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Appendix C: STAGE 1 ARCHAEOLOGICAL ASSESSMENT REPORT

**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
CLARKSON ROAD AND LAKESHORE ROAD IMPROVEMENTS
PART OF LOTS 28-29 & CONS 2-3 SDS
(FORMER TOWNSHIP OF TORONTO, COUNTY OF PEEL)
CITY OF MISSISSAUGA,
REGIONAL MUNICIPALITY OF PEEL, ONTARIO**

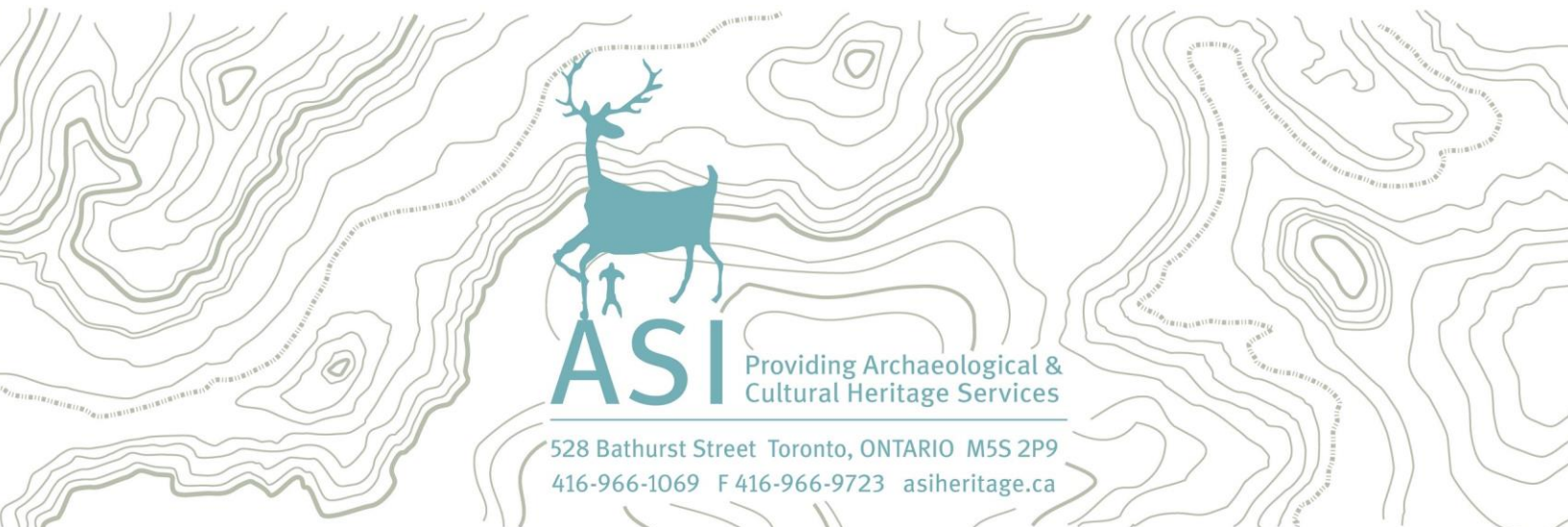
ORIGINAL REPORT

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**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
CLARKSON ROAD AND LAKESHORE ROAD INTERSECTION IMPROVEMENTS
PART OF LOTS 28-29 & CONS 2-3 SDS
(FORMER TOWNSHIP OF TORONTO, COUNTY OF PEEL)
CITY OF MISSISSAUGA,
REGIONAL MUNICIPALITY OF PEEL, ONTARIO**

EXECUTIVE SUMMARY

ASI was contracted by CIMA+ to conduct a Stage 1 Archaeological Assessment (Background Research and Property Inspection) as part of the Clarkson Road and Lakeshore Road Intersection Improvements in the City of Mississauga. This project involves proposed intersection improvements for Lakeshore Road West and Clarkson Road North / Clarkson Road South.

The Stage 1 background research and property inspection determined that no previously registered archaeological sites are located within one kilometre of the Study Area. The property inspection determined that part of the Study Area exhibits archaeological potential and will require Stage 2 assessment prior to any proposed impacts on these lands. The remainder of the Study Area, within the existing road ROWs and twentieth-century commercial and residential development, does not exhibit archaeological potential.

In light of these results, the following recommendations are made:

1. Part of the Study Area exhibits archaeological potential and will require Stage 2 test pit survey in these areas, prior to any proposed construction activities;
2. The remainder of the Study Area does not retain archaeological potential on account of deep and extensive land disturbance, low and wet conditions, slopes in excess of 20 degrees or being previously assessed. These lands do not require further archaeological assessment; and,
3. Should the proposed work extend beyond the current Study Area, further Stage 1 archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.



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1.0 PROJECT CONTEXT

Archaeological Services Inc. (ASI) was contracted by CIMA+ to conduct a Stage 1 Archaeological Assessment (Background Research and Property Inspection) as part of the Clarkson Road and Lakeshore Road Intersection Improvements in the City of Mississauga (Figure 1). This project involves proposed intersection improvements for Lakeshore Road West and Clarkson Road North / Clarkson Road South.

All activities carried out during this assessment were completed in accordance with the *Ontario Heritage Act* (1990, as amended in 2018) and the 2011 *Standards and Guidelines for Consultant Archaeologists* (S & G), administered by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI 2011), formerly the Ministry of Tourism, Culture and Sport.

1.1 Development Context

All work has been undertaken as required by the *Environmental Assessment Act*, RSO (Ministry of the Environment 1990 as amended 2010) and regulations made under the Act, and are therefore subject to all associated legislation. This project is being conducted in accordance with the Municipal Engineers' Association document *Municipal Class Environmental Assessment* (2000 as amended in 2007, 2011 and 2015).

Authorization to carry out the activities necessary for the completion of the Stage 1 archaeological assessment was granted by CIMA+ on October 8, 2020.

1.2 Historical Context

The purpose of this section, according to the S & G, Section 7.5.7, Standard 1, is to describe the past and present land use and the settlement history and any other relevant historical information pertaining to the Study Area. A summary is first presented of the current understanding of the Indigenous land use of the Study Area. This is then followed by a review of the historical Euro-Canadian settlement history.

