Stage 1 & Stage 2 Archaeological Assessment

1132 Fisher Avenue

Lot 84 and Part Lot 83 Registered Plan 294 being

Parts 1 and 2 Plan 4R-11067

Part of Lot L, Concession A Broken Front

Geographic Township of Nepean

City of Ottawa, Ontario

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Regulatory Process: *Planning Act*
Report Type*:* *Original Report*

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EXECUTIVE SUMMARY

Adams Heritage was retained by RND Construction to undertake a Stage 1 archaeological assessment of development lands located at civic address 1132 Fisher Avenue, Ottawa as part of the City of Ottawa's regulatory requirements under the *Planning Act*. The property is located on part of Lot L, Concession A Broken Front of the geographic Township of Nepean, now within the City of Ottawa (see Maps 1 to 4).

Stage 1 Investigation

Archaeological investigations of the proposed development area consisted of a property inspection and research into the archaeological, environmental and historical background of the area. The study area is located north of the Central Experimental Farm and is currently part of land owned by the Turnbull School, amounting to approximately 0.27 hectares (0.66 acres).

No registered archaeological sites are present within study area. The potential for pre-Contact First Nations archaeological sites was identified as moderate. The property contains a small unnamed stream, thus in conformity with the Ontario Ministry of Tourism, Culture and Sport's "*Standards and Guidelines for Consultant Archaeologists"* (Section 1.4.1c) archaeological potential is identified.

The potential for sites relating to the historic period (First Nations and Euro-Canadian) is low. However, despite the land appearing to have been isolated from Historic Euro-Canadian settlement and transportation routes, the study area's close proximity to the Central Experimental Farm (National Historic Site and Cultural Landscape) raises the importance and archaeological potential of the property.

Stage 1 Recommendations:

1) All portions of the study area determined to have archaeological potential (see Map 12) should be subject to a Stage 2 archaeological assessment prior to any proposed development that would result in below-grade disturbance.

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). As it is not feasible to plough and undertake a pedestrian survey on the subject property, the preferred methodology for the Stage 2 assessment would be a shovel test pit survey conducted in accordance with Section 2.1 of the *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011).

The reader is also referred to the requirements set out in "Advice on Compliance with Legislation" (below) as it may relate to this project.

Stage 2 Investigations

Following review of the Stage 1 report draft, the client authorized Stage 2 testing as per the recommendations. Stage 2 testing was conducted in accordance with *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011), through means of a shovel test pit survey at 5 metre intervals by an experienced team of archaeological technicians. No evidence of archaeological sites was identified and no artifacts were recovered.

Stage 2 Recommendations

1) No further archaeological assessment for the study area as presently defined in Map 3 is required. As a result, clearance of the archaeological condition placed on the study area should be granted.

The reader is also referred to the requirements set out in "Advice on Compliance with Legislation" (below) as it may relate to this project.

Advice on Compliance with Legislation

1. Advice on compliance with legislation is not part of the archaeological record. However, for the benefit of the proponent and approval authority in the land use planning and development process, the report must include the following standard statements:

a. This report is submitted to the Minister of Tourism and Culture 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 and Culture, 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.

b. 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.

c. 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.

d. 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.

2. Reports recommending further archaeological fieldwork or protection for one or more archaeological sites must include the following standard statement: *"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.*

1.0 PROJECT PERSONEL

Project Archaeologist:	Nick Adams (Lic. P003)
Historical Research:	Jessalyn Miller (Lic. R1111)
Drafting:	Jessalyn Miller
Report Writing:	Jessalyn Miller
Property Inspection:	Jessalyn Miller (April 14th 2017)
Stage 2 Field Director:	Jessalyn Miller (April 30th, 2017)
Stage 2 Field Technicians:	Alexander Tabot-Cadue, Samuel Adams
Report Review and Additions:	Nick Adams

AKNOWLEDGMENTS

Mr. Roy Nandram, RND Construction and Debbie Belfie, D.G.Belfie Planning and Development Consulting Ltd., provided overall project direction, a preliminary plan of the study area and property access permission.

Past Recovery Archaeological Services Inc., provided assistance during report preparation and the use of work space.

2.0 DEVELOPMENT CONTEXT

In April 2017 Adams Heritage undertook a Stage 1 and 2 archaeological assessment of a proposed housing development on part Lot L, Concession A Broken Front, City of Ottawa (Geographic Township of Nepean). Specifically, the property consists of approximately 0.27 hectares (0.66 acres) of park land, currently within the property owned by the Turnbull School and north of the Central Experimental Farm. The study area is to be severed from the school property and used for detached and semi-detached residential homes.

The study area is roughly rectangular and is bounded in the north by Kingston Avenue, the east by the Turnbull schoolyard, the south by Experimental Farm Pathway and the west by a private residence (Maps 1 to 4). The property has a ditch and small seasonal stream running through the east side with a small bridge spanning it. The remainder of the study area consists of manicured lawns with trees and a chain-link fence along its boundaries. The location and boundaries of the study area were provided by the proponent (see Map 4). This plan was used by Adams Heritage staff to determine the limits of the area of investigation in the field, using visible property boundaries and extant infrastructure as reference points.

An archaeological assessment is a requirement of the zoning application mandated by the City of Ottawa and the proponent retained the services of Adams Heritage to complete a Stage 1 archaeological assessment. After the initial Stage 1 study, the client authorized Stage 2 testing after reviewing the Stage 1 draft report and recommendations.

The Archaeological Resource Potential Mapping Study of the Regional Municipality of Ottawa-Carleton: Technical Report (Archaeological Services Inc. & Geomatics International Inc. 1999b), hereafter referred to as the *Archaeological Master Plan*, identifies areas of archaeological potential within the now amalgamated City of Ottawa and sets out guidelines for required testing. According to the *Master Plan*, the study area is located within, or directly north of an area of composite archaeological potential.

Permission to access the study area and complete all aspects of the archaeological assessment activities, including testing and photography, was granted by the proponent.

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.

Historical research was undertaken at Library and Archives Canada (LAC), Archives Ontario, aerial photography downloaded through the City of Ottawa GeoOttawa website and various secondary sources.

3.1.1 Previous Historical Research

A considerable amount of research has been conducted on the historic Township of Nepean. An early account can be found in Belden's *Illustrated Historical Atlas of Carleton County* (1879). Bruce Elliott gives a detailed description of Nepean's early history in *The City Beyond: A History of Nepean, Birthplace of Canada's Capital* (1991). Research has been undertaken by Sarah B. Craig in *Hello Nepean* (1974), whilst two histories of the greater Ottawa area containing sections on Nepean were published in 1968: *The Carleton Saga* by Harry and Olive Walker and *The Ottawa Country* by Courtney Bond (1968).

3.1.2 Regional Pre-Contact Cultural Overview

It should be noted that our understanding of the pre-Contact sequence of human activity in the area is very incomplete, stemming from a lack of systematic archaeological surveys in the region, as well as from the destruction of archaeological sites caused by development prior to legislated requirements for archaeological assessments to be completed. It is possible, however, to provide a general outline of pre-Contact occupation in the region based on archaeological, historical and environmental research conducted in eastern Ontario.

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 (Ellis and Deller 1990:39). These groups gradually moved northward as the glacial ice of the last Ice Age retreated and the water levels of the meltwater-fed glacial lakes decreased. 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 in a sub-arctic environment. They produced a variety of distinctive stone tools including fluted projectile points, scrapers, burins and gravers. Most archaeological evidence for the Palaeo-Indian period has been found in southwestern 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).

The Ottawa Valley remained very much on the fringe of the portions of the province occupied by Palaeo-Indian colonizers. The ridges and old shorelines of the Champlain Sea and the early Ottawa River channels would be the most likely areas to find evidence of Palaeo-Indian occupation of this area, should it exist. In recent years, Ken Swayze has found what he believes to be Palaeo-Indian material in several locations in the City of Ottawa, including near Greenbank Road (Kinickinick Heritage Consultants 2003a) and near the intersection of Albion Road and Rideau Road (Kinickinick Heritage Consultants 2004). It should be noted, however, that the validity of these sites is not currently widely accepted in the archaeological community and that additional supporting evidence of these locations as sites of Late Palaeo-Indian and/or Early Archaic occupations would be required to substantiate this interpretation.

During the succeeding Archaic period (c.7000 to 1000 B.C.), the environment of southern Ontario approached modern conditions and more land became available for occupation as water levels in the glacial lakes dropped (Ellis, Kenyon, and Spence 1990:69). 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. By this time, 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.

More extensive First Nations settlement of eastern Ontario began during the Archaic period, sometime between 5,500 and 4,500 B.C. (Kennedy 1970:61; Ellis, Kenyon and Spence 1990:93). 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).

Archaic sites have been located at Leamy Lake Park in Gatineau (Laliberté 2000; Laliberté *et al*. 1998) and on Allumette and Morrison Islands on the Ottawa River near Pembroke (Clermont, Chapdelaine and Cinq-Mars, eds. 2003). Over 1000 copper artifacts and other exotic materials were recovered from the Allumette Island-1 Site (Kennedy 1966). Burial features excavated on the Allumette Island-1 and Morrison Island-6 sites, dating to the Middle Archaic period, are some of the earliest recorded human burials found in eastern Ontario (Kennedy 1962, 1964, 1965, 1966). Late Archaic sites have also been identified to the west in the Rideau Lakes, and at Jessups Falls and in the Pendleton area along the South Nation River to the east (Watson 1982; Daechsel 1980). A few poorly documented finds of Archaic artifacts have been made within Gloucester Township (Jamieson 1989) and sites at Honey Gables and at the Albion Road and

Rideau Road intersection may contain Early Archaic material (Kinickinick Heritage Consultants 2004, 2003b).

