



ORIGINAL: 11 FEBRUARY 2025

STAGE 1 ARCHAEOLOGICAL PROPERTY ASSESSMENT

Proposed Fergus Oaks Draft Plan of Subdivision, 6684 & 6688 Beatty Line North, Fergus, Lots 13 and 14 and Part of Lot 15, Concession 14 and Parts of Lot 11, 12, 13, 14 and 15, Concession 13, (Geographical Township of Nichol), Parts 1, 2, and 3 of Plan 61R22668, Township of Centre Wellington, County of Wellington (AMICK Corporate Project #2024-702/MCM File #P038-1508-2024)

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PROJECT PERSONNEL

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PROJECT REPORT PREPARATION & GRAPHICS

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EXECUTIVE SUMMARY

This report describes the results of the 2024 Stage 1 Archaeological Background Study of Proposed Fergus Oaks Draft Plan of Subdivision, 6684 & 6688 Beatty Line North, Fergus, Lots 13 and 14 and Part of Lot 15, Concession 14 and Parts of Lot 11, 12, 13, 14 and 15, Concession 13, (Geographical Township of Nichol), Parts 1, 2, and 3 of Plan 61R22668, Township of Centre Wellington, County of Wellington, conducted by AMICK Consultants Limited. This assessment was undertaken as a requirement under the Planning Act (RSO 1990b) and was conducted under Professional Archaeologist License #P038 issued to Marilyn Cornies by the Minister Tourism, Culture and Sport (MCM) for the Province of Ontario. All work was conducted in conformity with Ontario Ministry of Tourism and Culture (MTC) Standards and Guidelines for Consultant Archaeologists (MTC 2011) and the Ontario Heritage Act (RSO 1990a).

The entirety of the study area is approximately 191.34 hectares (ha) in area and includes within it a farm complex with ploughable lands and several outbuildings, three houses, gravel surfaces, and wooded areas. Irvine Creek runs along the northern boundary of the study area. Grassed lawn area is also present around the houses. This description is based on aerial imagery and will need to be confirmed during the Stage 2 Archaeological Property Inspection. The study area is bounded on the north by wooded area and farmland, on the east by wooded area, farmland, and Beatty Line, on the south by Nichol Road 15 and on the west by wooded area and farmland. AMICK Consultants Limited was engaged by the proponent to undertake a Stage 1 Background Study of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological fieldwork. Following the criteria outlined by MCM (2011) for determining archaeological potential, portions of the study area were determined as having archaeological potential for Pre-contact and Post-contact archaeological resources. Consequently, this report is being prepared in advance of the planning process for this property.

The entirety of the study area was subject to a desktop Stage 1 Archaeological Background Study on 25 July 2024. All records, documentation, field notes, photographs, and artifacts (as applicable) related to the conduct and findings of these investigations are held at the corporate office of AMICK Consultants Limited until such time that they can be transferred to an agency or institution approved by the MCM on behalf of the government and citizens of Ontario.

The study area has been identified as a property that exhibits potential to yield archaeological deposits of Cultural Heritage Value or Interest (CHVI). The objectives of the Stage 1 Background Study have therefore been met and in accordance with the results of this investigation, the following recommendations are made:

1. *The proposed undertaking has potential for archaeological resources and a Stage 2 Archaeological Property Assessment is recommended.*
2. *A test pit survey at 5 metre intervals between individual test pits is recommended in all areas that are not viable to be ploughed and are at a less than (<) 20 degree change in elevation;*

3. *A pedestrian survey at an interval of 5 metres between individual transects is recommended for any areas where ploughing is viable that have been subject to agricultural tillage in the past;*
4. *The steepness of any slopes within the study area must be determined through a Property Inspection since slopes at an angle of greater than (>) 20 degrees have low archaeological potential and may be excluded from Stage 2 Property Assessment;*
5. *The footprints of existing or former structures within the study area can only be identified and be excluded from Stage 2 Property Assessment if confirmed by a licensed archaeologist through a Property Inspection and employing the required standards to document such areas;*
6. *Areas of disturbance can only be identified and be excluded from Stage 2 Property Assessment if confirmed by a licensed archaeologist through a Property Inspection and employing the required standards to document such areas;*
7. *Low-lying and wet areas can only be identified and be excluded from Stage 2 Property Assessment if confirmed by a licensed archaeologist through a Property Inspection and employing the required standards to document such areas;*
8. *No soil disturbances or removal of vegetation shall take place within the study area prior to the MCM acceptance of a report into the Provincial Registry of Archaeological Reports that recommends all archaeological concerns for the proposed undertaking have been addressed and no further archaeological investigations are required.*

1.0 PROJECT CONTEXT

1.1 DEVELOPMENT CONTEXT

This report describes the results of the 2024 Stage 1 Archaeological Background Study of Proposed Fergus Oaks Draft Plan of Subdivision, 6684 & 6688 Beatty Line North, Fergus, Lots 13 and 14 and Part of Lot 15, Concession 14 and Parts of Lot 11, 12, 13, 14 and 15, Concession 13, (Geographical Township of Nichol), Parts 1, 2, and 3 of Plan 61R22668, Township of Centre Wellington, County of Wellington, conducted by AMICK Consultants Limited. This assessment was undertaken as a requirement under the Planning Act (RSO 1990b) and was conducted under Professional Archaeologist License #P038 issued to Marilyn Cornies by the Minister Tourism, Culture and Sport (MCM) for the Province of Ontario. All work was conducted in conformity with Ontario Ministry of Tourism and Culture (MTC) Standards and Guidelines for Consultant Archaeologists (MTC 2011) and the Ontario Heritage Act (RSO 1990a).

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The entirety of the study area was subject to a desktop Stage 1 Archaeological Background Study on 25 July 2024. All records, documentation, field notes, photographs, and artifacts (as applicable) related to the conduct and findings of these investigations are held at the corporate office of AMICK Consultants Limited until such time that they can be transferred to an agency or institution approved by the MCM on behalf of the government and citizens of Ontario.

A preliminary plan of the proposed development was not available at the time this report was composed. Therefore, a plan of survey showing the extent of the study area is reproduced within this report as Map 4.

1.2 HISTORICAL CONTEXT

1.2.1 PRE-CONTACT LAND-USE OUTLINE

Table 1 illustrates the chronological development of cultures within southern Ontario prior to the arrival of European cultures to the area at the beginning of the 17th century. This general cultural outline is based on archaeological data and represents a synthesis and summary of research over a long period of time. It is necessarily generalizing and is not necessarily representative of the point of view of all researchers or stakeholders. It is offered here as a rough guideline and as a very broad outline to illustrate the relationships of broad cultural groups and time periods.