1.2.1 Indigenous Land Use and Settlement

Southern Ontario has been occupied by human populations since the retreat of the Laurentide glacier approximately 13,000 years before present (B.P.) (Ferris 2013). Populations at this time would have been highly mobile, inhabiting a boreal-parkland similar to the modern sub-arctic. By approximately 10,000 B.P., the environment had progressively warmed (Edwards and Fritz 1988) and populations now occupied less extensive territories (Ellis and Deller 1990).

Between approximately 10,000-5,500 B.P., the Great Lakes basins experienced low-water levels, and many sites which would have been located on those former shorelines are now submerged. This period produces the earliest evidence of heavy wood working tools, an indication of greater investment of labour in felling trees for fuel, to build shelter, and watercraft production. These activities suggest prolonged seasonal residency at occupation sites. Polished stone and native copper implements were being produced by approximately 8,000 B.P.; the latter was acquired from the north shore of Lake Superior, evidence of extensive exchange networks throughout the Great Lakes region. The earliest evidence for cemeteries dates to approximately 4,500-3,000 B.P. and is indicative of increased social organization, investment of



labour into social infrastructure, and the establishment of socially prescribed territories (Ellis et al. 1990; Ellis et al. 2009; Brown 1995:13).

Between 3,000-2,500 B.P., populations continued to practice residential mobility and to harvest seasonally available resources, including spawning fish. The Woodland period begins around 2,500 B.P. and exchange and interaction networks broaden at this time (Spence et al. 1990:136, 138) and by approximately 2,000 B.P., evidence exists for small community camps, focusing on the seasonal harvesting of resources (Spence et al. 1990:155, 164). By 1,500 B.P. there is macro botanical evidence for maize in southern Ontario, and it is thought that maize only supplemented people's diet. There is earlier phytolithic evidence for maize in central New York State by 2,300 B.P. – it is likely that once similar analyses are conducted on Ontario ceramic vessels of the same period, the same evidence will be found (Birch and Williamson 2013:13–15). As is evident in detailed Anishinaabek ethnographies, winter was a period during which some families would depart from the larger group as it was easier to sustain smaller populations (Rogers 1962). It is generally understood that these populations were Algonquian-speakers during these millennia of settlement and land use.

From the beginning of the Late Woodland period at approximately 1,000 B.P., lifeways became more similar to that described in early historical documents. Between approximately 1000-1300 Common Era (C.E.), the communal site is replaced by the village focused on horticulture. Seasonal disintegration of the community for the exploitation of a wider territory and more varied resource base was still practised (Williamson 1990:317). By 1300-1450 C.E., this episodic community disintegration was no longer practised and populations now communally occupied sites throughout the year (Dodd et al. 1990:343). From 1450-1649 C.E. this process continued with the coalescence of these small villages into larger communities (Birch and Williamson 2013). Through this process, the socio-political organization of the First Nations, as described historically by the French and English explorers who first visited southern Ontario, was developed.

By 1600 C.E., the communities within Simcoe County had formed the Confederation of Nations encountered by the first European explorers and missionaries. In the 1640s, the traditional enmity between the Haudenosaunee and the Huron-Wendat (and their Algonquian allies such as the Nipissing and Odawa) led to the dispersal of the Huron-Wendat. Shortly afterwards, the Haudenosaunee established a series of settlements at strategic locations along the trade routes inland from the north shore of Lake Ontario. By the 1690s however, the Anishinaabeg were the only communities with a permanent presence in southern Ontario. From the beginning of the eighteenth century to the assertion of British sovereignty in 1763, there was no interruption to Anishinaabeg control and use of southern Ontario.

The Study Area is within Treaty 13a, signed on August 2, 1805, by the Mississaugas and the British Crown in Port Credit at the Government Inn. A provisional agreement was reached with the Crown on August 2, 1805, in which the Mississaugas ceded 70,784 acres of land bounded by the Toronto Purchase of 1787 in the east, the Brant Tract in the west, and a northern boundary that ran six miles back from the shoreline of Lake Ontario. In 1805, the Mississaugas were granted one mile (approximately 1.6 km) on either side of the Credit River, Twelve Mile Creek and Sixteen Mile Creek. The Mississaugas also reserved the sole right of fishing at the Credit River and were to retain a one mile strip of land on each of its banks, which became the Credit Indian Reserve. On September 5, 1806, the signing of Treaty 14 confirmed the Head of the Lake Purchase between the Mississaugas of the Credit and the Crown (Mississaugas of the Credit First Nation 2017; Mississauga of the New Credit First Nation 2001).

In 1818, the majority of the Mississauga Tract was acquired by the Crown excluding the lands tracts flanking the Credit River, Twelve Mile Creek and Sixteen Mile Creek. In 1820, the remainder of



Mississauga land was surrendered except approximately 81 hectares (ha) along the Credit River (Heritage Mississauga 2012:18). In 1825-26 the Credit Indian Village was established as an agricultural community and Methodist mission near present day Port Credit (Heritage Mississauga 2019; Mississaugas of the Credit First Nation 2014). By 1840 the village was under significant pressure from Euro-Canadian settlement that plans began to relocate the settlement. In 1847 the Credit Mississaugas were made a land offer by the Six Nations Council to relocate at the Grand River. In 1847, 266 Mississaugas settled at New Credit, approximately 23 km southwest of Brantford. In 1848 a mission of the Methodist Church was established there by Rev. William Ryerson (Woodland Indian Cultural Education Centre 1985). Although the majority of the former Mississagué Tract had been surrendered from the Mississauga by 1856 (Gould 1981), this does not exclude the likelihood that the Mississauga continued to utilise the landscape at large during travel (Ambrose 1982) and for resource extraction.

1.2.2 Euro-Canadian Land Use: Township Survey and Settlement

Historically, the Study Area is located in the Former Toronto Township, County of Peel in Lots 28-29 & Range 2-3 South of Dundas Street (SDS).

The S & G stipulates that areas of early Euro-Canadian settlement (pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches, and early cemeteries are considered to have archaeological potential. Early historical transportation routes (trails, passes, roads, railways, portage routes), properties listed on a municipal register or designated under the *Ontario Heritage Act* or a federal, provincial, or municipal historic landmark or site are also considered to have archaeological potential.

