The Parmenter and Bullock Company is said to have started in a small stone structure on the west bank of the Gananoque River in 1864 (Canadian Manufacturers' Association 1967:164). It is possible that this was the turning mill shown on the 1862 Walling Map. The brief mention of Robert Brough in the land registry abstract index indicates that the land he "owned" (i.e. the turning mill) was purchased by Parmenter and Bullock in 1870 (LCLRO G-390). In the 1871 census Robert Brough is listed only as a gentleman and no industries listed in Schedule 6 (Return of Industrial Establishments) are associated with him. The Parmenter and Bullock Company is listed in Schedule 6 of the 1871 Census (LAC microfilm reel C-10001). The company seems to have had an issue with fires. According to Leavitt (1879:176) a fire destroyed the factory and warehouse in 1873, but they were promptly rebuilt. The company suffered another disastrous fire again in 1898 when the warerooms and offices were destroyed, and the fire damaged an adjoining building owned by the George Gillies Company (The Daily Journal 1898; Figure 7).

The 1917 fire insurance plan provides more detail about the building on Lot 1015. The building consisted of a three story limestone section with a two story limestone extension to the north and a two story brick addition on the western face of the limestone portions. The three story portion of the building adjoins the Steel Company of Canada Limited's building to the south (Figure 8). Low level aerial photographs taken in 1920 show all of the structures illustrated on the 1917 fire insurance plan, as well as multiple industrial structures located to the north of the study area along the west bank of the Gananoque River (Figures 9 and 10).⁵ The three story building is illustrated the same way on the 1947 fire insurance plan, with the exception that the adjoining building to the south had been demolished by this point (Figure 11). It is inferred from the historical record that the Parmenter and Bullock Company was located on Lot 1015 during the nineteenth century. The building on this lot continued to be occupied by the company and its subsequent purchasers (discussed below) until at least 1967 (OPTA Information Intelligence 2013). The building was demolished between 1967 and 1991. The northern and eastern walls of "Building 6" shown on the 1947 fire insurance plan were incorporated as retaining walls for the present gravel parking lot within the study area (see Figure 2; EXP 2013b:2).

The initial development of Lots 1016 and Lot 1017 is unclear; by 1897 there was a substantial factory on these lots. At this time the structures were owned by the George Gillies Company and adjoined the Parmenter and Bullock buildings on Lot 1015 (see Figure 7). More details about these structures are provided on the 1917 fire insurance plan of Gananoque (see Figure 8). The structure located on Lot 1016 consisted of a three story stone building fronting on the mill raceway and Mill Street with a single story addition off the east side extending to the water front. The three story structure was partially illustrated on the left margin of a drawing of a neighbouring factory published in 1879 (Figure 12). William MacDonald sold Lot 1016 and part of Lot 1017 to Warren Fairman in 1869 (LCLRO C-261), who in turn sold this parcel to John Gillies in 1875 (LCLRO 4-34). John Gillies died in 1889 and the lot passed to his son George (LCLRO 9-2565). It is suspected that the structures that were located on Lots 1016 and part of 1017 were constructed c. 1869. Shortly after acquiring the industrial building on Lots 1016 and part of 1017 in 1889, George Gillies purchased the factory located on Lots 1018 and 1019 (discussed below). An aerial photograph of the study area taken in 1931 shows all of the major buildings illustrated on the 1917 fire insurance plan (Figure 13). By 1947, however, all of the buildings on Lot 1016 and part of Lot 1017 had been torn down, and based on writing on the plan it appears that the adjacent raceway was in-filled shortly after 1947 (see Figure 11).

Lots 1018 and 1019 were sold by William A Macdonald to E.E. Abbott in 1869 (LCLRO G349). The extant three story limestone structure at 185 Mill Street was erected in 1871 by Abbott to house the Leeds Foundry and Machine Works (Leavitt 1879:175). The original structure also had an "L"-shaped single story extension on the eastern side of the structure. This extension is clearly visible in an illustration of the foundry published in 1879 (see Figure 12). By the time of

⁵ This also applies to the additional development within the study area; please also refer to these figures when reading the following paragraphs.

the 1917 fire insurance plan a one story extension had been added to the front of the factory (see Figure 8). The land and building were sold by Abbott in July 1889 to the Economy Engine and Machine Company of Gananoque (LCLRO 9-2563). This company appears to have been short lived, as the property was sold by George Byers, acting as the liquidator of the Economy Engine and Machine Company, in August 1891 to George Gillies (LCLRO 9-2915). Having amassed all of the industrial buildings located on Lots 1016, 1017, 1018 and 1019, George Gillies formed the George Gillies Company Ltd. c. 1895 to produce carriage hardware. Gillies eventually consolidated his factory with the Steel Company of Canada Limited in 1910 (see Figure 8), which ceased operations on site in 1944 and the land and buildings were sold to Hugh K. McBlade. By 1947 the eastern most portion of the one story extension had been demolished along with a small addition on the north face of the structure which had linked this building to the building located on Lot 1017 (; LCLRO 16-570). In 1951 this property was purchased by the Link Manufacturing Company (LCLRO 16-3520). The one story extension on the front of the building was demolished between 1967 and 1990 (OPTA Information Intelligence 2013), and the remainder of the eastern one story addition was demolished post 1990 (Figure 14).

The extant three story brick building with the rubble foundation on Lot 1020 was constructed c. 1872 as the St. Lawrence Woollen Mills, co-owned by Erastus Cook and Malcolm MacIntyre. The company was founded in 1872, the same year that Cook purchased Lot 1020 from William MacDonald (Bixby 1887:132-133; LCLRO 378). It is likely that this structure was built to house the St. Lawrence Woollen Mills as the date for the founding of the company coincides with the purchase of the lot. The 1879 illustration of the neighbouring Leeds Foundry and Machine Works shows a small part of the brick structure with "S^t L" marked on the front, denoting that the structure at this time housed the St. Lawrence Woollen Mills (see Figure 5). The deed for the land was transferred from Cook to MacIntyre in 1890 (LCLRO 2724). The land was then sold to the Thousand Islands Carriage Company Ltd. in 1897 (see Figure 8; LCLRO 3860). This company was also a short-lived enterprise as the building and land were again liquidated in August 1901 and transferred to the Town of Gananoque. The building was sold that same year to Morden Manufacturing Ltd., which subsequently became Canada Cabinets and was dissolved in 1910, with the building being sold to William Gibson (LCLR 5922). Gibson then formed the W.J. Gibson Harness Co. Ltd. in 1915 (see Figure 11). The building was sold in 1930 to John Mathew, and sold again in 1943 to the Link Manufacturing Company Ltd. (see Figure 11; LCLRO 1005). The out buildings illustrated on the southern edge of lot 1020 were demolished post 1990 (see Figure 14)

It is uncertain whether or not there were any structures on Lots 589, 591, 593 and 595 prior to those mapped on the 1917 fire insurance plan. These consisted of a three story brick building labelled as the "Main Building", a two story frame building directly north labeled offices and a single story frame building to the west labeled "pickling & tumbling" (see Figure 8). The "Main Building" was constructed by the Parmenter and Bullock Company in 1912 during a period of growth in the production of rivet setting machines associated with the assembly line production industry and is still present (Figure 15; Canadian Manufacturers' Association 1967:64). A number of additions have been added to the brick structure since 1912 (see Figure 11). The footprint of the extant structure now occupies the entirety of Lots 589, 591, 593 and 595, as well as

closed portions of Mill Street and St. Lawrence Street (see Figure 3). The Parmenter and Bullock Company was purchased by the Townsend Company of the United States in 1952 and was subsequently purchased by the Textron Corporation in 1958 (Canadian Manufacturers' Association 1967:64; EXP Services Inc 2013b).

By 1897 a series of rail lines had been constructed along the west side of the mill raceway and Mill Street, they area illustrated in more detail on both the 1917 and 1947 fire insurance plans (see Figures 8 and 11). The rail lines were removed at some point between 1947 and 1990 (see Figure 14)

60 Mill Street

The portion of the study area known as 60 Mill Street consists of Lot 597 and part of Lot 598. It is located at the northwest corner of the intersection of Clarence and Mill Streets, and measures approximately 0.07 hectares. There is an extant two story wood framed structure dating to the late nineteenth century with an associated grass lawn (EXP Services Inc. 2013b:2). This structure had been erected by the Parmenter and Bullock Company by 1917 (see Figure 8). There are no indications that there were any previous structures located at 60 Mill Street.

A 1990 aerial photograph of Gananoque shows that by this date the study area was very similar to current conditions. The only differences were that a tin-roofed car shelter was still attached to 60 Mill Street and three small structures along the southern limit of the study area for 185 Mill Street were still standing (Figure 14). A photograph of 185 Mill Street provided by the client shows that fill has been added to the western side of the extant buildings, partially burying their ground floors (Figure 16). This has raised the grade on the western side of these buildings from the original nineteenth century grade, which appears to be still present east of the buildings towards the Gananoque River.

3.2 Archaeological Context

This section describes the environmental and archaeological context of the study area which, combined with the historical context outlined above, provides the necessary information to assess the archaeological potential of the property.

3.2.1 Previously Recorded Archaeological Sites

The primary source for information regarding known archaeological sites is the *Archaeological Sites Database* maintained in Ontario by the Ministry of Tourism, Culture and Sport (MTCS). The database largely consists of archaeological sites discovered by professional archaeologists conducting archaeological assessments required by legislated processes under land use development planning (mostly since the late 1980s). A request for a search of the database for all registered sites located within a one kilometre radius of the study area was made and notification from the *Archaeological Data Coordinator* indicated that one site has been registered within this area.

Designated as Stone's Mill (BbGa-5), this site is located on the shore of the Gananoque River adjacent to Mill Street near the King Street Bridge. Detailed information on the site was unavailable; however it appears that a researcher by the name of Bob Wilkes excavated a small area to the north of a mill building at this location in the early 1990s.

No registered archaeological sites are located within the boundaries of the study area. Included as Appendix 1 to this report is a list of early finds from Leeds Township between 1898 and 1919, submitted to the now Royal Ontario Museum.

3.2.2 Previous Archaeological Research

No previous assessments have been undertaken within or immediately adjacent to the study area. Known previous studies within the Town of Gananoque include a Stage 2/3 Archaeological Assessment of Glen House Resort Sites 1 & 2 BcGa-6/7 (Heritage Quest Inc. 2000b) and a Stage 1 archaeological assessment at 129 South Street Gananoque (PRAS 2013).

3.2.3 Identified Local Cultural Heritage Resources

The recognition or designation of cultural heritage resources (here referring only to built heritage features and cultural heritage landscapes) may provide valuable insight into aspects of local heritage, whether identified at a local, provincial, national, or international level. Some of these cultural heritage resources may be associated with significant archaeological features or deposits. Accordingly, the Stage 1 archaeological assessment included the compilation of a list of cultural heritage resources that have previously been identified within or immediately adjacent to the current study area. The following sources were consulted:

- Federal Heritage Buildings Review Office online Directory of Heritage Designations (<http://www.pc.gc.ca/eng/progs/beefp-fhbro/index.aspx>);
- Canada's Historic Places website (<http://www.historicplaces.ca/en/home-accueil.aspx>);
- Ontario Heritage Properties Database (<http://www.hpd.mcl.gov.on.ca/scripts/hpdsearch/english/default.asp>); and,
- Ministry of Tourism, Culture and Sport's List of Heritage Conservation Districts (http://www.mtc.gov.on.ca/en/heritage/heritage_conserving_list.shtml).
- Ontario Heritage Trust website (www.heritagetrust.on.ca/Resources-and-Learning/Online-Plaque-Guide.aspx)

No previously designated cultural heritage resources were found to be located within or immediately adjacent to the present study area. A number of structures within the town of Gananoque, however, are designated under Part IV of the Ontario Heritage Act; the closest of which are The Clock Tower and Post Office at 110 Stone Street South, a Queen Anne Revival style house at 145 Stone Street South, and the Water Street swing bridge at the mouth of the Gananoque River.

A report was prepared on the cultural value of the two extant structures at 185 Mill Street (Scheinman 2006). The conclusion of the report was that these structures do have cultural value as they serve as visual landmarks anchoring views of the mouth of the Gananoque River in depictions from the nineteenth century, they housed a number of historically important companies and the buildings themselves retain much of their original exterior detailing, which is representative of the evolution of mill construction over the last half of the nineteenth century. These buildings have not yet, however, been given a specific heritage designation.

