

Appendix B

Archaeological Report

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Jun 8, 2023

Liam Browne (P1048)
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RE: Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, " Stage 1 Archaeological Assessment Municipal Class EA Hamilton Road & Gore Road Intersection Improvements Part of Lots 6 and 7, Concessions A and B Geographic Township of London Middlesex County, now City of London, Ontario ", Dated Jun 2, 2023, Filed with MCM Toronto Office on N/A, MCM Project Information Form Number P1048-0020-2021, MCM File Number 0013649

Dear Mr. Browne:

The above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18, has been entered into the Ontario Public Register of Archaeological Reports without technical review.¹

Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require further information, please do not hesitate to send your inquiry to Archaeology@Ontario.ca

cc. Archaeology Licensing Officer
Vince Pugliese, MTE Consultants Inc
TBD TBD, COL

¹In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

**Stage 1 Archaeological Assessment
Municipal Class EA
Hamilton Road & Gore Road Intersection Improvements
Part of Lots 6 and 7, Concessions A and B
Geographic Township of London
Middlesex County, now City of London, Ontario**

Submitted to

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and

The Ontario Ministry of Citizenship and Multiculturalism

Prepared by



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June 2023
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the Ministry of Citizenship and Multiculturalism
June 2, 2023



Executive Summary

The City of London has begun planning for improvements to the intersection between Hamilton Road and Gore Road, which is currently a three-legged stop-controlled intersection located on the east side of the City of London, Ontario. The intersection has been identified to have deficient operating and geometric characteristics and has seen a significant increase in traffic volumes in recent years due to development in the area. The initial technical review of the intersection identified a roundabout as a preferred design option for this intersection. MTE Consultants Inc. (MTE) was contracted by the City of London to undertake the Hamilton Road and Gore Road Intersection Improvements Schedule B Municipal Class Environmental Assessment (EA).

In 2020, Timmins Martelle Heritage Consultants Inc. (TMHC) was hired by MTE to carry out the Stage 1 archaeological assessment for the Hamilton Road and Gore Road Intersection Improvements Project (the Project). Based on discussions with MTE, the Project Area was determined to be a 5.012 ha (12.38 ac) area centered on the existing Hamilton Road and Gore Road intersection. The Project Area is located within Lots 6 and 7, Concessions A and B in the Geographic Township of London, now City of London, Middlesex County, Ontario. The current assessment conforms with the requirements of the *Environmental Assessment Act* and *Provincial Policy Statement*. The work was also in keeping with the *Ontario Heritage Act* and City of London's *Archaeological Management Plan* (ASI et al. 2017), a guide for assessing potential archaeological impacts in land use planning in the City of London. The purpose of the assessment was to determine whether there was potential for the discovery of archaeological resources within the Project Area.

The Stage 1 background study included a review of current land use, historical and modern maps, registered archaeological sites and previous archaeological studies, past settlement history for the area, and a consideration of topographic and physiographic features, soils and drainage. According to the map-based review and background research, potential for the discovery of archaeological sites is indicated by the proximity (within 300 m) to: 1) an active watercourse (Pottersburg Creek); 2) mapped 19th century buildings (numerous structures depicted on mid to late 19th-century mapping); 3) areas of early 19th-century settlement (settlement at intersection of Hamilton Road and Gore Road); and 4) early historical transportation routes (Hamilton Road, Gore Road, Montebello Road and unnamed historic roadway connecting Hamilton Road to Meadowlilly Road Bridge).

A Stage 1 property inspection was also conducted to evaluate the current conditions of the Project Area and its integrity, and confirmed that large portions of the Project Area had been subject to deep and extensive land alterations that removed archaeological potential. Disturbances were largely related to residential and commercial development, roadway and sidewalk construction, and the installation of buried utilities or ditching within the Hamilton Road and Gore Road rights-of-way (ROWs). Additionally, a small portion of the Project Area in the northwest corner was previously assessed and no further assessment was recommended. The remainder of the Project Area was not obviously disturbed and contained portions of the Hamilton Road, Gore Road, and Watmar Avenue



ROWs, adjacent private properties, and the manicured grasslands within a Hydro One easement.

The Hamilton Road and Gore Road Intersection Project is currently in the planning phase, and as a result, the footprint of the proposed impacts is not yet known. Should the final detailed design for the intersection improvements project impact any part of the Project Area as covered in this Stage 1 assessment, then the following recommendations apply.

1. All previously assessed portions of the Project Area where no further assessment was recommended do not require further assessment (0.004 ha, 0.1 %).
2. All portions of the Project Area identified as extensively disturbed do not retain archaeological potential and do not require further assessment (3.646 ha, 72.7 %).
3. The remainder of the Project Area retains archaeological potential and requires a Stage 2 archaeological assessment prior to ground disturbing activities (1.362 ha, 27.2 %). Areas identified as retaining archaeological potential include parts of the existing Hamilton Road, Gore Road, and Watmar Avenue ROWs, the manicured lawns of adjacent private properties, and the manicured grasslands within the Hydro One easement. These lands are recommended for Stage 2 assessment via test pit survey at a 5 m transect interval.

The Stage 2 archaeological assessment for the Project should involve engagement with Chippewas of the Thames First Nation and Oneida on the Thames First Nation.

If the extent of the Project Area changes to incorporate lands not addressed in this report, further assessment will be required.

These recommendations are subject to the conditions laid out in Section 7.0 of this report and to the Ministry of Citizenship and Multiculturalism's review and acceptance of this report into the provincial register.

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Project Personnel

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Acknowledgements

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Andrew Miller	<i>Design Engineer</i> MTE Consultants Inc.

**Stage 1 Archaeological Assessment
Municipal Class EA
Hamilton Road & Gore Road Intersection Improvements
Part of Lots 6 and 7 Concessions A and B
Geographic Township of London
Middlesex County, now City of London, Ontario**

1.0 PROJECT CONTEXT

1.1 Development Context

1.1.1 Introduction

The City of London has begun planning for improvements to the intersection between Hamilton Road and Gore Road, which is currently a three-legged stop-controlled intersection located on the east side of the City of London, Ontario. The intersection has been identified to have deficient operating and geometric characteristics and has seen a significant increase in traffic volumes in recent years due to development in the area. The initial technical review of the intersection identified a roundabout as a preferred design option for this intersection. MTE Consultants Inc. (MTE) was contracted by the City of London to undertake the Hamilton Road and Gore Road Intersection Improvements Schedule B Municipal Class Environmental Assessment (EA).

In 2020, Timmins Martelle Heritage Consultants Inc. (TMHC) was hired by MTE to carry out the Stage 1 archaeological assessment for the Hamilton Road and Gore Road Intersection Improvements Project (the Project). Based on discussions with MTE, the Project Area was determined to be a 5.012 ha (12.38 ac) area centred on the existing Hamilton Road and Gore Road intersection. While the initial project design indicated that the western limit of the Project Area would be Watmar Avenue, a request was made by MTE to extend the Project Area an additional 100 m west along Hamilton Road. The Project Area is located within Lots 6 and 7, Concessions A and B in the Geographic Township of London, now City of London, Middlesex County, Ontario. The current assessment conforms with the requirements of the *Environmental Assessment Act* and *Provincial Policy Statement*. The work was also in keeping with the *Ontario Heritage Act* and City of London's *Archaeological Management Plan* (ASI et al. 2017), a guide for assessing potential archaeological impacts in land use planning in the City of London. The purpose of the assessment was to determine whether there was potential for the discovery of archaeological resources within the Project Area.

All archaeological consulting activities were performed under the Professional Archaeological License of Liam Browne M.A. (P1048) and in accordance with the *Standards and Guidelines for Consultant Archaeologists* (MTC 2011). Permission to commence the study was given by Andrew Miller of MTE Consultants Inc.

1.1.2 Purpose and Legislative Context

The *Ontario Heritage Act* (R.S.O. 1990) makes provisions for the protection and conservation of heritage resources in the Province of Ontario. Heritage concerns are recognized as a matter of provincial interest in Section 2.6.2 of the *Provincial Policy Statement* (PPS 2020) which states:

development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved.

In the PPS, the term *conserved* means:

the identification, protection, management and use of *built heritage resources, cultural heritage landscapes and archaeological resources* in a manner that ensures their cultural heritage value or interest is retained. This may be achieved by the implementation of recommendations set out in a conservation plan, archaeological assessment and/or heritage impact assessment that has been approved, accepted or adopted by the relevant planning authority and/or decision-maker. Mitigative measures and/or alternative development approaches can be included in these plans and assessments.

The *Environmental Assessment Act* provides for the protection and conservation of the environment. In this case, the environment is widely defined to cover “cultural heritage” resources. Section 5(3)(c) of the Act stipulates that heritage resources to be affected by a proposed undertaking be identified during the environmental screening process. Within the EA process, the purpose of a Stage 1 background study is to determine if there are known cultural resources within the proposed Project Area, or potential for such resources to exist. Subsequently, it can act as a planning tool by identifying areas of concern that, where possible, could be avoided to minimize environmental impact. It is also used to determine the need for a Stage 2 field assessment involving the search for archaeological sites.

With respect to the Project, this Stage 1 archaeological assessment is being completed as part of the planning component of the EA. As such, the exact footprint of the proposed impacts is not yet known; rather, this report will help to inform decisions made about the various alternatives proposed to address the intersection improvements.

The City of London’s *Archaeological Management Plan* (ASI et al. 2017) is a planning tool developed to implement these requirements by identifying areas where there is potential for archaeological sites to exist. If properties are deemed to have potential for archaeological sites, a Stage 1 and 2 archaeological assessment is required.

2.0 STAGE 1 ARCHAEOLOGICAL ASSESSMENT

2.1 Research Methods and Sources

A Stage 1 overview and background study was conducted to gather information about known and potential cultural heritage resources within the Project Area. According to the *Standards and Guidelines*, a Stage 1 background study must include a review of:

- an up-to-date listing of sites from the Ontario's Past Portal for 1 km around the property;
- reports of previous archaeological fieldwork within a radius of 50 m around the property;
- topographic maps at 1:10,000 (recent and historical) or the most detailed scale available;
- historic settlement maps (e.g., historical atlas, surveys);
- archaeological management plans or other archaeological potential mapping (when available); and
- commemorative plaques or monuments on or near the property.

For this project, the following activities were carried out to satisfy or exceed the above requirements:

- a database search was completed through the Ministry of Citizenship and Multiculturalism's (MCM) Past Portal system that compiled a list of registered archaeological sites within 1 km of the Project Area (completed January 25, 2021);
- a review of known prior archaeological reports for the Project Area and adjacent lands (note: the MCM currently does not keep a publicly accessible record of archaeological assessments carried out in the Province of Ontario, so a complete inventory of prior assessment work nearby is not available);
- Ontario Base Mapping (1:10,000) was reviewed through ArcGIS and mapping layers provided by geographynetwork.ca;
- detailed mapping providing by the client was also reviewed; and,
- a series of historic maps and photographs was reviewed related to post-1800 land settlement.

While there are no commemorative plaques or monuments within the immediate vicinity of the Project Area, the Project Area falls within an area of archaeological potential as determined by the City of London's *Archaeological Management Plan* (ASI et al. 2017).

Additional sources of information were also consulted, including modern aerial photographs, local history accounts, soils and physiographic data provided by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), and both 1:50,000 (Natural Resources Canada) and finer scale topographic mapping.

When compiled, background information was used to create a summary of the characteristics of the Project Area, in an effort to evaluate its archaeological potential. The Province of Ontario (MTC 2011 – Section 1.3.1) has defined the criteria that identify archaeological potential as:

- previously identified archaeological sites;
- water sources;
 - primary water sources (lakes, rivers, streams, creeks);
 - secondary water courses (intermittent streams and creeks, springs, marshes, swamps);
 - 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 topography, shorelines of drained lakes or marshes, cobble beaches);
 - accessible or inaccessible shoreline (e.g., high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh);
- elevated topography (e.g., eskers, drumlins, large knolls, plateaus);
- pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground;
- 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;
- resource areas, including:
 - food or medicinal plants (e.g., migratory routes, spawning areas, prairie);
 - scarce raw materials (e.g., quartz, copper, ochre or outcrops of chert);
 - early settler industry (e.g., fur trade, logging, prospecting, mining);
- areas of early 19th-century settlement. These include places of early military or pioneer settlement (e.g., pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks.
- early historical transportation routes (e.g., trails, passes, roads, railways, portage routes);
- property listed on a municipal register or designated under the *Ontario Heritage Act* or that is a federal, provincial, or municipal historic landmark or site; and
- property that local histories or informants have identified with possible archaeological sites, historical events, activities or occupations.

In Southern Ontario (south of the Canadian Shield), any lands within 300 m of any of the features listed above are considered to have potential for the discovery of archaeological resources.

Typically, a Stage 1 assessment will determine potential for Indigenous and historic era sites independently. This is due to the fact that lifeways varied considerably during these eras so that criteria used to evaluate potential for each type of site also varies.

It should be noted that some factors can also negate the potential for discovery of intact archaeological deposits. Subsection 1.3.2 of the *Standards and Guidelines* indicates that archaeological potential can be removed in instances where land has been subject to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources. Major disturbances indicating removal of archaeological potential include, but are not limited to:

- quarrying;
- major landscaping involving grading below topsoil;
- building footprints; and
- sewage and infrastructure development.