For the Euro-Canadian period, the majority of early nineteenth century farmsteads (i.e., those that are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth century maps) are likely to be located in proximity to water. The development of the network of concession roads and railroads through the course of the nineteenth century frequently influenced the siting of farmsteads and businesses. Accordingly, undisturbed lands within 100 m of an early settlement road are also considered to have potential for the presence of Euro-Canadian archaeological sites. The first Europeans to arrive in the area were transient merchants and traders from France and England, who followed Indigenous pathways and set up trading posts at strategic locations along the well-traveled river routes. All of these occupations occurred at sites that afforded both natural landfalls and convenient access, by means of the various waterways and overland trails, into the hinterlands. Early transportation routes followed existing Indigenous trails, both along the lakeshore and adjacent to various creeks and rivers (ASI 2006a).

Toronto Township

The Township of Toronto was original surveyed in 1806 by Mr. Wilmot, Deputy Surveyor. The first settler in this Township, and also the County of Peel, was Colonel Thomas Ingersoll. The whole population of the Township in 1808 consisted of seven families, scattered along Dundas Street. The number of inhabitants gradually increased until the war broke out in 1812, which gave considerable check to its progress. When the war was over, the Township's growth revived, and the rear part of the Township was surveyed and called the "New Survey." The greater part of the New Survey was granted to a colony of Irish settlers from New York City, who suffered persecution during the war (Walker and Miles 1877).



The Hamilton and Toronto Railway was formed in 1852, and in 1855, completed its lake shore route across the south end of Lot 11. In 1871, the railway was amalgamated with the Great Western Railway, which in turn, was amalgamated in 1882, with the Grand Trunk Railway. The Grand Trunk Railway was amalgamated in 1923, with Canadian National Railway (Andreae 1997:126–127).

Clarkson

The community of Clarkson was first settled in 1808. The first store was erected in 1835 and the post office established in 1875. This town was also served by the Hamilton and Toronto Branch of the Great Western Railroad (now part of the CNR). By the twentieth century the main industry in the community had become fruit growing and packing (Mika and Mika 1977:432).

Carman Methodist Episcopal

The Carman Methodist Episcopal Church was built on land donated by Margaret Merigold at the southeast corner of Clarkson Road and Lakeshore Road in 1875. It served a growing congregation whose church services were previously held at Southdown Road in a school and meeting house. It became the Clarkson Community Church briefly from 1918-1922 before reverting back to its original name. The name changed again in 1925 to the Clarkson United Church, to reflect the union of Methodist, Congregational and Presbyterian churches. The congregation again required a larger building, which was constructed on Mazo Crescent in the City of Mississauga. The last service of church at 1764 Lakeshore Road West was held on January 29, 1956, before the building was sold to St. Christopher's Roman Catholic parish. The building has been used for commercial and retail purposes since 1964 (Ontario Heritage Trust 2020; Christ First the United Church of Canada 2020). The church did not have an associated cemetery.

Railway History

The Lakeshore West Rail Corridor follows the tracks initially laid in 1855 from Toronto to Hamilton by the Hamilton & Toronto Railway Company (HTR). The HTR company was established by Sir Allan MacNab and a number of other investors, with additional financial support from England, and a charter was granted in 1852. Construction on the line began in 1853. The line was initially leased to the GWR, who in turn supplied railway stations along the corridor (Paterson & George 1988:13). Extending from downtown Toronto, the rail line passed through Mimico, Port Credit, Clarkson, Oakville, Bronte, Burlington, and finally Hamilton. In 1871, the HTR amalgamated with the GWR, and in 1882 the GWR amalgamated with the GTR. In 1920, control of the GTR was assumed by the Canadian Government and three years later, in 1923, the GTR was amalgamated with Canadian National Railways (CNR) (Andreae 1997).

The corridor was built along the Lake Ontario shoreline, on level terrain formerly located at the bottom of glacial Lake Iroquois. While the route presented few engineering obstacles, two of note include the two wooden trestles built to span the Twelve and Sixteen Mile Creek Valleys. Each valley is over 150 m wide and 38 m deep. Also significant is the Credit River and associated flood plains. While just as wide, the Credit River Valley is not as high and as such, extensive filling and low trestle work led to a smaller bridge (Paterson and George 1988:14). The wooden trestle bridges were replaced by the GWR with stone and iron structures around the 1880s.

The corridor was Canada's busiest railway corridor during the nineteenth and most of the twentieth century (Paterson & George 1988: 15, 24).



GO service along the Lakeshore West Rail Corridor began in 1967. Initial service included stops at stations built in Mimico, Long Branch, Port Credit, Clarkson, Oakville, Bronte, and Burlington. These stations were all built prior to 1967 as a three-year experiment in commuter rail travel (Garcia and Bow 2018). A third track was added to the north side between Mississauga and Oakville in 2007.

1.2.3 Historical Map Review

The 1859 *Tremaine's Map of the County of Peel* (Tremaine 1859) and the 1877 *Illustrated Historical Atlas of the County of Peel*, Toronto Township page (Walker and Miles 1877) were examined to determine the presence of historic features within the Study Area during the nineteenth century (Table 1; Figures 2-3).

It should be noted, however, that not all features of interest were mapped systematically in the Ontario series of historical atlases, given that they were financed by subscription, and subscribers were given preference with regard to the level of detail provided on the maps. Moreover, not every feature of interest would have been within the scope of the atlases.

In addition, the use of historical map sources to reconstruct/predict the location of former features within the modern landscape generally proceeds by using common reference points between the various sources. These sources are then geo-referenced in order to provide the most accurate determination of the location of any property on historic mapping sources. The results of such exercises are often imprecise or even contradictory, as there are numerous potential sources of error inherent in such a process, including the vagaries of map production (both past and present), the need to resolve differences of scale and resolution, and distortions introduced by reproduction of the sources. To a large degree, the significance of such margins of error is dependent on the size of the feature one is attempting to plot, the constancy of reference points, the distances between them, and the consistency with which both they and the target feature are depicted on the period mapping.

