

# Stage 2 Archaeological Assessment for 2512-2532 Argyle Road, Mississauga

Part of Block A, Registered Plan E-23, Part of Lot 17, Concession 1 South of Dundas Street, Geographic Township of Toronto, former County of Peel, now City of Mississauga, Regional Municipality of Peel, Ontario

### **ORIGINAL REPORT**

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# **Executive Summary**

Stantec Consulting Ltd. (Stantec) was retained by Plazacorp Investments Ltd. (the Client) to complete a Stage 2 archaeological assessment as part of an Official Plan Amendment application and Zoning By-law amendment application under the *Planning Act* (Government of Ontario 1990a) and Section 7.4.4 of the *Mississauga Official Plan* (City of Mississauga 2017) in advance of a proposed residential development (the Project). The study area for the Project is located at municipal addresses 2512-2532 Argyle Road, Mississauga within part of Block A, Registered Plan E-23, part of Lot 17, Concession 1 South of Dundas Street, former Geographic Township of Toronto, County of Peel, now City of Mississauga, Regional Municipality of Peel, Ontario. The study area is approximately 0.67 hectares in area and comprises three residential lots containing houses, driveways, trees, and manicured lawns.

A Stage 1 archaeological assessment of the study area was completed in 2018 (Archaeological Services Inc. 2018) and approximately 80% of the study area was identified as possessing archaeological potential and recommended for Stage 2 archaeological assessment.

The Stage 2 archaeological assessment was conducted in accordance with the Ministry of Tourism, Culture and Sport's (MTCS) 2011 *Standards and Guidelines for Consultant Archaeologists* (*SGCA*). The Stage 2 archaeological assessment of the study area was conducted under Project Information Form # P362-0247-2018 issued to Dr. Peter Popkin (P362). The Stage 2 archaeological survey was conducted on December 21, 2018 under the field direction of Dr. Popkin.

No archaeological resources were identified during the Stage 2 archaeological assessment of the study area. Thus, in accordance with Section 2.2 and Section 7.8.4 of the SGCA (MTCS 2011), the study area may be considered free of further archaeological concern and **no further archaeological assessment of the study area is required**.

The MTCS is asked to review the results presented and to accept this report into the *Ontario Public Register of Archaeological Reports*.

The Executive Summary highlights key points from the report only; for complete information and findings, the reader should examine the complete report.



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# **Project Personnel**

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# 1.0 PROJECT CONTEXT

## 1.1 DEVELOPMENT CONTEXT

Stantec Consulting Ltd. (Stantec) was retained by Plazacorp Investments Ltd. (the Client) to complete a Stage 2 archaeological assessment as part of an Official Plan Amendment application and Zoning By-law amendment application under the *Planning Act* (Government of Ontario 1990a) and Section 7.4.4 of the *Mississauga Official Plan* (City of Mississauga 2017) in advance of a proposed residential development (the Project). The study area for the Project is located at municipal addresses 2512-2532 Argyle Road, Mississauga within part of Block A, Registered Plan E-23, part of Lot 17, Concession 1 South of Dundas Street, former Geographic Township of Toronto, County of Peel, now City of Mississauga, Regional Municipality of Peel, Ontario (Figure 1). The study area is approximately 0.67 hectares in area and comprises three residential lots containing houses, driveways, trees, and manicured lawns (Figure 2).

The Stage 2 archaeological assessment was conducted in accordance with Ministry of Tourism, Culture and Sport's (MTCS) 2011 *Standards and Guidelines for Consultant Archaeologists* (*SGCA*). The Stage 2 archaeological assessment of the study area was conducted under Project Information Form (PIF) # P362-0247-2018 issued to Dr. Peter Popkin (P362). The Stage 2 archaeological survey was conducted on December 21, 2018 under the field direction of Dr. Popkin. A Stage 1 archaeological assessment was previously completed by Archaeological Services Inc. (ASI). Further details regarding the Stage 1 archaeological assessment (ASI 2018) are provided in Section 1.3.3 of this report.

## 1.1.1 Objectives

In compliance with the provincial standards and guidelines set out in the SGCA (MTCS 2011), the objectives of the Stage 2 archaeological assessment are as follows:

- To document archaeological resources within the study area, if any.
- To determine whether the study area contains archaeological resources requiring further assessment.
- To recommend appropriate Stage 3 assessment strategies for archaeological sites identified.