Some activities (agricultural cultivation, surface landscaping, installation of gravel trails, etc.) may result in minor alterations to the surface topsoil but do not necessarily affect or remove archaeological potential. It is not uncommon for archaeological sites, including structural foundations, subsurface features and burials, to be found intact beneath major surface features like roadways and parking lots. Archaeological potential is, therefore, not removed in cases where there is a chance of deeply buried deposits, as in a developed or urban context or floodplain where modern features or alluvial soils can effectively cap and preserve archaeological resources.

2.2 Project Context: Archaeological Context

2.2.1 Project Area: Overview and Physical Setting

The Project Area is an approximately 5.012 ha (12.38 ac) area centred on the existing Hamilton Road and Gore Road intersection (Maps 1 and 2). The general surroundings include residential developments to the north, east, and west, with parklands and the Pottersburg Wastewater Treatment Plant to the south. The Project Area comprises: 200 m of the Hamilton Road right-of-way (ROW) west and east of the intersection with Gore Road as well as portions of adjacent properties; 275 m of the Gore Road ROW east of the intersection with Hamilton Road as well as portions of adjacent properties; 20 m of the Watmar Avenue ROW north of Hamilton Road as well as portions of adjacent properties; the commercial property at 1154 Hamilton Road; and portions of the Hydro One easement southwest of Hamilton Road and south of Gore Road. In general, the ROWs consist of road shoulders, road ditches, and grassed boulevards containing above and below ground utilities that service the neighbouring residential and commercial developments. The residential properties within the Project Area are mostly comprised of manicured lawns, and the Hydro One easement includes both grasslands and a paved lot.

The Project Area falls within the Mount Elgin Ridges physiographic region (Chapman and Putnam 1966:240) (Map 3), a succession of ridges and vales situated between the Thames River Valley and the sand plain of Norfolk and Elgin counties (Chapman and Putnam 1966:233). The ridges are moraines composed primarily of calcareous or silty clay, while gravel, sand, and silt are common in the vales (Chapman and Putnam 1966:233). The Project Area exists within a spillway associated with the south branch of Thames River, and the Ingersoll Moraine occurs roughly 800 m to the south. Its soils are mapped as sandy loam (Map 4)

The Project Area falls within the Thames River watershed. The southern branch of the Thames River flows approximately 500 m to the south. The vicinity of the Project Area has been heavily developed and has altered much of the natural drainage (Map 5). Pottersburg Creek is located approximately 225 m to the east.

2.2.2 Summary of Registered or Known Archaeological Sites

According to the Ontario's Past Portal, there are eight registered archaeological sites within 1 km of the Project Area. All of these are Indigenous sites located on the south side of the Thames River, and none are within 300 m. The two datable sites are attributable to the Late Archaic and the Middle Woodland periods. All eight sites were identified during archaeological assessments of the Meadowlily Woods Environmentally Significant Area (ESA) by the Museum of Indian Archaeology (MIA)/London Museum of Archaeology (now Museum of Ontario Archaeology).

Table 1: Archaeological Sites Registered within 1 km of the Project Area

Borden Number	Site Name	Time Period	Affinity	Site Type	Researcher
AfHh-150	Meadowlily #17	Late Archaic	Indigenous	scatter	MIA (1988)
AfHh-151	Meadowlily #18	Pre-Contact	Indigenous	findspot	MIA (1988)
AfHh-152	Meadowlily #19	Pre-Contact	Indigenous	scatter	MIA (1988)
AfHh-153	Meadowlily #20	Pre-Contact	Indigenous	scatter	MIA (1988)
AfHh-154	Meadowlily #21	Middle Woodland	Indigenous	findspot	MIA (1988)
AfHh-300	Meadowlily 99-2	Pre-Contact	Indigenous	findspot	Pearce (1999)
AfHh-301	Meadowlily 99-3	Pre-Contact	Indigenous	findspot	Pearce (1999)
AfHh-302	Meadowlily 99-4	Pre-Contact	Indigenous	findspot	Pearce (1999)

2.2.3 Summary of Past Archaeological Investigations within 50 m

Based on the available data, two previous archaeological assessments have occurred within 50 m of the current Project Area. As the MCM currently does not maintain an accessible database of previous reports, this may not be a complete listing of archaeological assessments undertaken within this radius.

In 2015, AECOM Canada Ltd. (AECOM) undertook a Stage 1 archaeological assessment for an approximate 79 ha parcel of land as part of the Pottersburg-Vauxhall Interconnection Master Plan (Map 6). The land included includes all preliminary interconnection alternatives between the Pottersburg and Vauxhall wastewater treatment plants (WWTP), and is located immediately west and south of the current Project Area. The Stage 1 determined that parts of the study area had high potential for the recovery of archaeological resources. As such, Stage 2 test pitting at a 5 m transect interval was recommended for all areas retaining archaeological potential. The results of this work were presented in a revised report entitled *Stage 1 Archaeological Assessment, Pottersburg-Vauxhall Interconnection Class EA, Parts of Lots 7 and 8, Concession A, and part of Lots 8-10, Concession B, Geographic Township of London, Now the, City of London, Middlesex County, Ontario* (AECOM 2016; PIF P438-0067-2016; Licensee Samantha Markham).

In 2017, TMHC conducted a Stage 1 and 2 assessment for a proposed residential development at 1090-1096 Hamilton Road (Map 7). The previous work slightly overlaps the northwest corner of the current Project Area. Roughly 85% of the subject property was test pitted at a 5 m transect interval and the remainder (roughly 15%) was previously disturbed and photo-documented. No archaeological material was identified during the Stage 2 assessment and no further work was recommended. The results of this work were presented in a report entitled *Stage 1 & 2 Archaeological Assessment Proposed Residential Development 1090-1096 Hamilton Road Part of Lot 7, Concession B Geographic Township of London City of London Middlesex County, Ontario* (TMHC 2017; PIF P324-0226-2017; Licensee Matthew Beaudoin).

2.2.4 Dates of Archaeological Fieldwork

A property inspection was completed on March 19, 2021 by Liam Browne (P1048). The weather was sunny and clear.

2.3 Project Context: Historical Context

2.3.1 Indigenous Settlement in the City of London

Our knowledge of the Indigenous occupation in the general area is incomplete. Nevertheless, using province-wide and region-specific data, a generalized cultural chronology for Indigenous settlement in the area can be proposed (Table 2). A summary of the themes and temporal periods of Indigenous occupation is provided below.

Table 2: Chronology of Indigenous Settlement in the City of London

Period			Time Range (circa)	Diagnostic Features	Complexes
Paleo	Early		9000 - 8400 B.C.	fluted projectile points	Gainey, Barnes, Crowfield
	Late		8400 - 8000 B.C.	non-fluted and lanceolate points	Holcombe, Hi-Lo, Lanceolate
Archaic	Early		8000 - 6000 B.C.	serrated, notched, bifurcate base points	Nettling
	Middle		6000 - 2500 B.C.	stemmed, side & corner notched points	Brewerton, Otter Creek, Stanly/Neville
	Late		2000 - 1800 B.C.	narrow points	Lamoka
			1800 - 1500 B.C.	broad points	Genesee, Adder Orchard, Perkiomen
			1500 - 1100 B.C.	small points	Crawford Knoll
	Terminal		1100 - 950 B.C.	first true cemeteries	Hind
Woodland	Early		950 - 400 B.C.	expanding stemmed points, Vinette pottery	Meadowood
	Middle		400 B.C. - A.D. 500	dentate, pseudo-scallop pottery	Saugeen
	Transitional		A.D. 500 - 900	first corn, cord-wrapped stick pottery	Princess Point
	Late	Early	A.D. 900 - 1300	first villages, corn horticulture, longhouses	Glen Meyer
		Middle	A.D. 1300 - 1400	large villages and houses	Uren, Middleport
		Late	A.D. 1400 - 1650	tribal emergence, territoriality, first Europeans	Neutral Iroquois
Contact		Indigenous	A.D. 1700 - present	treaties, mixture of Indigenous & European items	Chippewa, Ojibway, Oneida, Delaware
		Settler	A.D. 1796 - present	English goods, homesteads	European settlement, pioneer life

Paleo Period

The first human populations to inhabit the area came to the region between 12,000 and 10,000 years ago, coincident with the end of the last period of glaciation. Climate and environmental conditions were significantly different then they are today; local environs would not have been welcoming to anything but short-term settlement. Ontario first peoples would have crossed the landscape in small groups (i.e., bands or family units) searching for food, particularly migratory game species. In the area, caribou may have provided the staple of Paleo diet, supplemented by wild plants, small game, birds and fish.

Given the low density of populations on the landscape at this time and their mobile nature, Paleo sites are small and ephemeral. They are sometimes identified by the presence of fluted projectile points manufactured on a highly distinctive white-gray chert named "Fossil Hill" after the geological formation, or "Collingwood." Located near the

escarpment on “Blue Mountain,” this source was exploited by populations from as far south as the London area, who would have traveled here as part of their seasonal round.

Archaic Period

The archaeological record of early Indigenous life in Southern Ontario indicates a change in lifeways beginning circa 8000 B.C. at the start of what archaeologists call the Archaic Period. The Ontario populations are better known than their Paleo predecessors, with numerous sites found throughout the area. The characteristic projectile points of early Archaic populations appear similar in some respects to early varieties and are likely a continuation of early trends. Archaic populations continued to rely heavily on game, particularly caribou, but diversified their diet and exploitation patterns with changing environmental conditions. A seasonal pattern of warm season riverine or lakeshore settlements and interior cold weather occupations has been documented in the archaeological record.

Since the large cold weather mammal species that formed the basis of the Paleo subsistence pattern became extinct or moved northward with the onset of warmer climate, Archaic populations had a more varied diet, exploiting a range of plant, bird, mammal and fish species. Reliance on specific food resources like fish, deer and nuts becomes more pronounced through time and the presence of more hospitable environs and resource abundance led to the expansion of band and family sizes. In the archaeological record, this is evident in the presence of larger sites and aggregation camps, where several families or bands would come together in times of resource abundance. The change to more preferable environmental circumstances led to a rise in population density. As a result, Archaic sites are more abundant than those from the earlier period. Artifacts typical of these occupations include a variety of stemmed and notched projectile points, chipped stone scrapers, ground stone tools (e.g., celts, adzes) and ornaments (e.g., bannerstones, gorgets), bifaces or tool blanks, animal bone and waste flakes, a by-product of the tool making process.

Early, Middle and Transitional Woodland Periods

Significant changes in cultural and environmental patterns are witnessed in the Woodland Period (circa 950 B.C to historic times). The coniferous forests of earlier times were replaced by stands of mixed and deciduous species. Occupations became increasingly more permanent in this period, culminating in major semi-permanent villages by 1,000 years ago. Archaeologically, the most significant changes by Woodland times are the appearance of artifacts manufactured from modeled clay and the construction of house structures. The Woodland Period is often defined by the occurrence of pottery, storage facilities and residential areas similar to those that define the incipient agricultural or Neolithic period in Europe. The earliest pottery was rather crudely made by the coiling method and house structures were simple enclosures.

Early and Middle Woodland peoples are also known for a well-developed burial complex and ground stone tool industry. Unique Early Woodland ground stone items include pop-eyed birdstones and gorgets. In addition, there is evidence of the development



of widespread trading with groups throughout the northeast. The recovery of marine shells from the Lake Superior area indicates that exchanges of exotic materials and finished items from distant places were common place.

Late Woodland Period

During the Late Woodland Period, much of Southwestern Ontario was occupied by two groups: Iroquoians and what are thought by archaeologists to be Algonquin speaking populations (the term “Western Basin Tradition” has been used to describe this cultural complex). In the east, the Iroquoian occupants were the Attawandaron or Neutral Nation, a tribal group described by European missionaries and whose historic homeland was significantly further east. Like other known Iroquoian groups including the Huron (Wendat) and Petun (Tionontati), the Attawandaron practiced a system of intensive horticulture based on three primary subsistence crops (corn, beans and squash). Their villages incorporated a number of longhouses, multi-family dwellings that contained several families related through the female line. *The Jesuit Relations* describe several Neutral centres in existence in the 17th century, including a number of sites where missions were later established. While precontact Neutral sites may be identified by a predominance of well-made pottery decorated with various simple and geometric motifs, triangular stone projectile points, clay pipes and ground stone implements, sites post-dating European contact are recognized through the appearance of various items of European manufacture. The latter include materials acquired by trade (e.g., glass beads, copper/brass kettles, iron axes, knives and other metal implements) in addition to the personal items of European visitors and Jesuit priests (e.g., finger rings, stoneware, rosaries, glassware). The Attawandaron were dispersed and their population decimated by the arrival of epidemic European diseases and inter-tribal warfare. Many were adopted into other Iroquoian communities.