Table 1: Nineteenth-century property owner(s) and historical features(s) within or adjacent to the Study Area

1859				1877	
Con #	Lot #	Property Owner(s)	Historical Feature(s)	Property Owner(s)	Historical Feature(s)
2 SDS	28	Warren Clarkson	Creek	H S Clarkson	Creek, structure
2 SDS	29	Warren Clarkson	Creek	Warren Clarkson	Creek, orchard, structure
3 SDS	28	Haywood	None	Mrs. M Merrigold	Church
3 SDS	29	Isaac Oliphant	None	Joseph Orr	None

The Study Area is located within an area of agricultural land use in the nineteenth century, based on historical mapping. In 1859 the area shows an emphasis on transportation infrastructure, but little other development in the area. The 1859 map depicts the Hamilton & Toronto Railway parallel to the north border of the Study Area. Two road allowances are within the Study Area. Lakeshore Road West is in its present alignment, and a north-south road allowance intersects. A creek passes through the north portion of the Study Area north of Lakeshore Road West. No structures are shown within the Study Area



Mapping from 1877 indicates continued agricultural land use in the area. The 1877 map shows that Clarkson Road did not yet continue south of Lakeshore Road West. The railway is now the Great Western Railway. A structure and orchard are located northwest of Clarkson Road North and Lakeshore Road West, and a second structure is located northeast of the intersection. A church is depicted on the southeast corner of present-day Lakeshore Road West and Clarkson Road South, within the parcel owned at that time by Mrs. M. Marrigold. Another structure, likely a schoolhouse, is shown just south of the study area boundary.

1.2.4 Twentieth-Century Mapping Review

The 1909 and 1942 National Topographic Series (NTS) Brampton Sheets (Department of Militia and Defence 1909; Department of National Defence 1942), as well as the 1966 and 1992 aerial imagery (City of Mississauga 1966; 1992) were examined to determine the extent and nature of development and land uses within the Study Area (Figures 4-7).

The 1909 map shows that Clarkson Road South was constructed, offset to the west of where Clarkson Road North intersects Lakeshore Road West. The church is shown on the southeast corner of Clarkson Road and Lakeshore Road. A wood structure is shown east of the church along Lakeshore Road, and another wood structure is shown in the southwest corner of Clarkson Road and Lakeshore Road. A bridge is shown where Clarkson Road North meets Turtle Creek north of Lakeshore Road. A wood structure is located west of Turtle Creek where it diverts north. A second bridge is shown where Clarkson Road South meets Sheridan Creek south of Lakeshore Road. A wood structure is shown southwest of the Sheridan Creek Bridge, and a stone or brick structure to the southeast. A telegraph or telephone line runs along Clarkson Road North, Clarkson Road South and the eastern portion of Lakeshore Road West within the Study Area.

The 1942 map shows four structures within the Study Area in addition to the church. By this time, the railway has become the Canadian National Railway.

The 1966 aerial shows a rail yard within the northern portion of the Study Area. Channelization of Turtle Creek and creation of the Turtle Creek Park trail is visible west of Clarkson Road North. East of Clarkson Road North is largely under agricultural use, with the exception of commercial buildings just south of the railway. Commercial buildings line Lakeshore Road West. West of Clarkson Road South is largely under agricultural use, and construction of the Valentine Gardens subdivision is occurring to the east.

By 1992, the parking lot and fields of Birchwood Park have been created, and the subdivisions of Fellen Place and Sabina Court are under construction. Pattinson Crescent and Matena Avenue subdivisions have been constructed.

1.3 Archaeological Context

This section provides background research pertaining to previous archaeological fieldwork conducted within and in the vicinity of the Study Area, its environmental characteristics (including drainage, soils or surficial geology and topography, etc.), and current land use and field conditions. Three sources of information were consulted to provide information about previous archaeological research: the site record forms for registered sites available online from the MHSTCI through “Ontario’s Past Portal”; published and unpublished documentary sources; and the files of ASI.



1.3.1 Current Land Use and Field Conditions

A review of available Google satellite imagery since 2004 shows that the Study Area has remained relatively unchanged.

A Stage 1 property inspection was conducted on Tuesday November 10, 2020, that noted the Study Area is located along Lakeshore Road West from west of Clarkson Road South and east of Clarkson Road North, along Clarkson Road North to the Lakeshore West Go Transit rail corridor, and along Clarkson Road South to south of Matena Avenue. The area consists of residential subdivisions, commercial businesses, recreational greenspace and parkland including trails, and Turtle Creek.

1.3.2 Geography

In addition to the known archaeological sites, the state of the natural environment is a helpful indicator of archaeological potential. Accordingly, a description of the physiography and soils are briefly discussed for the Study Area.

The S & G stipulates that primary water sources (lakes, rivers, streams, creeks, etc.), secondary water sources (intermittent streams and creeks, springs, marshes, swamps, etc.), ancient water sources (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, cobble beaches, etc.), as well as accessible or inaccessible shorelines (high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh, etc.) are characteristics that indicate archaeological potential.

Water has been identified as the major determinant of site selection and the presence of potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in Ontario since 5,000 BP (Karrow and Warner 1990:Figure 2.16), proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most commonly used variables for predictive modeling of site location.

Other geographic characteristics that can indicate archaeological potential include elevated topography (eskers, drumlins, large knolls, and plateaux), 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 (migratory routes, spawning areas) are also considered characteristics that indicate archaeological potential (S & G, Section 1.3.1).

The Study Area is located within the sand plains of the Iroquois Plain physiographic region of southern Ontario (Chapman and Putnam 1984). The Iroquois Plain is a lowland region bordering Lake Ontario. This region is characteristically flat and formed by lacustrine deposits laid down by the inundation of Lake Iroquois, a body of water that existed during the late Pleistocene. This region extends from the Trent River, around the western part of Lake Ontario, to the Niagara River, spanning a distance of 300 km (Chapman and Putnam 1984:190). The old shorelines of Lake Iroquois include cliffs, bars, beaches and boulder pavements. The old sandbars in this region are good aquifers that supply water to farms and



villages. The gravel bars are quarried for road and building material, while the clays of the old lake bed have been used for the manufacture of bricks (Chapman and Putnam 1984:196).