The introduction of ceramics to Ontario marked the beginning of the Woodland period (c.1000 B.C. to A.D. 1550). Local populations continued to participate in extensive trade networks that, at their zenith at circa 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. The Middle Woodland tradition found in eastern and south central Ontario has become known as 'Point Peninsula' (Spence, Pihl and Murphy 1990:157). Investigations of sites with occupations dating to this time period have 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 (circa 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 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, although the Ottawa area has yet to yield as many sites as other parts of southeastern Ontario. Significant Middle Woodland components have been found at the Leamy Lake sites (Laliberté 2000) and at a recently discovered site in Vincent Massey Park (which also contains Late Archaic material) (Jacquie Fisher, personal communication 2011). Fragments of an early ceramic vessel were recovered from the Deep River Site (CaGi-1) on the Quebec side of the Ottawa River across from Chalk River (Mitchell 1963). The Meath Sites (BkGg-1 to -10), located on Mud Lake in the Muskrat River Basin south of Pembroke, have yielded a range of occupations from the Archaic through to the Middle Woodland (Robertson and Croft 1971, 1973, 1974, 1975; Croft 1986). The Wilbur Lake sites on the Bonnechere River near Eganville are centered around the Kant Site (BjGg-1), which is primarily related to aspects of the Middle Woodland cultural period, although the sites also contain elements spanning the Late Archaic to Late Woodland periods (Mitchell 1987, 1988, 1989, 1990, 1991; Pendergast 1957). Middle Woodland sites have been noted in the South Nation Drainage Basin and along the Ottawa River including the northwest part of Ottawa at Marshall's and Sawdust Bays (Daechsel 1980, 1981). Late Woodland sites have been recorded throughout the Ottawa Valley.

Three distinct tribal groups are known to have 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, however, 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, a number of 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 (Wright 1966:70-71; Sutton 1990:54). These 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

Samuel de Champlain is credited as being the first European to document his explorations of the Ottawa Valley, initially in 1613 and again in 1615. He was preceded, however, by two of his emissaries, Etienne Brule around 1610 and Nicholas de Vignau in 1611. It is likely that all three travelled at least the lower reaches of the Rideau River. In the wake of Champlain's travels, the Ottawa River became the principal route for explorers, missionaries and fur traders travelling from the St. Lawrence to the interior, and throughout the seventeenth and eighteenth centuries this route remained an important link in the French fur trade.

At the time of initial contact, the French documented three Algonquin groups residing in the vicinity of the study area (Heidenreich & Wright 1987: Plate 18). These included the Matouweskarini along the Madawaska River to the west, the Onontchataronon in the Gananoque River basin to the southwest, and the Weskarini, the largest of the three, situated in the Petite Nation River basin north of the study area. While prolonged occupation of the region may have been avoided as a result of hostilities with Iroquoian speaking populations to the south, at least the northern reaches of the South Nation River basin were undoubtedly used as hunting territories by the Algonquin at this time. The recovery of European trade goods (i.e. iron axes, copper kettle pieces and glass beads) from native sites throughout the Ottawa River drainage basin has provided evidence of the extent of contact between natives and the fur traders during this period. The English, upon assuming possession of New France, continued to use the Ottawa River as an important transportation corridor.

Settlement in the Ottawa area was not actively encouraged by the colonial government until the late eighteenth century. Two years after the 1791 division of the Province of Quebec into Upper and Lower Canada, John Stegmann, the Deputy Surveyor for the Province of Upper Canada, undertook an initial survey of four townships (Nepean, North Gower, Osgoode and Gloucester) straddling the Rideau River near its junction with the Ottawa River. At this same time, John Graves Simcoe, Lieutenant Governor of the Province of Upper Canada issued a proclamation aimed at attracting new settlers to the region. United Empire Loyalists and other immigrants

began to move to lands along the Ottawa and Rideau Rivers in the early nineteenth century. What was to become the centre of modern Ottawa evolved around the street plan surveyed by Stegmann on the Ottawa River front of Nepean Township (Bond 1984:23-24).

Commonly acknowledged as the first permanent European resident in the area, Philemon Wright settled in Hull Township with five families and 33 men in 1800 (Bond 1984:24). The community along the north shore of the Ottawa River grew over the next few years and by 1805 Wright had begun significant lumbering activity in the region. It would take several more years for permanent settlement to spread to the south side of the Ottawa River.

Nepean Township

Land registry records indicate that the Crown patents for some of the lots in Nepean Township were issued as early as 1802, but these were generally to United Empire Loyalists or land speculators who never resided on the properties. Among the latter were members of the Fraser family who acquired approximately 40 lots in Nepean Township and Rice Honeywell who purchased 300 acres in 1804 and had added another 800 acres by 1810.

It was Rice Honeywell's son, Ira, who would become the first permanent settler in the township. Ira purchased Lot 26, Concession I OF in 1809, cleared four acres of land and erected a log cabin in the winter of that year before returning to his family in Marlborough Township. In February 1811 the family moved to the Nepean Township property, reportedly traveling up the Rideau River and then following a rough trail brushed out by Ira from the west bank of the river at Lot 28, Concession A RF to the homestead on the shore of the Ottawa River. This was probably the first road in the township and may have followed an earlier Native trail (Elliott 1991:9 & 19). The Honeywells remained the only settlers in the township until 1814. In 1815 a second road was cut from the Ottawa River shore at the Chaudière to the Rideau River shore near Dow's swamp to connect with a road along the east bank of the river south to Black Rapids where it re-crossed to the west side and continued south to Merrickville. The third early road in Nepean Township was the famous Richmond Road constructed in 1818 from Richmond Landing on the south shore of the Ottawa River near the Chaudière to the Richmond military depot (Elliott 1991:19).

Nepean Township was resurveyed by John McNaughton in 1820 by which time most of the lots had been granted but actual settlement remained sparse. The construction of the Rideau Canal (1826-1832) accelerated settlement in the region. In 1828 Braddish Billings initiated the construction of a bridge across the Rideau River to facilitate travel along the old 1815 road from the Chaudière which, up until then, had required ferry crossings. By 1833, a new road had been cut south-westward from the Richmond Road to Chapman's Mills on the Jock River and then east to the Rideau River. Several of the formal concession roads were also being established by this date (Elliott 1991:21).

In 1855, Bytown was incorporated as the City of Ottawa and three years later it was selected as the capital of Canada. This led to the development of government infrastructure such as the Parliament Buildings and Government House and further growth in both Upper and Lower Towns as civil servants moved to the city.

The Walling map of 1863 clearly indicates that settlement in Nepean Township was focussed on the Ottawa and Rideau River frontages and the early forced roads including the Richmond Road where the village of Bell's Corners had been established and the Jockvale Road leading to Chapman's Mills. Interior portions of the township lacking roads remained sparsely settled.

In the summer of 1870 a series of intense fires swept through much of the Ottawa Valley. These fires devastated much of Nepean Township, including the village of Bell's Corners, with many farms, homesteads and livestock destroyed and much marginal farmland rendered unusable (Elliott 1991:141-142; Walker and Walker 1968:225-236).

Belden's *Illustrated Historical Atlas of the County of Carleton* shows that the pattern of rural development continued throughout much of Nepean Township over the decade and a half since the Walling survey. By this date all of the lots in the township had been settled and most of the concession roads established. The village of Merivale had developed to the south of the study area between Concessions 1 and A of the Rideau Front at the terminus of the Ottawa, Nepean and North Gower Macadamized Road. The north-eastern part of the township was becoming increasingly urbanized as the City of Ottawa expanded and several new subdivisions had been established in the first concession of the Ottawa Front.

The Central Experimental Farm was established in 1886, which was to serve as the central research station for the federal Department of Agriculture. Professor William Saunders, the first director of the farm, selected properties in Nepean Township stretching west from Dow's Lake. Initially, the federal government acquired a total of 15 properties covering 188 hectares (465 acres) although additional land purchases through the late nineteenth and twentieth centuries would add significantly to the farm's holdings. Between 1886 and 1889 the site was laid out, several buildings were erected, and the Arboretum and forest belts planted (Elliott 1991:170; Harris 2009:22).

By the mid-twentieth century, portions of Nepean Township, particularly north of Baseline Road, were becoming increasingly urbanized as the City of Ottawa spread further to the west. Between 1950 and 1980, most of the agricultural lands south of Baseline Road were developed as subdivisions.

3.1.4 Property History

The Crown grant for both Lot L and M, Concession A BF was awarded to the Honourable John D. Strachan and others in trust (Map 5). Strachan was recruited from Scotland by Kingston merchants Stuart and Richard Cartwright to act as a tutor for their children. He arrived in Kingston in 1799 hoping to set up a school or academy. When his plan did not work out, Strachan offered himself for ordination to become the bishop of Quebec. He was made deacon in 1803 and appointed to Cornwall. Not long after, Strachan arrived in Augusta Township where he founded the Trinity parish, set up a school and became the first clergyman to serve in the Diocese of Ottawa. In 1812 Strachan was appointed to the parish of York (Toronto), and in the years following was appointed to the Executive Council of Upper Canada, made a member of the Legislative Council, appointed archdeacon of York and became the first bishop of Toronto (Peake 1997:2). It is evident from the location of Strachan's appointments in Upper Canada that he did not occupy Lot L despite it being in his ownership.

By 1839, Merivale Road had been constructed as far south as Baseline Road, cutting diagonally across Concession A BF and providing access to Lot L. The 1863 Walling map of Nepean Township lists the owner of the east half of Lot L as Duncan Sinclair (Map 6). Sinclair's residence appears to have been located on the north half of the eastern half of the lot along Merivale Road, with a Temperance Hall located on the south side. Duncan Sinclair does not appear on the 1842 and 1851 census records but does on the 1861 census, indicating that he likely arrived on the lot sometime between 1851 and 1861.