Archaeologists have also documented the *in situ* development of Late Woodland archaeological traditions from Middle Woodland precedents that are believed to have an Algonquin cultural origin, quite distinct from Iroquoian populations who lived to the east. The archaeological record of these groups has been labeled the “Western Basin Tradition.” During the Late Woodland period complex settlements are characteristic of these people and, at their peak, are characterized by fortified villages containing large, likely extended family, structures. Some of the villages are surrounded by earthworks. There is evidence for the cultivation of corn and beans by roughly A.D. 900. The pottery traditions of these people varied significantly from those of their Iroquoian neighbors. Early vessels, called Wayne ware, are small, thin-walled pots covered with vertical cord marking and tool impressions. Vessels become more elaborate through time, incorporating multiple bands of tool impressions, castellated rims and incised decoration. Late pottery is characteristically bag-shaped and often incorporates dentate stamping as well as appliqué strips and strap handles, similar to some Mississippian tradition pottery. As was not the case with much Iroquoian pottery, clay fabrics were mixed with shell temper.

After the late 16th century, there is little archaeological evidence of permanent Indigenous settlements within the London area until the 19th century. This should not be



interpreted to mean that the area was not used by Indigenous people for hunting, fishing and gathering of resources. In addition, the Thames River continued to be an important transportation route throughout this period. These activities leave more ephemeral archaeological evidence.

2.3.2 Crown – Indigenous Peoples Treaty Context

The Project Area is encompassed by the London Township Treaty No. 6 which was signed September 7, 1796 between the British Crown and the Chippewa Nation:

WHEREAS we the principal Chiefs, Warriors, and People of the Cheppewa Nation of Indians being desirous for a certain consideration hereinafter mentioned of selling and disposing of a certain parcel or tract of land situated and lying on the north side of the River Thames or River La Tranche and known in the Indian name by Escunnisepe unto His Britannic Majesty King George the Third our great Father.

This treaty encompassed land on the north side of the Thames River west of the Forks in London and on the north side of the south branch of the Thames east of the Forks until near what is now Woodstock. Portions of both Middlesex and Oxford Counties are included in the treaty area.

Although the treaty's language is framed as "extinguishment" of Indigenous rights and title to the region, exactly what was understood to have been relinquished and retained by the Chippewa Nation is contested (Deshkan Ziibing 2016; Miskokomon 2013):

... our understanding from our elders, an understanding we share with many other Anishinaabe nations, is that our treaties did not "surrender" our lands, despite what Britain and Canada have presumed (Deshkan Ziibing 2016:5).

Deshkan Ziibing, otherwise known as the Chippewas of the Thames First Nation (COTTFN), is the closest signatory Descendant community. COTTFN recognizes that other Anishinaabe nations were also signatories (Deshkan Ziibing 2016:5).

2.3.3 18th and 19th Century and Municipal Settlement

The Project Area falls within Lots 6 and 7, Concessions A and B in the Geographic Township of London, Middlesex County, Ontario. A brief discussion of 19th-century settlement and land use in the township is provided below in an effort to identify features signaling archaeological potential.

Prior to the earliest municipal settlement in the Thames River Valley, the London environs were actively used by Chippewa, Ottawa and Pottawatami people. It was from them that the British Crown purchased the lands between 1790 and 1796 (Armstrong 1986; LTHBC 2001). Shortly after the purchase, Abraham Iredell surveyed the general area. John Graves Simcoe, the first Lieut.-Governor of Upper Canada, visited the Thames River

environs in 1793 on his journey to Detroit from Niagara. He admired the countryside and the forks of the Thames aspiring to establish the capital of Upper Canada here. With the gathering American threat to the then capital Niagara, Simcoe was forced to choose an interim site immediately and establish a temporary capital in Toronto, renamed York (Armstrong 1986). Unable to begin work on his capital as he hoped, Simcoe took several steps that would eventually lead to the development of the city including securing the town site and the building of Dundas Street which was planned to stretch from Dundas near Hamilton westward to the Forks of the Thames. Due to the site's remoteness, it would be many years before settlers moved into the area and the foundation of a town became possible. Simcoe departed Upper Canada in 1796 and Toronto remained the capital of Upper Canada.

Administratively great changes took place right across the province in the end of the 18th century. The Upper Canada government tried to provide administrative services near areas as soon as they became fairly well populated. In 1798 the government, urged by this need, created the District of London which consisted of Middlesex County including London and Westminster Township among others, as well as Oxford and Norfolk Counties with the district capital located at Vittoria in Norfolk County (Armstrong 1986). Middlesex County remained virtually uninhabited at this time with small pockets of settlement occurring at the south end of the county along the shores of Lake Erie in what is now Elgin County.

Working alongside Colonel Thomas Talbot to create opportunities for settlement, Colonel Mahon Burwell initiated the first formal survey of London Township in 1810. This survey initially focused on the first six concessions (up to Sunningdale Road) but was suspended when war broke out in 1812. The northern section of the township was surveyed following the war, with the first true settlers arriving between 1817 and 1818. The first land patent, however, dates to 1812 and relates to lands that formed part of Burwell's initial survey. Among those who received the earliest patents were Burwell himself and the honorable John Hale. These grants were given *in lieu* of payment for services and loyalty, as both gentlemen did not plan to homestead on these lots but instead sell them to arriving immigrants (LTHBC 2001:11-14; H.R. Page & Co. 1878:9).

In 1818, a group of Irish settlers arrived in London Township and established homesteads on lots in the 4th, 5th, and 6th concessions. Their trek here was organized by Richard Talbot of Tipperary, Ireland, who had spent a great deal of time working on behalf of the government to find families who were interested in relocating to Upper Canada. Richard Talbot took the advice of his kinsman Colonel Thomas Talbot, and brought these families to London Township, which was said to be one of the most productive agricultural areas in the Thames River Valley (LTHBC 2001:13-14). Other early settlers were of English and Scottish descent (LTHBC 2001:15).

By 1822 the basic road system in and around Middlesex County was evolving. Port Stanley offered lakeside port entry for migrants destined for the London District (Whebell 1992), with travel facilitated by Kettle Creek or the Port Stanley to London Road (now Highway 4) constructed in 1822. Dundas Street also connected to Toronto, and



Commissioners Road which was open for sleighs by 1799, was easily passable by 1828. Road improvements helped to open Middlesex County to further settlement and with a growing population Vittoria was no longer a viable location as a district capital. After some debate the administration was transferred to the more centrally located London in 1826 (Armstrong 1986). The same year London was officially founded as a hamlet. An act of the Provincial Parliament was passed to make provisions for a town survey and the building of a new courthouse on Simcoe's Crown Reserve at the Forks which until now remained empty. Mahlon Burwell, who was charged to do the actual survey, surveyed an area which spread from the river on the south and west to Wellington Street on the east and the line of present-day Queens Avenue (formerly North Street and later Carling Street) on the north. This included surveying in all streets within the original London town site.

The City of London emerged as an early centre of residence and commerce, with its focal point being the Forks of the Thames. The courthouse square, consisting of eight lots bounded by Dundas, Ridout and King Street, was the focal point of the community. The settlement grew rapidly, focused first along the river and expanding to the north, west and south. By 1827 there were 20 to 30 buildings, by 1831, 96 houses and by 1842, 386 houses (Brock 1992). Records suggest that London grew by 239 percent between 1840 and 1850 as the population rose from 2,078 to 7,035 with the entry of masses of British immigrants to Upper Canada (Whebell 1992). By the 1870s, the eastern limit of the City had reached what is now Adelaide Street.

2.3.4 Review of Historic Mapping and Twentieth-Century Aerial Photography

The 1850 Steevens map is among the earliest depictions of London Township to show the Project Area location (Map 8). The map was prepared for the British military and reflects martial considerations such as the quality of roadways, the extent of tree cover, the presence of swampy terrain and defensible points of elevation. Property boundaries are not always clearly depicted on this map. The map shows Hamilton Road as an informal bridle path located west of its intersection with Gore Road, with the modern day section of Hamilton Road not yet opened to the east of the intersection. An area to the south of Gore Road has been cleared for farming, and two houses and a barn or shed stand at the edges of this clearing. Montebello Drive is shown as open at this time. The land on either side of the roadway has been cleared for farming and a fence marks the northern extent of the farm. Two houses and a shed or barn are found on the eastern edge of this clearing immediately north of Gore Road. A small bridle path leads south from the intersection of Hamilton Road and Gore Road to a clearing containing Stewart's Mill, three houses and a point identified as a ford point of the river. No structures are depicted within the Project Area.

The 1862 Tremaine map depicts the Project Area and the land in its vicinity as partially subdivided into building lots (Map 9). Lot 7, Concession A is now identified as "Park Lots" and Lot 7, Concession B is identified as "Divided into Small Lots." A number of structures are shown in the general area but none are depicted within the Project Area. A structure is shown approximately 100 m northeast of the intersection of Gore Road and Montebello Drive but Montebello Drive itself is not shown. This house falls within a small property identified as Willow Boon. Hamilton Road now extends east of the intersection



with Gore Road and the roadway is shown as having been graveled. This reflects Hamilton Road's status as a major thoroughfare at the time. Gore Road is shown as extending southwest beyond the intersection with Hamilton Road. The road intersects with Highbury Avenue and another small roadway leading to the site of the Meadowlily Road Bridge. At this time no bridge is illustrated at this location. The small bridle path depicted on the 1850 Steevens map (Map 8) running south from the intersection of Hamilton Road and Gore Road is not shown on this map.

The 1863 Peters map depicts conditions in Project Area and its vicinity as largely the same as the 1862 Tremaine map (Map 10). The major difference between these maps is the emphasis placed on the depiction of built structures on the 1863 Peters map, though none are illustrated within the Project Area. Three houses are shown on the north side of Hamilton Road within Lot 7, Concession B, west of the current alignment of Watmar Avenue. Two other houses are shown within Lot 7 fronting Gore Road, one of which is located immediately north of the intersection between Hamilton Road and Gore Road, while the other stands near the eastern edge of the lot. Two houses are shown to the northeast of Montebello Drive within a property associated with M. Dyer. Another home is shown within Park Lot 14 south of Gore Road. A small roadway is shown running southwest from Hamilton Road. This roadway provides access to a cluster of four homes and what is likely the previously depicted mill (now called Meadowlily Mills). All of these structures are located on a property associated with J. Dox. This roadway appears to be a later incarnation of the bridle path first depicted on the 1850 Steevens map (Map 8).

The 1878 map of Middlesex County depicts the continued development and subdivision of the land in the vicinity of the Project Area (Map 11). Two structures are illustrated within the Project Area, including a house and orchard located immediately north of the intersection with Hamilton Road, and one house in the neighbouring part lot. An additional four structures are illustrated within the vicinity of Project Area including two houses immediately west of the Project Area, a house and an orchard to the south on property associated with E. Gardener, and a house immediately east of the Project Area. It is also worth noting the discrepancy in the depiction of Hamilton Road on this map when compared with the other 19th-century depictions of the area. Here, the portion of Hamilton Road west of the intersection with Gore Road does not align with the roadway east of the intersection. This may be an error of the mapmaker. This map is the first to depict the Meadowlily Road Bridge.

Twentieth-century aerial photographs provide further information relating to development and improvements within the Project Area and its vicinity. The aerial photograph from 1922 is the earliest to depict the Project Area (Map 12). At this time, the majority of the land in the area is comprised of active agricultural fields. While at least seven farmsteads are visible almost all the structures are set back a distance from the roadways. A barn is shown partially within the northern ROW of Hamilton Road at the northwestern end of the Project Area. Portions of two houses south of Hamilton Road and west of the intersection with Gore Road are shown within the Project Area. Finally, one house is shown partially within the Project Area immediately north of the intersection with Hamilton Road.

The aerial photographs from 1942, 1945 and 1950 show the ongoing development of in the Project Area, particularly along the north side of Gore Road (Maps 13, 14 and 15). Many of the homes found in the area today were built during this time period.

The 1955 aerial photograph is the first to show Watmar Avenue (Map 16). The roadway appears to have been recently opened and several new residential buildings are present on either side of the road. Some ground disturbance related to residential construction is apparent within the ROW although the degree of impact is not clear. To the south of Hamilton Road, it is apparent that construction is underway for the Pottersburg Wastewater Treatment Plant. Some ground disturbance is seen in the southern Hamilton Road ROW near to where the plant's driveway meets Hamilton Road.

The 1965 aerial photograph shows the development of 1154 Hamilton Road and the area within the Hydro One easement south of Gore Road (Map 17). A rectangular building is seen in the eastern end of 1154 Hamilton Road and the remainder of the property has been paved. The Hydro One easement south of Gore Road is almost entirely paved. A small section of green space exists within the Hydro One easement immediately to the east of the intersection of Hamilton Road and Gore Road.

2.3.5 City of London's Register of Cultural Heritage Resources

There are no heritage structures inventoried within 300 m of the Project Area in the City of London's Register of Cultural Heritage Resources.

3.0 STAGE 1 PROPERTY INSPECTION

A Stage 1 property inspection was conducted to document the current conditions of the previously unassessed portions of the Project Area, evaluate integrity and archaeological potential. The property inspection focused on the Hamilton Road, Gore Road and Watmar Avenue ROWs. The weather was sunny and clear, and while the inspection was completed in March, there was no snow cover present that would obscure existing features.

Hamilton Road

The section of Hamilton Road east of the intersection with Gore Road is a narrow, two lane paved road with no sidewalks. West of the intersection, Hamilton Road widens to include a turning lane, two bicycle lanes and sidewalks on both side of the roadway.