Figure 8 depicts surficial geology for the Study Area. The surficial geology mapping demonstrates that the Study Area is underlain by coarse textured glaciolacustrine deposits of sand, gravel, minor silt and clay, foreshore and basinal deposits; modern alluvial deposits of clay, silt, sand, gravel and organic remains; and Paleozoic bedrock (Ontario Geological Survey 2010). Soils in the Study Area consist of Fox sand, a grey-brown podzolic with good drainage, and Bottom Land, an alluvial with variable drainage (Figure 9).

Turtle Creek passes through the Study Area northwest of Lakeshore Road West, draining lands west of Clarkson Road easterly into Lake Ontario.

1.3.3 Previous Archaeological Research

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (OASD) maintained by the MHSTCI. This database contains archaeological sites registered within the Borden system. Under the Borden system, Canada has been divided into grid blocks based on latitude and longitude. A Borden block is approximately 13 km east to west, and approximately 18.5 km north to south. Each Borden block is referenced by a four-letter designator, and sites within a block are numbered sequentially as they are found. The Study Area under review is located in Borden block AjGv.

According to the OASD, no previously registered archaeological sites are located within one kilometre of the Study Area (MHSTCI 2020).

According to the background research, four previous reports detail fieldwork within 50 metres of the Study Area:

- ASI (2006b: P057-166) conducted a Stage 1 Archaeological Assessment (AA) for the GO Transit Lakeshore West corridor rail expansion, overlapping the current Study Area along the north end. Background research and field review determined the project area to be previously disturbed, and no further archaeological assessment was recommended.
- ASI (2017: P057-0834-2016) conducted a Stage 1 AA for the Go Rail network electrification TPAP within 50 metres of the current Study Area. Background research and property inspection determined the OCS/Vegetation Zone footprint to not retain archaeological potential, and no further archaeological assessment was recommended.
- ASI *Stage 1 Archaeological Assessment Metrolinx OnCorr Non-Priority Works - Lakeshore West Corridor Various Lots and Concession (Former Townships of York and Etobicoke, County of York Former Townships of Toronto, County of Peel Former township of Trafalgar and Nelson, County of Halton Former Township of Barton and Saltfleet, County of Wentworth Former Township of Stamford, County of Welland) City of Toronto, City of Mississauga, Town of Oakville, City of Burlington, City of Hamilton and City of Niagara Falls, Ontario*. Report in progress – parts of the project overlapping the current Study Area were identified as being previously assessed by ASI 2017.



- AMICK Consultants Inc. (2016: P1024-0134-2016) conducted a Stage 1-2 AA of 1101-1125 Clarkson Road North in the City of Mississauga, overlapping the current Study Area. It was determined part of the project area retained archaeological potential, and test pit survey at five-metre intervals was conducted. No archaeological resources were encountered, and no further archaeological assessment was recommended.

2.0 FIELD METHODS: PROPERTY INSPECTION

A Stage 1 property inspection must adhere to the S & G, Section 1.2, Standards 1-6, which are discussed below. The entire property and its periphery must be inspected. The inspection may be either systematic or random. Coverage must be sufficient to identify the presence or absence of any features of archaeological potential. The inspection must be conducted when weather conditions permit good visibility of land features. Natural landforms and watercourses are to be confirmed if previously identified. Additional features such as elevated topography, relic water channels, glacial shorelines, well-drained soils within heavy soils and slightly elevated areas within low and wet areas should be identified and documented, if present. Features affecting assessment strategies should be identified and documented such as woodlots, bogs or other permanently wet areas, areas of steeper grade than indicated on topographic mapping, areas of overgrown vegetation, areas of heavy soil, and recent land disturbance such as grading, fill deposits and vegetation clearing. The inspection should also identify and document structures and built features that will affect assessment strategies, such as heritage structures or landscapes, cairns, monuments or plaques, and cemeteries.

The Stage 1 archaeological assessment property inspection was conducted under the field direction of Alexis Dunlop (P1146) with the assistance of Danielle Bella, of ASI, on November 10, 2020, in order to gain first-hand knowledge of the geography, topography, and current conditions and to evaluate and map archaeological potential of the Study Area. It was a systematic visual inspection from publicly accessible lands/public right-of-ways only and did not include excavation or collection of archaeological resources. Fieldwork was conducted when weather conditions were deemed clear with good visibility (sunny with seasonal temperatures), per S & G Section 1.2., Standard 2. Field observations are compiled onto the existing conditions of the Study Area in Section 7.0 (Figure 10) and associated photographic plates are presented in Section 8.0 (Plates 1-14).

3.0 ANALYSIS AND CONCLUSIONS

The historical and archaeological contexts have been analyzed to help determine the archaeological potential of the Study Area. Results of the analysis of the Study Area property inspection and background research are presented in Section 3.1.

3.1 Analysis of Archaeological Potential

The S & G, Section 1.3.1, lists criteria that are indicative of archaeological potential. The Study Area meets the following criteria indicative of archaeological potential:

- Water sources: primary, secondary, or past water source (Turtle Creek);
- Early historic transportation routes (Lakeshore Road, Clarkson Road North);
- Proximity to early settlements (Clarkson, church); and



- Well-drained soils (Fox sand)

According to the S & G, Section 1.4 Standard 1e, no areas within a property containing locations listed or designated by a municipality can be recommended for exemption from further assessment unless the area can be documented as disturbed. The Municipal Heritage Register was consulted and three properties within the Study Area are Listed or Designated under the Ontario Heritage Act:

- 924 Clarkson Road South (Listed)
- 972 Clarkson Road South (Listed)
- 1764 Lakeshore Road West (Listed)

These criteria are indicative of potential for the identification of archaeological resources, depending on soil conditions and the degree to which soils have been subject to deep disturbance.

The property inspection determined that parts of the Study Area exhibit archaeological potential, including two heritage properties fronting onto Clarkson Road South (Plates 3, 4, 6, 13, 15, 16). These areas require Stage 2 archaeological assessment prior to any proposed construction activities. Lands around Turtle Creek on the northeast side of Clarkson Road should be included in Stage 2 assessment, to confirm the extent of saturated soils. According to the S & G Section 2.1.2, test pit survey is required on terrain where ploughing is not viable, such as wooded areas, properties where existing landscaping or infrastructure would be damaged, overgrown farmland with heavy brush or rocky pasture, and narrow linear corridors up to 10 metres wide (Figures 10: areas highlighted in green).