Duncan Sinclair was born on a ship crossing the Atlantic Ocean from Scotland in 1817 as his family was headed to Canada. He spent most of his childhood in Quebec and moved to the Ottawa area in 1858 (Goldsborough 2016). Duncan was a provincial land surveyor for Upper and Lower Canada, who surveyed the outline of Nipissing Township in 1855, the "Plan of a Range of Townships South of Nipissing and Mattawa" in 1857-58 (Sebert 1983:4-5) and the survey of the 205-mile long River Rouge in 1865 (Department of Crown Lands 1866). Duncan, his wife Maria and their six children (James, Catherine, John, Mary, Alexander and George) lived on the property in a one and a half storey stone house. When not surveying, Duncan also worked as a farmer on the lot, with 73 acres of his total 140 under cultivation as fields, pasture and orchards. The family produced wheat, peas, oats, corn, potatoes, turnip and hay as well as raised ten cattle, five horses and six pigs (LAC C-1012; C-1013). The Sinclair farm was valued in the top ten percent of all the farms in Nepean Township in 1861, appraised at $6000 (Elliot 1991:45). In 1870, Sinclair moved to Winnipeg where he continued to work as a land surveyor for another 12 years, helping to lay out much of the city (Goldsborough 2016).

In 1870, Thomas Shillington appears in the *City of Ottawa Directory* as owner of Lot L, Concession A BF (Irwin 1870:279). On the partial destroyed 1871 Census for Nepean Township, Shillington is listed as a farmer of Ontario birth and Irish origin. Of his total 127 acres, Thomas had 97 improved and produced wheat, oats, potatoes, hay, grapes, apples and other fruits and raised two horses, five milk cows, three sheep, two pigs and three bee hives (LAC C-10015). Thomas married Elizabeth and together they had at least eight children: John, Robert, William, Richard, Margaret, June, Anney and Alfred (LAC C-13229; T-6330). Thomas Shillington was a prominent member of the township. The farm played a role in the large-scale milk production of the Ottawa region and Thomas served on the Nepean Township Council for nine years (Image 1; Elliot 1991:78).

On the 1879 Belden Map of Nepean Township, the Shillington farm appears in the same location as the Sinclair residence along Merivale Road (Map 7). A twenty-acre lot located along the eastern portion of Lot L, and occupied by T. Kennedy, was likely subdivided by Sinclair when he sold the property in c. 1870. Further information on Kennedy could not be found as he is not identified on any census records or cities directories. It is possible that Kennedy was an absent occupant of the lot, as there are no structures indicated on the property in the 1879 mapping and access to the lot would have been difficult before Fisher Avenue was opened in 1887 (Elliot 1991:41).

Thomas Shillington held onto the property until the early twentieth century when he subdivided and sold much of it as small lots, with the remainder of the property becoming part of the Central Experimental Farm (Elliot 1991:73). The 1906 topographic map for the Ottawa area depicts a small unnamed stream running from the corner of Fisher Avenue and Baseline Road, through the

study area and northwards to the Ottawa River (Map 8). The land appears cleared, likely used as fields or pasture and there are several frame and brick structures along Merivale Road and Fisher Avenue.

A 1928 aerial photograph depicts the study area as a field, with the same stream shown on the 1906 topographic map running through the property (Image 2). By this time, however, the stream appears to have been channelized as its path is less meandering than it appeared earlier. Structures appear to the north of the property and a narrow road or laneway runs directly to the east. A 1958 aerial photograph depicts the construction of suburban residences on the land to the west and north of the study area (Image 3). The east and south remain as fields, likely as part of the Central Experimental Farm. The steam appears even more channelized and seems to have been incorporated into the water management system once it passes though the residential area to the north of the property. By the time the 1965 aerial image was taken, the residential neighbourhood seems to have been established to the north and west of the study area (Image 4). The property looks as though it has continued to have been used as a field or possibly left as greenspace. The stream flows through the fields and under Kingston Avenue where it does not reappear. It is likely that the stream was used as an open drainage ditch for the Experimental Farm fields at this point.

3.2 Archaeological Context

3.2.1 Previous Archaeological Research

A considerable amount of archaeological work has been undertaken in the historic Township of Nepean. By the mid 1800s, antiquarians such as Dr. Edward Van Cortland of Ottawa were collecting and documenting finds of pre-Contact artifacts. One of the earliest archaeological publications described an ossuary identified in 1843 near the intersection of Wellington and Bay Streets in downtown Ottawa (Van Cortland 1852/3). The Ottawa Literary and Scientific Society was formed at this time, focussing at least part of its efforts on gaining an understanding of the region's past (Jamieson, Pilon and Watson 1997). By the early 1900s, W.J. Wintemberg of the Geologic Survey of Canada, later the Archaeological Survey of Canada, had taken up the task (Wintemberg 1929). At around the same time T.W.E. Sowter and Henri-Marc Ami were actively researching the history of the Ottawa area, undertaking archaeological excavations and publishing their discoveries as members of the Ottawa Field Naturalists Club. Their research projects included studies of Native sites around Lac Deschênes (Sowter 1985, 1900, 1909, 1918). These efforts were continued in the 1940s by Douglas Leechman and later by J.F. Pendergast's work, Clyde Kennedy's survey and excavation in Marshall's Bay (Kennedy 1977; Daechsel 1981) and Gordon Watson's study of a cluster of pre-Contact sites at Constance Bay (Watson 1972, 1975).

Most of the recent archaeological work in Nepean Township has been undertaken through cultural resource management studies with many Stage 1 through 4 assessments having been completed over the past 25 years. Studies located in close proximately to the study area include a Stage 1 archaeological assessment of the Carlington Heights pumping station and watermain located on part of Lot L, Concession A BF, where no further assessment was recommended as a

result of previous deep and extensive disturbance (Stantec 2016). Archaeological monitoring was also conducted on Lot K, Concession B BF at the site of the proposed Canada Agriculture Museum's events pavilion at the Central Experimental Farm. No archaeological material with cultural heritage value or interest was discovered during monitoring activities (Past Recovery 2009). A Stage 1 and 2 assessment was conducted on the Shelterbelt Pathway located on part of Lot N, Concession A BF, in the southwestern corner of the Central Experimental Farm. The assessment discovered one Euro-Canadian farmstead (BiFw-81), discussed further below (Stantec 2009).

3.2.2 Registered Archaeological Sites

Information from the Ministry of Tourism, Culture and Sport's Archaeological Sites Database on registered sites within two kilometres of the study area provided the following: No registered archaeological sites are present within the study area. Two registered archaeological sites are present within two kilometres of the study area.

The nearest registered archaeological site is the Old Scott Farm site (BiFw-81), located approximately 1.2 kilometres southwest of the study area. Found during a Stage 2 assessment of the proposed Shelterbelt Pathway on the Central Experimental Farm, the site consists of a 15 by 15 metre area of positive test pits recovering 30 Euro-Canadian artifacts. The site was determined to be from a nineteenth century farmstead, however, it is unclear if it held further cultural heritage interest or value or was recommended for further assessment.

Located approximately 2.3 kilometres to the northeast of the study area is the Shea Site (BiFw-98). The site was located after a Stage 2 assessment of a section of the North-South light rail transit corridor near Dow's Lake on land owned by the Central Experimental Farm. 19 historic artifacts dated between 1840 and 1860 were recovered and further archaeological assessment was recommended.

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 the 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;
- Canada's Historic Places website;
- Ontario Heritage Properties Database;
- Ministry of Tourism, Culture and Sport's List of Heritage Conservation Districts;
- Ontario Heritage Trust website

The Central Experimental Farm is a designated National Historic Site located directly south of the study area. The farm was established in 1886 to serve as a central research station for

the Experimental Farms Branch of the federal Department of Agriculture. Divided into three general areas; the main farm complex, experimental fields and the Arboretum, the farm originally covered 188 hectares (465 acres). Five key features of the historical and cultural significance of the property were recognized when the farm was designated in 1998, those being:

- *Its distinctiveness as a cultural landscape*
- *The fact that the more than 400-hectare farm in the heart of the Nation's Capital reflects the 19th century philosophy of agriculture and carefully integrates an administrative core and a range of other buildings with Arboretum, Ornamental Gardens, display beds and experimental fields in a picturesque composition*
- *The fact that since its establishment in 1886, the Central Experimental Farm has made significant scientific contributions to agriculture in Canada by uniting scientific experimentation with practical verification, as exemplified by the development of the hardy strains of wheat that were so influential in expanding Western Canadian agriculture*
- *The fact that it is a rare example of a farm within a city*
- *The fact that it has become a symbol of the central role agriculture has played in shaping the country.*

The Central Experimental Farm National Historic Site Management Plan
(Smith et al. 2004)

3.2.4 Topography and Environment

Ottawa lies near the boundary of two physiographic regions: the Russell and Prescott Sand Plains and the Ottawa Valley Clay Plains (Chapman and Putnam 1984:209). The clay plains are characterized by a flat, poorly drained topography while the sand plains offer moderately better drainage. Soils within the study area consist of Rideau Clay, Sand-spot Phase which area heavy clay soils overlaid in places by shallow patches of sand (Map 9). Drainage is poor to moderate even in the sandy patches, with the topography gently undulating (Hills et al. 1944:54-55). Surficial Geology mapping of the area shows the subject property as being situated over a deposit of Offshore Champlain Sea material consisting of clay and silt (Map 10; OGS 1982).

The study area is within the Upper St. Lawrence sub-region of the Great Lakes-St. Lawrence Forest Region. The deciduous trees characterizing this sub-region include sugar maple, beech, red maple, yellow birch, basswood, white ash, large tooth aspen, red and burr oak, while eastern hemlock, eastern white pine, white spruce and balsam fir are among the coniferous species (Rowe 1977:94). Most of the study area was cleared of its original forest cover during the nineteenth century through both lumbering and agricultural activities.