TABLE 1 PRE-CONTACT CULTURAL CHRONOLOGY FOR SOUTHERN ONTARIO		
Years ago	Period	Southern Ontario
250	Terminal Woodland	Ontario and St. Lawrence Iroquois Cultures
1000 2000	Initial Woodland	Princess Point, Saugeen, Point Peninsula, and Meadowood Cultures
3000 4000 5000 6000	Archaic	Laurentian Culture
7000 8000 9000 10000 11000	Paleo	Plano and Clovis Cultures
		(Wright 1972)

What follows is an outline of Aboriginal occupation in the area during the Pre-Contact Era from the earliest known period, about 9000 B.C. up to approximately 1650 AD.

1.2.1.1 PALEO PERIOD (APPROXIMATELY 9000-7500 B.C.)

North of Lake Ontario, evidence suggests that early occupation began around 9000 B.C. People probably began to move into this area as the glaciers retreated and glacial lake levels began to recede. The early occupation of the area probably occurred in conjunction with environmental conditions that would be comparable to modern Sub-Arctic conditions. Due to the great antiquity of these sites, and the relatively small populations likely involved, evidence of these early inhabitants is sparse and generally limited to tools produced from stone or to by-products of the manufacture of these implements.

1.2.1.2 ARCHAIC PERIOD (APPROXIMATELY 8000-1000 B.C.)

By about 8000 B.C. the gradual transition from a post glacial tundra-like environment to an essentially modern environment was largely complete. Prior to European clearance of the landscape for timber and cultivation, the area was characterized by forest. The Archaic Period is the longest and the most apparently stable of the cultural periods identified through

archaeology. The Archaic Period is divided into the Early, Middle and Late Sub-Periods, each represented by specific styles in projectile point manufacture. Many more sites of this period are found throughout Ontario, than of the Paleo Period. This is probably a reflection of two factors: the longer period of time reflected in these sites, and a greater population density. The greater population was likely the result of a more diversified subsistence strategy carried out in an environment offering a greater variety of abundant resources (Smith 2002:58-59).

Current interpretations suggest that the Archaic Period populations followed a seasonal cycle of resource exploitation. Although similar in concept to the practices speculated for the big game hunters of the Paleo Period, the Archaic populations utilized a much broader range of resources, particularly with respect to plants. It is suggested that in the spring and early summer, bands would gather at the mouths of rivers and at rapids to take advantage of fish spawning runs. Later in the summer and into the fall season, smaller groups would move to areas of wetlands to harvest nuts and wild rice. During the winter, they would break into yet smaller groups probably based on the nuclear family and perhaps some additional relatives to move into the interior for hunting. The result of such practices would be to create a distribution of sites across much of the landscape (Smith 2002: 59-60).

The material culture of this period is much more extensive than that of the Paleo First Nations. Stylistic changes between Sub-Periods and cultural groups are apparent, although the overall quality in production of chipped lithic tools seems to decline. This period sees the introduction of ground stone technology in the form of celts (axes and adzes), manos and metates for grinding nuts and fibres, and decorative items like gorgets, pendants, birdstones, and bannerstones. Bone tools are also evident from this time period. Their presence may be a result of better preservation from these more recent sites rather than a lack of such items in earlier occupations. In addition, copper and exotic chert types appear during the period and are indicative of extensive trading (Smith 2002: 58-59).

1.2.1.3 WOODLAND PERIOD (APPROXIMATELY 1000 B.C.-1650 A.D.)

The primary difference in archaeological assemblages that differentiates the beginning of the Woodland Period from the Archaic Period is the introduction of ceramics to Ontario populations. This division is probably not a reflection of any substantive cultural changes, as the earliest sites of this period seem to be in all other respects a continuation of the Archaic mode of life with ceramics added as a novel technology. The seasonally based system of resource exploitation and associated population mobility persists for at least 1500 years into the Woodland Period (Smith 2002: 61-62).

The Early Woodland Sub-Period dates from about 1000-400 B.C. Many of the artifacts from this time are similar to the late Archaic and suggest a direct cultural continuity between these two temporal divisions. The introduction of pottery represents an entirely new technology that was probably acquired through contact with more southerly populations from which it likely originates (Smith 2002:62).

The Middle Woodland Sub-Period dates from about 400 B.C.-800 A.D. Within the region including the study area, a complex emerged at this time termed “Point Peninsula.” Point Peninsula pottery reflects a greater sophistication in pottery manufacture compared with the earlier industry. The paste and temper of the new pottery is finer and new decorative techniques such as dentate and pseudo-scallop stamping appear. There is a noted Hopewellian influence in southern Ontario populations at this time. Hopewell influences from south of the Great Lakes include a widespread trade in exotic materials and the presence of distinct Hopewell style artifacts such as platform pipes, copper or silver panpipe covers and shark’s teeth. The populations of the Middle Woodland participated in a trade network that extended well beyond the Great Lakes Region.

The Late Woodland Sub-Period dates from about 500-1650 A.D. The Late Woodland includes four separate phases: Princess Point, Early Ontario Iroquoian, Middle Ontario Iroquoian and Late Ontario Iroquoian.

The Princess Point phase dates to approximately 500-1000 A.D. Pottery of this phase is distinguished from earlier technology in that it is produced by the paddle method instead of coil and the decoration is characterized by the cord wrapped stick technique. Ceramic smoking pipes appear at this time in noticeable quantities. Princess Point sites cluster along major stream valleys and wetland areas. Maize cultivation is introduced by these people to Ontario. These people were not fully committed to horticulture and seemed to be experimenting with maize production. They generally adhere to the seasonal pattern of occupation practiced by earlier occupations, perhaps staying at certain locales repeatedly and for a larger portion of each year (Smith 2002: 65-66).

The Early Ontario Iroquoian stage dates to approximately 950-1050 A.D. This stage marks the beginning of a cultural development that led to the historically documented Ontario Iroquoian groups that were first contacted by Europeans during the early 1600s (Petun, Neutral, and Huron). At this stage formal semi-sedentary villages emerge. The Early stage of this cultural development is divided into two cultural groups in southern Ontario. The areas occupied by each being roughly divided by the Niagara Escarpment. To the west were located the Glen Meyer populations, and to the east were situated the Pickering people (Smith 2002: 67).

The Middle Ontario Iroquoian stage dates to approximately 1300-1400 A.D. This stage is divided into two sub-stages. The first is the Uren sub-stage lasting from approximately 1300-1350 A.D. The second of the two sub-stages is known as the Middleport sub-stage lasting from roughly 1350-1400 A.D. Villages tend to be larger throughout this stage than formerly (Smith 2002: 67).

The Late Ontario Iroquoian stage dates to approximately 1400-1650 A.D. During this time the cultural divisions identified by early European explorers are under development and the geographic distribution of these groups within southern Ontario begins to be defined.