3.2.4 Heritage Plaques and Monuments

A search of several listings of plaques and monuments was undertaken, given that these markers typically indicate some level of heritage recognition. No plaques or monuments were noted within or adjacent to the study area.

3.2.5 Cemeteries

No known nineteenth century cemeteries were located in or adjacent to the study area, although there is always the possibility of unrecorded early family burial plots on formerly rural properties.

3.2.6 Local Environment

The assessment of present and past environmental conditions in the study area is a necessary component in determining the potential for past occupation of the property. Factors such as nearness to water, soil types, forest cover and topography all contribute to the suitability of the site for the production of food sources for pre-Contact peoples. As well, an examination of the geophysical evolution of the study area provides an indication of the possible range in age of pre-Contact sites that could be found on the property.

The study area is situated within the Leeds Knobs and Flats physiographic region, which consists of outcrops of Precambrian rock interrupted by flat to undulating areas with clay soils (Chapman & Putnam 1984:186-187 and 196). Geologic mapping at a scale of 1:250,000 shows the bedrock geology of the study area to be bordering on the Beekmantown group of dolostone and sandstone bedrock and late felsic plutonic bedrock comprised mostly of granite gneisses with migmatites and pegmatites (OGS 2003a), while the surficial geology for the study area falls within a bedrock-drift complex in Paleozoic terrain (OGS 2003b). Soil mapping of the area indicates that the project falls within the Napanee clay soils series which is characterized by low organic matter with poor drainage on nearly level terrain (Figure 17).

Gananoque lies within the Huron - Ontario Sub-region of the Great Lakes - St. Lawrence Forest Region. Deciduous trees common to this area include sugar and red maples, beech, basswood, white and red ashes, yellow birch, and red, white and burr oaks, while coniferous trees include eastern hemlock, eastern white pine and balsam fir (Rowe 1972:93). The study area would have been cleared of its original growth forest in the late eighteenth or early nineteenth century.

The study area is within the Upper St. Lawrence watershed and is located on the west bank of the Gananoque River, 100 meters from the confluence of the Gananoque and St Lawrence River. These rivers are important as a migratory stop-over and wintering areas for waterfowl (Johnson 1971). Lands adjacent to these bodies of water display Class 3 (slight limitations) capability for the production of waterfowl. As the subject property lies within an area of urban development, there is no data available for ungulate capability (Canada Land Inventory 1970).

4.0 ANALYSIS AND CONCLUSIONS

4.1 Determination of Archaeological Potential

A number of factors are used to determine archaeological site potential. For pre-Contact sites criteria are principally focused on topographical features such as the distance from the nearest source of water and the nature of that water body, areas of elevated topography including features such as ridges, knolls and eskers, and the types of soils found within the area being assessed. For historic sites, the assessment of archaeological site potential is more reliant on historical research (land registry records, census and assessment rolls, etc.), cartographic and aerial photographic evidence and the inspection of the study area for possible above ground remains or other evidence of a demolished historical structure. Also considered in determining archaeological potential are known archaeological sites within or in the vicinity of the study area.

Archaeological assessment standards established by MTCS (*Standards and Guidelines for Consultant Archaeologists*, 2011) set minimum distances to be tested from features indicating archaeological potential. Areas that are considered to have pre-Contact site potential and therefore require testing include lands within 300 metres of water sources, wetlands or elevated features in the landscape including former river scarps. Areas of historic archaeological site potential requiring testing include locations within 300 metres of sites of early Euro-Canadian settlement and 100 metres of historic transportation corridors. Further, areas within 300 metres of registered archaeological sites, designated heritage buildings or structures/locations of local historical significance are considered to have archaeological potential and require testing. These guidelines were refined and applied to the study area after the research described above, generating the Stage 1 recommendations presented below in Section 4.2.

The study area exhibits characteristics that indicate potential for the presence of archaeological resources associated with pre-Contact settlement and/or land uses. The primary trigger for pre-Contact potential is the proximity to the Gananoque and St Lawrence Rivers. The entirety of the study area falls within a 300 m buffer from both waterways. The area near the confluence of the Gananoque and St. Lawrence Rivers would have been an ideal location for pre-Contact settlement as these waterways would have provided abundant local food and water, and would have functioned as routes for communication and exchange with other communities. Historic mapping also identifies two points within 250 m of the study area as Native burial grounds (see Figure 4). A portion of the study area along the west bank of the Gananoque River is comprised of historic fill; there is no pre-Contact potential in this area, which lies to the east of the original shoreline (see Figure 3).

Evaluating the potential for archaeological resources associated with post-Contact Euro-Canadian settlement and other land uses within urban contexts requires the consultation of available nineteenth and twentieth century maps and archival research in order to identify areas likely to contain archaeological deposits that have not been extensively disturbed or destroyed by subsequent development. To this end, numerous nineteenth and twentieth century plans and historical aerial photographs were examined for this assessment, most of which have been

reviewed in Section 3.1.4. Together with the archival research undertaken, these sources have provided a detailed development history of the study area and the surrounding neighbourhood.

The historical fire insurance plans and other documents were used to create two overlay maps depicting the development of the study area over the late nineteenth and twentieth centuries, thereby building a reference for where intact nineteenth century or earlier archaeological remains may survive. The first overlay shows successive building foot-prints from each map discussed above in Section 3.1.4 has been created (Figure 18). The second appears similar, but shows the building foot-prints with their approximate demolition dates to provide an indication of which structures survived well into the twentieth century, thereby significantly reducing their archaeological potential (Figure 19). Areas revealed to have been the location of pre-1900 industrial, commercial, or residential land uses (e.g. structures, adjacent work/storage areas, undisturbed yards or other areas where buried topsoil deposits are likely to be found) and to have escaped destruction through later development exhibit archaeological potential. Although many of the areas shown on the overlays with twentieth century development can safely be assumed to have been extensively disturbed (particularly if twentieth century construction has involved basements, underground storage tanks, etc.), and therefore to retain no archaeological potential, this is not always the case. This would particularly apply to large twentieth century structures with no basements. The extent of the disturbance by later development can only be confirmed through field testing.

It should be noted that the process of overlaying historical plans to generate a map identifying the location of historic structures or areas of archaeological potential includes numerous potential sources of error that must be recognized when evaluating the results. Potential sources of error include the consistency with which common reference points were mapped, differences in the quality/scale of map production, differences of scale and resolution between sources, as well as distortions introduced by scanning paper originals or reproductions (in some cases copies of copies). It is also worth noting that fire insurance plans were compiled from surveys for reference purposes and were not legally surveyed plans. Therefore, while care was taken throughout the process of creating the overlay maps included in this report, the location or configuration of any particular feature of potential should be treated as being approximate. Further, not all of the plans used illustrate every structure standing at that time within the study area, the extent of the coverage depending on the purpose of the survey.

The shoreline of the Gananoque River was included on the overlay maps to provide a record of the historical alterations to the landscape and the expansion of the land surface over time. This was used to highlight where extensive filling has occurred, and while some of these areas may contain features considered to have archaeological potential, for the most part the reclaimed land is considered to be disturbed. While the resulting features may still have archaeological significance for documenting the development of the nineteenth century mills and factories, this disturbance would likely have removed remnants of earlier archaeological material in these areas.

Thus a cursory glance at the overlay plans indicates there were numerous buildings within the study area, suggesting a high post-Contact archaeological potential for the property. The property falls within the historic town of Gananoque, which was first settled in the late eighteenth century, and, more specifically, it lies within the historic industrial core. Nineteenth century industrialization was a defining characteristic of Gananoque, which has been referred to by historians as "the Birmingham of eastern Ontario" (Leavitt 1879:173; McKenzie 1967:179). Early mapping shows some small structures and a turning mill in the study area (see Figures 5 and 6), followed by a series of late nineteenth century factories including the Leeds Foundry and Machine Shop, the St. Lawrence Woollen Mills, the George Gillies Company and the Parmenter and Bullock Company.

The potential within the study area becomes extensively modified, however, once past and more recent disturbance is taken into account. Many of the structures from the late nineteenth century continued in use through the twentieth century and some are extant, thereby limiting the archaeological potential within their foot-prints (see Figure 19). Other areas such as the location of the now in-filled former mill race saw deep excavation during construction and should also be considered to be disturbed. The remaining portions of the study area retain archaeological potential, as illustrated on a recent ortho-rectified aerial photograph (Figure 20). These areas should be the subject of a Stage 2 archaeological assessment prior to any planned development. Disturbance caused by buried utility lines was not investigated as part of this assessment, which may further reduce the areas of archaeological potential. If feasible, these features should be located prior to any Stage 2 archaeological testing.

4.2 Stage 1 Recommendations

The results of the Stage 1 assessment form the basis for the following recommendations:

- 1) Should proposed development proceed at 185 Mill Street, 60 Mill Street and 15 Clarence Street, all portions of the study area shown as retaining archaeological potential on Figure 20 should be subjected to Stage 2 archaeological assessment
- 2) Any future Stage 2 archaeological assessment should be undertaken by a licensed consultant archaeologist, in compliance with *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011), prior to any planned construction disturbance below the current grade. The lawn area at 60 Mill Street is recommended for hand test pit excavation. The majority of the area of archaeological potential for 185 Mill Street and 15 Clarence Street lies beneath gravel parking lot, driveway and/or fill. The Stage 2 assessment of these areas will require the excavation of mechanical trenches using a backhoe or equivalent heavy machinery at targeted areas and/or ten metre intervals in order to access deeply buried archaeological resources (see Figure 20). Any utility locates must be completed before Stage 2 mechanical testing begins. The remaining lawn areas at 185 Mill Street and 15 Clarence Street should be tested by hand.

The reader is referred to Section 5.0 below to ensure compliance with the *Ontario Heritage Act* as it may relate to this project.

5.0 ARCHAEOLOGICAL COMPLIANCE

In order to ensure compliance with the *Ontario Heritage Act*, the reader is advised of the following:

- 1) This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sport, a letter will be issued by the Ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.
- 2) It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
- 3) 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*.
- 4) 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.
- 5) 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 licence.

6.0 LIMITATIONS AND CLOSURE

Past Recovery Archaeological Services Inc. has prepared this report in a manner consistent with that level of care and skill ordinarily exercised by members of the archaeological profession currently practicing under similar conditions in the jurisdiction in which the services are provided, subject to the time limits and physical constraints applicable to this report. No other warranty, expressed or implied, is made.

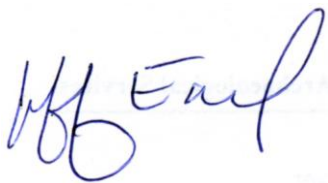
This report has been prepared for the specific site, design objective, developments and purpose prescribed in the client proposal and subsequent agreed upon changes to the contract. The factual data, interpretations and recommendations pertain to a specific project as described in this report and are not applicable to any other project or site location.

Unless otherwise stated, the suggestions, recommendations and opinions given in this report are intended only for the guidance of the client in the design of the specific project.

Special risks occur whenever archaeological investigations are applied to identify subsurface conditions and even a comprehensive investigation, sample and testing program may fail to detect all or certain archaeological resources. The sampling strategies in this study comply with those identified in the Ministry of Tourism, Culture and Sport's *Standards and Guidelines for Consultant Archaeologists* (2011).

The documentation related to this archaeological assessment will be curated by Past Recovery Archaeological Services Inc. until such a time that arrangements for their ultimate transfer to an approved and suitable repository can be made to the satisfaction of the project owner(s), the Ontario Ministry of Tourism, Culture and Sport and any other legitimate interest group.

We trust that this report meets your current needs. If you have any questions of if we may be of further assistance, please do not hesitate to contact the undersigned.



Jeff Earl, M.Soc.Sc.
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Past Recovery Archaeological Services Inc.

7.0 REFERENCES

Adams, Nicholas R.

2003 **The Arbor Ridge Site: A Study in Settlement Dynamics and Population Movement at the eastern end of Lake Ontario.** Unpublished Master of Arts thesis, University of Leicester, England.

Akenson, Donald Harman

1987 **The Irish in Ontario: A Study in Rural History.** Kingston: McGill-Queen's University Press.