Early topographic maps and aerial photographs depict a small creek or stream which ran through the study area and into the Ottawa River (see Map 8 and Images 2 to 4). The stream appears to have been increasingly channelized through time and currently appears to be utilized as a drainage ditch. The Natural and Open Space Study (NOSS) conducted on the Central

Experimental Farm fields has given the stream or "Ditch" a Moderate Watercourse Value (Smith et al. 2004). The Rideau River is located approximately 1.8 kilometres to the east of the study area and the Ottawa River is located 3.8 kilometres to the north.

3.2.5 Property Inspection

A site visit was conducted on April 14, 2017 in order to gain first-hand knowledge of the current conditions of the study area. The weather consisted of clear skies and there was no snow cover, allowing for good visibility of the ground surface. The property consists mainly of manicured lawn bordered by a black chain link fence on the north, south and west sides as well as trees and shrubs along the west and south (Images 5 to 7). As the property is currently owned by the Turnbull School, the east side of the study area is open to the rest of the school yard (Image 8). The seasonal stream appears as a drainage ditch, with culverts located under the Experimental Farm Pathway, Kingston Avenue and the school yard (Images 9 to 11). A landscaped 'bridge' is located over the ditch and has a culvert running underneath (Images 9 and 12). The bridge is composed of gravel fill and has large limestone boulders placed on its north and south sides. A few days prior to the property inspection, a geotechnical investigation was conducted on the study area. The investigations consisted of four rectangular pits (roughly one metre by three metres in size) throughout the property (Images 13 and 14). The pits appeared to have excavated through top soil and subsoil but their total depth could not be determined as they had been backfilled. As a result of the pit excavations, the soils could be determined to be composed of a shallow brown clay topsoil over a grey heavy clay subsoil.

The complete photographic catalogue from the site inspection is included as Appendix 1. The locations and orientations of all photographs taken during the inspection and used in this report are shown in Map 11. As per the *Terms and Conditions for Archaeological Licences* in Ontario, curation of all field notes, photographs, and maps generated during the Stage 1 archaeological assessment is being provided by Adams Heritage pending the identification of a suitable repository. An inventory of the records generated during the assessment is provided below in **Table 1**.

Table 1. Inventory of the Stage 1 Documentary Record.

Type of Document	Description	Number of Records	Location
Photographs	Digital photographs documenting the study area and conditions at the time of the property inspection	32 photographs	On Adams Heritage computer network
Field Map	Printed ortho-imagery of the subject property	1 page	Adams Heritage office
Field Notes	Notes taken during the property survey	1 page	Adams Heritage office

3.3 Analysis and Conclusions

3.3.1 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 or stream, areas of elevated topography including features such as ridges, knolls and eskers, and the types of soils found within the area being assessed. For post-Contact 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) specify factors to be considered when evaluating archaeological potential. Licensed consultant archaeologists are required to incorporate these factors into potential determinations and account for all features on the property that can indicate archaeological potential. If this evaluation indicates that any part of the subject property exhibits potential for archaeological resources, the completion of a Stage 2 archaeological assessment is required prior to any planned development in these areas.

The archaeological assessment standards also establish minimum distances to be tested from features in the landscape indicating archaeological potential. Areas that are considered to have pre-Contact site potential requiring 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 settlement and within 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 requiring testing. These guidelines were refined and applied to the study area after the research and property inspection described above, generating the Stage 1 recommendations presented below in Section 5.0

3.3.2 Pre-Contact Period Archaeological Site Potential

The study area exhibits characteristics that indicate potential for the presence of archaeological resources associated with pre-Contact First Nations settlement and/or land uses. Specifically:

The study area lies within 300 meters of a small steam which appears on early topographic mapping and aerial photography.

3.3.3 Post-Contact First Nations / Euro-Canadian Archaeological Potential

The study area exhibits characteristics that indicate potential for the presence of archaeological resources associated with Euro-Canadian settlement and/or land uses. Specifically:

The study area is located adjacent to the Central Experimental Farm National Historic Site and Cultural Landscape

Further, the study area is within an area considered to have archaeological potential in the City of Ottawa's *Archaeological Master Plan* (Archaeological Services Inc. & Geomatics International Inc. 1999b). Given the features of archaeological potential identified within or in the immediate vicinity of the study area, all of the property is considered to exhibit potential for the presence of archaeological resources. The extent of disturbance caused by the bridge and drainage ditch landscaping as well as the geotechnical investigation pits (see Images 8 to 14) will have to be determined during the Stage 2 field testing.

3.3.4 Stage 1 Recommendations

The results of the background research discussed above indicate that the study area exhibits potential for the presence archaeological resources. Accordingly, it is recommended that:

1) All portions of the study area determined to have archaeological potential (see Map 12) should be subject to a Stage 2 archaeological assessment prior to any proposed development that would result in below-grade disturbance.

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). As it is not feasible to plough and undertake a pedestrian survey on the subject property, the preferred methodology for the Stage 2 assessment would be a shovel test pit survey conducted in accordance with Section 2.1 of the *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011).

The reader is also referred to the requirements set out in "Advice on Compliance with Legislation" as it may relate to this project.

4.0 STAGE 2 ARCHAEOLOGICAL ASSESSMENT

4.1 Fieldwork Methodology

Stage 2 Testing

The Stage 2 archaeological assessment was undertaken on April 30, 2017. Weather consisted of overcast skies, with a light breeze and a high of 7°C. Fieldwork was conducted according to the archaeological fieldwork standards outlined in Standards and Guidelines for Consultant Archaeologists (MTCS 2011). The entire property was surveyed (Standard 2.1.1) under ideal conditions (Standard 2.1.3) and tested. All field activities were mapped using GPS and a digital field plan was constantly updated (Standard 2.1.5). Field conditions were photo-documented (Standard 2.1.6). No heavy equipment was employed (Standard 2.1.7).

Pedestrian Survey (Standard 2.1.1)

Pedestrian survey was not a viable archaeological survey technique on this property. It contains no land that could be ploughed and is surrounded by existing developments.

Test Pit Survey (Standard 2.1.2)

All testable lands were subject to test pit survey as per the requirements of Standard 2.1.2. Test pits were spaced at 5 metre intervals, were at least 30 centimetres in diameter, all soils were screened through 6mm hardware cloth screen and excavated until sterile subsoil or bedrock was encountered. Test pits were typically 15 to 40 centimetres in depth (Images 15 to 18; Map 13).

4.2 Fieldwork Results

Soils consisted of 10 to 30 centimetres of brown loam to clay-loam topsoil over a yellowish-grey/brown clay subsoil. The east-west mid line of the property had roughly 5 centimetres of topsoil over 20 centimetres of fill. This fill consisted of a loam matrix filled with coarse gravel and chunks of concrete above subsoil. This section of the property likely consisted of an old pathway from the gate (located in the middle of the north fence line), over the bridge and towards the school. Test pits along the south fence and treed area were slightly deeper and consisted of a sandy-loam topsoil. There was also some coarse fill on either side of the ditch/stream, north of the bridge, likely representing landscaping activities related to the bridge and culverts.

4.3 Record of Finds

No evidence of archaeological sites was encountered and no artifacts were recovered.

Table 2. Inventory of the Stage 2 Documentary Record.

Type of Document	Description	Number of Records	Location
Photographs	Digital photographs documenting Stage 2 fieldwork	23 photographs	On Adams Heritage computer network
Field Map	Updated digital field map	1 page	On Adams Heritage computer network
Field Notes	Notes taken during the Stage 2 assessment	1 page	Adams Heritage office

4.4 Analysis and Conclusions

No archaeological artifacts or sites were encountered. The historic research and maps did not indicate any farmsteads or other buildings built on the subject area. No direct evidence of historical or pre-contact use was encountered (ie. no artifacts were found and no structures were noted).

Development of this property will have no impact of archaeological resources.

4.5 Stage 2 Recommendations

This report forms the basis for the following recommendation:

1) No further archaeological assessment for the study area as presently defined in Map 3 is required. As a result, clearance of the archaeological condition placed on the study area should be granted.

The reader is also referred to the requirements set out in "Advice on Compliance with Legislation" as it may relate to this project.