1.2.2 POST-CONTACT LAND USE OUTLINE

In 1837 by Act of Parliament the new District of Wellington was formed and a courthouse and jail in the town of Guelph were authorized. The District was named after England's Duke of Wellington and initially included the counties of Wellington, Waterloo, Grey and parts of Dufferin (Wikipedia 2017).

By January 1854, Wellington County became an individual entity. At the time, it included the Townships and Towns of Amaranth, Arthur, Eramosa, Erin, Guelph, Guelph (Town), Garafraxa, Maryborough, Nichol, Peel, Pilkington, and Puslinch. Other municipalities were added between 1857 and 1881. Guelph separated in 1879 and was incorporated as a City; it lost representation on the County Council. Orangeville and Garafraxa East were annexed by Dufferin County (Wikipedia 2017).

Map 2 is a facsimile segment from Historical County Map of Wellington County (Leslie 1861). Map 2 illustrates the location of the study area and environs as of 1861. The study area spans over two concessions and multiple lots. Lot 11, Concession 13 is shown to belong to John Brockie. Lot 12, Concession 13 is shown to belong to William and John, Lot 13, Concession 13 is shown to belong to Dunham and Stephen. The eastern half of Lot 14, Concession 13 is shown to belong to Alexander Gall. Lot 13, Concession 14 is shown to belong to William Clarke. Lot 14, Concession 14 is shown to belong to George McHardie. The western half of Lot 15, Concession 14 is shown to belong to the Honourable Adam Ferguson and the western half of the lot is shown to belong to Peter McBain. In addition, the Irvine River is shown as directly adjacent to the north of the study area and settlement roads are depicted as immediately adjacent to the east and south. These roads are the current Beatty Line and Nichol Road 15, respectively. A school house is also shown northwest of the study area. This demonstrates that the original property of which the study area is a part was settled by the time that the atlas data was compiled. Accordingly, it has been determined that there is potential for archaeological deposits related to early Post-contact settlement within the study area.

Map 3 is a facsimile segment of the Township of Nichol map reproduced from Illustrated Historical Atlas of Waterloo and Wellington Counties (Walker & Miles 1877). Map 3 illustrates the location of the study area and environs as of 1877. The study area spans over two concessions and multiple lots. Lot 11, Concession 13 is shown to belong to A. Brockie. The eastern half of Lots 12 and 13, Concession 13 is shown to belong to J. Clark and the western half of the aforementioned lots is shown to belong to H. Dunham. Lot 14, Concession 14 is shown to belong to W&G Atken. Lot 13, Concession 14 is shown to belong to W. Clarke. Lot 14, Concession 14 is shown to belong to G. McHardy. The western half of Lot 15, Concession 14 is shown to belong to the R. Mairee and the western half of the lot is shown to belong to P. McBain. In addition, the Irvine River is shown as directly adjacent to the north of the study area and settlement roads are depicted as immediately adjacent to the east and south. These roads are the current Beatty Line and Nichol Road 15, respectively. The Toronto, Grey, and Bruce Railway is also shown as directly adjacent to the west of the study area. This railway is no longer present. This demonstrates that the original property of which the study area is a part was settled by the time that the atlas data was compiled.

Accordingly, it has been determined that there is potential for archaeological deposits related to early Post-contact settlement within the study area.

A plan of the study area is included within this report as Map 4. Current conditions encountered during the Stage 1 Property Inspection are illustrated in Maps 5 & 6.

1.2.3 SUMMARY OF HISTORICAL CONTEXT

The brief overview of readily available documentary evidence indicates that the study area is situated within an area that was close to historic transportation routes and in an area well populated during the nineteenth century and therefore has potential for sites relating to early Post-contact settlement in the region. However, it also appears that while the area was moving toward urban development by the fourth quarter of the 19th century, it was still predominantly rural in character and the likelihood of locating significant Post-contact archaeological deposits of cultural heritage value or interest (CHVI) on a very small parcel of the original township lot is not likely. Background research indicates the property has potential for significant archaeological resources of Native origins based on proximity to a natural source of potable water in the past. The Irvine Creek is located within the study area, running along the northern boundary.

1.3 ARCHAEOLOGICAL CONTEXT

The study area is located in Fergus and is bounded on the north by wooded area and farmland, on the east by wooded area, farmland, and Beatty Line, on the south by Nichol Road 15 and on the west by wooded area and farmland.

Based on aerial imagery, a farm complex with ploughable lands and several outbuildings, three houses, gravel surfaces. The study area also contains wooded areas in the periphery of the study area and grassed lawn areas around the houses. In addition, the Irvine Creek is present within the study area along its northern border. These conditions need to be confirmed during the Stage 2 Archaeological Assessment.

1.3.1 PHYSIOGRAPHIC REGION

The study area is situated within the Guelph Drumlin Field physiographic region. For the most part, these hills are of the broad oval type with slopes less steep than the Peterborough drumlins. The till in these drumlins is loamy and calcareous and was derived mostly from dolostone of the Amabel Formation. In addition, it contains fragments of the underlying red shale which is exposed below the escarpment. It is a pale brown in colour. The till is rather stony with large surface boulders being more numerous in some localities than others (Chapman and Putnam 1984: 137-138).

1.3.2 SURFACE WATER

The Irvine Creek is present within the northern portion of the study area. This creek can be seen on the Historical County Map of Wellington County (Leslie 1861) and the Illustrated Historical Atlas of Waterloo and Wellington Counties (Walker & Miles 1877). The creek is

shown as adjacent to the north of the study area, rather than within the study area. This could be attributed to the unscaled nature of the historic atlas maps.

1.3.3 LITHIC SOURCES

The study area is not located in close proximity to any lithic sources.

1.3.4 REGISTERED ARCHAEOLOGICAL SITES

The Archaeological Sites Database administered by the MCM indicates that there are one (1) previously documented site within 1 kilometre of the study area. However, it must be noted that this assumes the accuracy of information compiled from numerous researchers using different methodologies over many years. AMICK Consultants Limited assumes no responsibility for the accuracy of site descriptions, interpretations such as cultural affiliation, or location information derived from the Archaeological Sites Database administered by MCM. In addition, it must also be noted that a lack of formerly documented sites does not indicate that there are no sites present as the documentation of any archaeological site is contingent upon prior research having been conducted within the study area.