Part of the Study Area has been previously assessed and does not require further archaeological assessments (Figure 10: areas highlighted in red).

The property inspection determined that some of lands within the Study Area are sloped in excess of 20 degrees adjacent to Turtle Creek, and according to the S & G Section 2.1 do not retain potential (Plates 3-4, 6; Figure 10: areas highlighted in pink).

The remainder of the Study Area has been subjected to deep soil disturbance events associated with road construction, property redevelopments since the nineteenth century (including the heritage property on Lakeshore Road), and creek realignment. According to the S & G Section 1.3.2 these areas do not retain archaeological potential (Plates 1-5, 7-14-16; Figure 10: areas highlighted in yellow) and do not require further survey.

3.2 Conclusions

The Stage 1 background research and property inspection determined that no previously registered archaeological sites are located within one kilometre of the Study Area. The property inspection determined that part of the Study Area exhibits archaeological potential and will require Stage 2 assessment prior to any proposed impacts on these lands. The remainder of the Study Area does not exhibit archaeological potential within the existing road ROWs and twentieth-century commercial and residential development.



4.0 RECOMMENDATIONS

In light of these results, the following recommendations are made:

1. Part of the Study Area exhibits archaeological potential and will require Stage 2 test pit survey in these areas, prior to any proposed construction activities (Figure 10: areas in green);
2. The remainder of the Study Area does not retain archaeological potential on account of deep and extensive land disturbance, low and wet conditions, slopes in excess of 20 degrees or being previously assessed. These lands do not require further archaeological assessment; and,
3. Should the proposed work extend beyond the current Study Area, further Stage 1 archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.

NOTWITHSTANDING the results and recommendations presented in this study, ASI notes that no archaeological assessment, no matter how thorough or carefully completed, can necessarily predict, account for, or identify every form of isolated or deeply buried archaeological deposit. In the event that archaeological remains are found during subsequent construction activities, the consultant archaeologist, approval authority, and the Cultural Programs Unit of the MHSTCI should be immediately notified.

5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

ASI also advises compliance with the following legislation:

- This report is submitted to the Ministry of Heritage, Sport, Tourism and Culture Industries as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, RSO 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 field work and report recommendations ensure the conservation, preservation and protection 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 Heritage, Sport, Tourism and Culture Industries, 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 field work on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
- Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the *Ontario Heritage Act*.
- The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.