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C1013	1861 Agricultural census of Nepean Township
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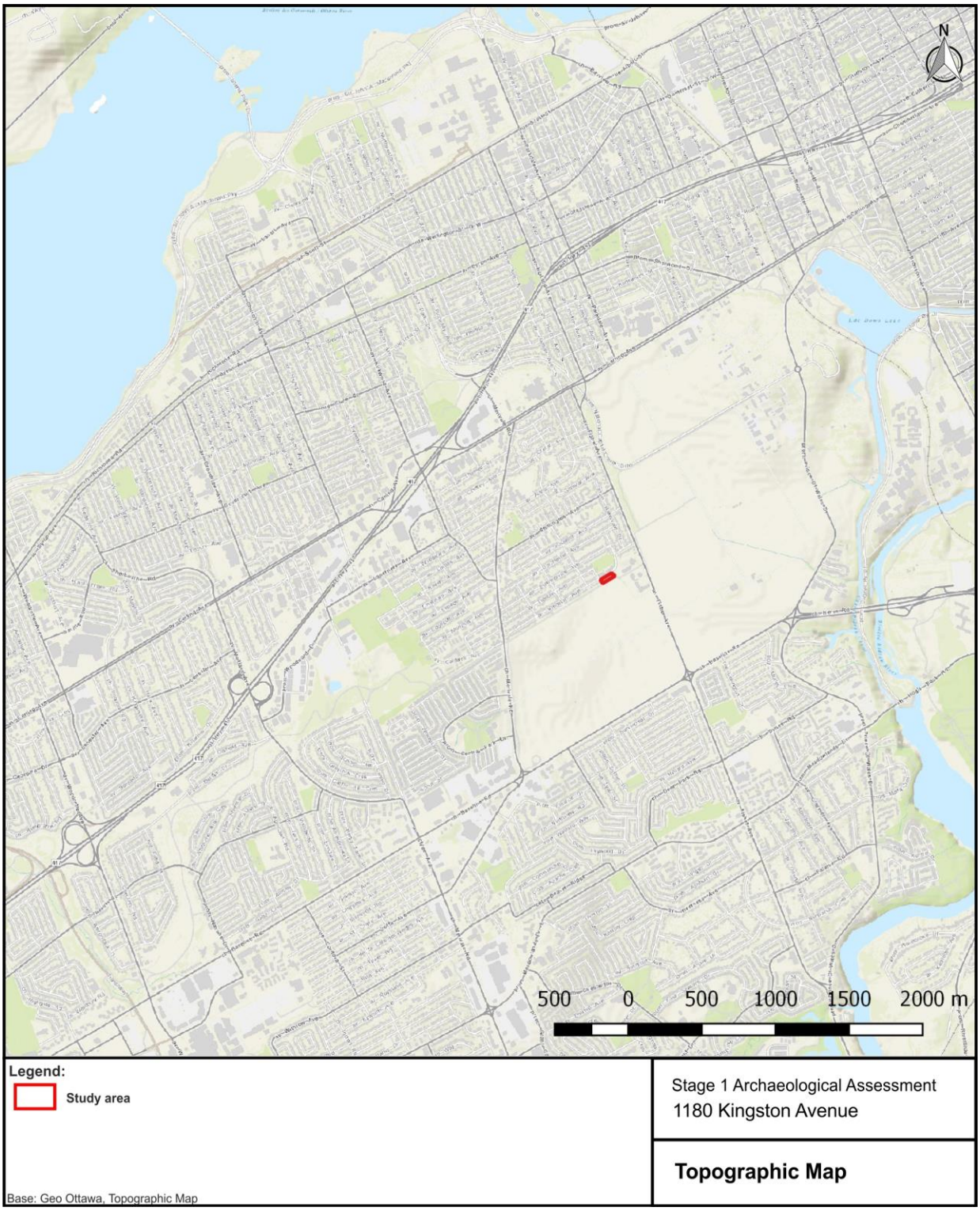
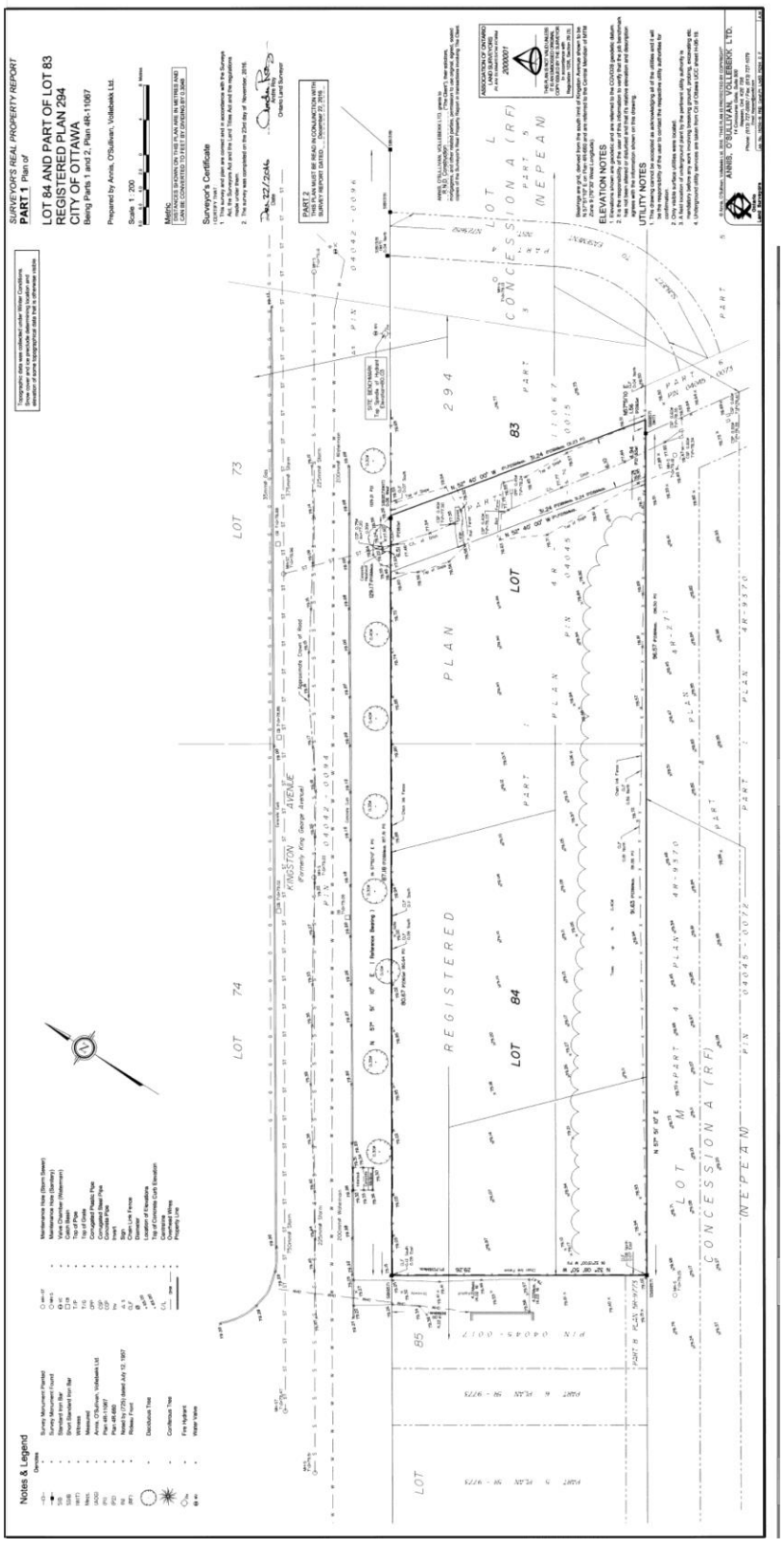
6.0 MAPS



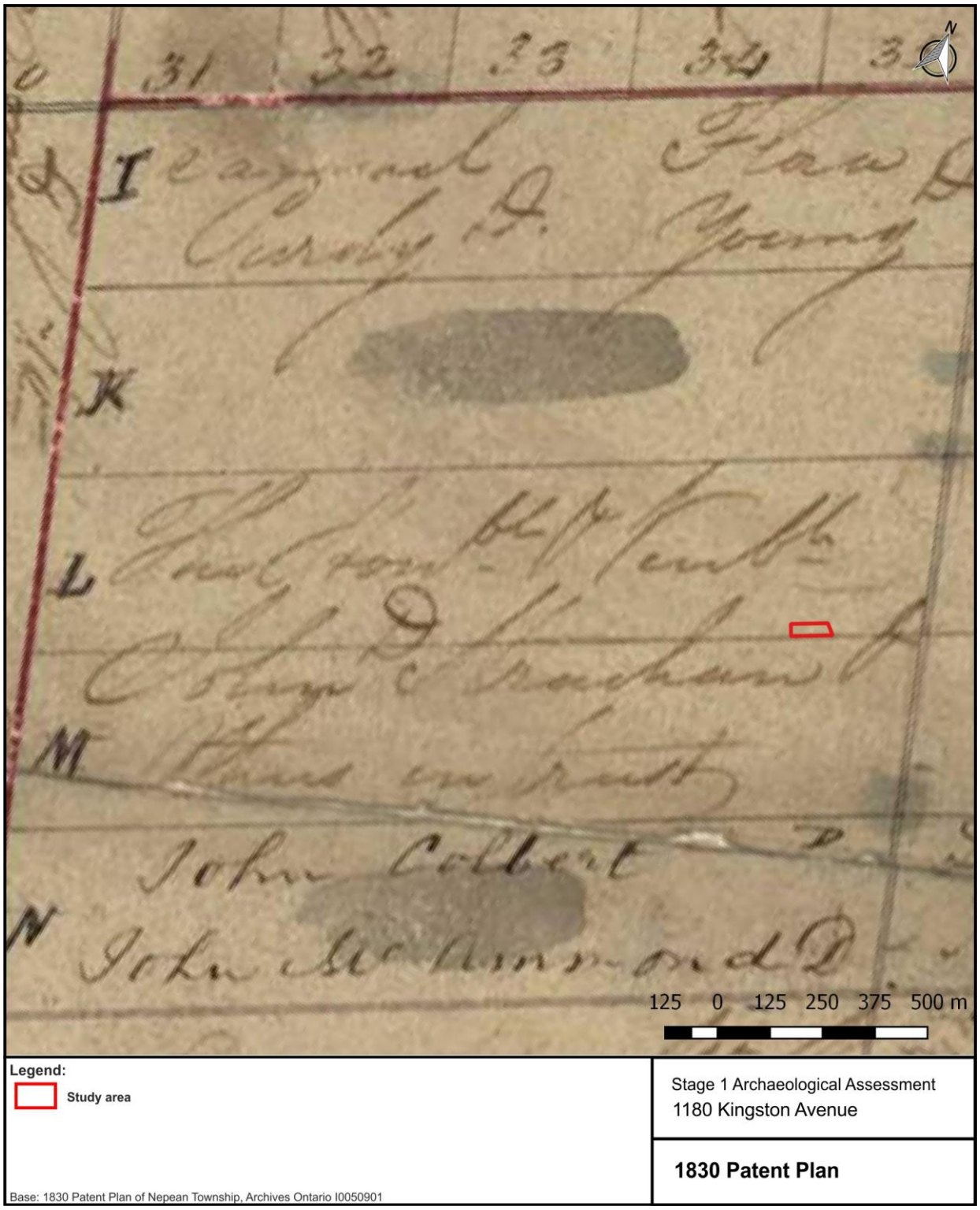
Map 1. Topographic map showing the location of the study area within the City of Ottawa.