Bixby, M. G.

1887 **Industries of Canada: Historical and Commercial Sketches of Kingston, Prescott, Brockville, Belleville, Trenton, Picton, Gananoque, Sand Banks and Environs.** M.G. Bixby and Co., Toronto, Ontario.

Canada Land Inventory

1970 **Land Capability Classification for Wildlife.** The Canada Land Inventory. Report No. 7. Environment Canada. Accessed online at Agri Food Canada www.arg.gc.ca

Canadian Manufacturers' Association

1967 **Industry '67: Centennial Perspective.** Canadian Manufacturers' Association, Toronto.

Chapman, L.J. and D.F. Putnam

1984 **The Physiography of Southern Ontario.** 3rd edition. Ontario Geological Survey, Special Volume 2. Toronto, Ministry of Natural Resources.

Daechsel, Hugh

1980a **An Archaeological Evaluation of the South Nation River Drainage Basin.** Report prepared for the South Nation River Conservation Authority, Berwick, Ontario.

Dailey, R.C. and J.V. Wright

1955a "The Malcolm Site; a late stage of the Middle Point Peninsula Culture in Eastern Ontario." In **Transactions of the Royal Canadian Institute**, Vol. 31, Part 1, Toronto.

1955b **An Archaeological Survey in the St. Lawrence Valley.** Report on file, Archaeological Survey of Canada. Ottawa: Canadian Museum of Civilization.

Dailey Journal, The

1898 **Fire At Gananoque: \$40,000 Worth of Property Destroyed Sunday Morning.** August 30th, 1898. The Daily Journal, Ogdensburg, New York.

Day, G.M. and Bruce G. Trigger

1978 "Algonquin." **Handbook of North American Indians, Volume 15, Northeast.** Ed. B.G. Trigger. Washington: Smithsonian Institution Press, pp 792-797.

Ellis, Chris J. and Brian Deller

1990 "Paleo-Indians." In **The Archaeology of Southern Ontario to A.D. 1650**, edited by Chris Ellis and Neal Ferris, Occasional Publication of the London Chapter, OAS Number 5, pp. 37-63.

Ellis, Christopher, Ian Kenyon and Michael Spence

1990 "The Archaic." **The Archaeology of Southern Ontario to A.D. 1650.** Ed. C. Ellis and N. Ferris. London: Occasional Publications of the London Chapter of the Ontario Archaeological Society, pp. 65-124.

EXP Services Inc.

2013a **Phase I Environmental Site Assessment: 185 Mill Street, Gananoque, Ontario.** Kingston, Ontario.

2013b **Phase I Environmental Site Assessment: 15 Clarence Street and 60 Mill Street, Gananoque, Ontario.** Kingston, Ontario.

Fox, William

1990 "The Middle Woodland to Late Woodland Transition". In **The Archaeology of Southern Ontario to AD 1650.** Ed. Chris J. Ellis and Neal Ferris. Occasional Publications of the London Chapter of the Ontario Archaeological Society, Number 5, pp. 171-188. London: London Chapter of the Ontario Archaeological Society.

Gervais, G.

2004 "Champlain and Ontario (1603-35)". In **Champlain: The Birth of French America.** Ed. R. Litalien and D. Vaugeois, pp. 180-190. Montreal: McGill-Queen's Press.

Gillespie, J.E., R.E. Wicklund and M.H. Miller

1968 **The Soils of Leeds County.** Report No. 41 of Ontario Soils Survey. Guelph: Research Branch Canadian Department of Agriculture and the Ontario Department of Agriculture and Food.

Hawke, H. Wm.

1974 **Historic Gananoque.** Belleville: Mika Publishing.

Heritage Quest Inc.

2000a **Stage 1, 2 and 3 Archaeological Assessment of the Allen Point Subdivision, Part Lots 40 & 41, Concession V, City of Kingston (Former Kingston Township).** Report on file, Ministry of Tourism, Culture and Sport, Toronto.

Heritage Quest Inc.

- 2000b **Stage 2/3 Archaeological Assessment of Glen House Resort House Sites 1 & 2 BcGa6/7 Parts Lots 10/11, Concession 1, Front of Leeds & Lansdowne Township.** Report on file, Ministry of Tourism, Culture and Sport, Toronto.
- 1995 **Stage 1/2 Archaeological Assessment Landon Bay East, Part Lots 8, 9 & 10, Concession I, Front of Leeds and Lansdowne, Leeds and Grenville County.** Report on file, Ministry of Tourism, Culture and Sport, Toronto.
- 1994 **Heritage Background Study of Canadian Forces Base Kingston.** Report by Heritage Quest Inc., on file, Ministry of Tourism, Culture and Sport, Toronto.

Hessel, P.

- 1993 **The Algonkin Nation: The Algonkians of the Ottawa Valley, A Historical Outline.** Arnprior: Kichesippi Books.

Hough, J.L.

- 1958 **Geology of the Great Lakes.** Urbana: University of Illinois Press.

Jamieson, J.B.

- 1990 "The Archaeology of the St. Lawrence Iroquoians." **The Archaeology of Southern Ontario to A.D. 1650.** Ed. C. Ellis and N. Ferris. London: Occasional Publications of the London Chapter of the Ontario Archaeological Society, pp. 65-124.

Kennedy, Clyde

- 1970 **The Upper Ottawa Valley.** Pembroke: Renfrew County Council.

Leavitt, Thad. W.H.

- 2000 **Our Living History: An Historical Guide to the United Counties of Leeds and Grenville.** Mallorytown: The Thousand Islands River Heritage Society.
- 1879 **History of Leeds and Grenville.** Brockville: Recorder Press. Leeds and Grenville Community History Project

Lockwood, Glenn J.

- 1996 **The Rear of Leeds & Lansdowne: The Making of Community on the Gananoque River Frontier 1796-1996.** The Corporation of the Township of Rear of Leeds and Lansdowne, Lyndhurst, Ontario.

McKenzie, Ruth

- 1967 **Leeds and Grenville: Their First Two Hundred Years.** Toronto: McClelland and Stewart Limited.

Mika Publishing

- 1973 **Illustrated Historical Atlas of the Counties of Leeds and Grenville.** Belleville: Mika Publishing.

Ministry of Tourism, Culture and Sport (MCTS)

2011 **Standards and Guidelines for Consultant Archaeologists.** Ministry of Tourism, Culture and Sport, Toronto.

Mount McGovern Co. Ltd.

1998 **Report of 1998 Field Work at the Hi-Lo Green Site (BdGb-2) and the Multi-component Archaic Cockrill Site (BdGb-3) in Eastern Ontario.** Report on file, Ministry of Tourism, Culture and Sport, Toronto.

Ontario Geological Survey (OGS)

2003a **1:250,000-scale Bedrock Geology of Ontario.** Ontario Geological Survey, Miscellaneous Release-Data 126.

2003b **Surficial Geology of Southern Ontario.** Map.

OPTA Information Intelligence

2013 **Historical Environmental Information Reporting System: 15 Clarence Street.** Markham Ontario.

Past Recovery Archaeological Services Inc.

2013 **Stage 1 Archaeological Assessment 129 South Street, Part Farm Lot 15, Concession 1, Geographic Township of Leeds, Town of Gananoque, Ontario.** Report on file, Ministry of Tourism, Culture and Sport, Toronto.

Pendergast, J.

1999 The Ottawa River Algonquin Bands in a St. Lawrence Iroquoian Context. **Canadian Journal of Archaeology** 23 (1&2):63-136.

1972 "The Lite Site: An Early Southern Division Huron Site near Belleville, Ontario." **Ontario Archaeology.** No. 17:24-61.

Preston, R.A.

1959 **Kingston Before the War of 1812.** Toronto: University of Toronto Press.

Ritchie W. A. and D. Dragoo

1960 "The Eastern Dispersal of Adena". **New York State Museum and Science Service, Bulletin 379.**

Rowe, J.S.

1972 **Forest Regions of Canada.** Department of Northern Affairs and National Resources, Forestry Branch, Bulletin 123, Ottawa.

Scheinman, Andre

2006 **185 Mill Street, Gananoque: An Evaluation of Cultural Value for the Town of Gananoque.** Consultant Report.

Statistics Canada (SC)

2011 “**Gananoque Census Profile**”. Accessed online at <http://www12.statcan.ca/census-recensement/2011/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CSD&Code1=3507024&Geo2=CD&Code2=3507&Data=Count&SearchText=Gananoque&SearchType=Begin&SearchPR=01&B1=All&Custom=&TABID=1>.

Spence, M., R. Pihl, and C. Murphy

1990 “Cultural Complexes of the Early and Middle Woodland Periods.” **The Archaeology of Southern Ontario to A.D. 1650**. Ed. C. Ellis and N. Ferris. London: Occasional Publications of the London Chapter of the Ontario Archaeological Society, pp 65-124.

Sutton, R.

1990 **Hidden Amidst the Hills: Middle and Late Iroquoian Occupations in the Middle Trent Valley**. Occasional Papers in Northeastern Archaeology No. 3. Dundas: Copetown Press.

Trigger, Bruce.G.

1976 **The Children of Aataensic: A History of the Huron People to 1660**. 2 Volumes. Montreal: McGill-Queen’s University Press.

Watson, G. D.

1999a “The Paleo-Indian Period in the Ottawa Valley.” **Ottawa Valley Prehistory**. Outaouais Historical Society, Gatineau, pp. 27-42.

1999b “The Early Woodland of the Ottawa Valley.” **Ottawa Valley Prehistory**. Outaouais Historical Society, Gatineau, pp. 55-68.

1982 “Prehistoric Peoples of the Rideau Waterway.” In **Archaeological Historical Symposium, October 2-3, 1982, Rideau Ferry, Ontario**, edited by F.C.L. Wyght, Performance Printing, Smith Falls.

Wright, James

1966 **The Ontario Iroquois Tradition**. National Museum of Canada, Bulletin No. 210.

PRIMARY DOCUMENTS

Queen’s University Douglas Library (QUDL)

W.D. Jordan Special Collections - Lorne Pierce

1947 Underwriter’s Bureau Fire Insurance Plan of the Town of Gananoque

Library and Archives Canada (LAC):

Aerial Photographs

PA-30625 1920, Town of Gananoque
PA-30656 1920, Town of Gananoque

Microfilm Reels:

MS-2550 1861 Census for Gananoque
C-10001 1871 Census for Gananoque

National Map Collection (NMC):

NMC 3101 700 Acres of Lands, the property of Joel Stone Esqr. [situated along the Gananoque River] surveyed in the Month of October, 1791, by (signed) J. Pennoyer, D.P.S
NMC 9452 *Insurance Plan of the Town of Gananoque* by Underwriters Survey Bureau Limited, 1917 Revised 1926.
NMC 14103 *Plan of the Town of Gananoque* by Putnam and Walling Publishers, 1862
NMC 15193 *Plan of the Town of Gananoque* by William H. Deane, 1858
NMC 151438 *Insurance Plan of the Town of Gananoque* by Chas E. Goad, 1897

National Air Photo Library (NAPL):

A3254-29 1931, Town of Gananoque, 1:15,000 scale
A27607-50 1990, Town of Gananoque, 1:6,000 scale

8.0 FIGURES (Images and Maps)



Figure 1. Location of the study area. (NTS 31C08-Gananoque; 2010)



Figure 2. Satellite image of the study area. (base map 2008-2009 DRAPE satellite imagery)