1.3.4.1 PRE-CONTACT REGISTERED SITES

A summary of registered and/or known archaeological sites within a 1-kilometre radius of the study area was gathered from the Archaeological Sites Database, administered by MCM. As a result, it was determined that no (0) archaeological sites relating directly to Pre-contact habitation/activity had been formally registered within the immediate vicinity of the study area. However, the lack of formally documented archaeological sites does not mean that Pre-contact people did not use the area; it more likely reflects a lack of systematic archaeological research in the immediate vicinity. Even in cases where one or more assessments may have been conducted in close proximity to a proposed landscape alteration, an extensive area of physical archaeological assessment coverage is required throughout the region to produce a representative sample of all potentially available archaeological data in order to provide any meaningful evidence to construct a pattern of land use and settlement in the past.

1.3.4.2 POST-CONTACT REGISTERED SITES

A summary of registered and/or known archaeological sites within a 1-kilometre radius of the study area was gathered from the Archaeological Sites Database, administered by MCM. As a result, it was determined that no (0) archaeological sites relating directly to Post-contact habitation/activity had been formally registered within the immediate vicinity of the study area.

1.3.4.3 REGISTERED SITES OF UNKNOWN CULTURAL AFFILIATION

A summary of registered and/or known archaeological sites within a 1-kilometre radius of the study area was gathered from the Archaeological Sites Database, administered by MCM. As a result, it was determined that one (1) archaeological site of unknown cultural affiliation

have been formally registered within the immediate vicinity of the study area. All previously registered sites of unknown cultural affiliation are briefly described below in Table 2:

TABLE 2 REGISTERED SITES OF UNKNOWN CULTURAL AFFILIATION WITHIN 1KM

Borden #	Site Name	Time Period	Affinity	Site Type
AkHc-16				

The above noted archaeological site is not situated within 300 metres of the study area. Therefore, it has no impact on determinations of archaeological potential for further archaeological resources related to human activity and occupation with respect to the archaeological assessment of the proposed undertaking.

1.3.5 PREVIOUS ARCHAEOLOGICAL ASSESSMENTS

On the basis of information supplied by MCM, no archaeological assessments have been conducted within 50 metres of the study area. AMICK Consultants Limited assumes no responsibility for the accuracy of previous assessments, interpretations such as cultural affiliation, or location information derived from the Archaeological Sites Database administered by MCM. In addition, it must also be noted that the lack of formerly documented previous assessments does not indicate that no assessments have been conducted.

1.3.5.1 PREVIOUS REGIONAL ARCHAEOLOGICAL POTENTIAL MODELLING

The study area is situated in area for which there is no archaeological master plan.

1.3.6 HISTORIC PLAQUES

There are no relevant plaques associated with the study area, which would suggest an activity or occupation within, or near, the study area that may indicate potential for associated archaeological resources of significant CHVI.

1.3.7 SUMMARY OF ARCHAEOLOGICAL CONTEXT

Based on aerial imagery, the study area contains a farm complex with ploughable lands and several outbuildings, three houses, and gravel surfaces. The study area also contains wooded arounds in the periphery of the study area and grassed lawn areas around the houses. In addition, the Irvine Creek is present within the study area along its northern border. These conditions need to be confirmed during the Stage 2 Archaeological Assessment.

Current conditions within the study area indicate that some areas of the property may have no or low archaeological potential and do not require Stage 2 Property Assessment or should be excluded from Stage 2 Property Assessment. These areas would include the footprint of existing structures, areas under gravel, and areas that are not accessible due to previously dumped soil covering the original surface of the ground. A significant proportion of the study

area does exhibit archaeological potential and therefore a Stage 2 Property Assessment is required.

Background research also indicates that the study area is situated in the Guelph Drumlin Field physiographic region, which is characterized by till that is loamy and cancerous and containing fragments of the underlying red shale which is exposed below the escarpment. In addition, the study area is not located in close proximity to any lithic sources.

A total of one (1) previously registered archaeological site has been documented within 1km of the study area. This is a site with unknown cultural affiliation. The site is not located within 300m of the study area and, therefore, does not demonstrate archaeological potential for further archaeological resources of human activity and occupation with respect to the archaeological assessment of the current study area.

The study area is situated in area for which there is no archaeological master plan. There are no relevant plaques associated with the study area.

The study area has potential for archaeological resources of Native origins based on proximity to a source of potable water that was also used as a means of waterborne trade and communication. Background research also suggests potential for archaeological resources of Post-contact origins based on proximity to a historic roadway and proximity to areas of documented historic settlement.

2.0 PROPERTY INSPECTION

A property inspection or field reconnaissance is not required as part of a Stage 1 Background Study unless there is reason to believe that portions of the study area may be excluded from physical assessment on the basis of the conditions of the property or portions thereof and it is desired by the proponent to formally exclude any such areas from a Stage 2 Property Assessment. A Stage 1 Property Inspection was not undertaken as part of this Archaeological Background Study. Therefore, no part of the study area may be excluded from the Stage 2 Property Assessment. The Stage 1 Property Inspection will have to be undertaken concurrently with the Stage 2 Property Assessment.

3.0 ANALYSIS AND CONCLUSIONS

3.1 STAGE 1 ANALYSIS AND CONCLUSIONS

3.1.1 CHARACTERISTICS INDICATING ARCHAEOLOGICAL POTENTIAL

Section 1.3.1 of the Standards and Guidelines for Consultant Archaeologists specifies the property characteristics that indicate archaeological potential (MTC 2011). Factors that indicate archaeological potential are features of the local landscape and environment that may have attracted people to either occupy the land or to conduct activities within the study area. One or more of these characteristics found to apply to a study area would necessitate a

Stage 2 Property Assessment to determine if archaeological resources are present. These characteristics include:

- 1) Within 300m of Previously Identified Archaeological Sites
- 2) Within 300m of Primary Water Sources (e.g., lakes, rivers, streams, and creeks)
- 3) Within 300m of Secondary Water Sources (e.g., intermittent streams and creeks, springs, marshes, and swamps)
- 4) Within 300 m of Features Indicating Past Water Sources (e.g., glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, and cobble beaches)
- 5) Within 300m of an Accessible or Inaccessible Shoreline (e.g., high bluffs, swamp, or marsh fields by the edge of a lake, sandbars stretching into marsh)
- 6) Elevated Topography (e.g., eskers, drumlins, large knolls, and plateaux)
- 7) Pockets of Well-drained Sandy Soil, especially near areas of heavy soil or rocky ground.
- 8) Distinctive Land Formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings.
- 9) Resource Areas, including:
 - food or medicinal plants (e.g., migratory routes, spawning areas, and prairie)
 - scarce raw materials (e.g., quartz, copper, ochre or outcrops of chert)
 - resources of importance to early Post-contact industry (e.g., logging, prospecting, and mining)
- 10) Within 300m of Areas of Early Post-contact Settlement, including:
 - military or pioneer settlement (e.g., pioneer homesteads, isolated cabins, and farmstead complexes)
 - early wharf or dock complexes, pioneer churches and early cemeteries
- 11) Within 100m of Early Historical Transportation Routes (e.g., trails, passes, roads, railways, portage routes)
- 12) Heritage Property – A property listed on a municipal register or designated under the Ontario Heritage Act or is a federal, provincial, or municipal historic landmark or site.