Map 2. Topographic map showing the location of the study area.

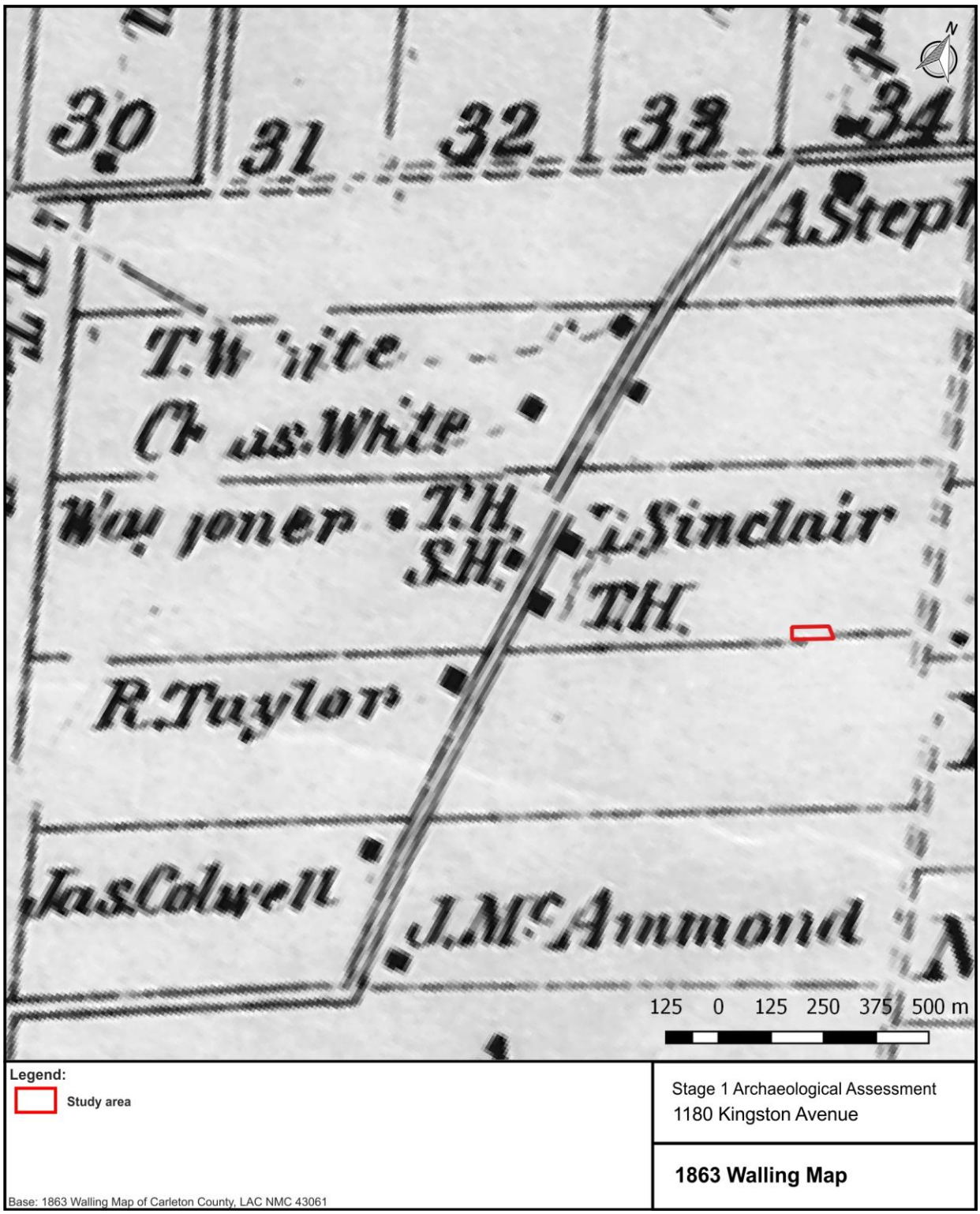
Map 3. Ortho-rectified aerial photograph, 2014, showing the study area.



Map 4. Surveyor's plan of the study area. (Annis, O'Sullivan, Vollebekk Ltd. 2016)



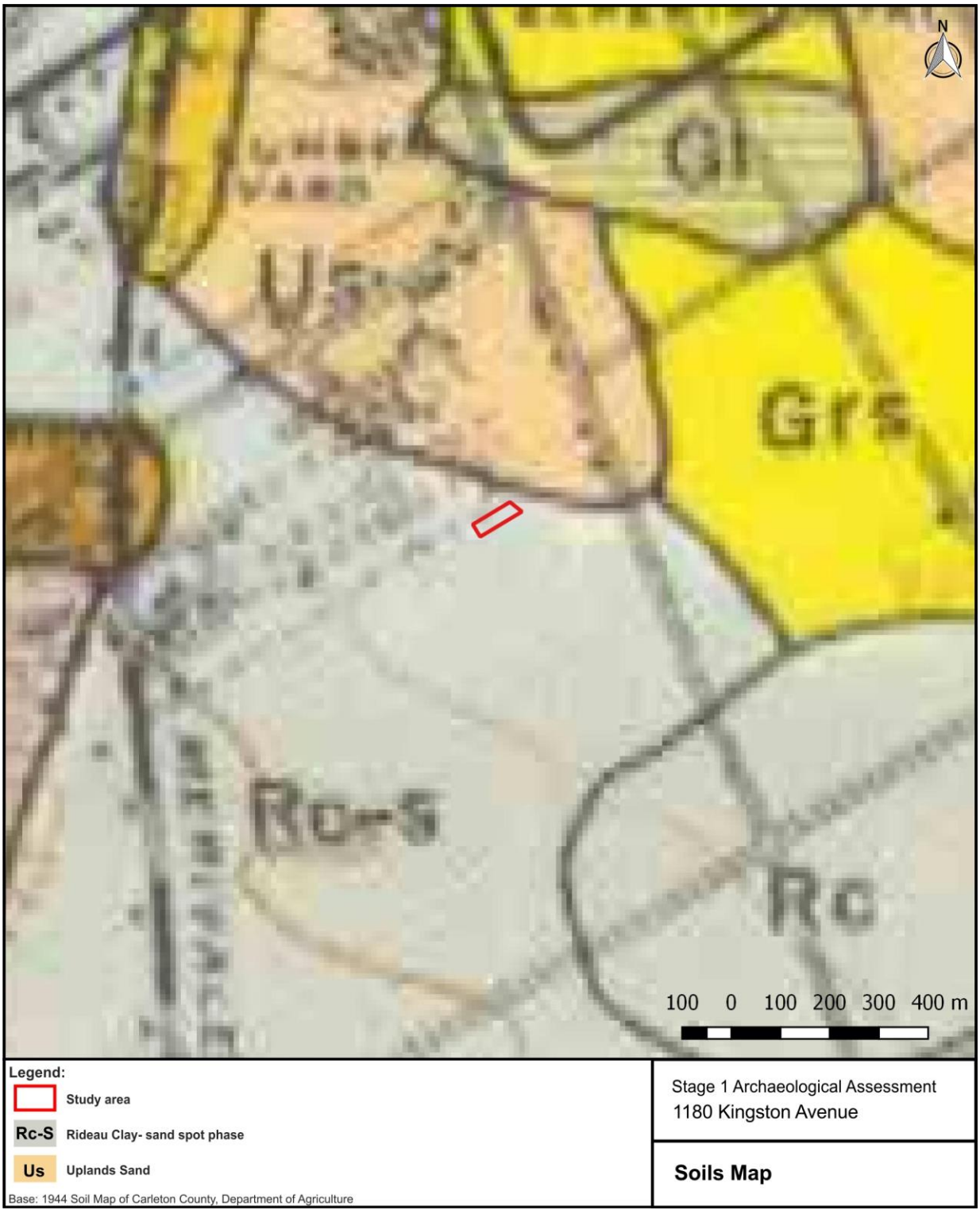
Map 5. Segment of the 1830 Patent Plan of the Township of Nepean in the County of Carleton showing the approximate location of the study area.