Permission to enter the study area to complete the archaeological assessment, including the recovery of artifacts, was granted by the Client.

## 1.2 HISTORICAL CONTEXT

## 1.2.1 Post-contact Indigenous Overview

"Contact" is typically used as a chronological benchmark in discussing Indigenous archaeology in Canada and describes the contact between Indigenous and European cultures. The precise moment of contact is not known. However, contact in what is now the province of Ontario is broadly assigned to the 16<sup>th</sup> century (Loewen and Chapdelaine 2016).



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By the turn of the 16<sup>th</sup> century, the region of the study area appears to have been abandoned of permanent settlement. It has long been the understanding of archaeologists that prior to the 16<sup>th</sup> century the north shore of Lake Ontario was occupied by Iroquoian-speaking populations (Birch and Williamson 2013; Birch 2015; Dermarkar et al. 2016). Recently, the direct correlation in Ontario between archaeology and ethnicity, and especially regional identity, has been questioned (cf. Fox 2015:23; Gaudreau and Lesage 2016:9-12; Ramsden 2016:124). Recent considerations of Indigenous sources on culture history has led to the understanding that prior to the 16<sup>th</sup> century the north shore of Lake Ontario was co-habited by more mobile Anishnaabeg populations (Kapyrka 2018) who have not been represented in previous analyses of the archaeological record and who most likely have left a more ephemeral archaeological record than that of more densely populated agricultural settlements. The apparent void of permanent settlement along the north shore of Lake Ontario continued through the first half of the 17<sup>th</sup> century; however, this does not preclude the occupation of the region by mobile Anishnaabeg peoples.

By the 1680s, Anishnaabeg people had begun to re-enter the lower Great Lakes basin (Konrad 1981; Rogers 1978). The Indigenous economy since the turn of the 18<sup>th</sup> century focused on fishing and the fur trade, supplemented by agriculture and hunting. The study area falls within the historic territory of the Credit River Mississauga Nation, currently known as the Mississaugas of the Credit First Nation (Mississaugas of the New Credit First Nation n.d.)

The study area is located within the "Old Survey" of the Geographic Township of Toronto, which lies within the bounds of Treaty 13A. On August 2, 1805, the Principal Chiefs of the Mississauga Nation and William Claus, Esquire, Deputy Superintendent General and Deputy Inspector General of Indians and their Affairs, signed Treaty 13A (Morris 1943). The area of Treaty 13A is described as follows;

Commencing at the eastern bank of the mouth of the River Etobicoke, being in the limit of the western boundary line of the Toronto Purchase, in the year 1787; then north twenty-two degrees west, six miles; thence south 38 degrees west, twenty-six miles more or less, until it intersects a line on the course north 45 degrees west, produced from the outlet of Burlington Bay; then along the said produced line, one mile more or less to the lands granted to Captain Brant; then north 45 degrees east, one mile and a half; then south 45 degrees east, three miles and a half more or less to Lake Ontario; then north easterly along the waters edge of Lake Ontario to the eastern bank of the River Etobicoke being the place of beginning:

(Morris 1943:22)

In this treaty, known as the "First Purchase", the Crown acquired over 74,000 acres of land, excluding a one-mile strip on each side of the Credit River which became known as the Credit River Indian Reserve. While it is difficult to exactly delineate treaty boundaries today an approximate outline of the area encompassed by Treaty Number 13A (identified by the letter "M") is shown in Figure 3. Treaty 13A was confirmed the following year with the signing of Treaty 14, also known as the "Head of the Lake" Treaty, on September 5, 1806. The areas described under treaties 13A and 14 are the same. On February 28, 1820, the "Credit Treaties" 22 and 23 were signed whereby the Mississaugas surrendered much of the lands along the Credit River that was set aside in Treaty 13A (Morris 1943:25).



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### 1.2.2 Euro-Canadian Overview

The study area is located within the former Township of Toronto, Peel County, Ontario. A brief summary of the Euro-Canadian settlement history of this township is presented below.

#### 1.2.2.1 Toronto Township, Peel County

The boundaries of Toronto Township were originally defined under the 'Old Survey' of 1806. The name of the township was chosen by Alexander Grant, who served as the administrator of the First Executive and Legislative Council of Upper Canada from 1805 to 1806 (Corporation of the County of Peel 1967:15). It was laid out using the single-front system, whereby each concession was comprised of long and narrow lots that were approximately 200 acres in size. The first European settler in the township was Colonel Thomas Ingersoll, who operated the Government House and Ferry at Port Credit, prior to 1806 (Pope 1877:86). The earliest European families to arrive in the township included those of Philip Cody, Daniel Harris, Joseph Silverthorn, Absalom Wilcox, Allen Robinet, and William Barber (Hicks 2004:xii).