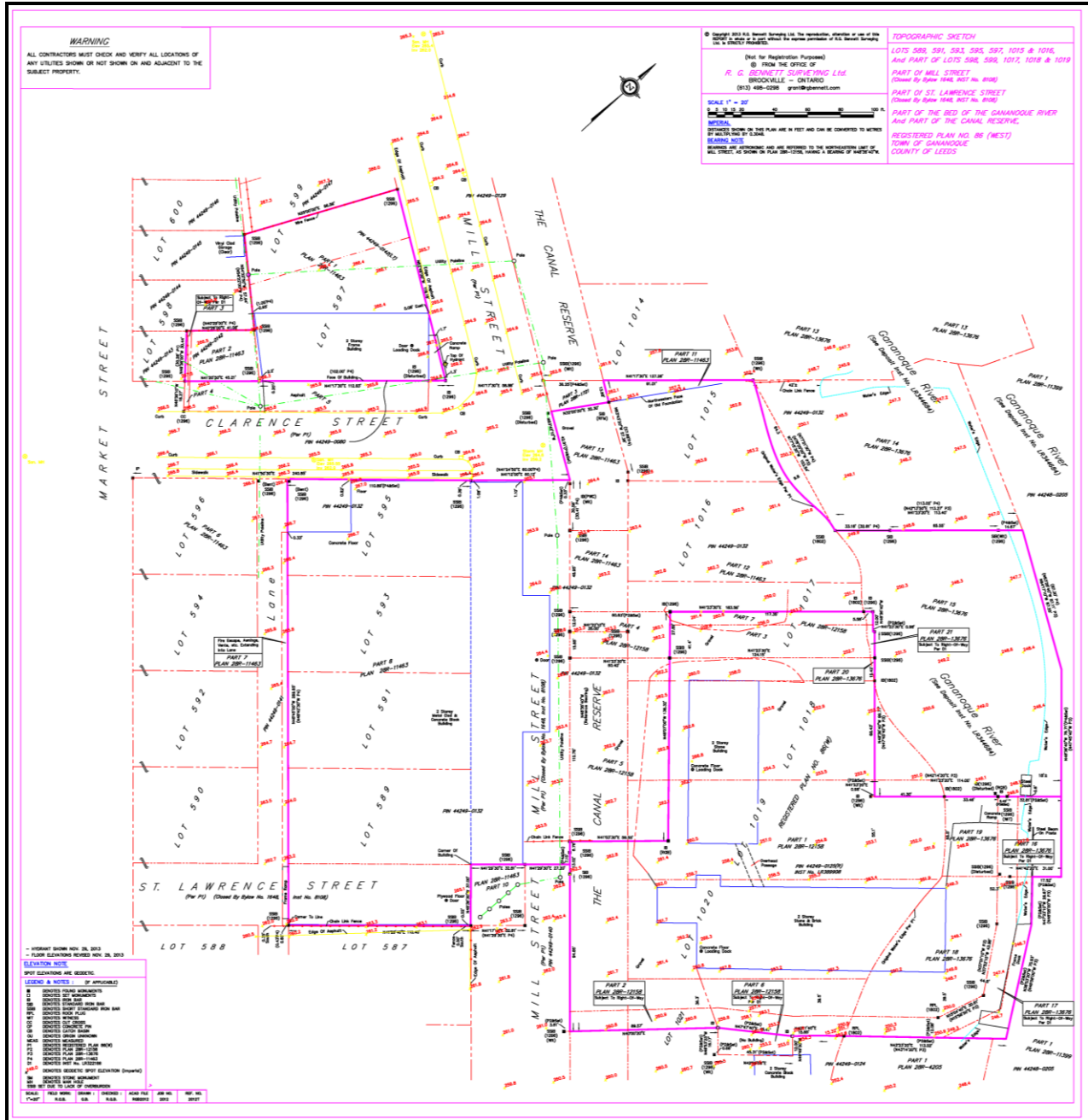


Figure 3. Survey of the study area. (courtesy of Clarence Street Developments Inc.)

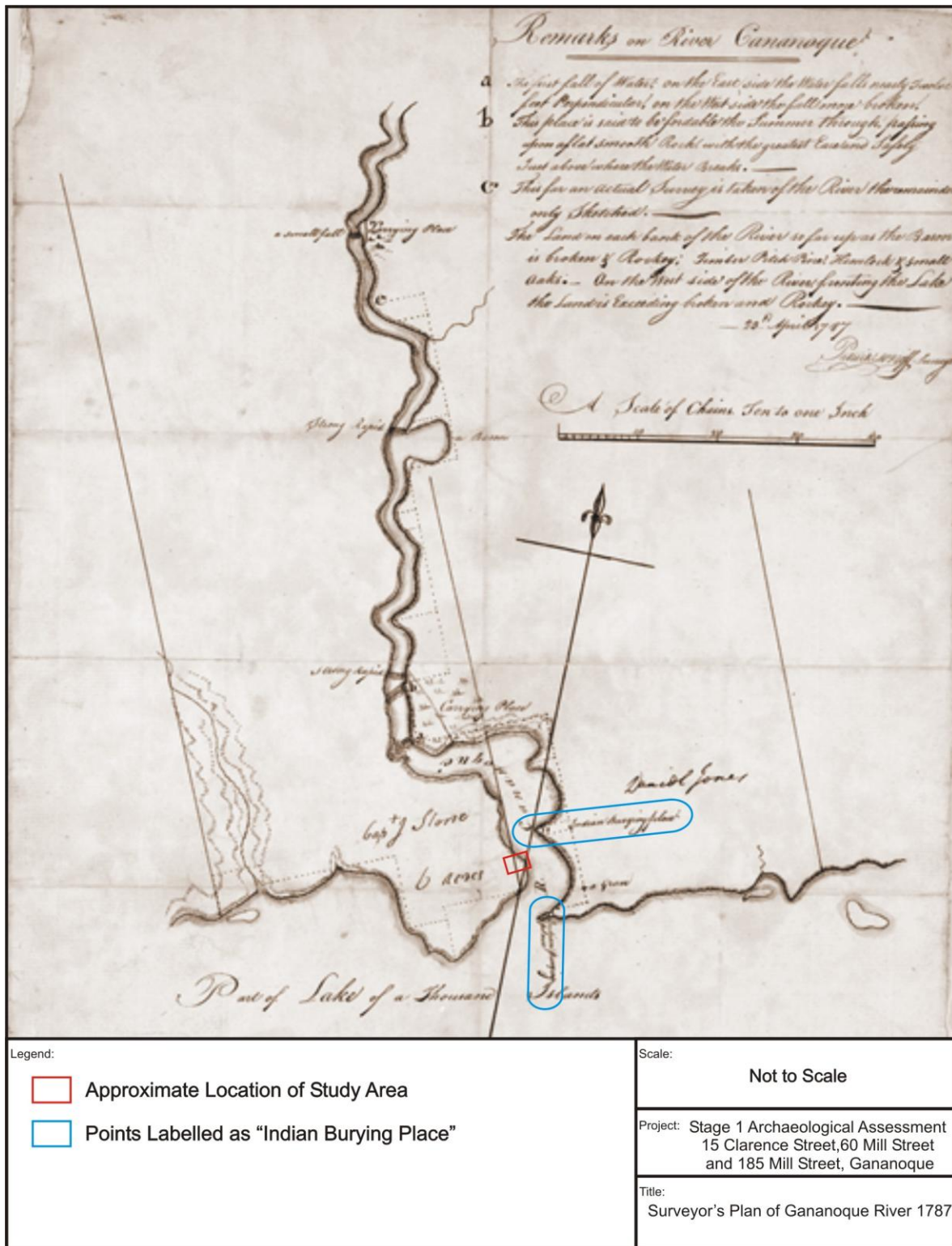


Figure 4. Surveyor's plan of the Gananoque River in 1787. (LAC NMC 3101)

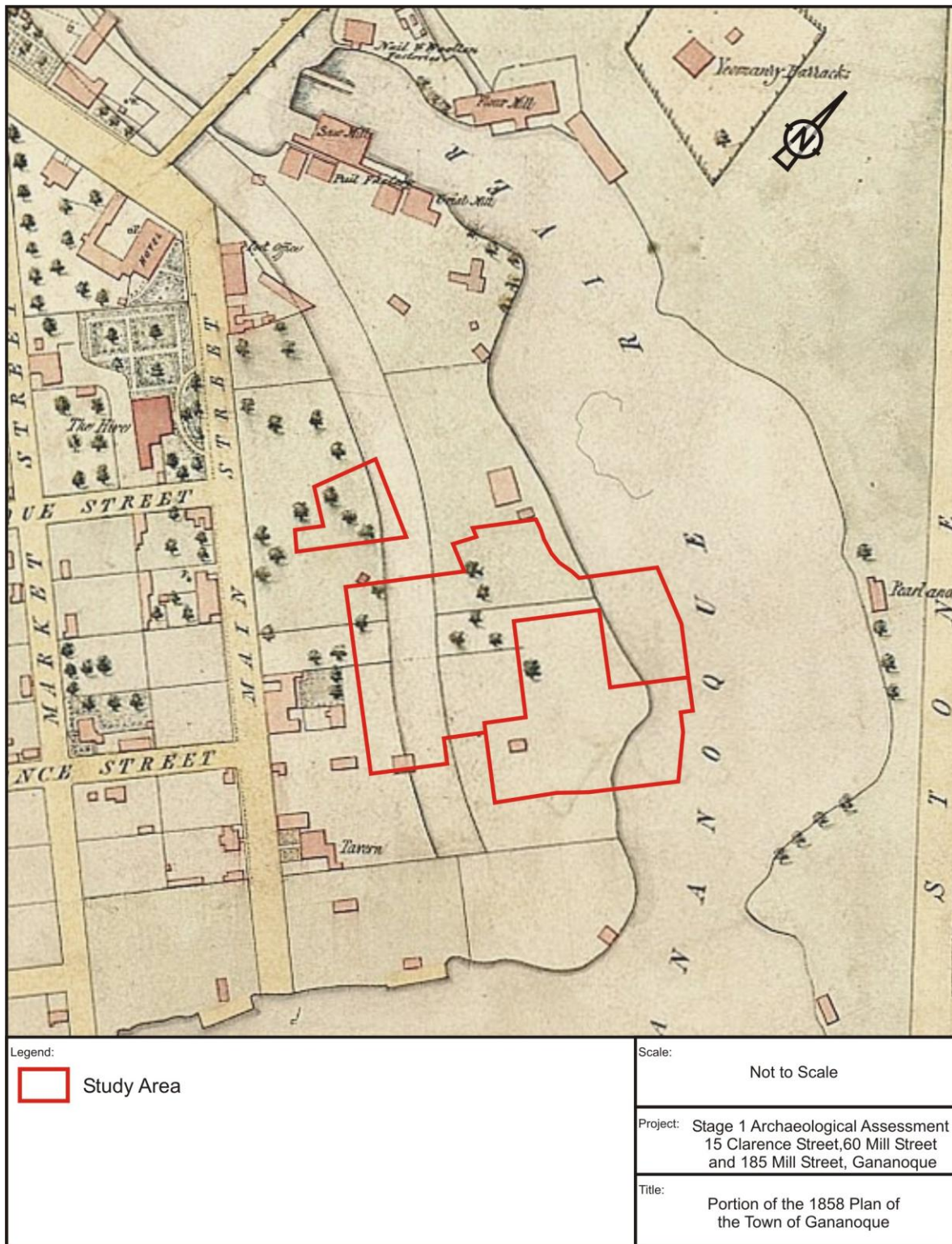


Figure 5. Portion of the 1858 plan of the Town of Gananoque. (LAC NMC 15193)