From the east limits of the Project Area to the intersection with Gore Road, the southern ROW of Hamilton Road is generally narrow, though it widens slightly at 1163 and 1175 Hamilton Road. The roadway itself features a small paved and gravel shoulder and appears to be artificially built up. Overhead electrical utilities are strung between wooden poles adjacent to the road. A buried telecommunication line is present within the grassed area at the southern edge of the ROW (Image 1). Beyond the ROW, portions of the Project Area appear undisturbed, specifically lands south of the buried telecommunications lines, as well the manicured lawns of the adjacent residential properties (Image 2). The southern Hamilton Road ROW north of the Hydro One property is deeply ditched and a buried telecommunication line is present along the southern edge of the ROW (Image 3). The Hydro One lands beyond the ROW are grassed and appear undisturbed. West of the Hydro One lands, the southern Hamilton Road ROW features a sidewalk and a buried telecommunication line immediately to the south (Image 4). The ROW then widens at 1109 and 1121 Hamilton Road. While the sidewalk and buried telecommunication line are still present there are a series of seemingly undisturbed manicured lawns within the ROW (Image 5). These lands retain archaeological potential.

From the east limits of the Project Area to the intersection with Gore Road, the northern ROW of Hamilton Road is relatively wide and features a small paved and gravel shoulder. A buried telecommunications line is found to the north of the ditch south of 1166 Hamilton Road. The grassed areas north of the telecommunications line retain archaeological potential. The section of the ROW south of 1154 Hamilton Road is deeply ditched with a series of culverts facilitating drainage beneath the paved driveways for the property. A buried water utility is also present within the ROW (Image 6). The northern ROW narrows where it meets the Hydro One easement. Here, there is ditching and buried telecommunications and water utilities (Image 7). Beyond the ROW, a small section of grassed land is present and appears to be relatively undisturbed. West of the intersection with Gore Road the northern Hamilton Road ROW is narrow with little greenspace to the north of the sidewalk (Image 8). Beyond the ROW, the Project Area includes the front yards of the adjacent residential structures, and the manicured lawns appear to have retained archaeological potential. The ROW widens between 1106 and 1130 Hamilton

Road before narrowing once again; however, the widened ROW has been artificially built up. A sewer and buried telecommunications line are present at the foot of the slope (Image 9). These conditions prevail to the northwest of Watmar Avenue (Image 10). The northern ROW narrows to the northwest of 1106 Hamilton Road. Here there is little greenspace to the north of the sidewalk (Image 11).

Gore Road

The section of Gore Road to the east of the intersection with Hamilton Road is a narrow, two lane paved road with a sidewalk on its northern side.

The southern ROW of Gore Road immediately east of the intersection with Hamilton Road appears to be slightly ditched but no buried utilities are apparent (Image 12). Within this section of the ROW, the areas nearest to the roadway are obviously disturbed but the lands to the south may be undisturbed or minimally impacted. These lands retain archaeological potential. Further east, the southern Gore Road ROW north of the Hydro One lands features a wide gravel shoulder. The southernmost portion of the ROW in this area has been built up to accommodate the paved parking lot to the south (Image 13). Deep ditching is present in the southern ROW beginning northeast of a paved access driveway (Image 14). This ditch terminates at the intersection with Montebello Road. Here, a buried telecommunications line is present immediately south of the gravel shoulder. As the terminus of the ditch did not feature a culvert is possible that the area to the south of the telecommunications line remains undisturbed (Image 15).

The northern ROW of Gore Road immediately east of the intersection with Hamilton Road is narrow with only a small area of greenspace to the north of the sidewalk. Nearest to the intersection, the area to the south of the sidewalk is graveled and has been heavily impacted by vehicle traffic (Image 16). This section of the northern ROW was observed to house a buried gas line and water utility (Image 17). The ROW widens south of 1488 and 1520 Gore Road. While the buried gas line and water utility are still present immediately north of the sidewalk the lands to the north are seemingly undisturbed and retain archaeological potential (Image 18). Northeast of Montebello Drive, a sewer and buried water utility were observed to the north of the sidewalk (Image 19). Beyond the ROW, the Project Area includes the front yards of residential properties, and the manicured lawns appear to be relatively undisturbed.

Watmar Avenue

The section of Watmar Avenue north of the intersection with Hamilton Road is a two lane, paved residential side street with no sidewalks. No buried utilities were observed within the eastern or western Watmar Avenue ROWs. These lands are seemingly undisturbed and retain archaeological potential (Images 20 and 21).

Hydro One Easement

The portion of the Hydro One easement within the Project Area is found between Gore Road and 1154 Hamilton Road, as well as south of Hamilton Road. The easement features two sets of overhead electrical lines originating at the Highbury Avenue North electrical substation. A triangular area of manicured lawn is found south of Hamilton Road (Image 3) and east of the intersection of Hamilton Road and Gore Road (Image 16 and 22). These lands are seemingly undisturbed and retain archaeological potential. The remainder of the Hydro One easement is paved and considered to be disturbed (Image 23).

1154 Hamilton Road

The commercial property at 1154 Hamilton Road contains a large building, with the remainder of the property being paved. The entire property is considered disturbed (Images 23 and 24).

Table 3: Stage 1 Documentary Records

Field Notes and Field Maps	Dated March 19, 2021
Photo Catalogue	Dated March 19, 2021 (47 digital photos)
Location of Records	TMHC Inc. 1108 Dundas Street, Unit 105 London, ON N5W 3A7

4.0 ANALYSIS AND CONCLUSIONS

The Stage 1 background study included a review of current land use, historical and modern maps, registered archaeological sites and previous archaeological studies, past settlement history for the area, and a consideration of topographic and physiographic features, soils and drainage. According to the map-based review and background research, potential for the discovery of archaeological sites is indicated by the proximity (within 300 m) to: 1) an active watercourse (Pottersburg Creek); 2) mapped 19th century buildings (numerous structures depicted on mid-to-late 19th-century mapping); 3) areas of early 19th-century settlement (settlement at intersection of Hamilton Road and Gore Road); and 4) early historical transportation routes (Hamilton Road, Gore Road, Montebello Road and unnamed historic roadway connecting Hamilton Road to Meadowlilly Road Bridge).

A Stage 1 property inspection was undertaken for the Project Area. The property inspection supplemented the map-based review and background research. The principal objective of the property inspection was to evaluate the current condition of areas thought to retain archaeological potential and confirm the presence of disturbance where suspected. The Project Area (5.012 ha; 12.38 ac) was found to contain areas retaining archaeological potential, areas of low archaeological potential (i.e., disturbed) and areas for which Stage 2 assessment has already taken place and no further assessment was required (Map 18).

A roughly 1.362 ha (27.2 %; 3.36 ac) portion of the Project Area was determined to retain archaeological potential. Areas of potential include the manicured lawns of the private properties, which were not obviously disturbed, as well as the grassed portions of the Hydro One easement located south of Hamilton Road and east of the intersection between Hamilton Road and Gore Road. Additionally, several areas of potential were encountered within the Hamilton Road, Gore Road, and Watmar Avenue ROWs and were comprised of manicured grasslands or sparsely treed lands. These areas include:

- 1) A portion of the southern Hamilton Road ROW north of 1175 Hamilton Road;
- 2) A portion of the southern Hamilton Road ROW north of 1163 Hamilton Road;
- 3) Portions of the southern Hamilton Road ROW north of 1109 and 1121 Hamilton Road;
- 4) A portion of the northern Hamilton Road ROW south of 1166 Hamilton Road.
- 5) A portion of the southern Gore Road ROW northeast of the intersection with Hamilton Road;
- 6) A portion of the southern Gore Road ROW south of the intersection with Montebello Road;
- 7) A portion of the northern Gore Road ROW south of 1488 Gore Road and 123 Montebello Drive;
- 8) The western Watmar Avenue ROW; and
- 9) A portion of the eastern Watmar Avenue ROW.

The majority of the Project Area, roughly 3.646 ha (72.7 %; 9.01 ac), was determined to have been subject to deep and extensive land alterations that have removed archaeological potential within the Project Area. The most common causes of disturbance



were residential and commercial development, roadway and sidewalk construction and the installation of buried utilities or ditching within the Hamilton Road and Gore Road ROWs. These areas have been photo-documented and/or can be demonstrated to be disturbed through mapping.

Finally, a roughly 0.004 ha (0.1 %; 0.01 ac) portion of the Project Area in the northwest corner was previously subject to Stage 1-2 archaeological assessment. No further assessment of this area was recommended.

The results of our Stage 1 archaeological assessment, as well as the location and orientation of report photographs, are presented on Map 18. Map 19 depicts these results on the proponent mapping. The unaltered proponent map for the property is presented as Map 20. As noted previously, while the initial project planning indicated that the western limit of the Project Area would be Watmar Avenue, the Project Area was subsequently extended an additional 100 m west along Hamilton Road. As this is in the project planning phase, updated detailed design mapping is not yet available that reflects the additional Project Area.

5.0 RECOMMENDATIONS

The Hamilton Road and Gore Road Intersection Project is currently in the planning phase, and as a result, the footprint of the proposed impacts is not yet known. Should the final detailed design for the intersection improvements project impact any part of the Project Area as covered in this Stage 1 assessment, then the following recommendations apply.

1. All previously assessed portions of the Project Area where no further assessment was recommended do not require further assessment (0.004 ha, 0.1 %).
2. All portions of the Project Area identified as extensively disturbed do not retain archaeological potential and do not require further assessment (3.646 ha, 72.7 %).
3. The remainder of the study area retains archaeological potential and requires a Stage 2 archaeological assessment prior to ground disturbing activities (1.362 ha, 27.2 %). Areas identified as retaining archaeological potential include parts of the existing Hamilton Road, Gore Road, and Watmar Avenue ROWs, the manicured lawns of adjacent private properties, and the manicured grasslands within the Hydro One easement. These lands are recommended for Stage 2 assessment via test pit survey at a 5 m transect interval.

The Stage 2 archaeological assessment for the Project should involve engagement with Chippewas of the Thames First Nation and Oneida on the Thames First Nation.

If the extent of the Project Area changes to incorporate lands not addressed in this report, further assessment will be required.

These recommendations are subject to the conditions laid out in Section 7.0 of this report and to the Ministry of Citizenship and Multiculturalism's review and acceptance of this report into the provincial registry.

6.0 SUMMARY

A Stage 1 archaeological assessment was conducted as part of a Schedule B Municipal Class Environmental Assessment (EA) study to be undertaken for the Hamilton Road and Gore Road Intersection Improvements Project. The Stage 1 assessment area (is an approximately 5.012 ha (12.38 ac) area centred on the existing Hamilton Road and Gore Road intersection within Lots 6 and 7, Concessions A and B in the Geographic Township of London, now City of London, Middlesex County, Ontario. Background research indicated that the cumulative Project Area contained lands that had archaeological potential, were of low archaeological potential or were previously assessed. The property inspection confirmed that while the majority of the Project Area has been previously disturbed, some portions still retained archaeological potential. These areas are all either manicured lawn or sparsely treed land. Stage 2 archaeological assessment via a test pit survey at a 5 m transect interval is recommended for all areas of archaeological potential within the Project Area. The Stage 2 archaeological assessment for the Project should involve engagement with Chippewas of the Thames First Nation and Oneida on the Thames First Nation.

7.0 ADVICE ON COMPLIANCE WITH LEGISLATION

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

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

Should previously undocumented (i.e., unknown or deeply buried) archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the *Ontario Heritage Act*.

The *Funeral, Burial and Cremation Services Act, 2002*, S.O. 2002, c.33 requires that any person discovering human remains must notify the police or coroner and the Registrar of Burial Sites, War Graves, Abandoned Cemeteries and Cemetery Closures, Ontario Ministry of Government and Consumer Services. As of December 2020, Crystal Forrest is serving as A/Registrar, Burial Sites, replacing Nancy Watkins in this role. The new Registrar's contact information is: 416-212-7499, Crystal.Forrest@ontario.ca.