The 'New Survey' was completed by Timothy Street and Richard Bristol in 1819 and defined the boundaries of Chinguacousy, Caledon, Albion, and Toronto Gore townships, as well as extending the boundaries of Toronto Township. The township was surveyed with six concessions east and west of Hurontario Street, which was originally known as Street Road after the surveyor (Hicks 2004:xv). It was laid out using the double-front system, that produced a rectangular pattern of ten 100-acre lot allowances separated by road allowances. Toronto Township was incorporated in 1850 (City of Mississauga 2004).

European settlement in the Township of Toronto developed primarily along the waterways, which acted as a source of power for mills, and at road intersections. Dundas Street received much of the early settlement, with numerous mills built along the Credit River. The first settlements in the township were Sydenham (later named Dixie) and Harrisville (later named Cooksville), both located along Dundas Street. The War of 1812 increased traffic along the roads, which influenced road improvements and the demand for goods in the township, notably of flour (Corporation of the County of Peel 1967:196).

Mill sites developed rapidly along the Credit River following the New Survey in 1819. As the first mills, stores, and blacksmith shops developed in the Old Survey, north-south roads soon developed to connect the two surveys. The main settlement roads to the New Survey included Hurontario Street (Centre Road), the Mono Road, and the Gore Road. Approximately 650 metres east of the study area, Hurontario Street was opened in 1819 and named in 1834 by Surveyor General Thomas Ridout for its connection between Lake Ontario and Lake Huron (Hicks 2004: xv). In 1847, the street was planked from Port Credit to the north end of the township (Corporation of the County of Peel 1967:270).

With its proximity to the Town of York and easy accessibility from Lake Ontario, settlers flocked to the township in the early 19<sup>th</sup> century. One of the large groups to arrive that influenced the development of the study area included 150 Irish families that immigrated from New York in 1819. United Empire Loyalists John and James Beatty and Joseph Carter had petitioned the Upper Canada government in 1818 for land in the township. The grant was approved with 5,000 acres in the Township of Toronto set aside for 150 families (Hicks 2004:3). By 1821, the population of the township was 803, with 2,924 acres of cleared land (Pope 1877:84). With the spread of positive reports by settlers of the land available in the township



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to those in the United States and British Isles, a large surge of immigrants arrived in the 1830s. In 1834, the population of the township was over 4,000 and by 1836 most of the land within the township had been taken up by settlers (Corporation of the County of Peel 1967:270). In 1850, following the *Municipal Corporations Act* (Baldwin Act), the Township of Toronto was incorporated, with Joseph Wright as the first reeve (Corporation of the County of Peel 1967:19). At this time, the township had a population of 7,539, with 36,179 acres under cultivation out of a total 60,634 acres (Corporation of the County of Peel 1967:270).

In the early 20<sup>th</sup> century, the study area continued to be primarily agricultural lands situated southeast of the Village of Cooksville. Within the Township of Toronto, development occurred in the Villages of Streetsville, Meadowvale, Malton, Cooksville, Dixie, and Port Credit through the influence of the railway lines. In 1901, the population of the township was 4,690, with 57,043 acres under cultivation out of a total 63,928 acres (Corporation of the County of Peel 1967:270).

Industrial development occurred in the township throughout the 20<sup>th</sup> century. By 1967, the township had 365 industries in operation. One of the largest areas of industrial development was at the Village of Dixie, where 750 acres of land had been sold in 1955 as part of an industrial park. By 1966, the population of the township had reached 85,309, a large increase from the 1952 population of 22,882 (Corporation of the County of Peel 1967:270).

In 1968, the Town of Mississauga was created through the amalgamation of the of the Township of Toronto and the Villages of Clarkson, Lakeview, Cooksville, Erindale, Sheridan, Dixie, Meadowvale, and Malton. In 1974, the town was incorporated as the City of Mississauga (City of Mississauga n.d.). By 1975, the city had a population of 234,975. Due in large part to its proximity to the City of Toronto, Mississauga prospered throughout the end of the 20<sup>th</sup> century, with a population of 528,000 in 1995. Today, the City of Mississauga is one of the largest in Canada and the third largest in the province. In 2011, the population of the City increased to 713,443 (City of Mississauga 2014). The City of Mississauga remains a fast-growing city within the Greater Toronto Area.