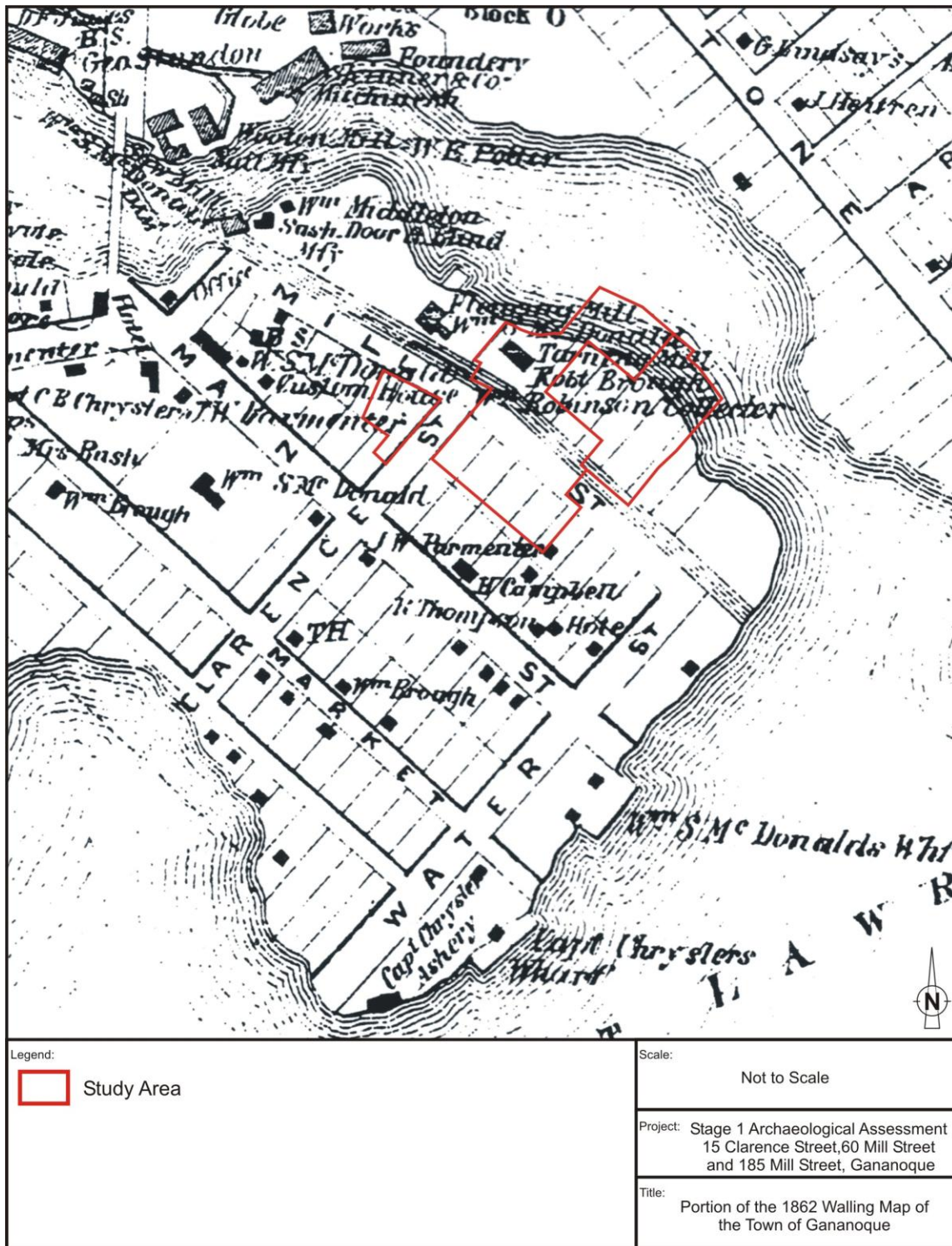


Figure 6. Portion of the 1862 Walling Map of the Town of Gananoque. (LAC NMC 14103; adapted from Mika Publishing 1973)

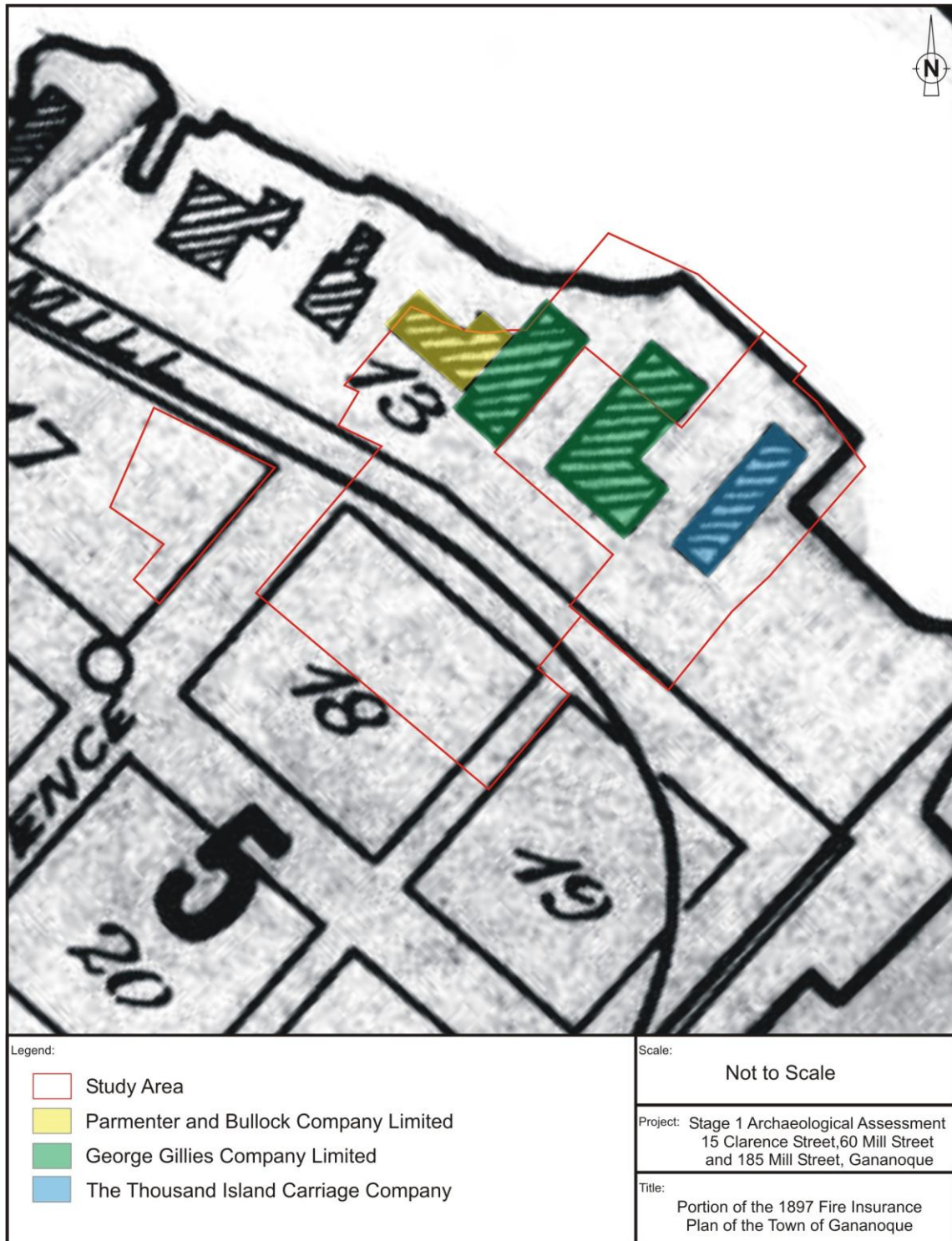


Figure 7. Portion of the 1897 fire insurance key plan of the Town of Gananoque. (LAC NMC 151438).

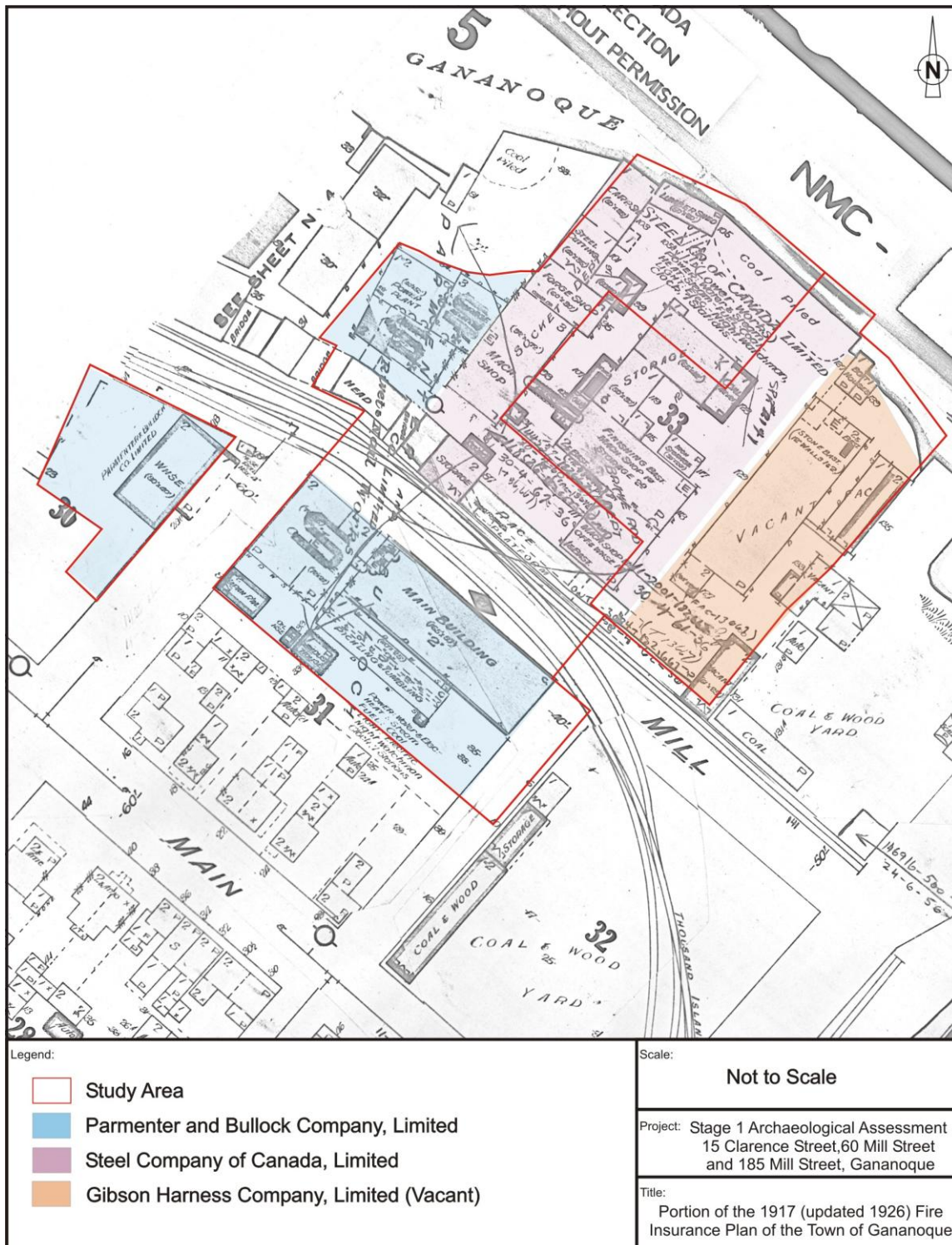


Figure 8. Portion of the 1917 (updated 1926) fire insurance plan of the Town of Gananoque. (LAC NMC 9452)

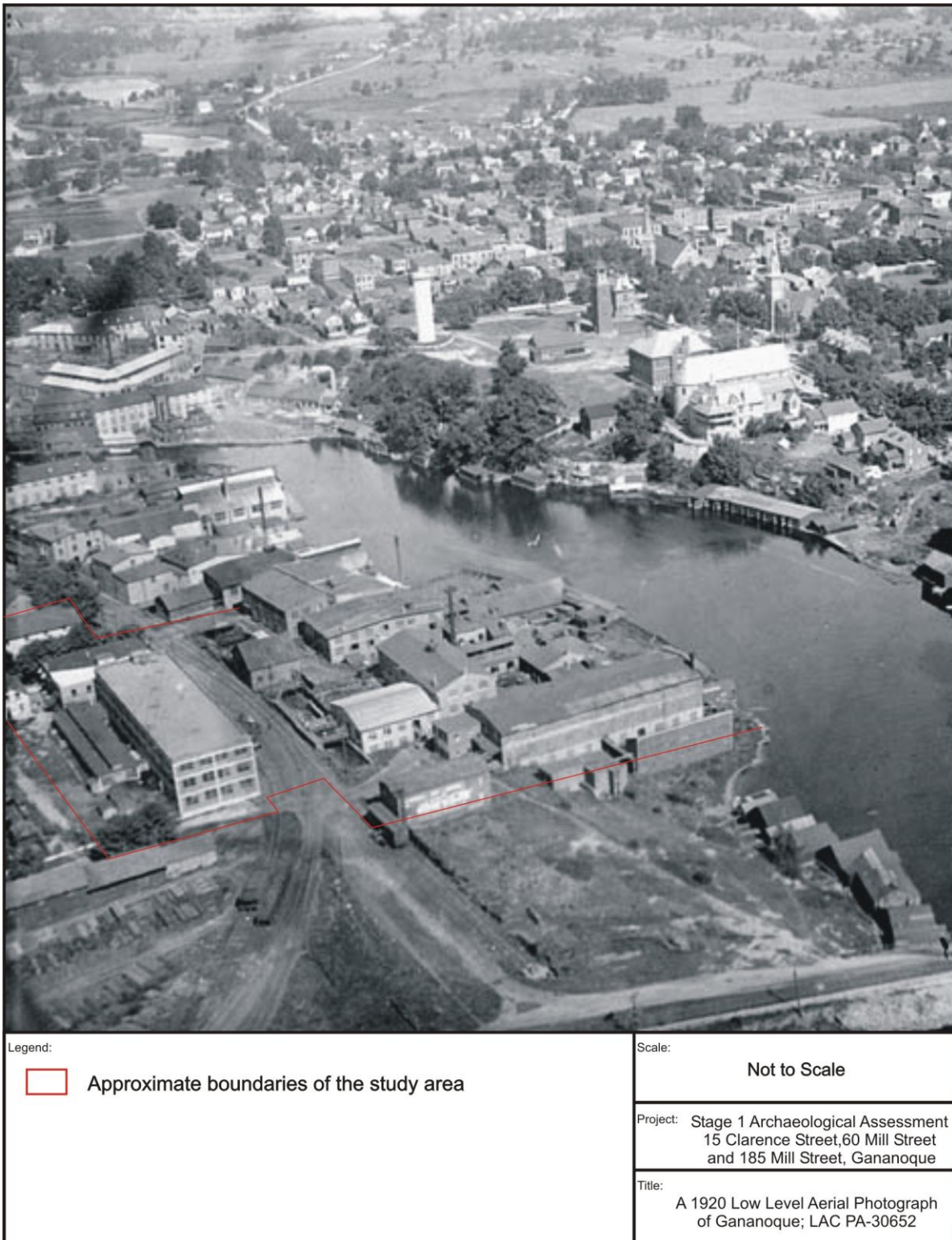


Figure 9. Segment of a 1920 low level aerial photograph of Gananoque. (LAC PA-30652)