8.0 BIBLIOGRAPHY

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9.0 IMAGES



Image 1: Southern ROW of Hamilton Road North of 1175 Hamilton Road (built up, utilities adjacent to roadway, undisturbed to the south) (looking northwest)



Image 2: Southern ROW of Hamilton Road North of 1175 Hamilton Road (built up, utilities adjacent to roadway, undisturbed to the south) (looking southwest)



Image 3: Southern ROW of Hamilton Road North of Hydro ROW (road ditch and utilities) (looking northwest)



Image 4: Southern ROW of Hamilton Road Northwest of Gore Road (sidewalk and utilities) (looking northwest)



Image 5: Southern ROW of Hamilton Road North of 1109 and 1121 Hamilton Road (sidewalk and utilities, undisturbed to the south) (looking northwest)



Image 6: Northern ROW of Hamilton Road South of 1154 Hamilton Road (deeply ditched and utilities) (looking southeast)



Image 7: Northern ROW of Hamilton Road South of Hydro One easement (ditched and utilities) (looking southeast)



Image 8: Northern ROW of Hamilton Road Northwest of Gore Road (narrow ROW with sidewalk) (looking southeast)



**Image 9: Northern ROW of Hamilton Road between 1106 and 1130 Hamilton Road
(utilities and sidewalk) (looking southeast)**



**Image 10: Northern ROW of Hamilton Road Between 1106 and 1130 Hamilton
Road (utilities and sidewalk) (looking southeast)**



Image 11: Northern ROW of Hamilton Road (utilities and sidewalk) (looking southeast)



Image 12: Southern ROW of Gore Road Northeast of Intersection with Hamilton Road (slight ditching) (looking northeast)



Image 13: Southern ROW of Gore Road North of Hydro One easement (gravel shoulder and built up) (looking northeast)



Image 14: Southern ROW of Gore Road North of Hydro One easement (deep ditching) (looking northeast)



Image 15: Southern ROW of Gore Road South of Montebello Drive (utilities, undisturbed to the south) (looking northeast)



Image 16: Hamilton and Gore Road Intersection with Northern ROW of Gore Road (graveled driveway) (looking southeast)



Image 17: Northern ROW of Gore Road Northeast of Intersection with Hamilton Road (utilities and sidewalk) (looking southwest)



Image 18: Northern ROW of Gore Road South of 1488 Gore Road and 123 Montebello Drive (utilities adjacent to sidewalk, undisturbed to the north) (looking northeast)



**Image 19: Northern ROW of Gore Road South of 1520 Gore Road (utilities)
(looking southwest)**



Image 20: Western ROW of Watmar Avenue (undisturbed) (looking north)



Image 21: Eastern ROW of Watmar Avenue (undisturbed) (looking north)



Image 22: Hydro One easement East of Intersection of Hamilton Road and Gore Road (undisturbed) (northwest)



Image 23: Hydro One easement, Building and Paved Parking Lot at 1154 Hamilton Road (southeast)

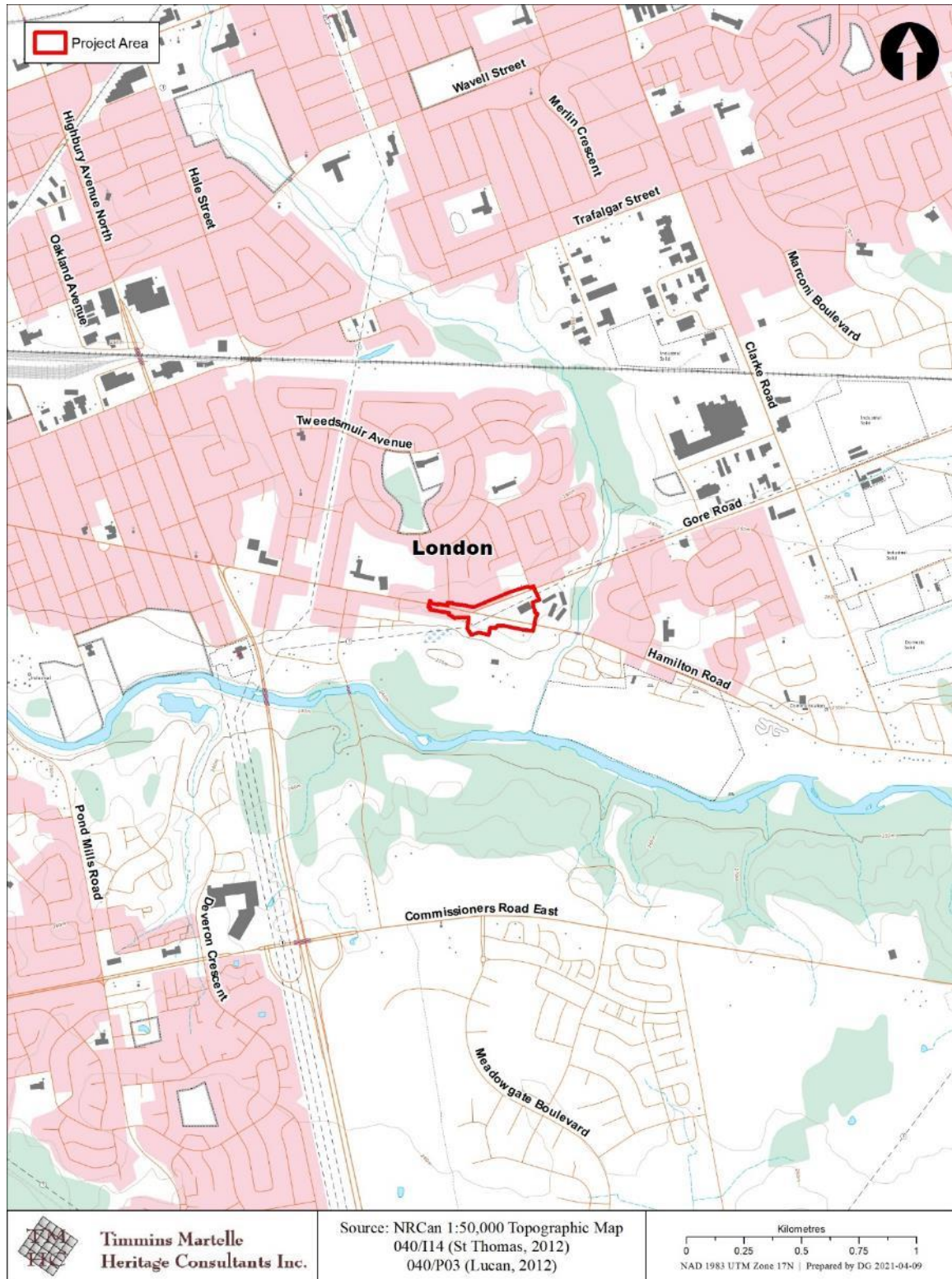


Image 24: Building and Paved Parking Lot at 1154 Hamilton Road (north)



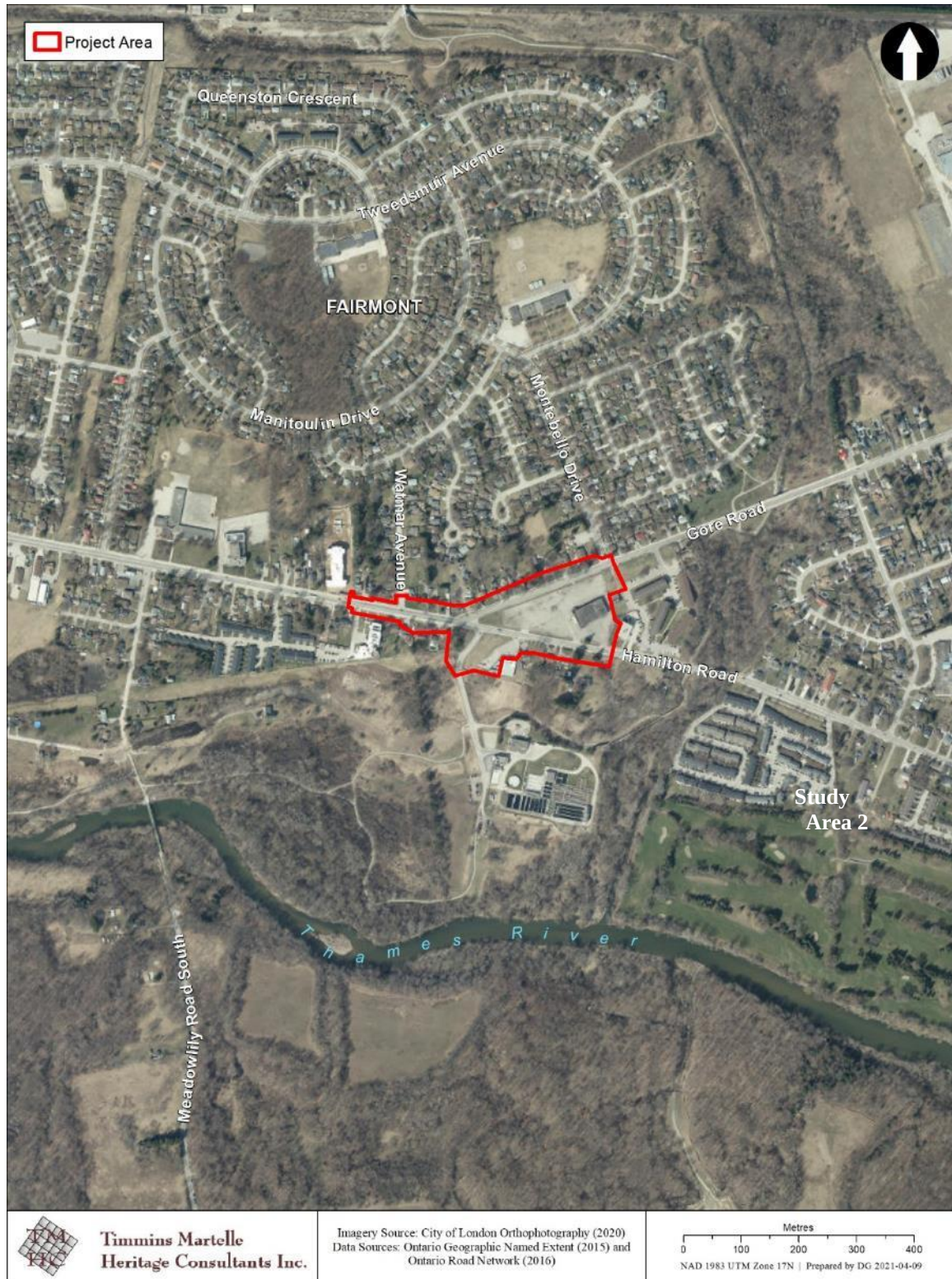
10.0 MAPS





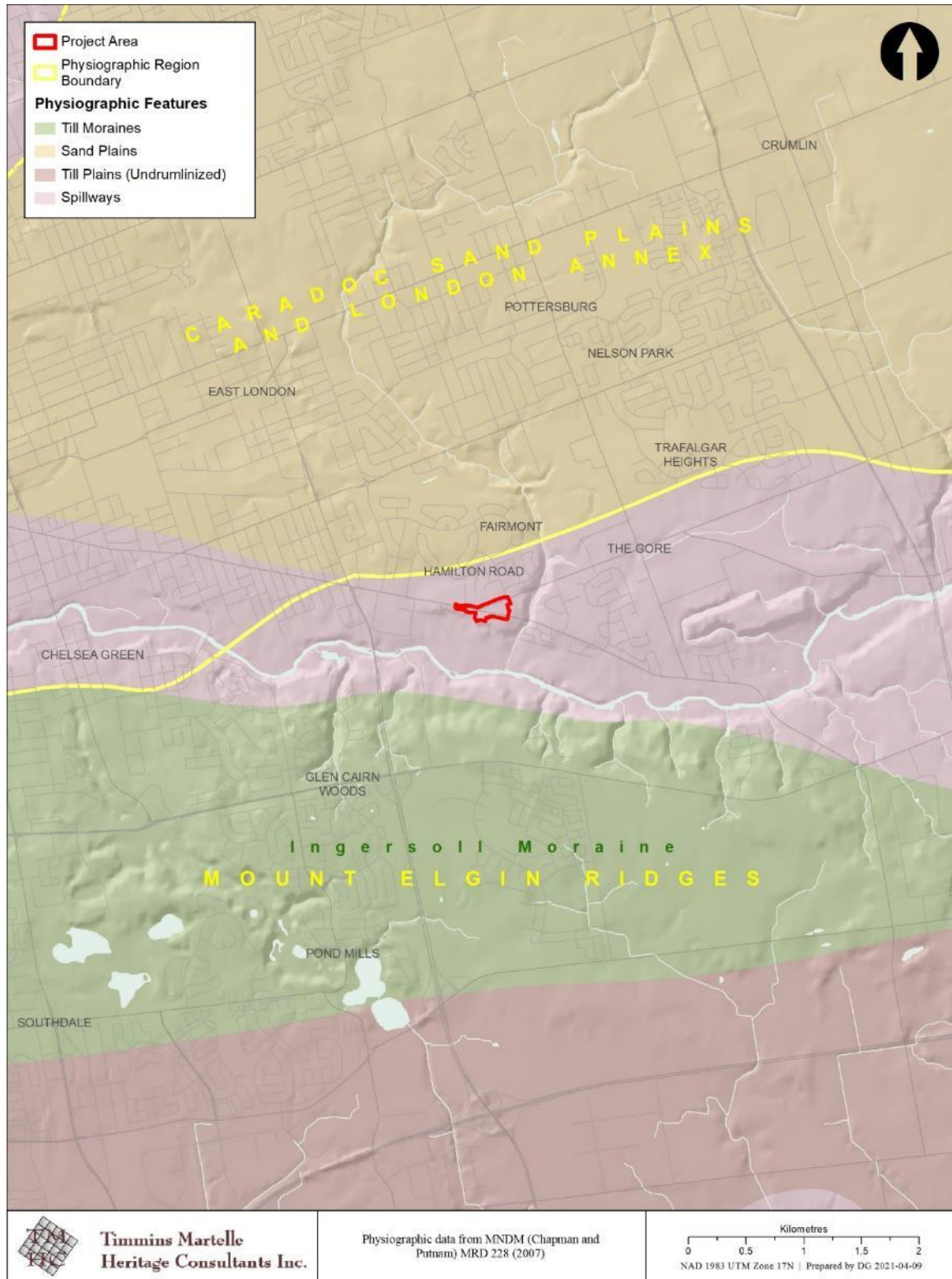
Map 1: Location of the Project Area in the City of London, ON