#### 1.2.2.2 Cooksville

The hamlet of Cooksville developed in the 1830s at the intersection of Hurontario Street and Dundas Street, approximately 750 metres north of the study area. Daniel Harris settled on Lot 15, Concession 1 South of Dundas Street (SDS) in 1800 and established a saw mill. The four corners was originally known as Harrisville, in honour of Harris (Hicks 2004:xiv). Jacob Cook arrived in Harrisville in 1819 and purchased 100 acres on Lot 16, Concession 1 SDS. In 1829, Cook constructed the first hotel in the village, known as Cooksville House, and established a stage coach route to service the hotel (Hicks 2005:xvii). In 1836, the name Harrisville was changed to Cooksville, in recognition of Cook's entrepreneurial success in the community. Cooksville became a popular stopping point for travelers between Niagara and York (now Toronto) (Heritage Mississauga 2009). By 1846, the hamlet had a population of about 185, with two stores, a tannery, two taverns, a watchmaker, a blacksmith, a saddler, a tinsmith, two wagon makers, four shoemakers, two tailors, a baker, and a painter (Smith 1846:38).



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### 1.2.2.3 Historical Mapping

The earliest historic mapping reviewed for this Stage 2 archaeological assessment was Tremaine's 1859 map of Peel County (Tremaine 1859) (Figure 4). This map indicates that in 1859 the study area was located in general proximity to historic features (e.g., farmsteads) and historic transportation routes (e.g., Dundas Street and modern-day Paisley Boulevard West). The Tremaine map also shows a branch of Mary Fix Creek running along the north edge of the study area. In 1859, Lot 17, Concession 1 SDS was owned by Henry Parker (Table 1).

The 1877 *Illustrated Historical Atlas of the County of Peel* was also reviewed (Pope 1877) (Figure 5). A farmstead is depicted on the northwest corner of the lot adjacent to Dundas Street that was not present on the 1859 Tremaine map. By 1877, the land had been transferred from Henry Parker to the Canada Vinegrowers Association (Table 1). One of the founding members of the Canada Vinegrowers Association, Johan Schiller, started the first documented vineyard in Ontario in 1860, located in Cookstown Stout 2001).

Table 1: Landowner Information for the Study Area in 1859 and 1877

Year	Lot	Concession	Landowner	Features of Potential
1859	17	1 SDS	Henry Parker	Mary Fix Creek, Paisley Boulevard
1877	17	1 SDS	Canada Vinegrowers Association	Farmstead, Mary Fix Creek, Paisley Boulevard

In discussing the late 19<sup>th</sup> century historical mapping it must be remembered that historical county atlases were produced primarily to identify factories, offices, residences and landholdings of subscribers and were funded by subscription fees. Landowners who did not subscribe were not always listed on the maps (Caston 1997:100). As such, all structures were not necessarily depicted or placed accurately (Gentilcore and Head 1984).

Review of historic mapping also has inherent accuracy difficulties due to potential error in georeferencing. Georeferencing is conducted by assigning spatial coordinates to fixed locations and using these points to spatially reference the remainder of the map. Due to changes in fixed locations over time (e.g., road intersections), errors / difficulties of scale and the relative idealism of the historic cartography, historic maps may not translate accurately into real space points. This may provide obvious inconsistencies during the historic map review.

### 1.2.2.4 Mid-Twentieth Century Development of the Study Area

A review of aerial photographs of the study area from the mid-20<sup>th</sup> century indicates that by 1961 Mary Fix Creek ran along the southern edge of the study area (Figure 6). It is not clear whether the creek was diverted to that position or if this simply reflects an inaccuracy of the 19<sup>th</sup> century historical mapping. Through the 1960s and 1970s development of apartment complexes progressed southeast from Dundas



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Street toward the study area. At some point after 1975, Mary Fix Creek was buried and incorporated into the municipal stormwater management system (ASI 2018:7). The burial of the creek created significant soil disturbance at the back (south) end of the study area.