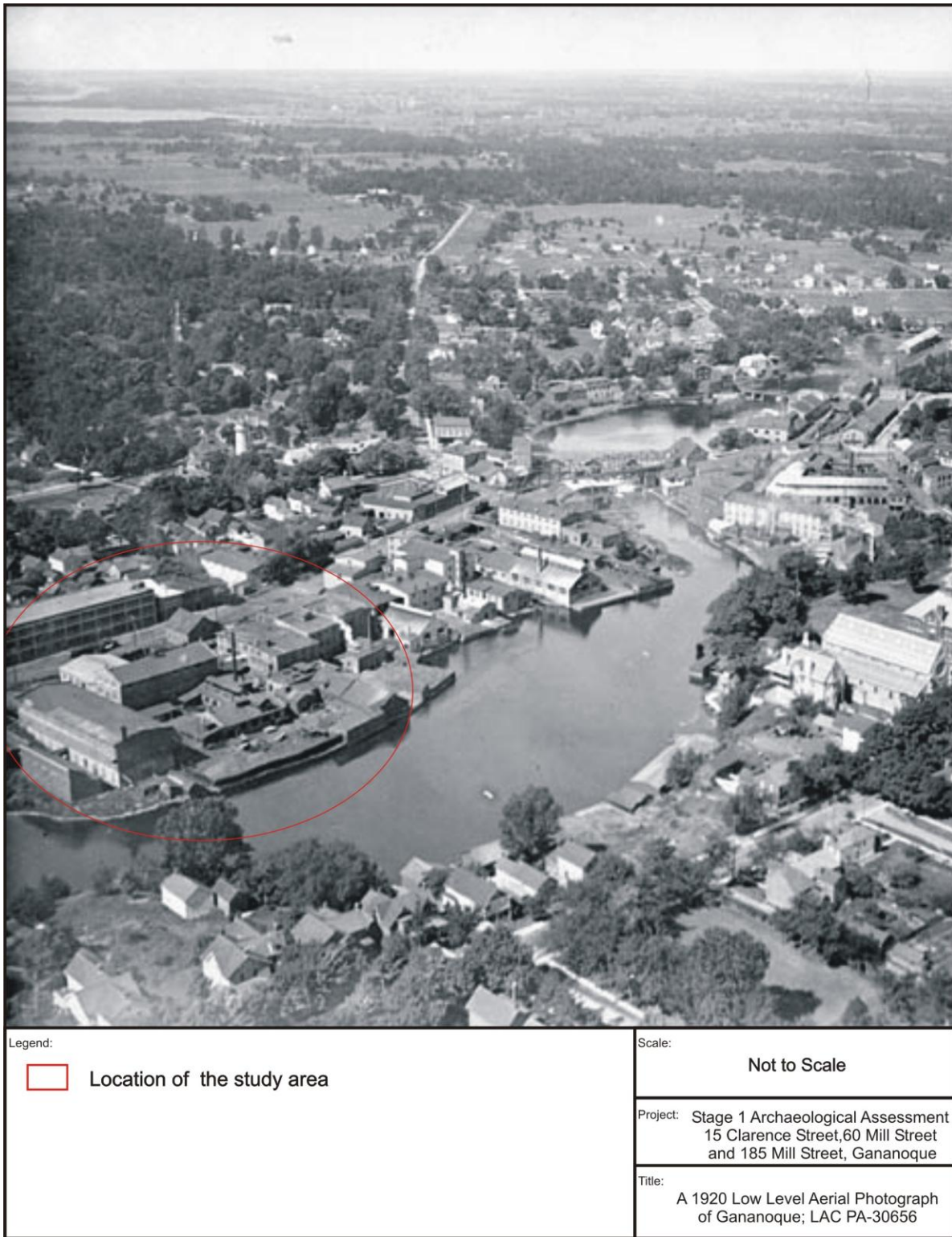


Figure 10. Segment of a 1920 low level aerial photograph of Gananoque. (LAC PA-30656)

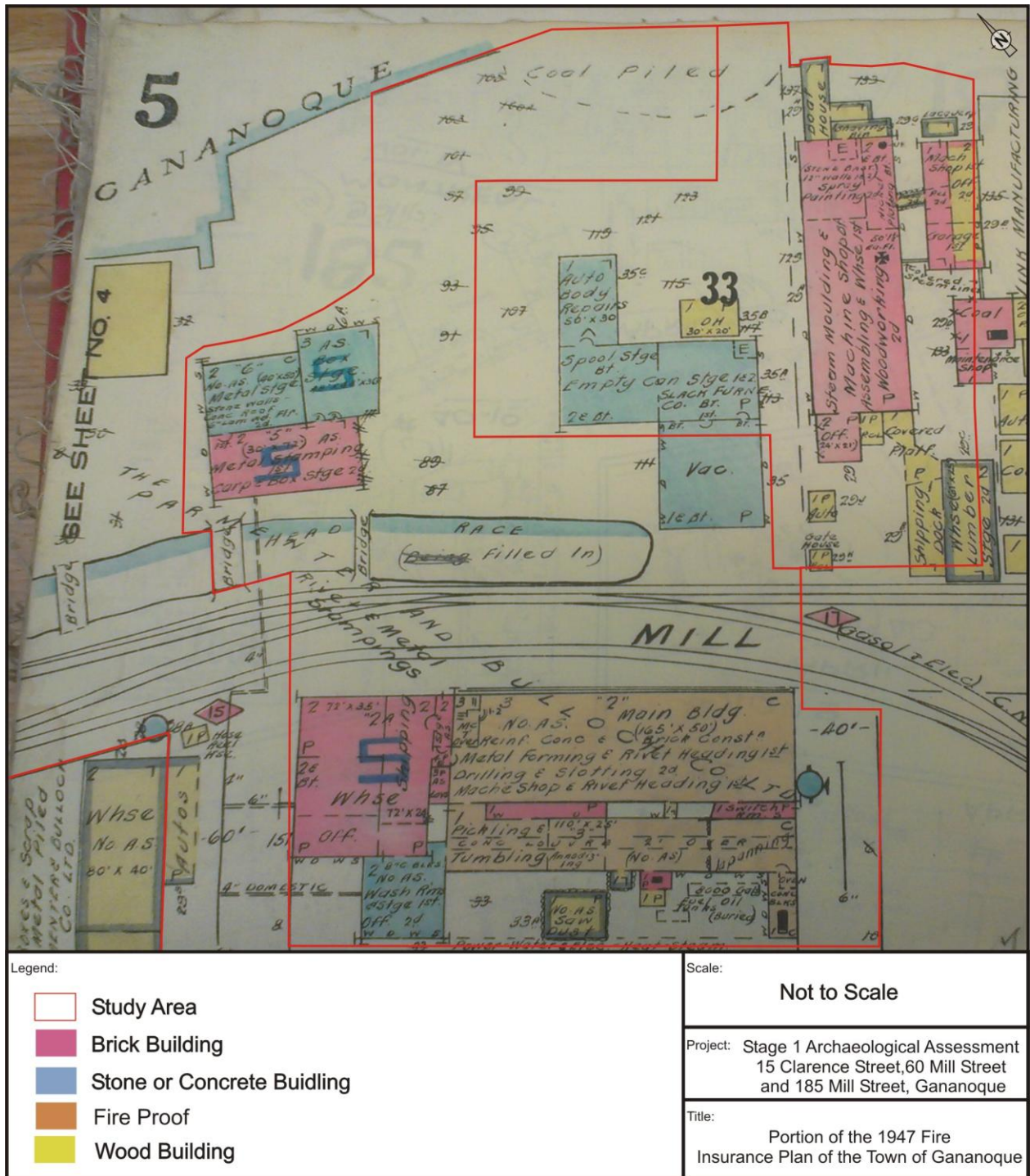


Figure 11. Portion of the 1947 fire insurance plan of the Town of Gananoque. (Queen's University W.D. Jordan Special Collections-Lorne Pierce)

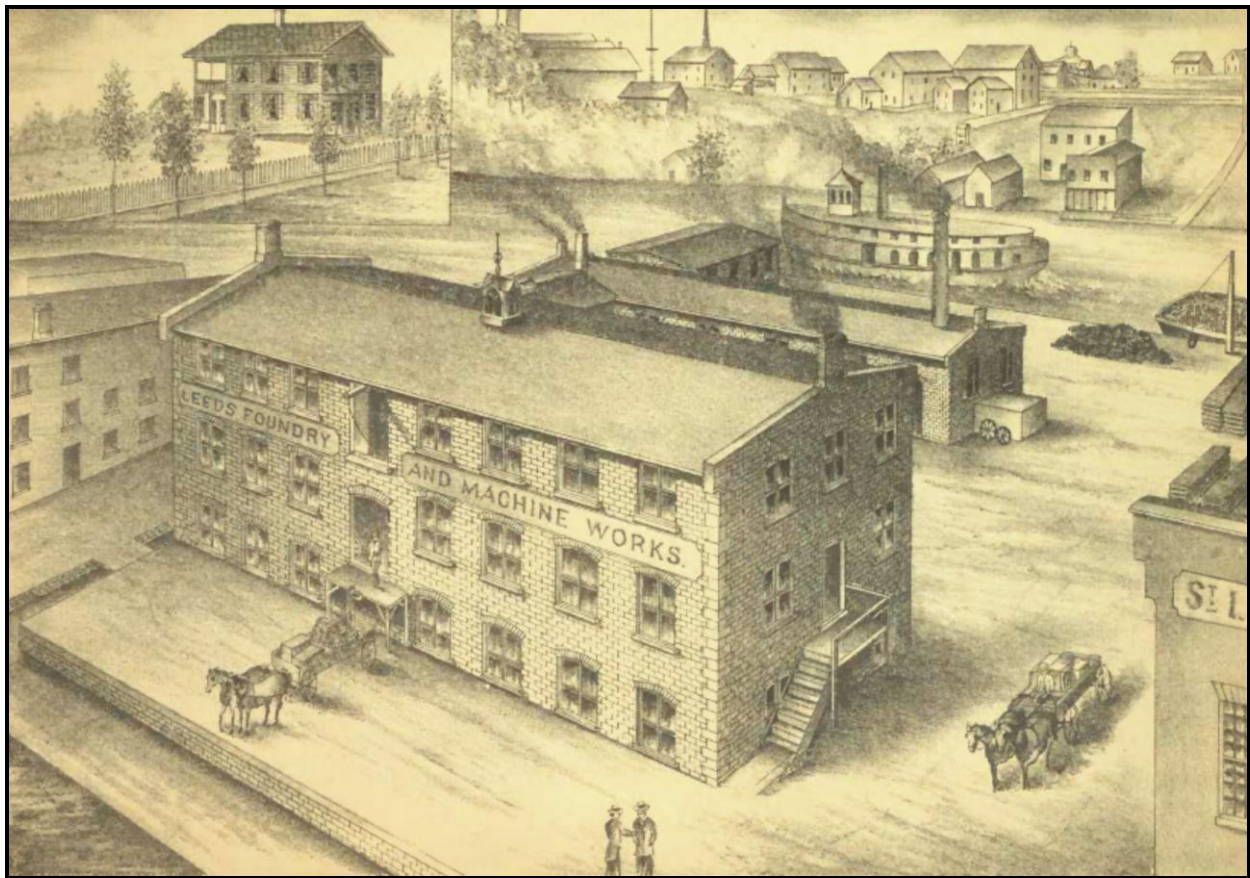


Figure 12. Drawing of the Leeds Foundry and Machine Works, c. 1878. (Leavitt 1879:176)
Note the single story extension off the rear of the foundry.