- 13) Documented Historical or Archaeological Sites – property that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations. These are properties which have not necessarily been formally recognized or for which there is additional evidence identifying possible archaeological resources associated with historic properties in addition to the rationale for formal recognition.

The Irvine Creek, which is a primary water source and a navigable waterway, is present in the northern portion of the study area. The study area is within 300m of a historic schoolhouse identified on the historic atlas map of 1861. The study area is situated within 100m of an early settlement roads that appear on the historic atlas maps of 1861 and 1877. These historic roads corresponds to the roads presently known as Beatty Line and Nichol Road 15, which are directly adjacent to the study area on its eastern and southern edge, respectively. The study area is also situated within 100m of the Toronto, Gray, and Bruce Railway, indicated on the historic atlas map of 1877.

3.1.2 CHARACTERISTICS INDICATING REMOVAL OF ARCHAEOLOGICAL POTENTIAL

Section 1.3.2 of the Standards and Guidelines for Consultant Archaeologists specifies the property characteristics which indicate no archaeological potential or for which archaeological potential has been removed (MTC 2011). These characteristics include:

- 1) Quarrying
- 2) Major Landscaping Involving Grading Below Topsoil
- 3) Building Footprints
- 4) Sewage and Infrastructure Development

The study area contains a farm complex consisting of several outbuildings, and three houses, gravel surfaces.

3.1.3 SUMMARY OF ARCHAEOLOGICAL POTENTIAL

Table 3 below summarizes the evaluation criteria of the Ministry of Citizenship and Multiculturalism (MCM) together with the results of the Stage 1 Background Study for the proposed undertaking. Based on the criteria, the property is deemed to have archaeological potential on the basis of proximity to water, proximity to historic settlement structures, and the location of early historic settlement roads adjacent to the study area.

TABLE 3 EVALUATION OF ARCHAEOLOGICAL POTENTIAL

FEATURE OF ARCHAEOLOGICAL POTENTIAL		YES	NO	N/A	COMMENT
1	Known archaeological sites within 300m		N		If Yes, potential determined
PHYSICAL FEATURES					
2	Is there water on or near the property?	Y			If Yes, what kind of water?
2a	Primary water source within 300 m. (lakeshore, river, large creek, etc.)	Y			If Yes, potential determined
2b	Secondary water source within 300 m. (stream, spring, marsh, swamp, etc.)	Y	N		If Yes, potential determined
2c	Past water source within 300 m. (beach ridge, river bed, relic creek, etc.)		N		If Yes, potential determined
2d	Accessible or Inaccessible shoreline within 300 m. (high bluffs, marsh, swamp, sand bar, etc.)		N		If Yes, potential determined
3	Elevated topography (knolls, drumlins, eskers, plateaus, etc.)		N		If Yes, and Yes for any of 4-9, potential determined
4	Pockets of sandy soil in a clay or rocky area		N		If Yes and Yes for any of 3, 5-9, potential determined
5	Distinctive land formations (mounds, caverns, waterfalls, peninsulas, etc.)		N		If Yes and Yes for any of 3-4, 6-9, potential determined
HISTORIC/PREHISTORIC USE FEATURES					
6	Associated with food or scarce resource harvest areas (traditional fishing locations, agricultural/berry extraction areas, etc.)		N		If Yes, and Yes for any of 3-5, 7-9, potential determined.
7	Early Post-contact settlement area within 300 m.	Y			If Yes, and Yes for any of 3-6, 8-9, potential determined
8	Historic Transportation route within 100 m. (historic road, trail, portage, rail corridors, etc.)	Y			If Yes, and Yes for any 3-7 or 9, potential determined
9	Contains property designated and/or listed under the Ontario Heritage Act (municipal heritage committee, municipal register, etc.)		N		If Yes and, Yes to any of 3-8, potential determined
APPLICATION-SPECIFIC INFORMATION					
10	Local knowledge (local heritage organizations, Pre-contact, etc.)		N		If Yes, potential determined
11	Recent disturbance not including agricultural cultivation (post-1960-confirmed extensive and intensive including industrial sites, aggregate areas, etc.)		N		If Yes, no potential or low potential in affected part (s) of the study area.

If **YES** to any of 1, 2a-c, or 10 Archaeological Potential is **confirmed**

If **YES** to 2 or more of 3-9, Archaeological Potential is **confirmed**

If **YES** to 11 or No to 1-10 Low Archaeological Potential is **confirmed** for at least a portion of the study area.

4.0 RECOMMENDATIONS

4.1 STAGE 1 RECOMMENDATIONS

The study area has been identified as a property that exhibits potential to yield archaeological deposits of Cultural Heritage Value or Interest (CHVI). The objectives of the Stage 1 Background Study have therefore been met and in accordance with the results of this investigation, the following recommendations are made:

1. *The proposed undertaking has potential for archaeological resources and a Stage 2 Archaeological Property Assessment is recommended.*
2. *A test pit survey at 5 metre intervals between individual test pits is recommended in all areas that are not viable to be ploughed and are at a less than (<) 20 degree change in elevation;*
3. *A pedestrian survey at an interval of 5 metres between individual transects is recommended for any areas where ploughing is viable that have been subject to agricultural tillage in the past;*
4. *The steepness of any slopes within the study area must be determined through a Property Inspection since slopes at an angle of greater than (>) 20 degrees have low archaeological potential and may be excluded from Stage 2 Property Assessment;*
5. *The footprints of existing or former structures within the study area can only be identified and be excluded from Stage 2 Property Assessment if confirmed by a licensed archaeologist through a Property Inspection and employing the required standards to document such areas;*
6. *Areas of disturbance can only be identified and be excluded from Stage 2 Property Assessment if confirmed by a licensed archaeologist through a Property Inspection and employing the required standards to document such areas;*
7. *Low-lying and wet areas can only be identified and be excluded from Stage 2 Property Assessment if confirmed by a licensed archaeologist through a Property Inspection and employing the required standards to document such areas;*
8. *No soil disturbances or removal of vegetation shall take place within the study area prior to the MCM acceptance of a report into the Provincial Registry of Archaeological Reports that recommends all archaeological concerns for the proposed undertaking have been addressed and no further archaeological investigations are required.*