## 1.3 ARCHAEOLOGICAL CONTEXT

## 1.3.1 Physiography

The study area is broadly situated along the north shore region of Lake Ontario in an area characterized as the Iroquois Plain physiographic region (Chapman and Putnam 1984). The Iroquois Plain physiographic region is named for its association with glacial Lake Iroquois. The Iroquois Plain region "extends around the western part of Lake Ontario, from the Niagara River to the Trent River" with a width that varies between a few hundred metres to up to around 13 kilometres (Chapman and Putman 1984:190). The study area is in an area classified as a sand plain and is located approximately 500 metres southeast of a shore bluff or scarp and an area of Lake Iroquois beach. The soils in the study area are a combination of Fox Sand, a well-drained soil very similar to Fox Sandy Loam but lacking in surface loam conditions (Hoffman and Richards 1953:48), and alluvial bottom land associated with Mary Fix Creek.

The study area is in the immediate vicinity of Mary Fix Creek, a primary water source and feature of archaeological potential. Historically, Mary Fix Creek drained into Lake Ontario, but its drainage channel has been subsequently and artificially modified and now drains into the Credit River on the north side of railway tracks north of Port Credit (Credit Valley Conservation 2014:16). The study area is within the Norval to Port Credit Subwatershed within the larger Credit River watershed (Credit Valley Conservation 2009) and is located approximately 1,800 metres north of the Credit River.

### 1.3.2 Pre-contact Indigenous Overview

As the Laurentide ice sheet receded from southern Ontario by approximately 11000 BCE, the land was opened up and those parts of it not submerged under glacial lakes were available for human occupation (Lothrop et al. 2016). Much of what is understood about the lifeways of the Indigenous peoples who first populated the land currently known as southern Ontario is derived from archaeological evidence and ethnographic analogy. In Ontario, Indigenous occupation prior to the period of contact with European peoples has been divided by archaeologists into archaeological culture periods based on observed changes in material culture. These archaeological culture periods are largely based on observed changes in formal lithic tools, and are classified as Early Paleoindian, Late Paleoindian, Early Archaic, Middle Archaic, and Late Archaic periods. Following the advent of ceramic technology in the Indigenous archaeological record in Ontario, archaeological culture periods are classified as Early Woodland, Middle Woodland, and Late Woodland periods, distinguished primarily on observed changes in formal ceramic decoration. It should be noted that archaeological culture periods do not represent specific Indigenous cultural identities but are, rather, a useful paradigm for categorizing changes in Indigenous material culture practice through time.



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The current understanding of Indigenous archaeological culture periods in southern Ontario is summarized in Table 2, based on Ellis and Ferris (1990) and more recent advances in late Pleistocene radiocarbon calibration techniques (Ellis 2013; Fiedel 1999; Lothrop et al. 2016; Munson 2013).

Table 2: Archaeological Cultural Chronology for Southern Ontario

Archaeological Culture Period	Characteristics	Approximate Time Period	Comments
Early Paleoindian	Fluted Projectiles	11000 – 9500 BCE	spruce parkland/caribou hunters
Late Paleoindian	Hi-Lo Projectiles	9500 – 8000 BCE	smaller but more numerous sites
Early Archaic	Kirk and Bifurcate Base Points	8000 - 6,000 BCE	slow population growth
Middle Archaic	Brewerton-like points	6000 – 2500 BCE	environment similar to present
	Lamoka (narrow points)	2500 – 1800 BCE	increasing site size
Late Archaic	Broad Points	1800 – 1500 BCE	large chipped lithic tools
	Small Points	1500 – 1100 BCE	introduction of bow hunting
Terminal Archaic	Hind Points	1100 – 950 BCE	emergence of true cemeteries
Early Woodland	Meadowood Points	950 – 400 BCE	introduction of pottery
Middle Woodland	Dentate/Pseudo-Scallop Pottery	400 BCE – 500 CE	increased sedentism
	Princess Point	550 – 900 CE	introduction of corn
	Early Ontario Iroquoian	900 – 1300 CE	emergence of agricultural villages
Late Woodland	Middle Ontario Iroquoian	1300 –1400 CE	long longhouses (100 m +)
	Late Ontario Iroquoian	1400 – 1650 CE	tribal warfare and displacement
Contact Indigenous	Various Algonkian Groups	1650 –1875 CE	early written records and treaties
Late Historic	Euro-Canadian	1796 CE – present	European settlement

Between 11000 and 8000 BCE, Indigenous populations were sustained by hunting, fishing and foraging and lived a relatively mobile existence across an extensive geographic territory. Despite these wide territories, social ties were maintained between groups, one method in particular was through gift exchange, evident through exotic lithic material documented on many sites (Ellis 2013:35-40).