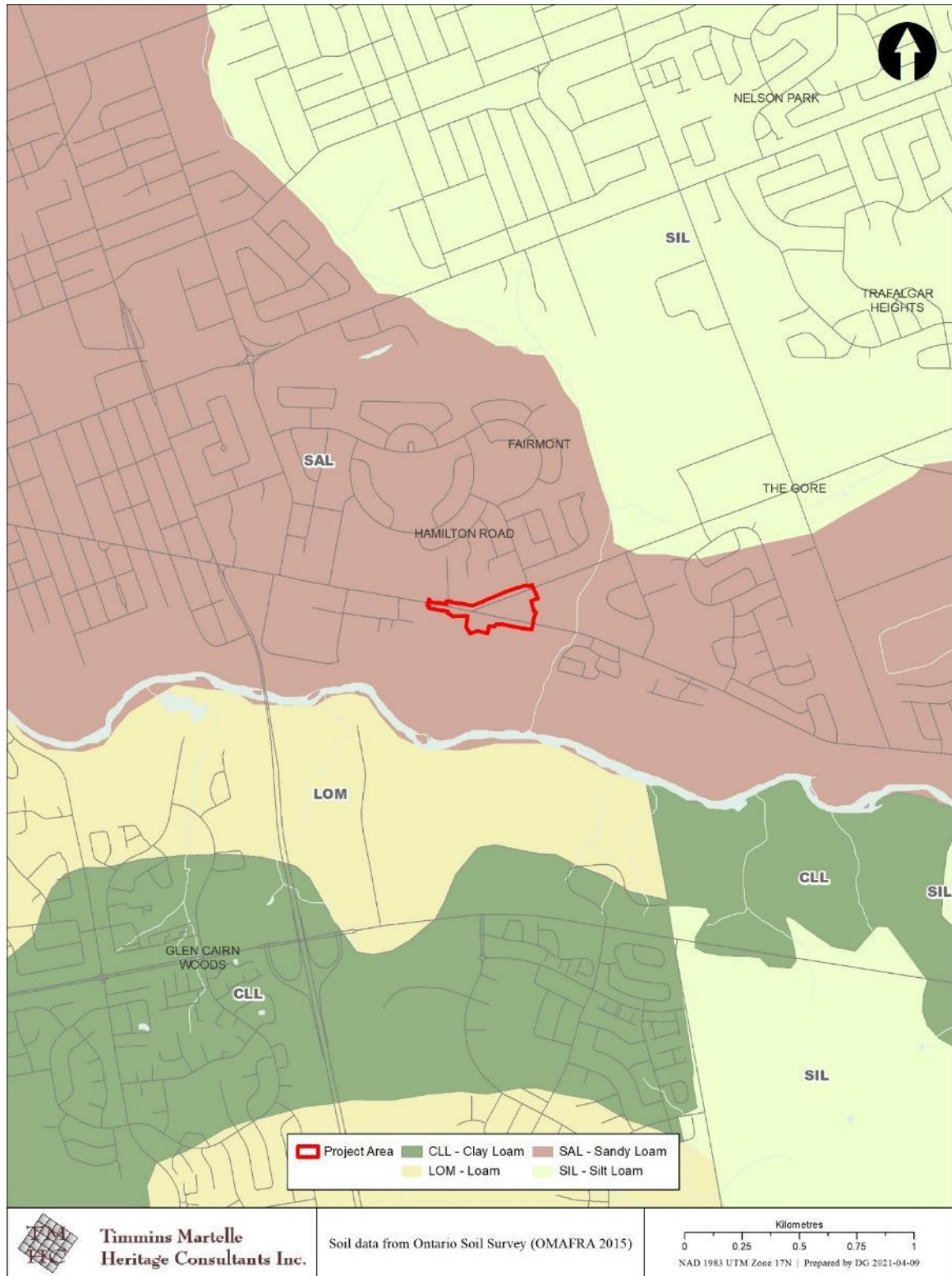
Map 2: Aerial Photograph Showing the Location of the Project Area in the City of London, ON



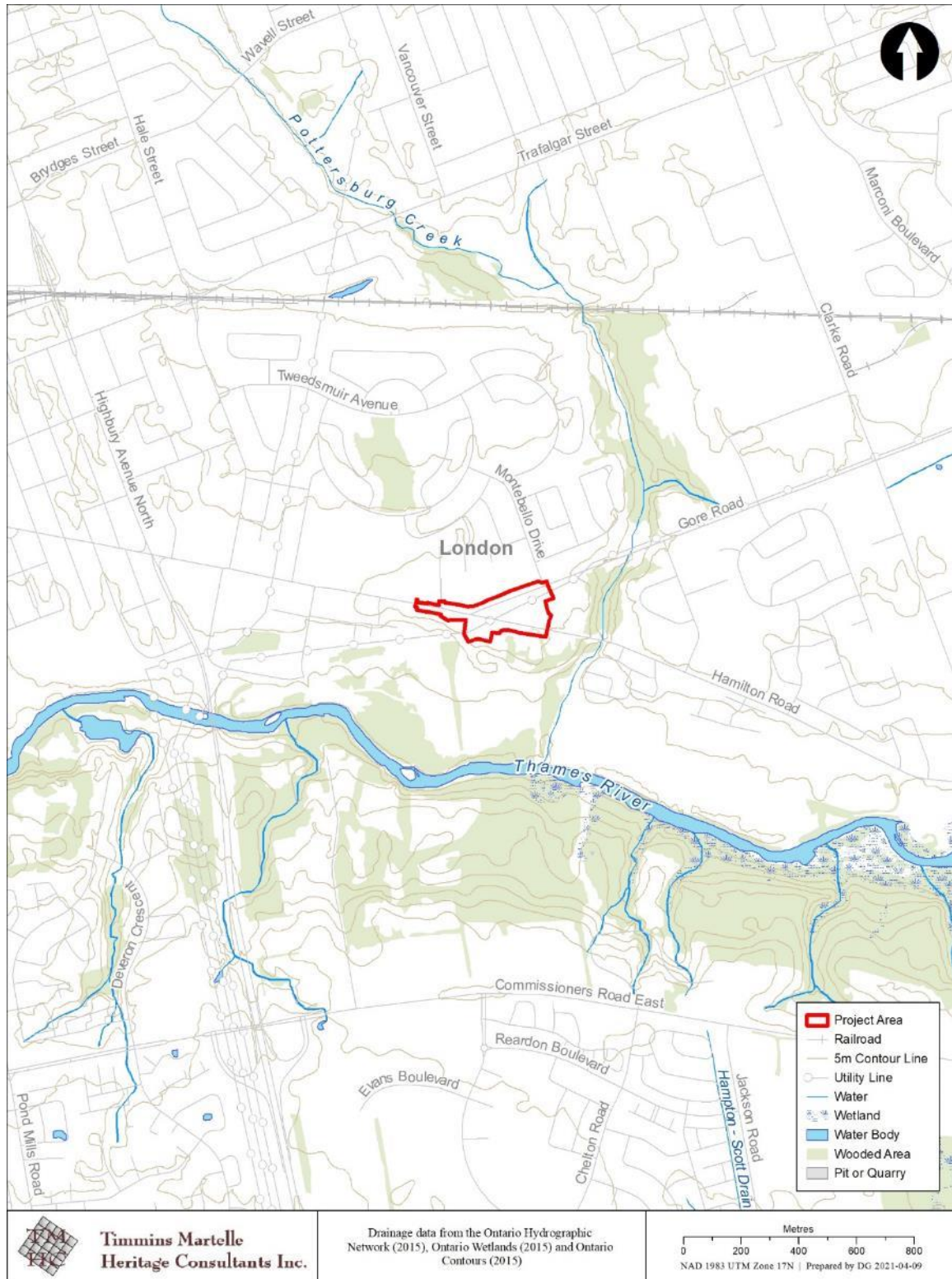


Map 3: Physiography Within the Vicinity of the Project Area

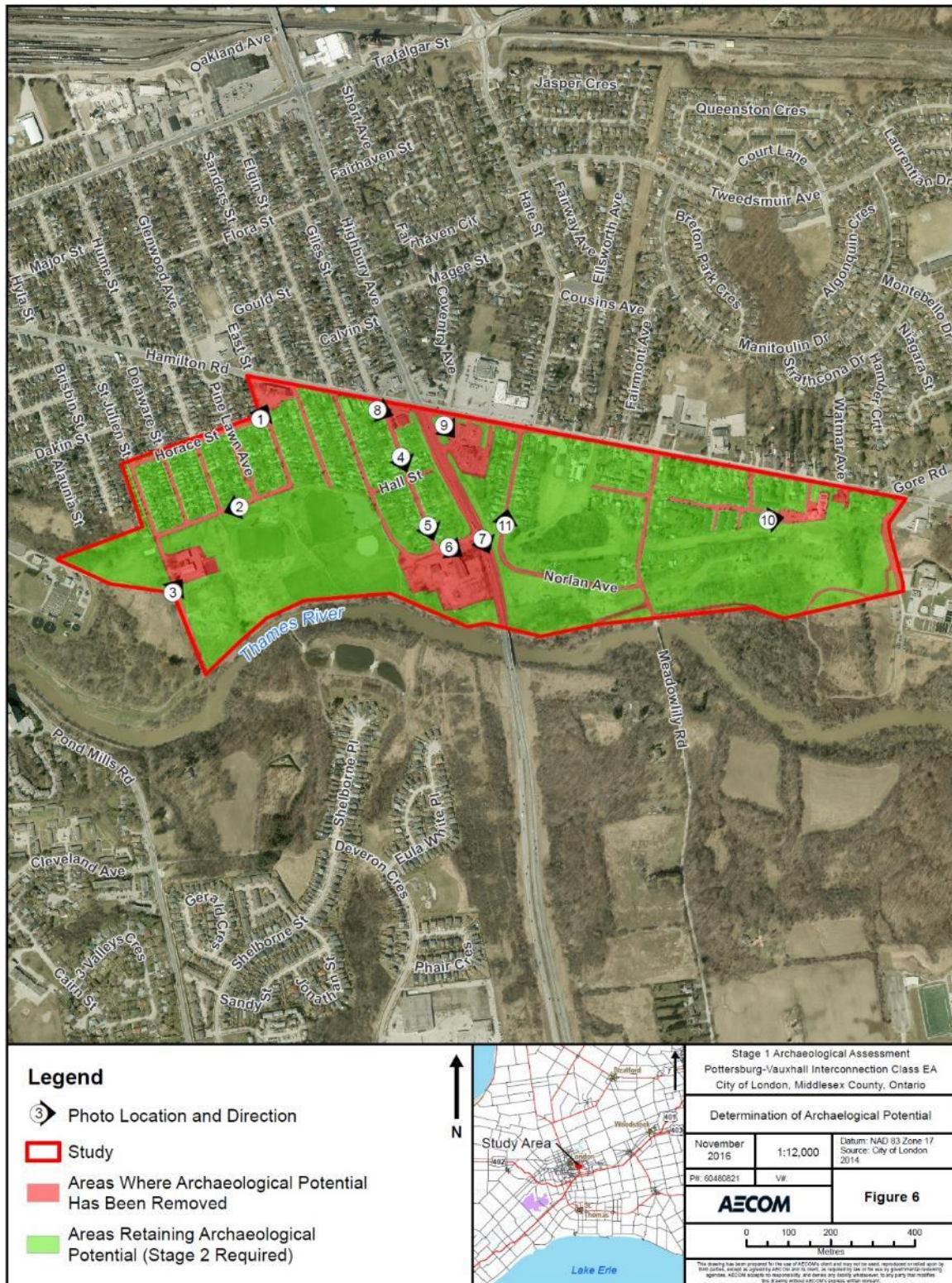




Map 4: Soils within the Vicinity of the Project Area



Map 5: Drainage within the Vicinity of the Project Area



Map 6: AECOM 2016 Stage 1 Assessment Area (PIF P438-0067-2016)





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		Prepared By: MC	Date: 6/29/2017

Map 7: TMHC 2017 Stage 1-2 Assessment Area (PIF P324-0226-2017)