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7.0 MAPS



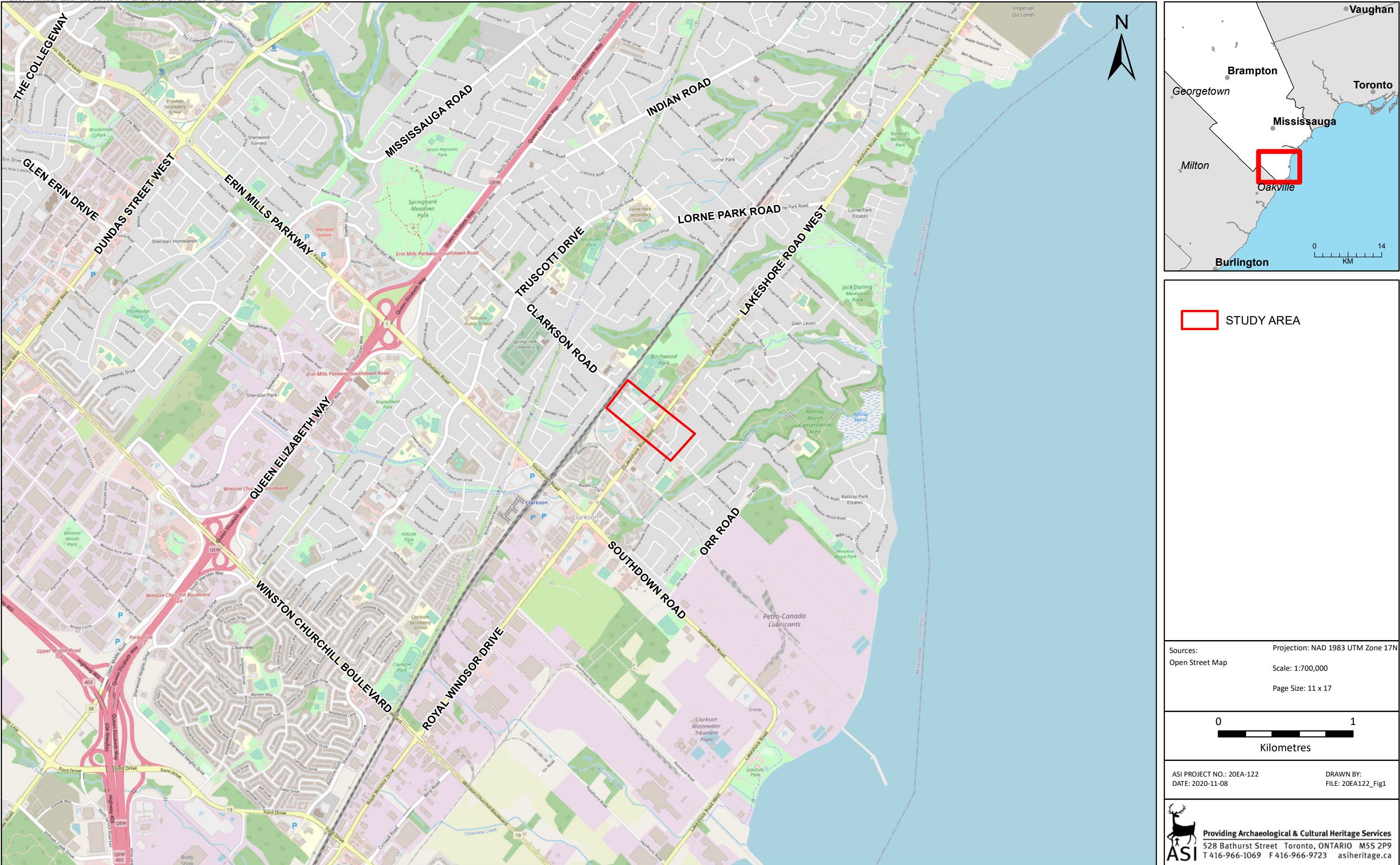


Figure 1: Clarkson Road and Lakeshore Road Intersection Improvements Study Area

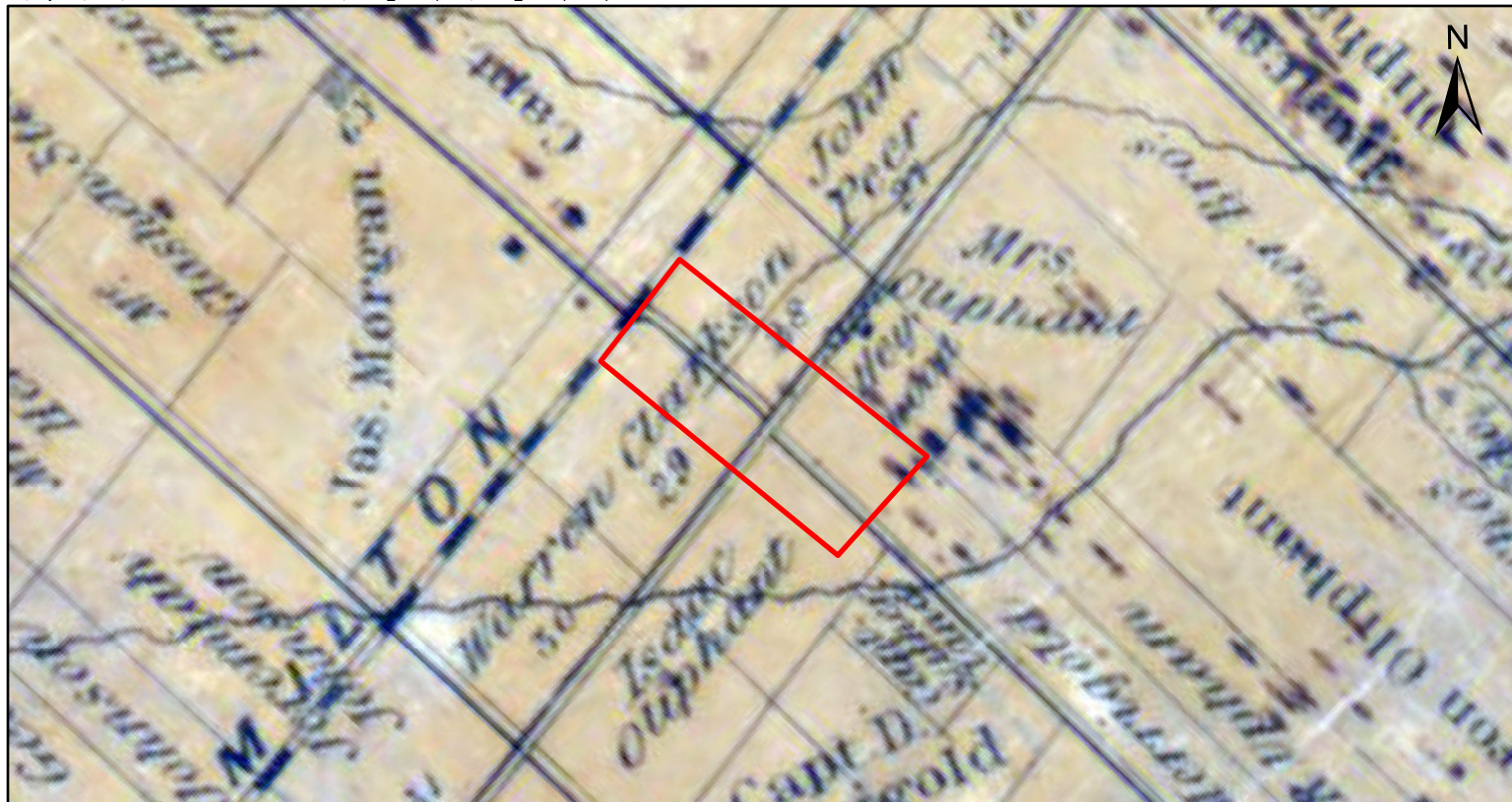


Figure 2: Study Area (Approximate Location) Overlaid on the 1859 Tremain's Map of the County of Peel



Figure 3: Study Area (Approximate Location) Overlaid on the 1877 Illustrated Historical Atlas of County of Peel



STUDY AREA

Sources: 1859 Tremain's Map of the County of Peel, 1877 Illustrated Historical Atlas of County of Peel

Projection: NAD 1983 UTM Zone 17N
Scale: 1:15,000
Page Size: 8.5 x 11

0 500
Metres

ASI Project No.: 20EA-122 Drawn By: cnettleton
Date: 2020-11-19 File: 8.5x11_Historic_x_2



Figure 4: Study Area (Approximate Location) Overlaid on the 1909 NTS Brampton Sheet



Figure 5: Study Area (Approximate Location) Overlaid on the 1942 NTS Brampton Sheet

	 STUDY AREA	<p>Sources: National Topographic System 1909, Brampton Sheet National Topographic System 1942, Brampton Sheet</p> <p>Projection: NAD 1983 UTM Zone 17N Scale: 1:15,000 Page Size: 8.5 x 11</p>	<p>0 500 Metres</p> <p>ASI Project No.: 20EA-122 Date: 2020-11-19 File: 8.5x11_NTS_x_2</p>
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	 STUDY AREA	Source: Aerial Photography of Mississauga, 1996	 0 100 Metres	
			Projection: NAD 1983 UTM Zone 17N Scale: 1:3,500 Page Size: 8.5x11	ASI Project No.: 20EA-122 Date: 2020-11-24 File: 8.5x11_Landscape_1966

Figure 6: Study Area (Approximate Location) Overlaid on the 1966 Aerial Photography



Figure 7: Study Area (Approximate Location) Overlaid on the 1992 Aerial Photography