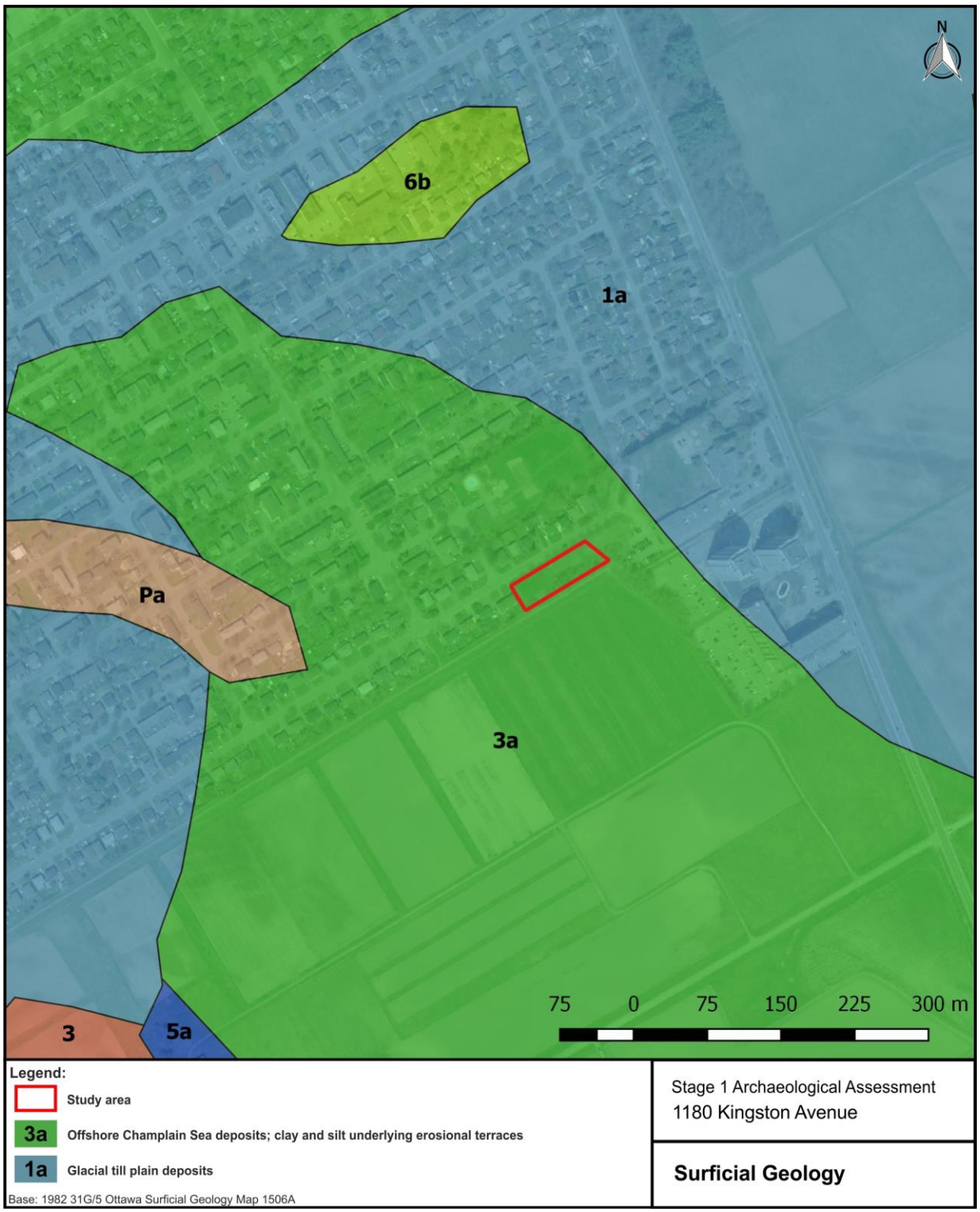
Map 6. Segment of Walling's 1863 Map of Carleton County showing the approximate location of the study area.

Map 7. Segment of Belden's 1879 plan of the Township of Nepean showing the approximate location of the study area.

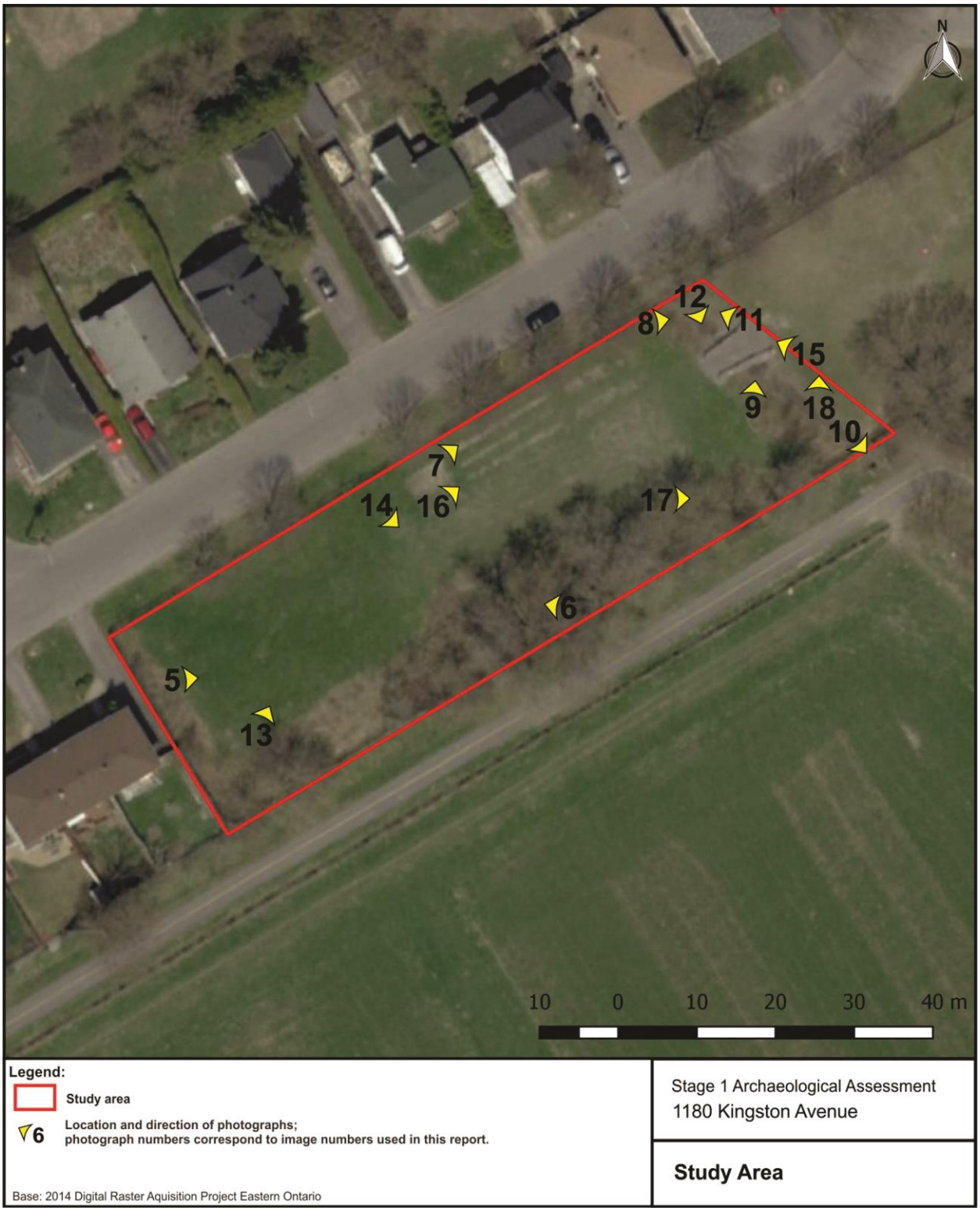
Map 8. Segment of the 1906 Ottawa Sheet 1 inch-to-1 mile topographic map showing the approximate location of the study area.



Map 9. Segment of soil survey mapping covering the study area.



Map 10. Segment of surficial geological mapping covering the study area.



Map 11. Ortho-rectified aerial photograph, 2014, showing the locations and directions of Stage 1 photographs included in this report.

Map 12. Ortho-rectified aerial photograph, 2014, showing the archaeological potential for the study area.

Map 13. Ortho-rectified aerial photograph, 2014, showing the Stage 2 field methods.

7.0 IMAGES

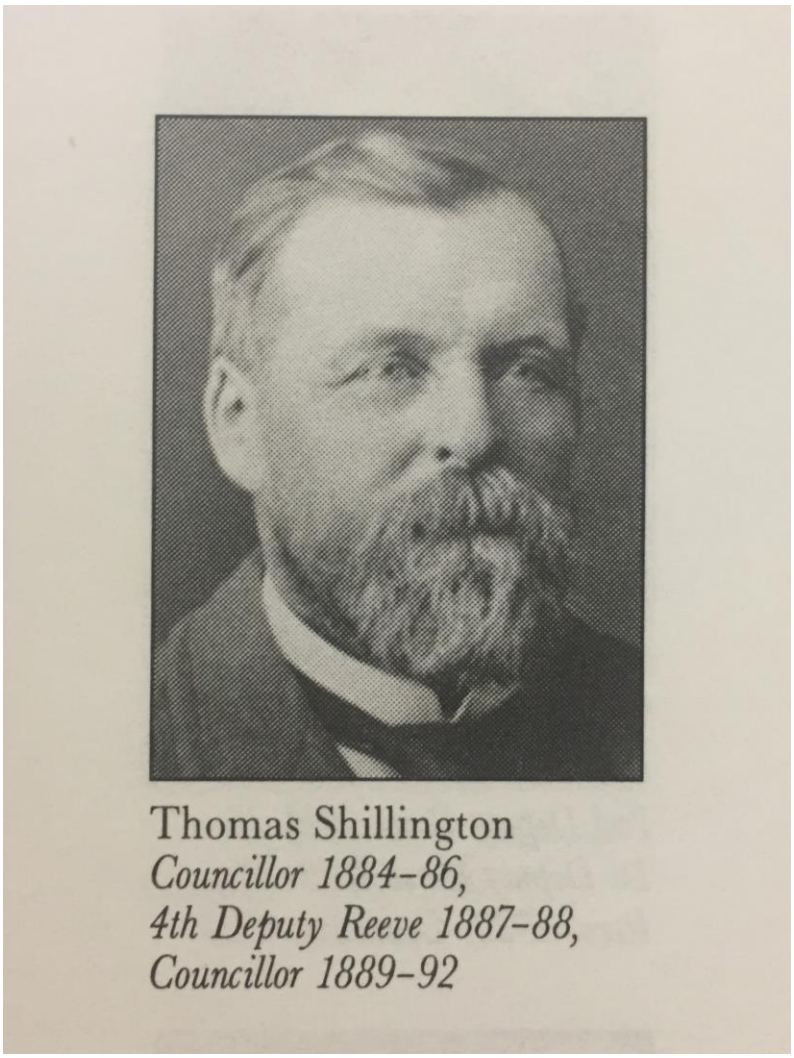


Image 1. A portrait of Thomas Shillington during his time on the Nepean Township council. Image from Elliot 1991:395.