5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

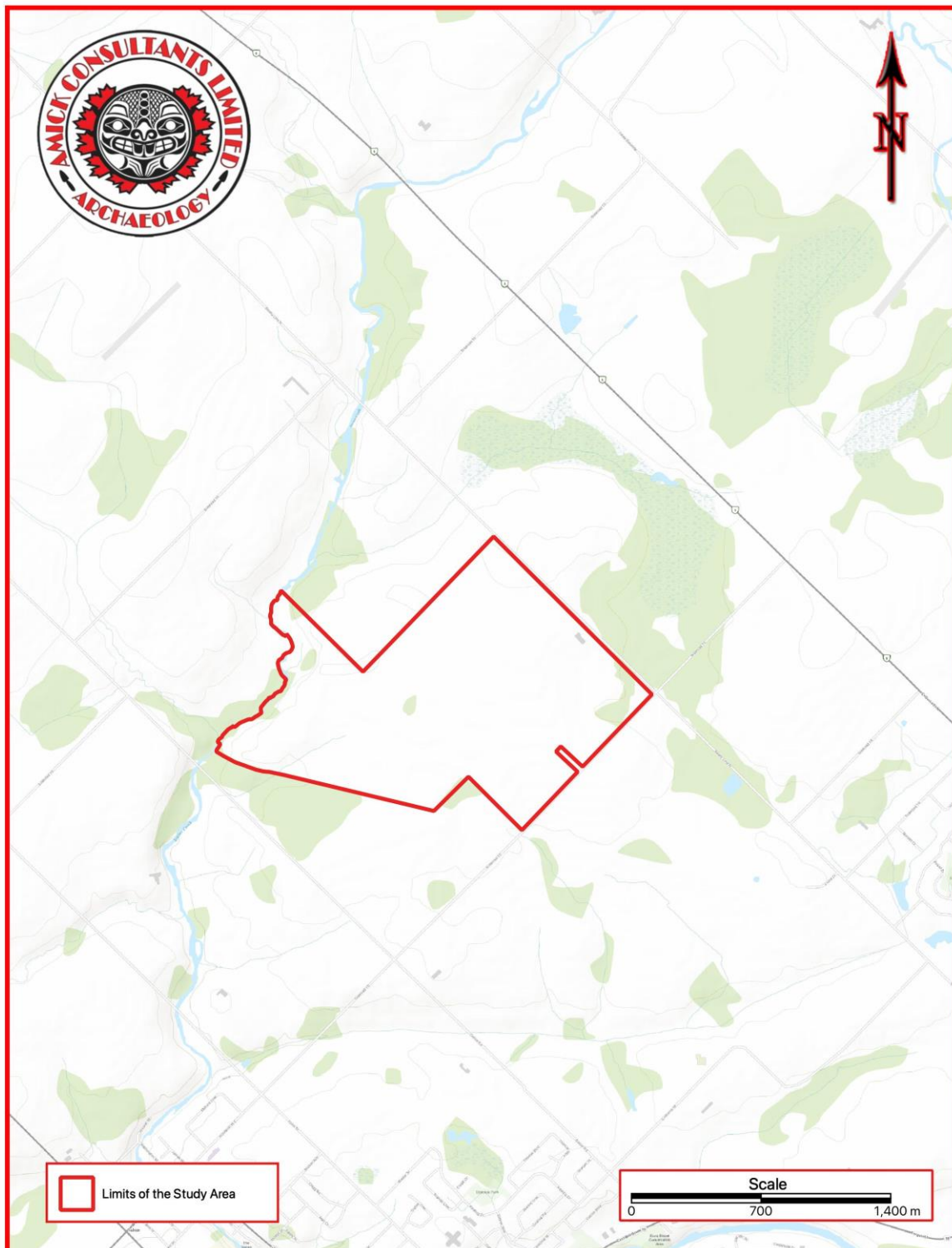
While not part of the archaeological record, this report must include the following standard advisory statements for the benefit of the proponent and the approval authority in the land use planning and development process:

- a. *This report is submitted to the Minister of Citizenship and Multiculturalism as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c. 0.18. The report is reviewed to ensure that it complies with the standards and guidelines issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Citizenship and Multiculturalism, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.*
- 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 Archaeological 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 archaeologist to carry out archaeological fieldwork, in compliance with sec. 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.*
- e. *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.*