By approximately 8000 BCE, evidence exists and becomes more common for the production of ground-stone tools such as axes, chisels and adzes. These tools themselves are believed to be indicative specifically of woodworking. This evidence can be extended to indicate an increase in craft production and arguably craft specialization. This latter statement is also supported by evidence, dating to approximately 7000 BCE of ornately carved stone objects which would be laborious to produce and have explicit aesthetic qualities (Ellis 2013:41). This is indirectly indicative of changes in social organization



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which permitted individuals to devote time and effort to craft specialization. Around 8000 BCE, the Great Lakes basin experienced a low-water phase, with shorelines significantly below modern lake levels (Stewart 2013: Figure 1.1.C). It is presumed that the majority of human settlements would have been focused along these former shorelines. At approximately 6500 BCE, the climate had warmed considerably since the recession of the glaciers and the environment had grown more similar to the present day. By approximately 4500 BCE, evidence exists from southern Ontario for the utilization of native copper (naturally occurring pure copper metal) (Ellis 2013:42). The known origin of this material along the north shore of Lake Superior indicates the existence of extensive exchange networks across the Great Lakes basin.

At approximately 3500 BCE, the isostatic rebound of the North American plate following the melt of the Laurentide glacier had reached a point which significantly affected the watershed of the Great Lakes basin. Prior to this, the Upper Great Lakes had drained down the Ottawa Valley via the French-Mattawa river valleys. Following this shift in the watershed, the drainage course of the Great Lakes basin had changed to its present course. This also prompted a significant increase in water-level to approximately modern levels (with a brief high-water period); this change in water levels is believed to have occurred catastrophically (Stewart 2013:28-30). This change in geography coincides with the earliest evidence for cemeteries (Ellis 2013:46). By 2500 BCE, the earliest evidence exists for the construction of fishing weirs (Ellis et al. 1990: Figure 4.1). Construction of these weirs would have required a large amount of communal labour and are indicative of the continued development of social organization and communal identity. The large-scale procurement of food at a single location also has significant implications for permanence of settlement within the landscape. This period is also marked by further population increase and by 1500 BCE evidence exists for substantial permanent structures (Ellis 2013:45-46).

By approximately 950 BCE, the earliest evidence exists for populations using ceramics. Populations are understood to have continued to seasonally exploit natural resources. This advent of ceramic technology correlated, however, with the intensive exploitation of seed foods such as goosefoot and knotweed as well as mast such as nuts (Williamson 2013:48). The use of ceramics implies changes in the social organization of food storage as well as in the cooking of food and changes in diet. Fish also continued to be an important facet of the economy at this time. Evidence continues to exist for the expansion of social organization (including hierarchy), group identity, ceremonialism (particularly in burial), interregional exchange throughout the Great Lakes basin and beyond, and craft production (Williamson 2013:48-54).

By approximately 550 CE, evidence emergences for the introduction of maize into southern Ontario. This crop would have initially only supplemented Indigenous peoples' diet and economy (Birch and Williamson 2013:13-14). Maize-based agriculture gradually became more important to societies and by approximately 900 CE permanent communities emerge which are primarily focused on agriculture and the storage of crops, with satellite locations oriented toward the procurement of other resources such as hunting, fishing and foraging. By approximately 1250 CE, evidence exists for the common cultivation of the historic Indigenous cultigens, including maize, beans, squash, sunflower, and tobacco.



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The study area is located within the understood territory of the ancestral Huron-Wendat. Specifically, the Credit River watershed possesses settlement sequences dating to the 14<sup>th</sup> (e.g., the Antrex site), 15<sup>th</sup> (e.g., the Pengilly site and the River site), and 16<sup>th</sup> centuries (e.g., Emmerson Springs site and Wallace site). After the mid-16<sup>th</sup> century, only large village sites ranging from around two to four hectares in size (including Emmerson Springs and Wallace) are found on the north shore of Lake Ontario and by the turn of the 17<sup>th</sup> century the north shore of Lake Ontario was lacking in permanent settlement (Birch and Williamson 2013:40).