Figure 13. Segment of a 1931 aerial photograph of Gananoque. (NAPL A3254-29)



Figure 14. Segment of a 1990 aerial photograph of Gananoque. (NAPL A27607-50)

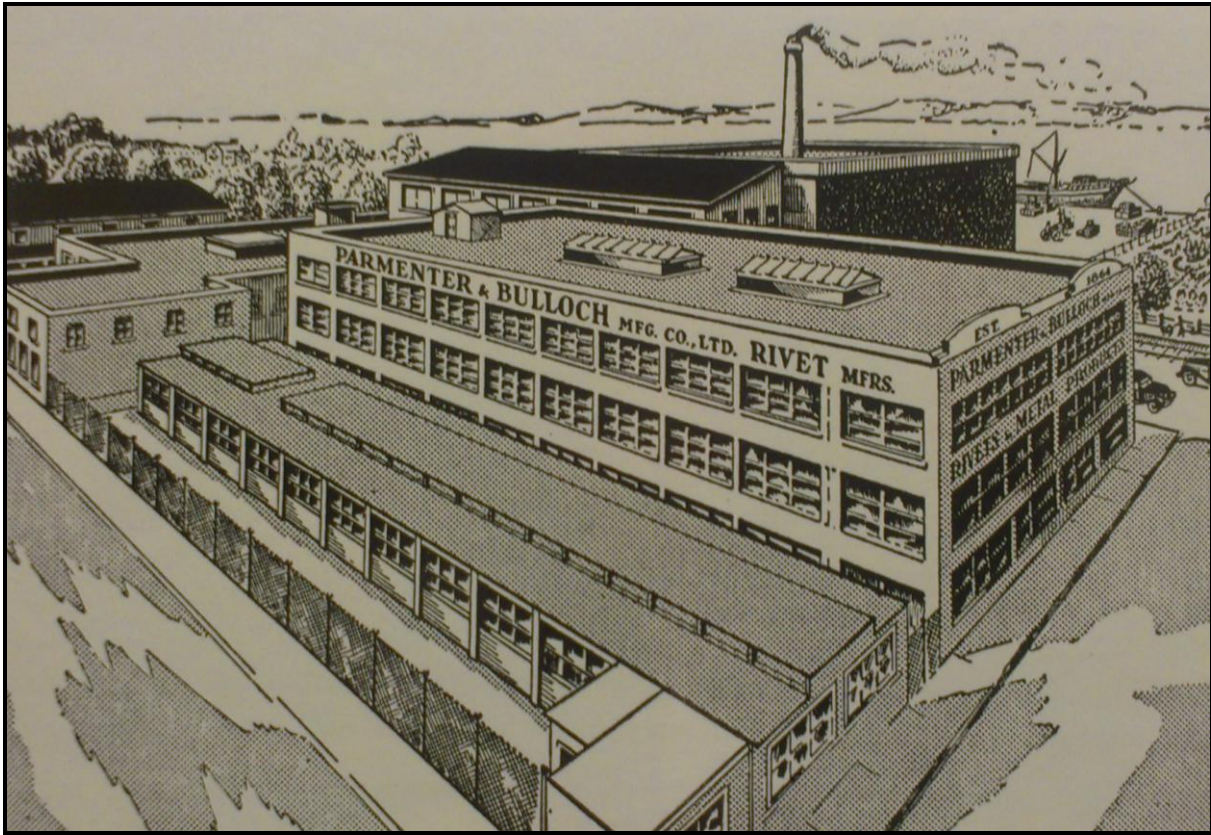


Figure 15. Illustration of 15 Clarence Street c. 1967. (Canadian Manufacturer's Association 1967)
Note the structure in the background of the illustration did not exist as drawn.



Figure 16. Photograph of the limestone structure at 185 Mill Street, facing southwest. (courtesy of Clarence Street Developments Inc.) Note the slope of the driveway on the north side of the structure and the rise in grade from the east side of the building to its west side.

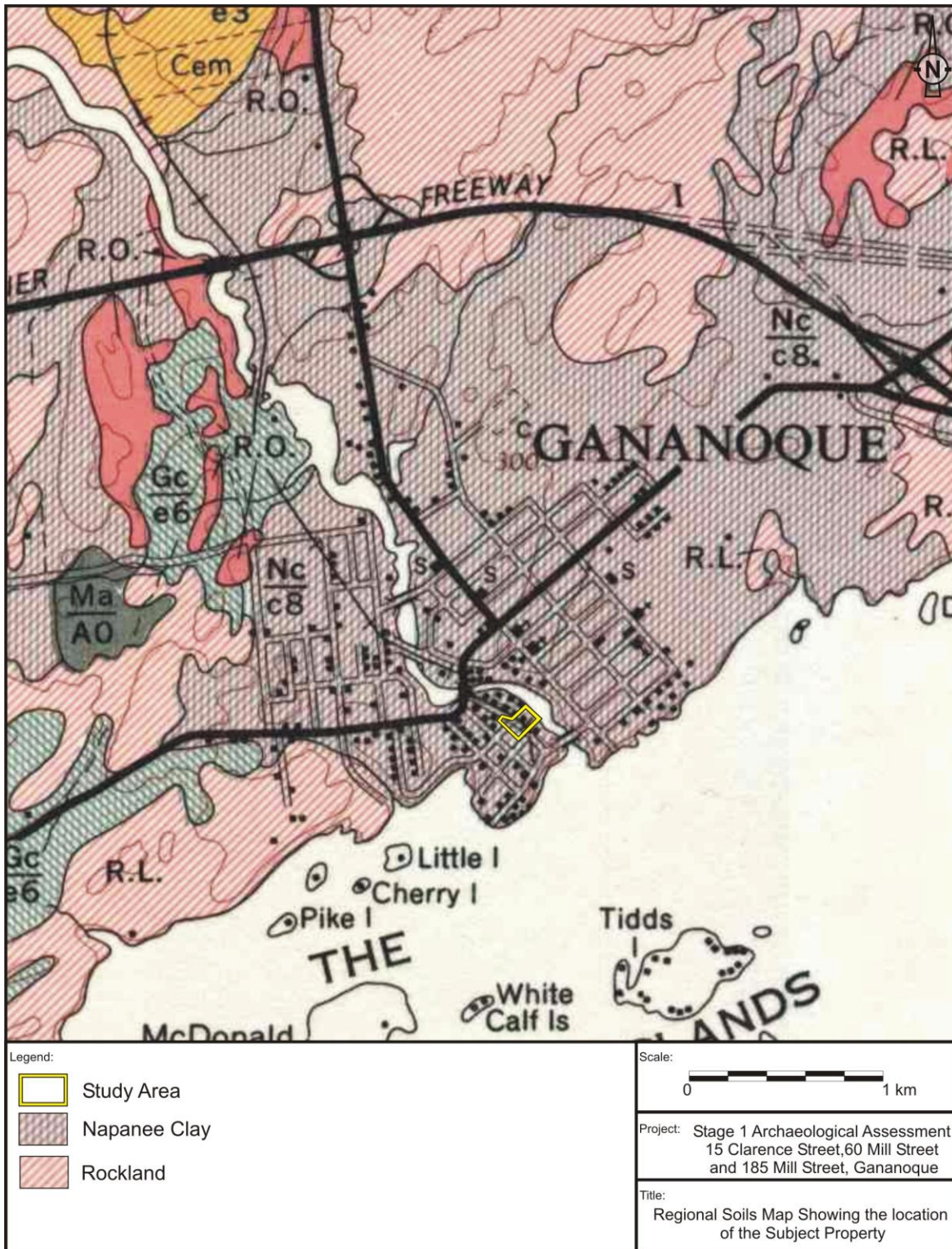


Figure 17. Portion of the soils map for Leeds County. (Gillespie et al. 1968)



Figure 18. Historic overlay showing the foot-prints of historic buildings within the study area. (base map 2008-2009 DRAPE satellite imagery)

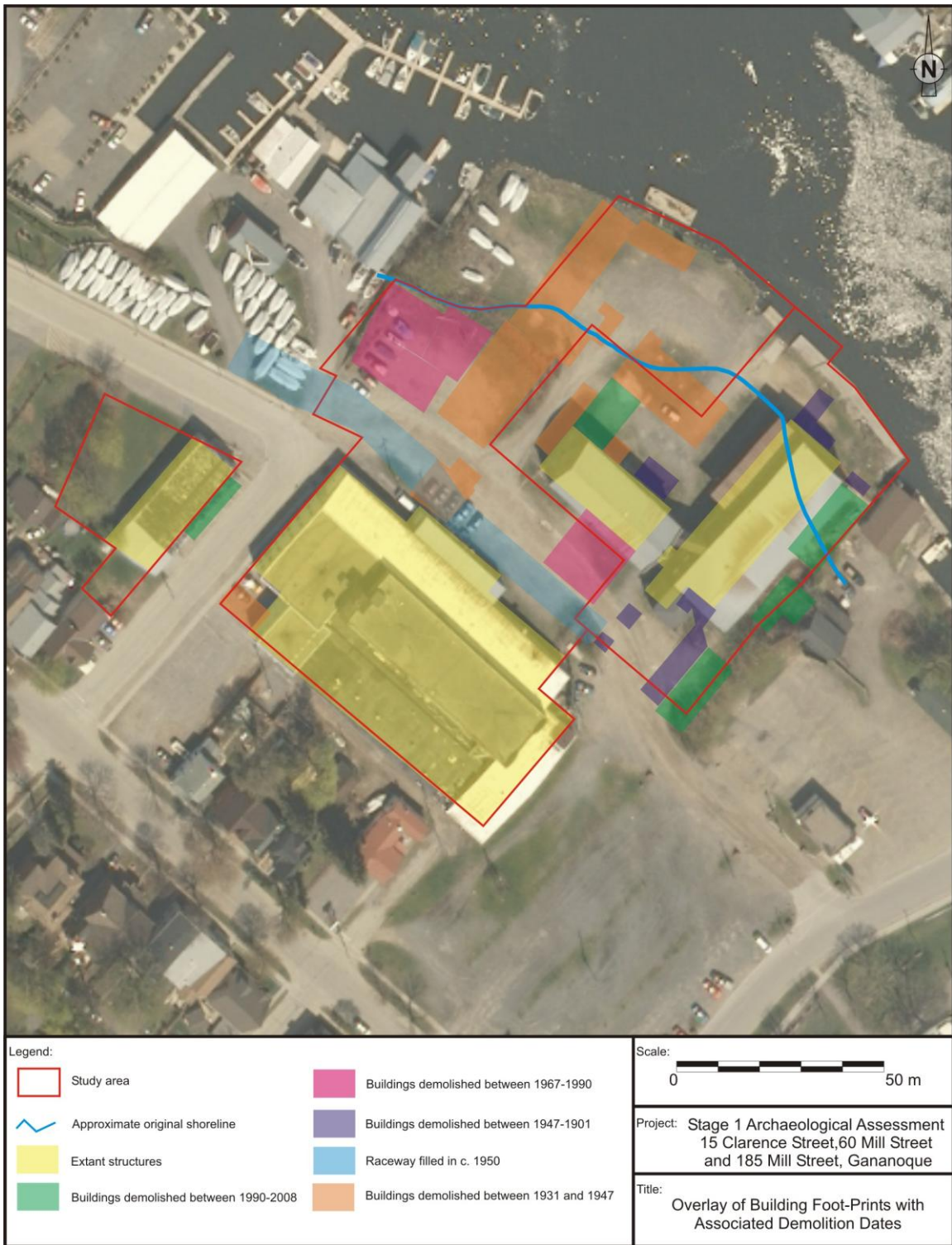


Figure 19. Historic overlay showing historic building foot-prints and approximate demolition dates. (base map 2008-2009 DRAPE satellite imagery)