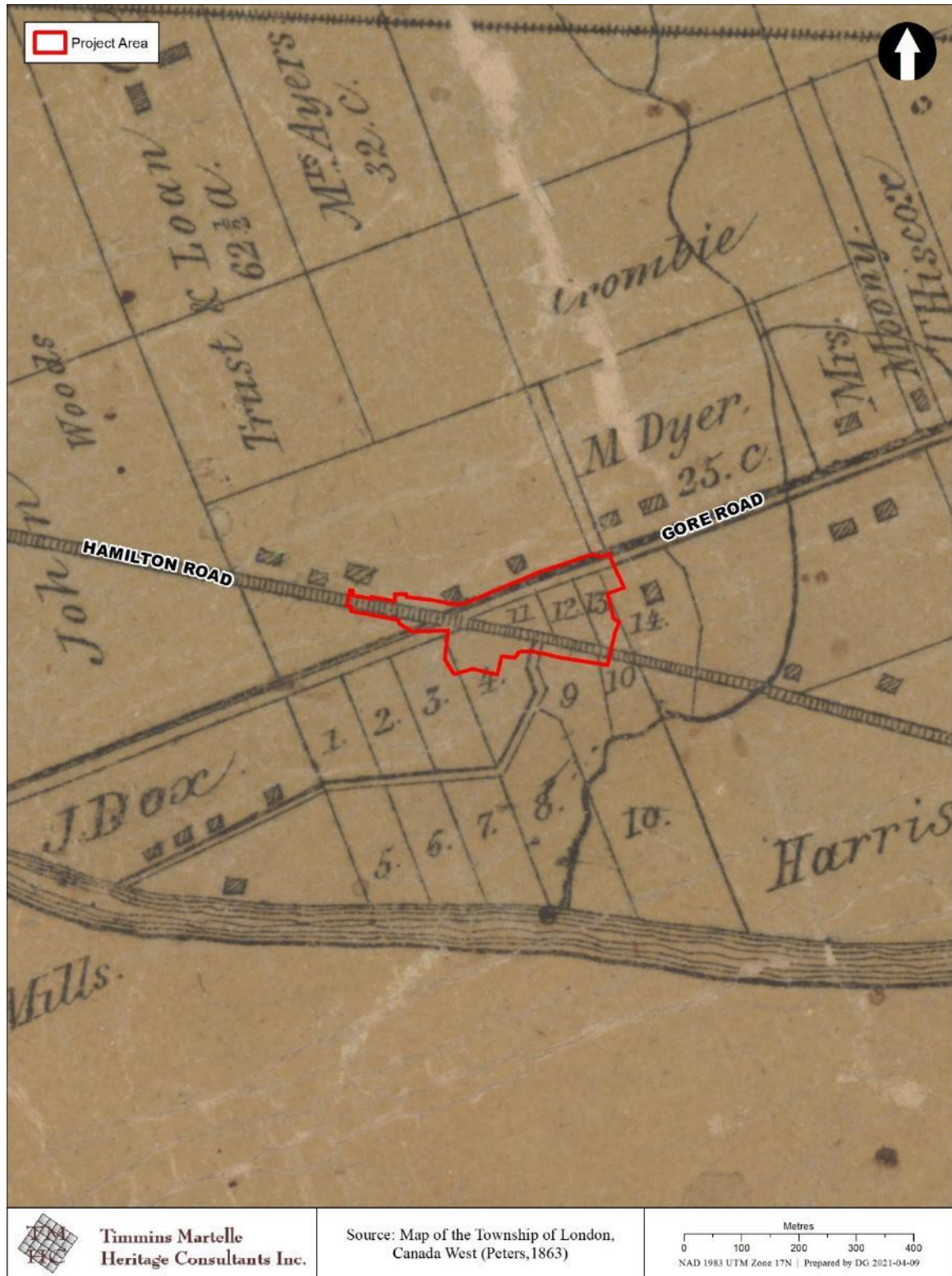


Map 8: Project Area Shown on the 1850 Steevens Map of London Township, ON





Map 9: Project Area Shown on Tremaine's 1862 Map of Middlesex County, ON



Map 10: Project Area Shown on the 1863 Peters Map of London Township, ON

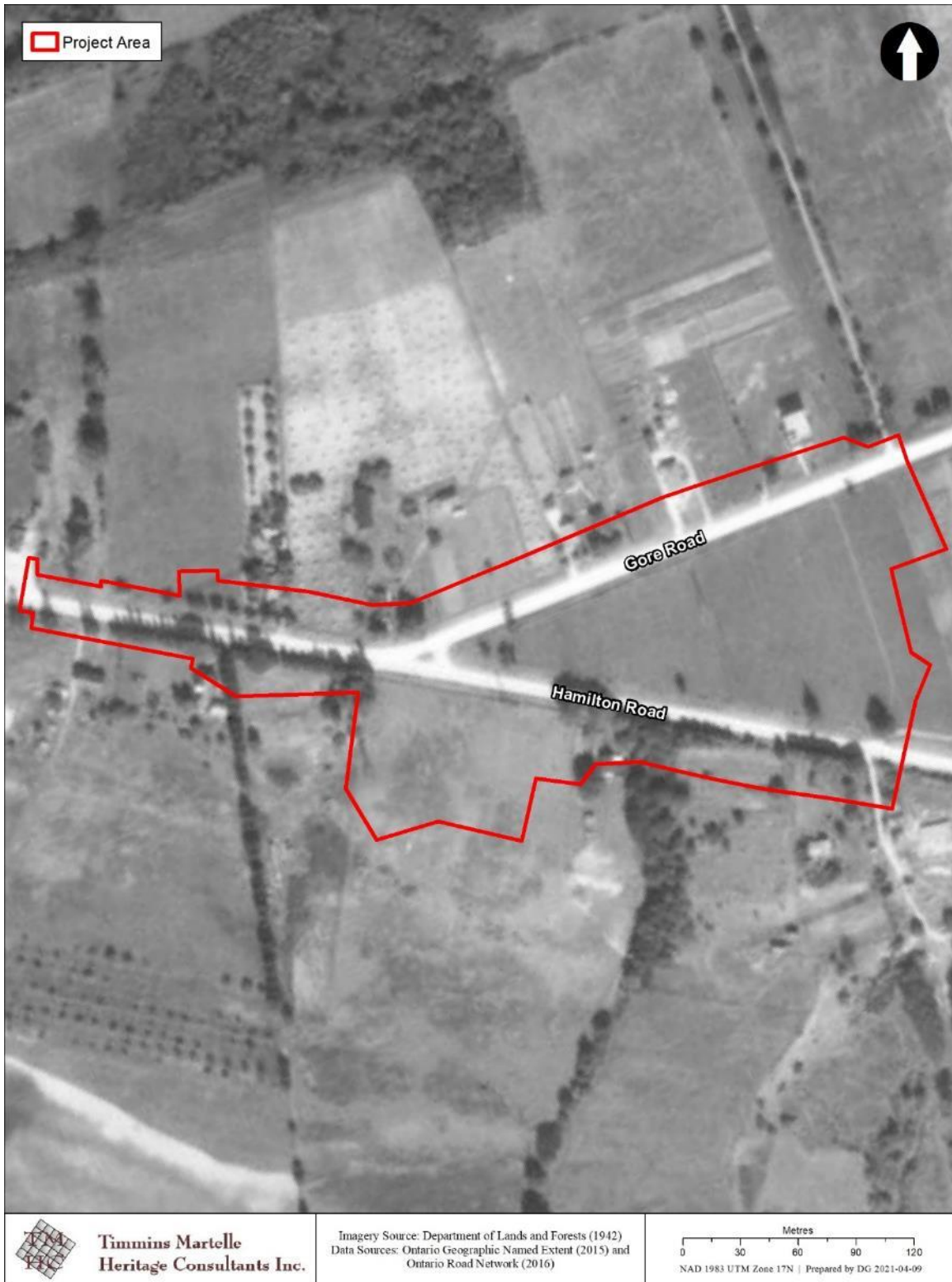


Map 11: Project Area Shown on the 1878 Illustrated Historical Atlas of the County of Middlesex, ON



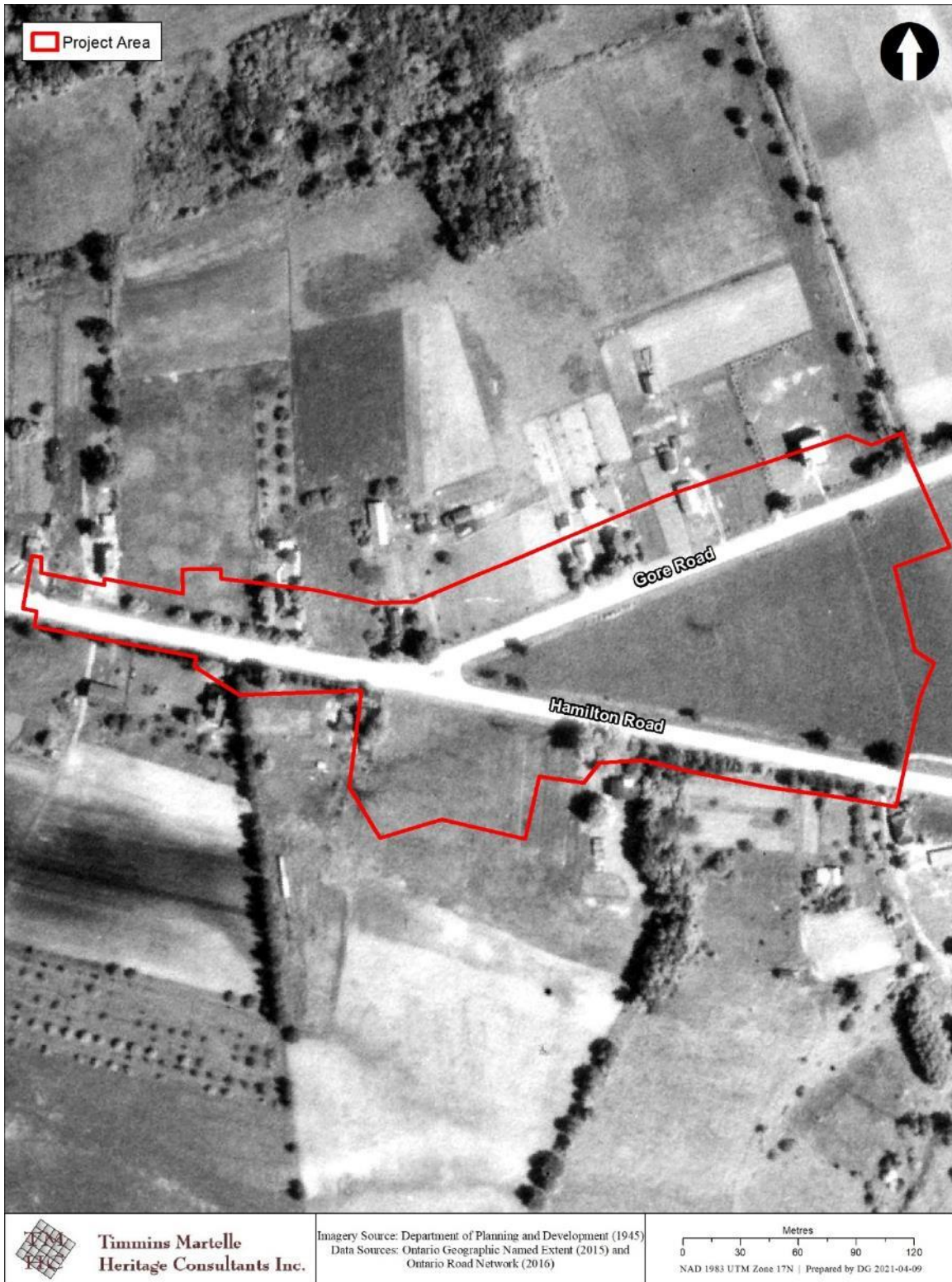
Map 12: 1922 Aerial Photograph of the Project Area





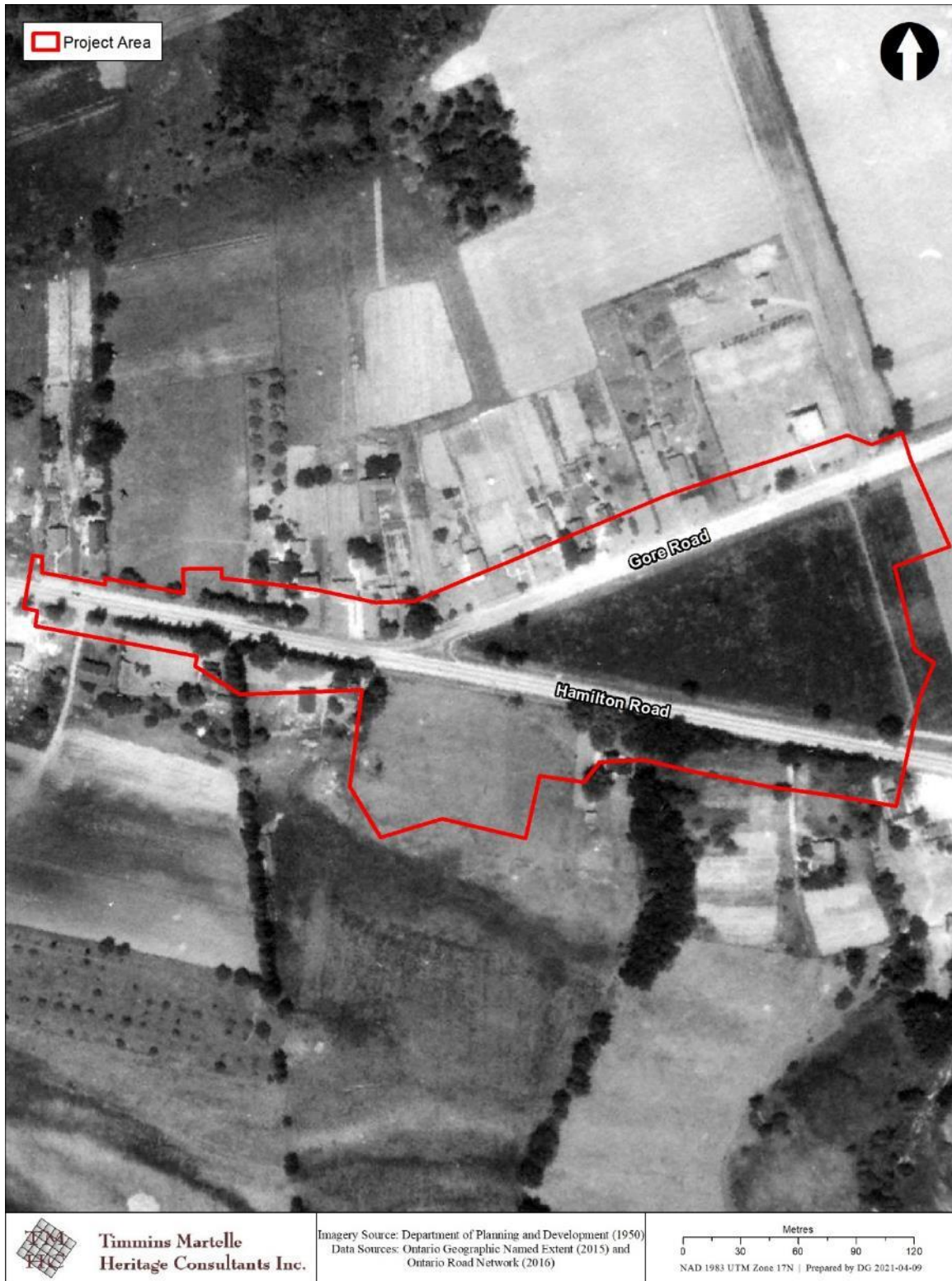
Map 13: 1942 Aerial Photograph of the Project Area