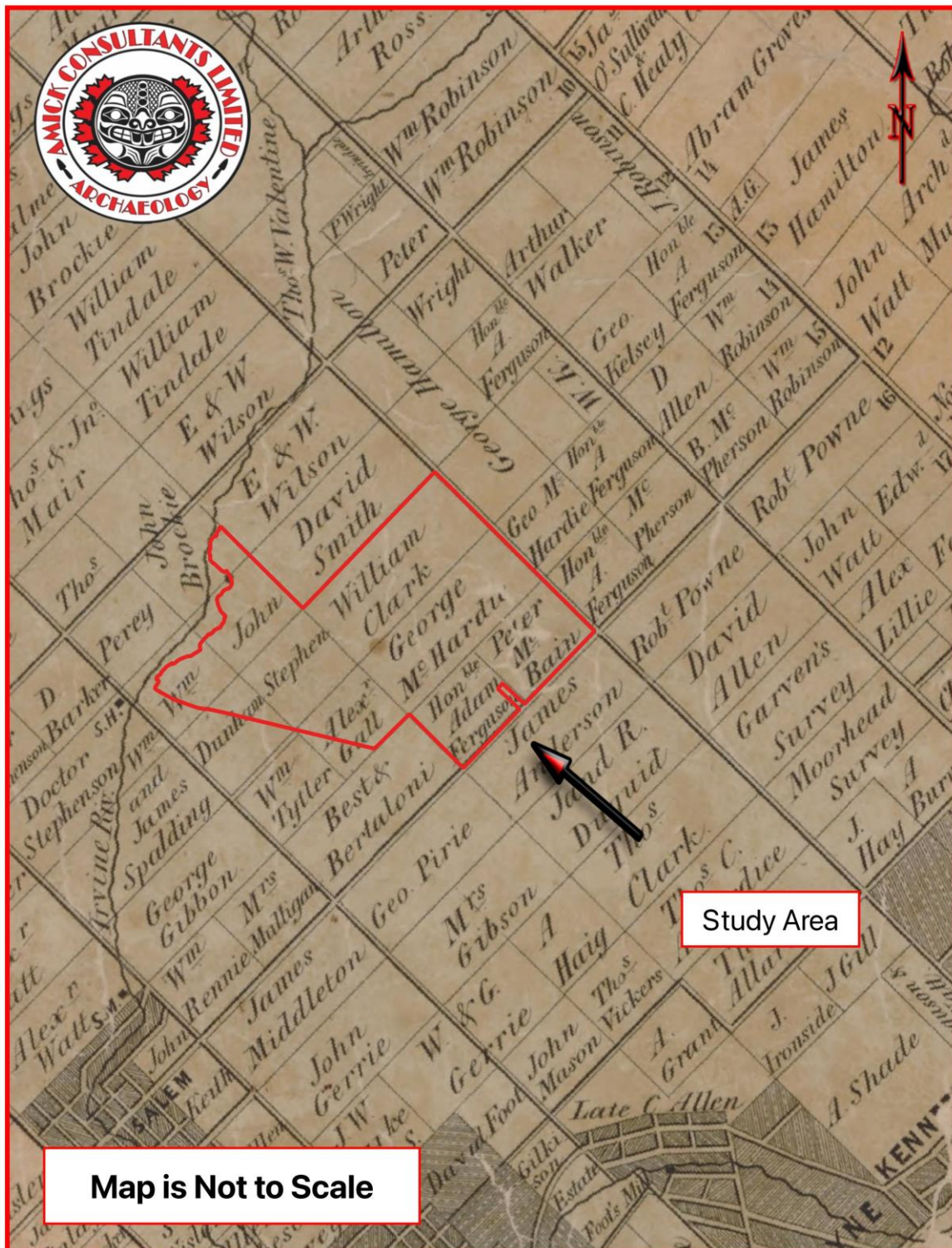
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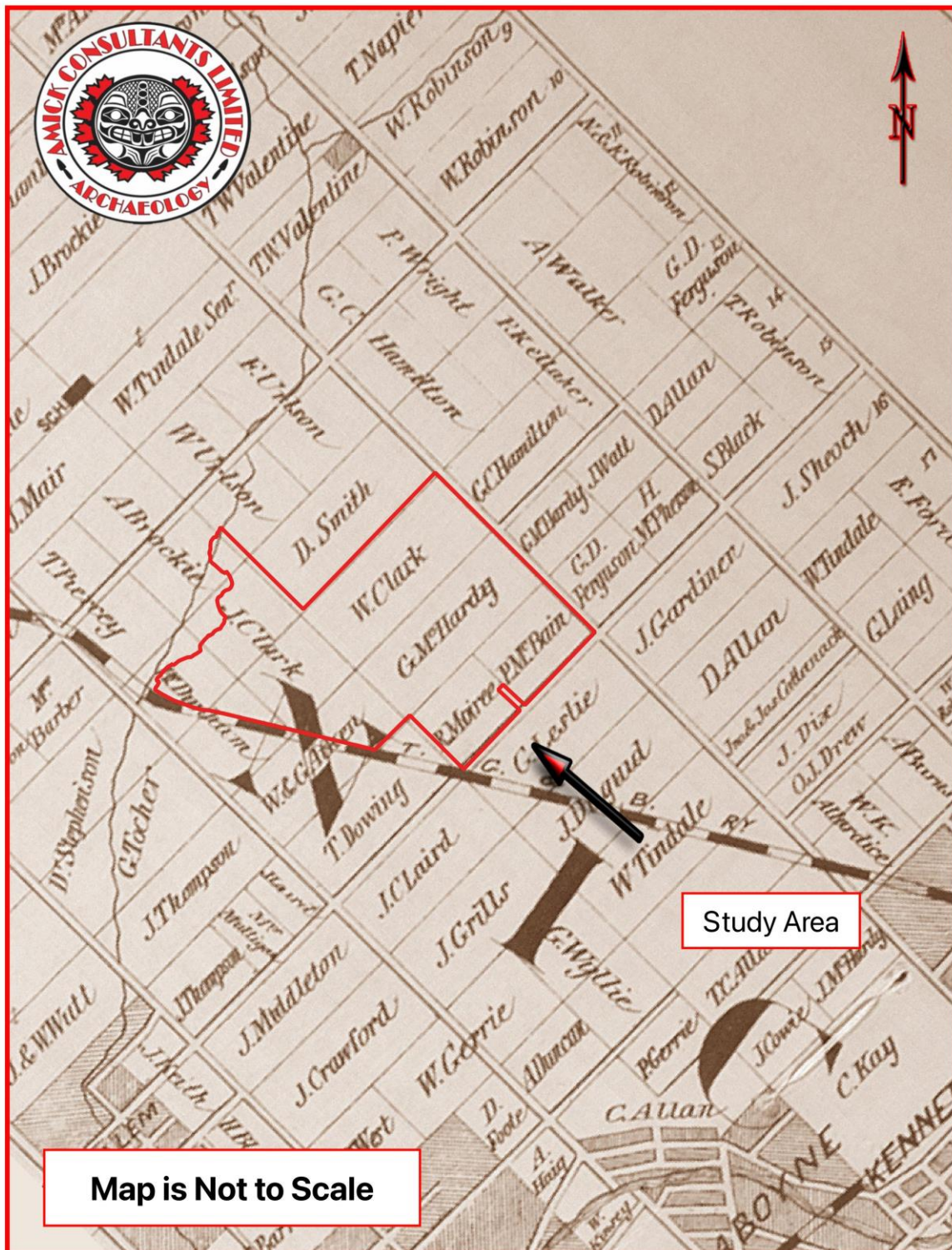
MAPS