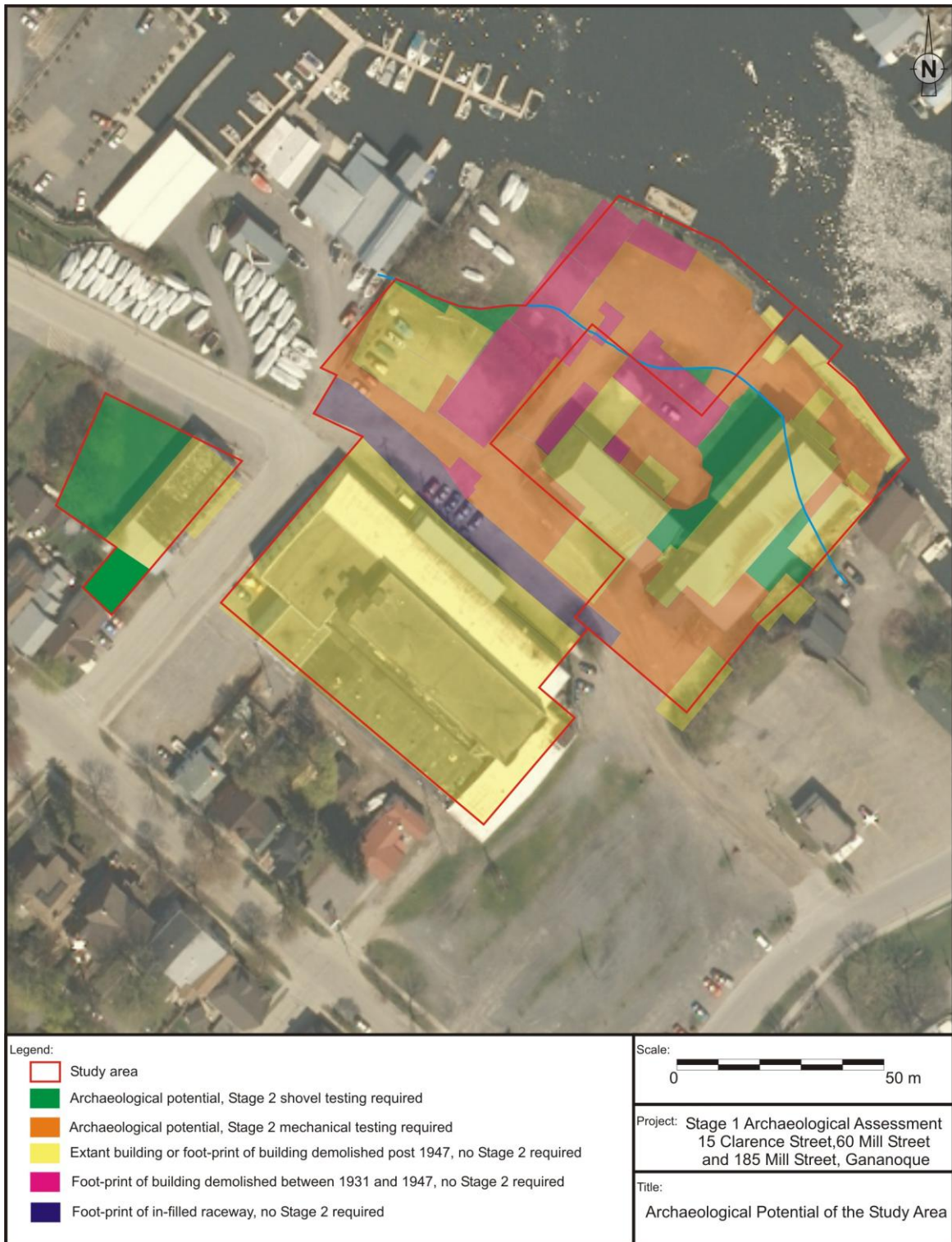


Figure 20. Map of archaeological potential for the study area. (base map 2008-2009 DRAPE satellite imagery)

APPENDIX 1: Early Archaeological Finds in Leeds Township

Several archaeological finds have been reported as having been collected in Leeds Township around the turn of the twentieth century. Records of these finds appear in the earliest provincially-funded archaeological reports, published as appendices to reports to the Minister of Education. A description of the recorded finds is provided below, with Catalogue numbers assigned at the 'Provincial Museum', now the Royal Ontario Museum.

- Slate knife (17115) found on the 'Britton' farm, near Gananoque. Collected by M. Doray. Donated by Freeman Britton, of Gananoque. (AARO 1898:10)
- Stone axe (17116) found on the 'Britton' farm. Collected by M. Doray. Donated by Freeman Britton, of Gananoque. (AARO 1898:10)
- 'Almost perfect' clay vessel (17118) found on the 'Britton' farm. Collected by M. Doray. Donated by Freeman Britton, of Gananoque. (AARO 1898:10, 44)
- Large black chert spearhead (26862) found near Gananoque. Collected/donated by David Boyle, of Toronto. (AARO 1905:9)
- Slate chisel (37309) found on Lot 22, Concession 1, in the geographic Township of Leeds. Collected/donated by Frank Eames, of Gananoque. (AARO 1917:117)
- Stone pipe (37312) found on east half of Lot 6, Concession 1, in the geographic Township of Leeds. Collected/donated by Frank Eames, of Gananoque. (AARO 1917:117)
- Limestone gouge (37528) found on the east half of Lot 6, Concession 1, in the geographic Township of Leeds. Collected/donated by Frank Eames, of Gananoque. (AARO 1918:113)
- A collection of artifacts found in the southern portion of the geographic Township of Leeds. Collected/donated by Frank Eames, of Gananoque, including stone axes (37506-37504), fragments of stone axes (37525-37527), gorgets (37528-37530), a grooved axe (37531), gouges (37532-37536), large grooved hammer stones (37537-37538), a piece of clay pot (37539), stone implements (37540-37541), a large round stone (37542), small round stones (37543-37545), an iron tomahawk (37546), a stem of a clay pipe (37548), a fragment of pottery (37549), a horn powder flask (37550), 24 chippings (37551), 53 chert chippings (37552), 28 fragments of pottery (37553), spear heads from Lot 6, Concession 1 (37554-37556), large leaf-shaped arrow or spear heads (37557-37558), arrow-heads from Lot 6, Concession 1 (37559-37576), arrow-heads (37577-37578), a spear-head from Oak Street in Gananoque (37579), part of a stone axe (37580), a slate spear head (37581), part of a gorget (37582), a drill from Lot 6, Concession 1 (37583), a clay pipe stem (37584), pieces of a human skull (37585-37586), parts of a human jaw bone (37587-37588), a pipe stem bound with quills (37591), a piece of limestone (37594), and a chert implement (37594 ½) (AARO 1918:128)
- A clay pipe (38170) found on Hay Island, in the south part of the geographic Township of Leeds. Collected/donated by Frank Eames, of Gananoque (AARO 1919:119)

APPENDIX 2: Glossary of Archaeological Terms

Archaeology:

The study of human past by excavation of cultural material.

Archaeological Sites:

The physical remains of any building, structure, cultural feature, object, human event or activity which, because of the passage of time, are on or below the surface of the land or water.

Archaic:

A term used by archaeologists to designate a distinctive cultural period dating between 8000 and 1000 B.C. in eastern North America. The period is divided into Early (8000 to 6000 B.C.), Middle (6000 to 2500 B.C.) and Late (2500 to 1000 B.C.). It is characterized by hunting, gathering and fishing.

Artifact:

An object manufactured, modified or used by humans.

B.P.:

Before Present. Often used for archaeological dates instead of B.C. or A.D. Present is taken to be 1951, the date from which radiocarbon assays are calculated.

Backdirt:

The soil excavated from an archaeological site. It is usually removed by shovel or trowel and then screened to ensure maximum recovery of artifacts.

Chert:

A type of silica rich stone often used for making chipped stone tools. A number of chert sources are known from southern Ontario. These sources include outcrops and nodules.

Contact Period:

The period of initial contact between Native and European populations. In Ontario, this generally corresponds to the seventeenth and eighteenth centuries depending on the specific area.

Cultural Resource / Heritage Resource:

Any resource (archaeological, historical, architectural, artifactual, archival) that pertains to the development of our cultural past.

Cultural Heritage Landscapes:

Cultural heritage landscapes are groups of features made by people. The arrangement of features illustrate noteworthy relationships between people and their surrounding environment. They can provide information necessary to preserve, interpret or reinforce the understanding of important

historical settings and changes to past patterns of land use. Cultural landscapes include neighbourhoods, townscapes and farmscapes.

Diagnostic:

An artifact, decorative technique or feature that is distinctive of a particular culture or time period.

Disturbed:

In an archaeological context, this term is used when the cultural deposit of a certain time period has been intruded upon by a later occupation.

Excavation:

The uncovering or extraction of cultural remains by digging.

Feature:

This term is used to designate modifications to the physical environment by human activity. Archaeological features include the remains of buildings or walls, storage pits, hearths, post moulds and artifact concentrations.

Flake:

A thin piece of stone (usually chert, chalcedony, etc.) detached during the manufacture of a chipped stone tool. A flake can also be modified into another artifact form such as a scraper.

Fluted:

A lanceolate shaped projectile point with a central channel extending from the base approximately one third of the way up the blade. One of the most diagnostic Palaeo-Indian artifacts.

Lithic:

Stone. Lithic artifacts would include projectile points, scrapers, ground stone adzes, gun flints, etc.

Lot:

The smallest provenience designation used to locate an artifact or feature.

Midden:

An archaeological term for a garbage dump.

Mitigation:

To reduce the severity of development impact on an archaeological or other heritage resource through preservation or excavation. The process for minimizing the adverse impacts of an undertaking on identified cultural heritage resources within an affected area of a development project.

Multicomponent:

An archaeological site which has seen repeated occupation over a period of time. Ideally, each occupation layer is separated by a sterile soil deposit that accumulated during a period when the site was not occupied. In other cases, later occupations will be directly on top of earlier ones or will even intrude upon them.

Operation:

The primary division of an archaeological site serving as part of the provenience system. The operation usually represents a culturally or geographically significant unit within the site area.

Palaeo-Indian:

The earliest human occupation of Ontario designated by archaeologists. The period dates between 9000 and 8000 B.C. and is characterized by small mobile groups of hunter-gatherers.

Profile:

The profile is the soil stratigraphy that shows up in the cross-section of an archaeological excavation. Profiles are important in understanding the relationship between different occupations of a site.

Projectile Point:

A point used to tip a projectile such as an arrow, spear or harpoon. Projectile points may be made of stone (either chipped or ground), bone, ivory, antler or metal.

Provenience:

Place of origin. In archaeology this refers to the location where an artifact or feature was found. This may be a general location or a very specific horizontal and vertical point.

Salvage:

To rescue an archaeological site or heritage resource from development impact through excavation or recording.

Stratigraphy:

The sequence of layers in an archaeological site. The stratigraphy usually includes natural soil deposits and cultural deposits.

Sub-operation:

A division of an operation unit in the provenience system.

Survey:

To examine the extent and nature of a potential site area. Survey may include surface examination of ploughed or eroded areas and sub-surface testing.

Test Pit:

A small pit, usually excavated by hand, used to determine the stratigraphy and presence of cultural material. Test pits are often used to survey a property and are usually spaced on a grid system.

Woodland:

The most recent major division in the pre-Contact sequence of Ontario. The Woodland period dates from 1000 B.C. to A.D. 1550. The period is characterized by the introduction of ceramics and the beginning of agriculture in southern Ontario. The period is further divided into Early (1000 B.C. to A.D. 0), Middle (A.D. 0 to A.D. 900) and Late (A.D. 900 to A.D.1550).