Figure 8: Study Area - Surficial Geology

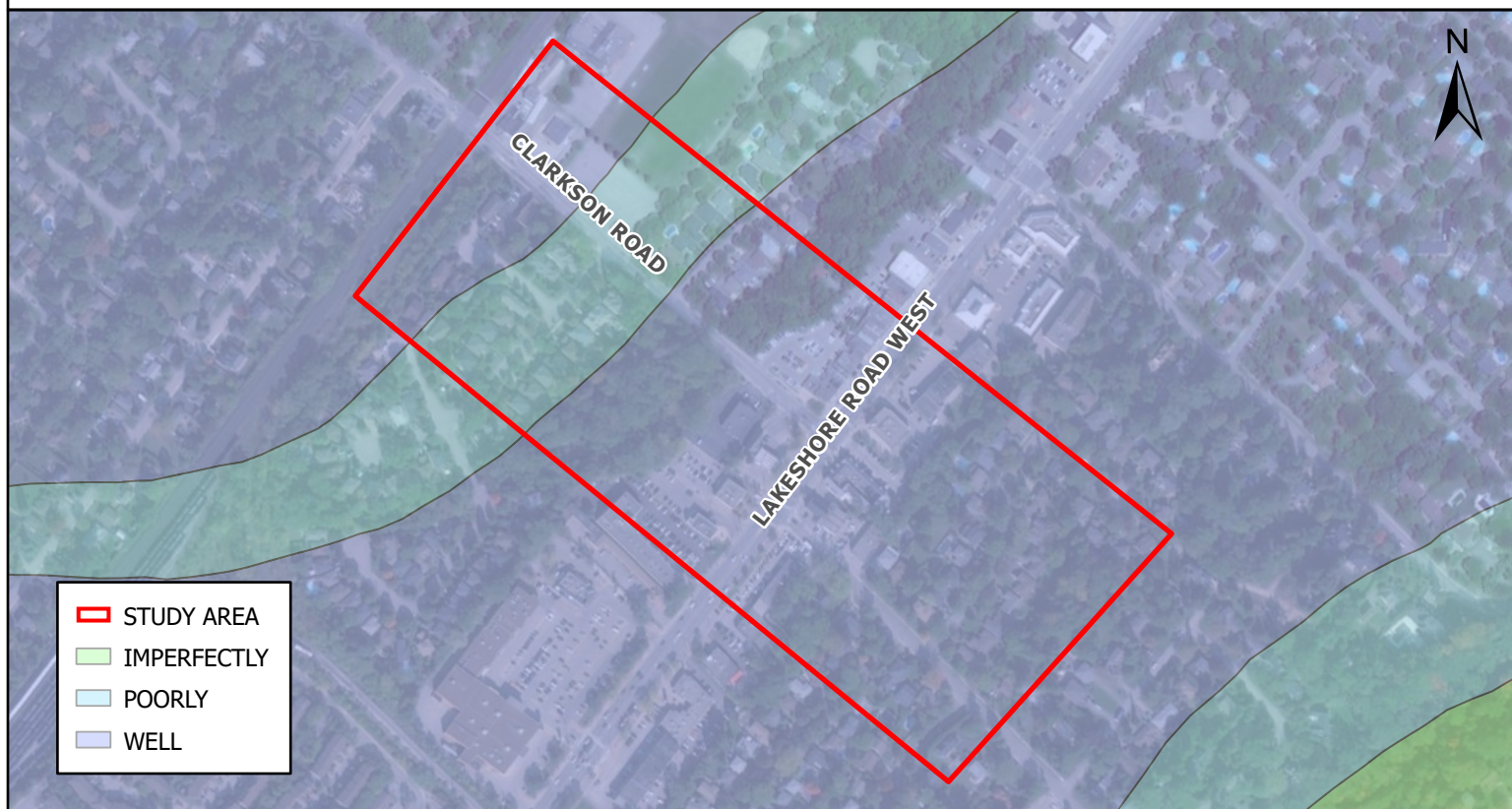


Figure 9: Study Area - Soil Drainage



Sources:
Ontario Geological Survey, Ministry of Northern
Development and Mines, © Queen's Printer for
Ontario, 2003

Guelph Geomatics Services, Ontario Ministry of
Agriculture and AgriFood

Projection: NAD 1983 UTM Zone 17N
Scale: 1:6,000
Page Size: 8.5 x 11

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Metres

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File:
8.5x11_Geology_x2










	 STUDY AREA	 DISTURBED - NO POTENTIAL	 REQUIRES TEST PIT SURVEY - 5 M
	 PHOTO LOCATION AND DIRECTION	 PREVIOUSLY ASSESSED	 SLOPE - NO POTENTIAL
	<p>Town of Oakville, Maxar, Microsoft</p> <p>Projection: NAD 1983 UTM Zone 17N Scale: 1:1,650 Page Size: 11 x 17</p>		
		<p>0 50 Metres</p>	
		<p>ASI Project No.: 20EA-122 Date: 12/13/2021 4:11 PM</p>	
		<p>Drawn By: pbikoulis File: 11x17_Landscape</p>	

Figure 10: Clarkson Road and Lakeshore Road - Results of Stage 1

8.0 IMAGES



Plate 1: View of Clarkson Road North; Area is disturbed, no potential



Plate 2: View towards Birchwood Park trail; Area is disturbed, no potential



Plate 3: View from Turtle Glen Park trail; Area requires Stage 2 survey



Plate 4: View from Turtle Glen Park trail; Area requires Stage 2 survey



Plate 5: View of Turtle Creek; Area is disturbed, no potential



Plate 6: View of Turtle Creek; South creek bank is sloped, no potential



Plate 7: View of Lakeshore Road West; Area is disturbed, no potential



Plate 8: View of Lakeshore Road West; Area is disturbed, no potential



Plate 9: View of 11764 Lakeshore Road West former church; Area is disturbed, no potential



Plate 10: View of Lakeshore Road West; Area is disturbed, no potential



Plate 11: View of Lakeshore Road West; Area is disturbed, no potential



Plate 12: View of Lakeshore Road West; Area is disturbed, no potential



Plate 13: View of 972 Clarkson Road South; ROW is disturbed, no potential. Residential lawn requires Stage 2 survey.



Plate 14: View of Valentine Gardens; Area is disturbed, no potential



Plate 15: View of 924 Clarkson Road South; ROW is disturbed, no potential. Residential lawn requires Stage 2 survey.



Plate 16: View from Clarkson Road South; Areas beyond disturbed residential subdivision yards and landscaping swales require Stage 2 survey