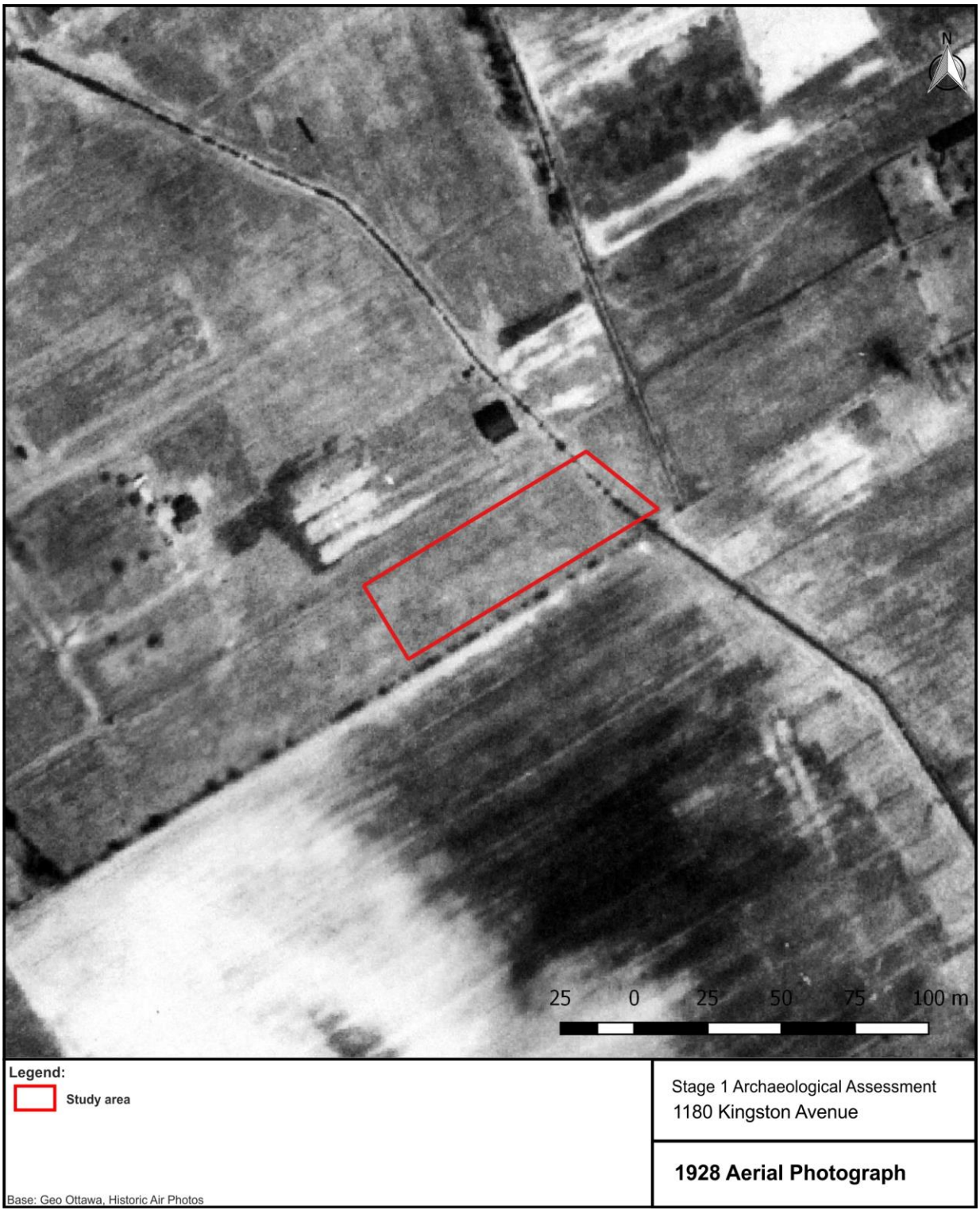


Image 2. An aerial photograph showing the study area dated 1928.

Image 3. An aerial photograph showing the study area dated 1958.

Image 4. An aerial photograph showing the study area dated 1965.

Image 5. General view of the study area and geotechnical investigative pit, facing east. (IMG_4200)

Image 6. General view of the western portion of the study area, facing northwest. (IMG_4207)

Image 7. General view of the eastern portion of the study area, facing northeast. (IMG_4226)

Image 8. View of the school yard, drainage ditch and landscaping around the bridge, facing east. (IMG_4211)

Image 9. View of the south side of the bridge, the culvert running under it and a culvert running northeast into the school yard, facing north. (IMG_4216)

Image 10. View of the culvert running under the Central Experimental Farm Trail, facing southeast. (IMG_4218)

Image 11. View of the culvert associated with the drainage ditch which runs under Kingston Avenue, facing northwest. (IMG_4221)

Image 12. View of the culvert running under the bridge and bridge landscaping, facing east. (IMG_4214)

Image 13. View of the property from the southwestern corner and geotechnical investigative pit, facing northeast. (IMG_4203)

Image 14. View of one of the geotechnical investigative pits, facing southeast. (IMG_4195)

Image 15. Field crew conducting shovel test pit survey east of drainage ditch, facing north. (P4300152)

Image 16. Field crew screening soil in the northern portion of the property, facing northeast. (P4300158)

Image 17. Field crew conducting shovel test pit survey along the southern fence, facing east. (P4300169)

Image 18. Representative test pit, located east of the drainage ditch, facing north. (P4300155)

APPENDIX: Photographic Catalogue

Camera: iPhone 6 and TG-2

Photo No.	Description	Direction
IMG_4195	View of one of the geotechnical investigative pits	SE
IMG_4196	View of manicured lawn and neighbouring residential houses in the west portion of the property	SW
IMG_4197	View of the western property boundary	SE
IMG_4198	View of the western portion of the property with the Central Experimental Farm in the background	E
IMG_4199	View of the manicured lawn from the northwestern corner of the property	NE
IMG_4200	View of the manicured lawn and geotechnical investigative pit	E
IMG_4201	View of a portion of the southern property boundary and vegetation. Note the Experimental Farm Pathway directly behind the boundary.	E
IMG_4202	View of a portion of the southern property boundary and vegetation. Note the Experimental Farm Pathway directly behind the boundary.	E
IMG_4203	View of the property from the southwestern corner	NE
IMG_4204	View of one of the geotechnical investigative pits in the western portion of the property. Exposed soils appear undisturbed and composed of heavy clays	NW
IMG_4205	View of the northwestern portion of the property and neighbouring residences	W
IMG_4206	View of the southern boundary of the property	NE
IMG_4207	View of the manicured lawn	NW
IMG_4208	View of one of the geotechnical investigative pits in the southern portion of the property	SW
IMG_4209	View of the eastern portion of the property	NE
IMG_4210	View of the eastern portion of the property	E
IMG_4211	View of the ditching associated with the seasonal stream and landscaping around the bridge	E
IMG_4212	View of the northern property boundary	SW
IMG_4213	View of the culvert associated with seasonal stream which runs under Kingston Avenue	N
IMG_4214	View of the culvert running under the bridge and bridge landscaping	E
IMG_4215	View of the bridge	N
IMG_4216	View of the south side of the bridge, the culvert running under it and a culvert running northeast into the school property	N
IMG_4217	View of the ditch south of the bridge	SE
IMG_4218	View of the culvert running under the Central Experimental Farm Trail	SE
IMG_4219	View of the property from the southeastern corner	W
IMG_4220	View of the eastern property boundary	N
IMG_4221	View of the culvert associated with seasonal stream which runs under Kingston Avenue	NW
IMG_4222	View of the property from the eastern boundary	SW
IMG_4223	View of the property from the bridge	SW
IMG_4224	View of one of the geotechnical investigative pits in the southern portion of the property	S
IMG_4225	View of one of the geotechnical investigative pits in the north portion of the property showing soils	N
IMG_4226	View of the eastern portion of the property	E
P4300152	Field crew conducting shovel test pit survey east of drainage ditch	N
P4300153	Representative test pit, located east of the drainage ditch	N

P4300154	Representative test pit, located east of the drainage ditch	N
P4300155	Representative test pit, located east of the drainage ditch	N
P4300156	Representative test pit, located east of the drainage ditch	N
P4300157	Field crew member screening soil	S
P4300158	Field crew screening soil	NE
P4300159	Field crew excavating shovel test pits	SW
P4300160	Representative test pit, located in the middle of the study area	N
P4300161	Field crew conducting shovel test pit survey in west half of the study area	NW
P4300162	Field crew conducting shovel test pit survey in west half of the study area	N
P4300163	Field crew member screening soil along southern fence	S
P4300164	Field conditions of the property during Stage 2 testing	NE
P4300165	Field crew member screening soil along western fence	N
P4300166	Field conditions of the property during Stage 2 testing	NE
P4300167	Field crew conducting shovel test pit survey along the southern fence	NE
P4300168	Field crew conducting shovel test pit survey along the southern fence	S
P4300169	Field crew conducting shovel test pit survey along the southern fence	E
P4300170	Field crew conducting shovel test pit survey along the southern fence	W
P4300171	Field crew member conducting shovel test pit survey west of the drainage ditch	E
P4300172	Field crew member conducting shovel test pit survey west of the drainage ditch	SE
P4300173	Field crew member conducting shovel test pit survey west of the drainage ditch	S
P4300174	Field crew conducting shovel test pit survey west of the drainage ditch	S