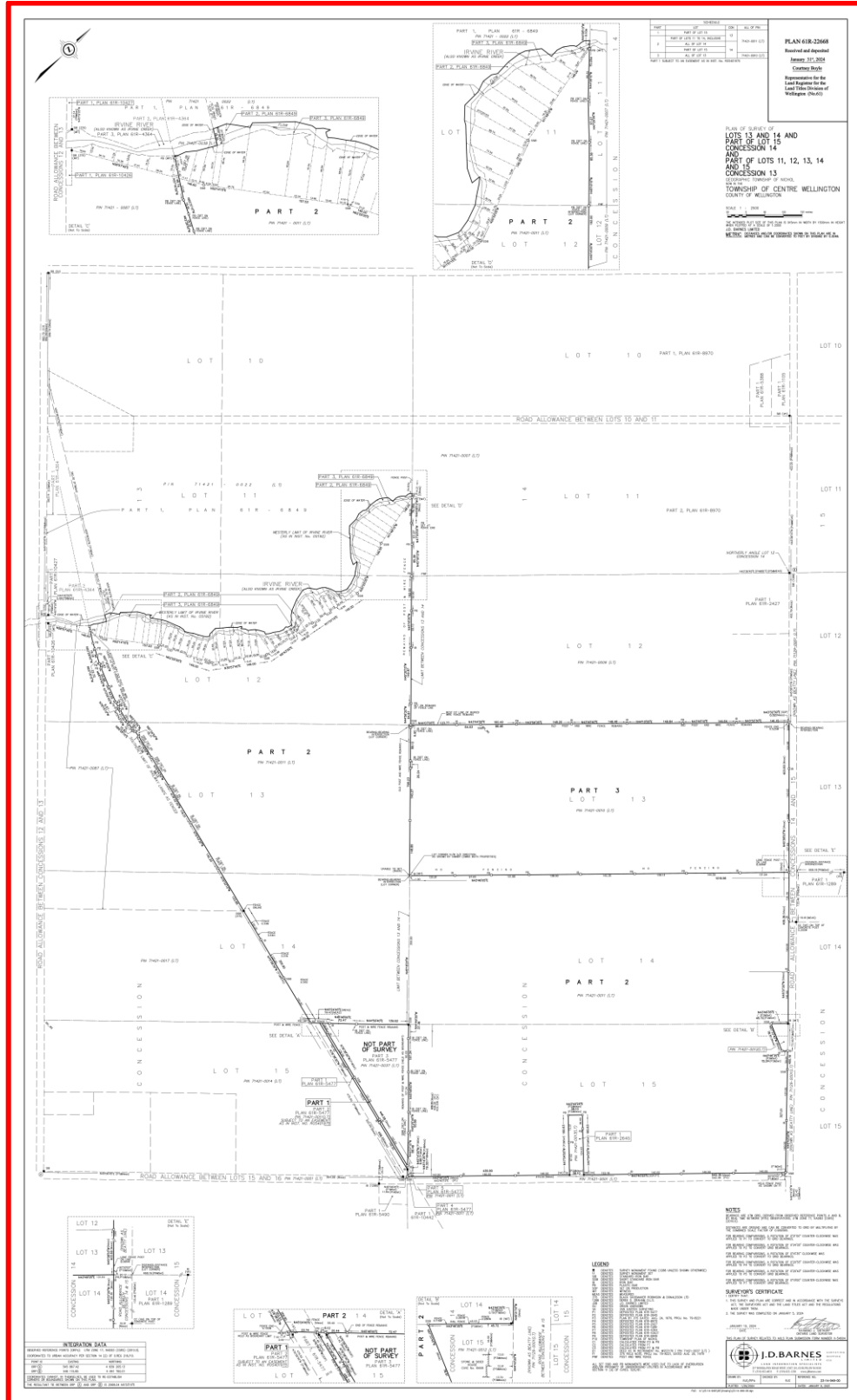
MAP 1 LOCATION OF THE STUDY AREA (ESRI 2019)



MAP 2 FACSIMILE SEGMENT OF HISTORICAL COUNTY MAP OF WELLINGTON COUNTY
(LESLIE 1861)



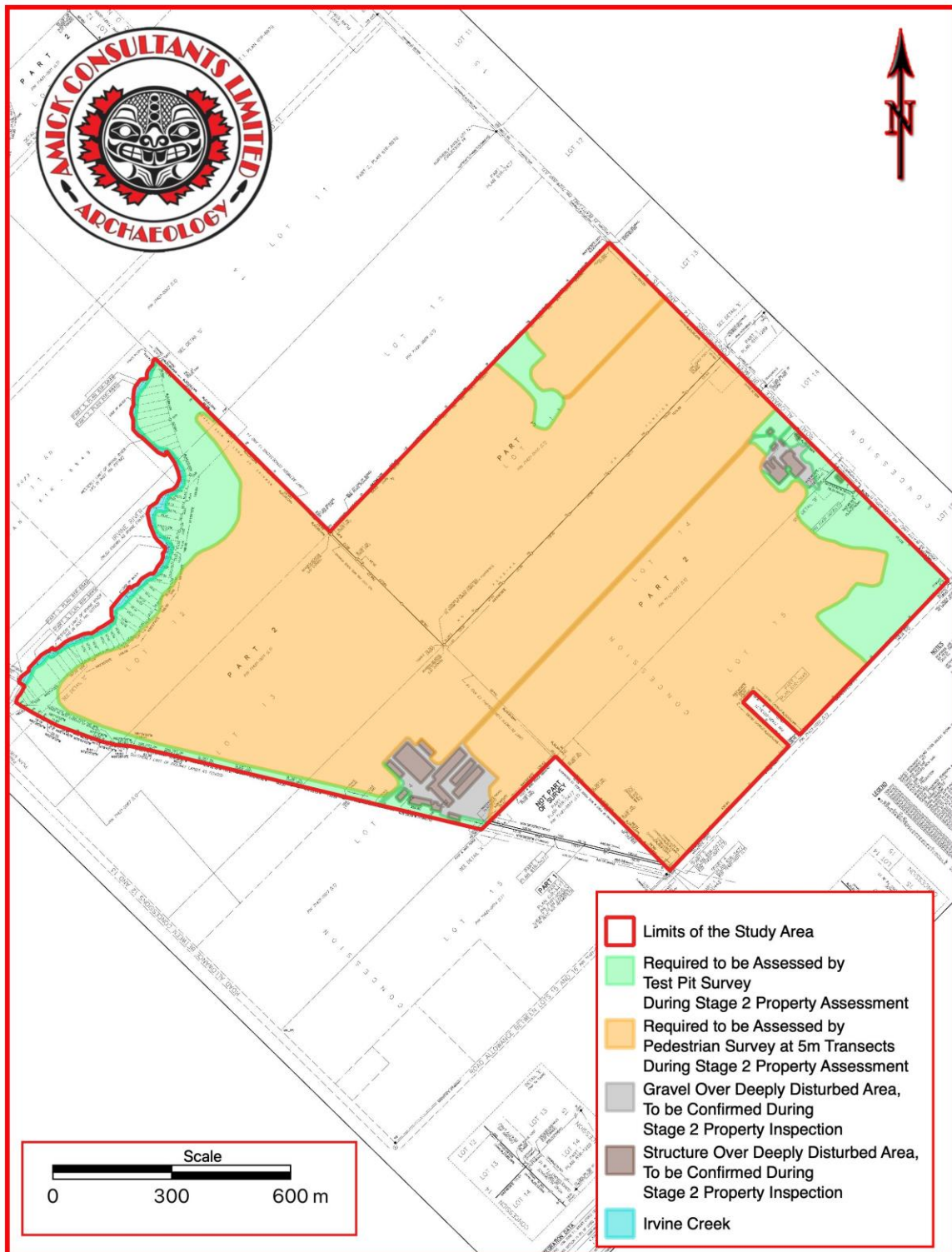
MAP 3 FACSIMILE SEGMENT OF THE HISTORIC ATLAS MAP OF THE TOWNSHIP OF NICHOL
(WALKER & MILES 1877)



MAP 4 SITE PLAN (J.D. BARNES 2023)



MAP 5 AERIAL PHOTO OF THE STUDY AREA (GOOGLE EARTH 2016)



MAP 6 DETAILED PLAN OF THE STUDY AREA (AFTER J.D. BARNES 2023)



MAP 7 ARCHAEOLOGICAL POTENTIAL