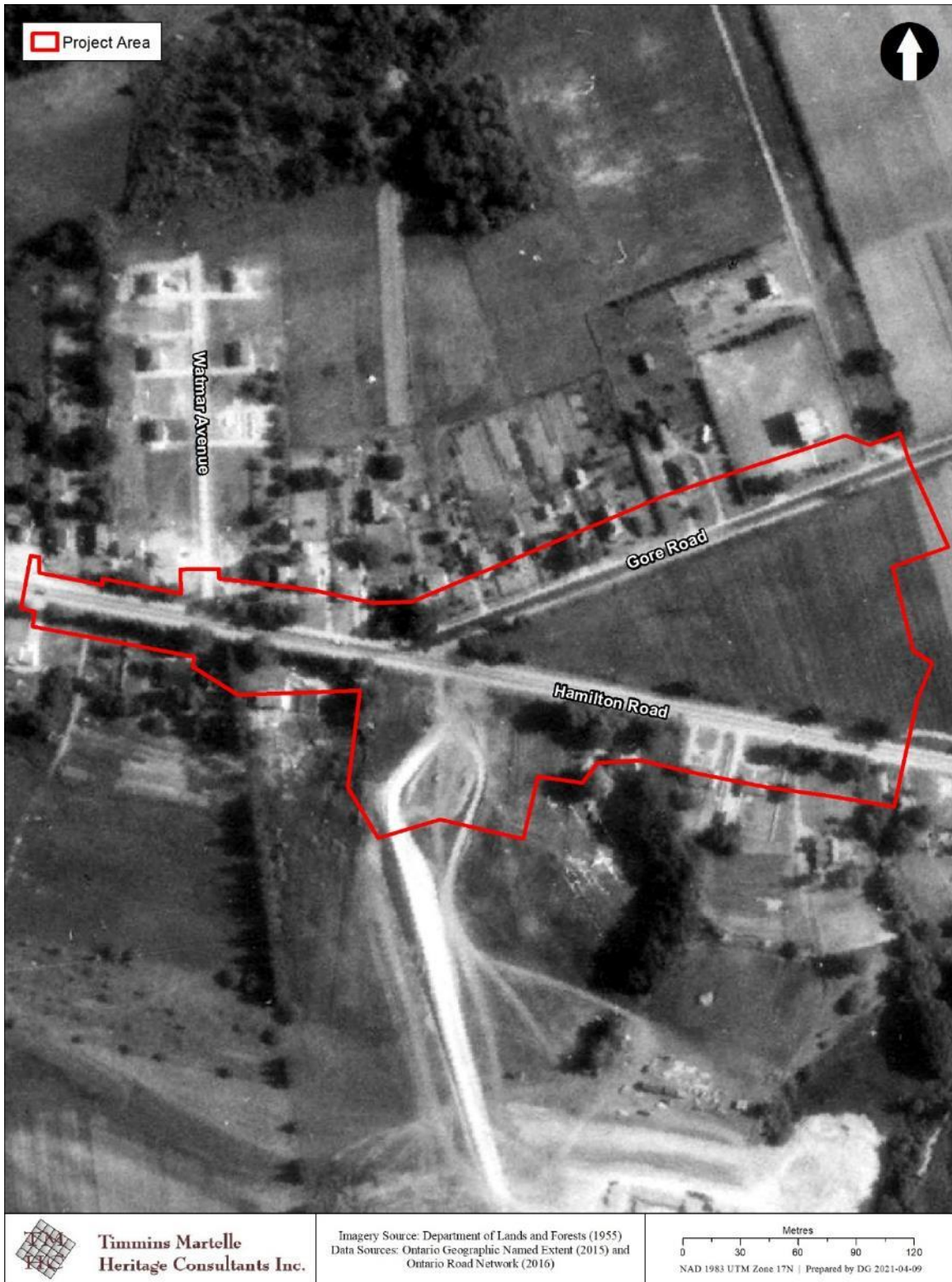


Map 14: 1945 Aerial Photograph of the Project Area





Map 15: 1950 Aerial Photograph of the Project Area



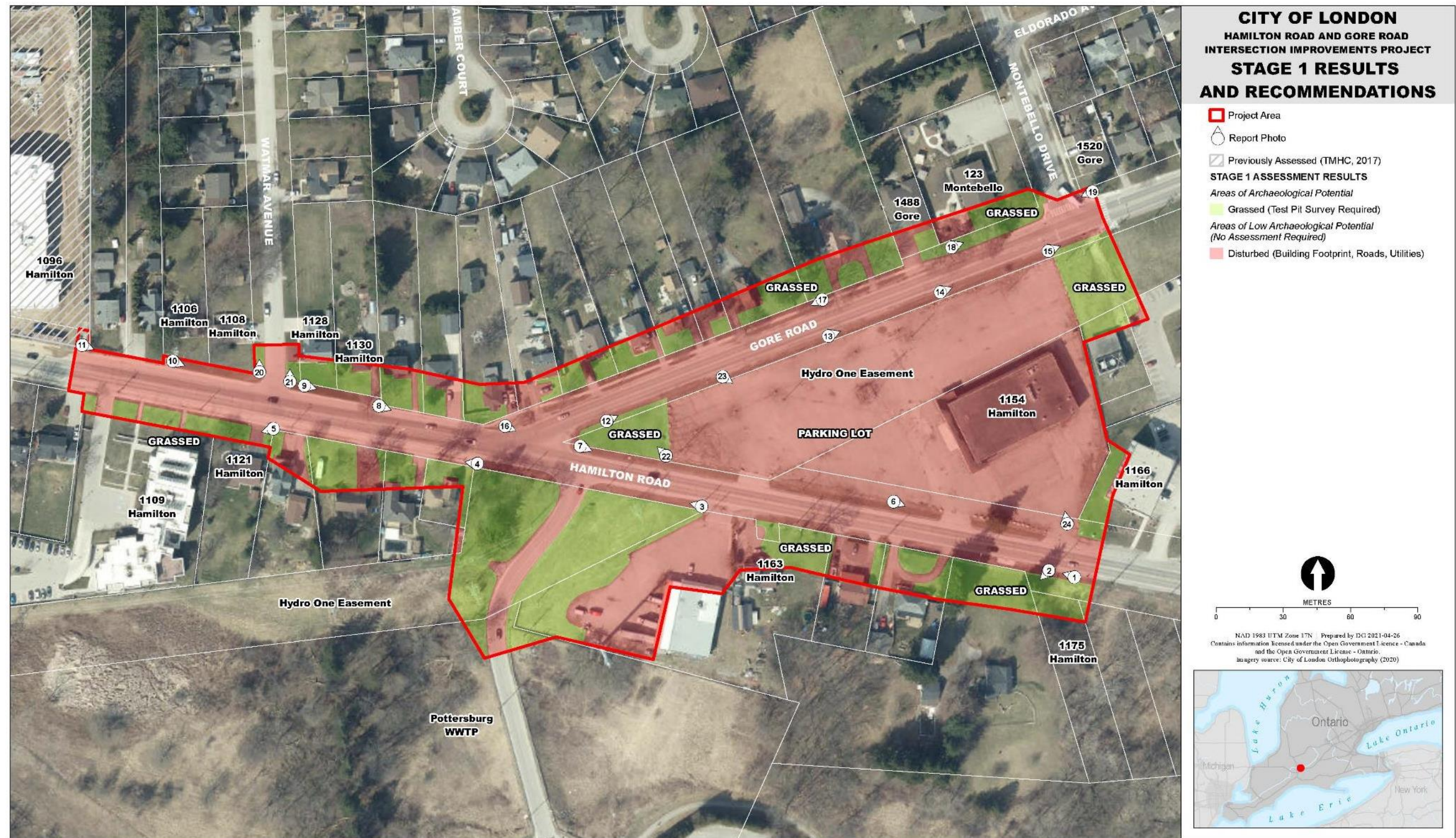
Map 16: 1955 Aerial Photography of the Project Area





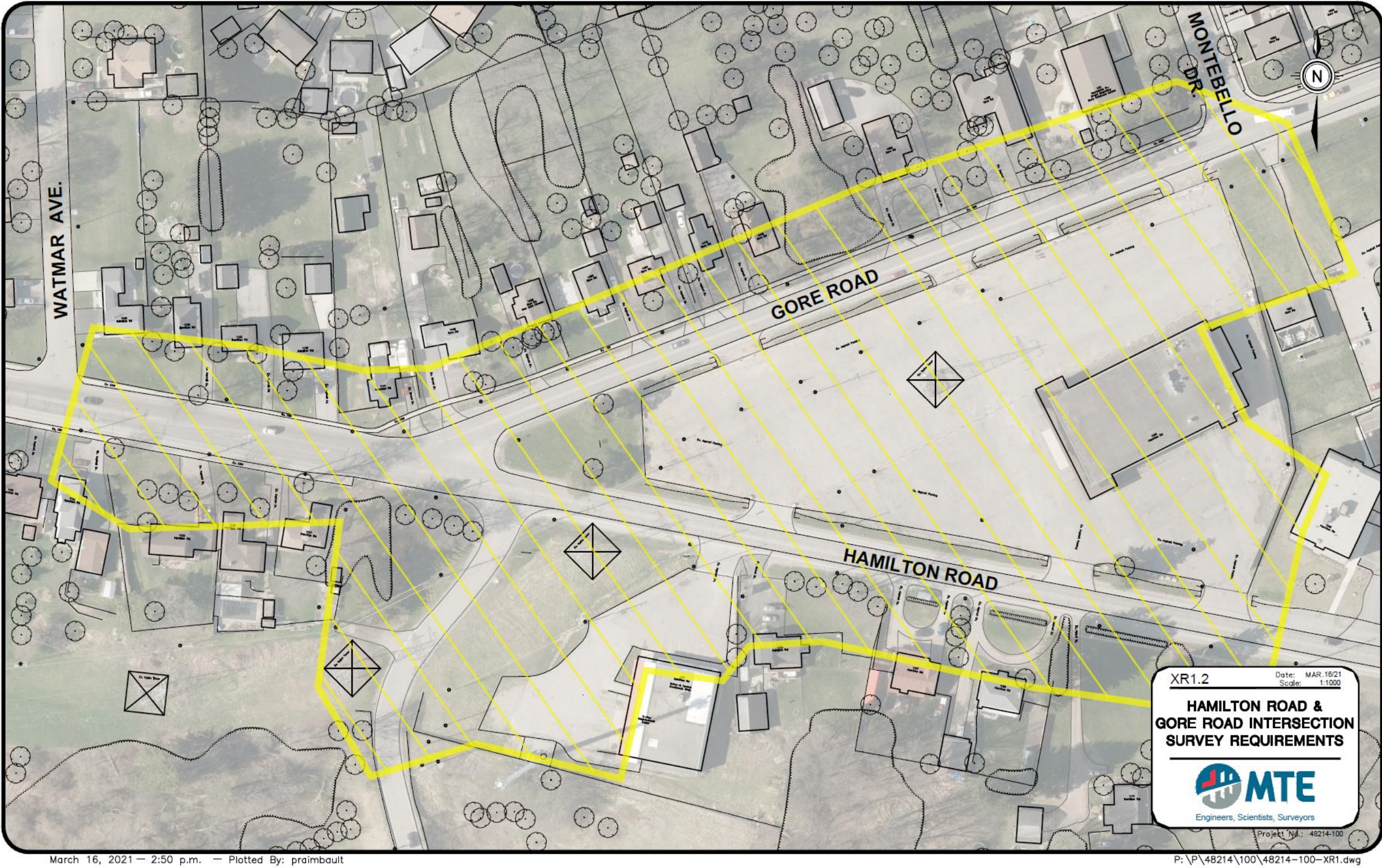
Map 17: 1965 Aerial Photography of the Project Area





Map 18: Stage 1 Field Conditions and Proposed Stage 2 Assessment Methods





Map 20: Proponent Mapping