# 1.3.3 Previous Archaeological Research

In Canada, archaeological sites are registered within the Borden system, a national grid system designed by Charles Borden in 1952 (Borden 1952). The grid covers the entire surface area of Canada and is divided into major units containing an area that is two degrees in latitude by four degrees in longitude. Major units are designated by upper case letters. Each major unit is subdivided into 288 basic unit areas, each containing an area of 10 minutes in latitude by 10 minutes in longitude. The width of basic units reduces as one moves north due to the curvature of the earth. In southern Ontario, each basic unit measures approximately 13.5 kilometres east-west by 18.5 kilometres north-south. In northern Ontario, adjacent to Hudson Bay, each basic unit measures approximately 10.2 kilometres east-west by 18.5 kilometres north-south. Basic units are designated by lower case letters. Individual sites are assigned a unique, sequential number as they are registered. These sequential numbers are issued by the MTCS who maintain the *Ontario Archaeological Sites Database*. The study area is located within Borden block AjGv.

Information concerning specific site locations is protected by provincial policy and is not fully subject to the *Freedom of Information and Protection of Privacy Act* (Government of Ontario 1990c). The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The MTCS will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

A query of the *Ontario Archaeological Sites Database* was performed on November 20, 2018 to determine whether any archaeological sites have been registered within, or within a one kilometre radius of, the study area (MTCS 2018a). No archaeological sites are registered within the study area or within 300 metres of the study area, but one archaeological site is registered within one kilometre of the study area (Table 3).

Table 3: Registered Archaeological Sites within One Kilometre of the Study Area

Borden Number	Site Name	Site Type	Cultural Affiliation
AjGv-63	Collins	Midden	Euro-Canadian



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A query of the *Ontario Public Register of Archaeological Reports*, maintained by the MTCS under the authority of Section 65.1 of the *Ontario Heritage Act* (Government of Ontario 1990b) did not indicate any reports documenting archaeological work on, or within a 50 metre radius of, the study area (MTCS 2018b), other than the original Stage 1 archaeological assessment conducted by ASI in 2018 (ASI 2018).

The Stage 1 archaeological assessment of the study area indicated that approximately 20% of the study area has no archaeological potential due to the disturbance associated with the construction of the three existing homes (ASI 2018:8), and that no Stage 2 survey of those portions of the study area are required (see Figure 7). The Stage 1 archaeological assessment found that the remaining 80% of the study area has archaeological potential requiring Stage 2 archaeological survey (ASI 2018:8). The Stage 1 archaeological assessment report makes the following recommendation:

- "Prior to any land-disturbing activities within the subject property, a Stage 2
   Archaeological Assessment must be conducted in accordance with the Ministry of Tourism, Culture and Sport's 2011 S & G.
  - a. The assessment would be completed by means of test pit survey. All test pits should be excavated at least five cm into sterile subsoil, with all soils being screened through six mm mesh to facilitate artifact recovery. All test pits should be at least 30 cm in diameter and backfilled upon completion. Test pits should be excavated at five metre transect intervals as outlined in the 2011 S & G."

(ASI 2018:8)

## 1.3.4 Existing Conditions

The study area is located at municipal addresses 2512-2532 Argyle Road, Mississauga and consists of three residential lots. Each residential lot has a manicured front and back lawn with some trees and bushes, a house, and a driveway at the front of the house. The furthest rear portion of each lot is not fenced or otherwise demarcated and there is open access between all three lots. The rear portion of each lot has an artificial swale that was created when Mary Fix Creek was buried, and municipal stormwater management infrastructure was buried in the area. The Stage 2 test pit survey of the study area occurred on December 21, 2018.



Field Methods February 15, 2019

# 2.0 FIELD METHODS

The Stage 2 survey of the study area was completed by test pit survey on December 21, 2018, in accordance with Section 2.1.2 of the SGCA (MTCS 2011) as ploughing was not possible or viable within the study area and as per the recommendations within the Stage 1 archaeological assessment of the study area (ASI 2018). During the Stage 2 survey, assessment conditions were excellent and at no time were the field, weather, or lighting conditions detrimental to the recovery of archaeological resources (Table 4; Photos 1 to 10). Despite occurring in late December, the ground was not frozen during the test pit survey and the soil was dry, loose and friable (Photo 9).

Table 4: Field and Weather Conditions

Date	Activity	Weather	Field Conditions
December 21, 2018	Test pit survey	cool, overcast	Soil was dry, loose, and friable

Prior to the start of the Stage 2 archaeological assessment, the Client provided a map which defined the study area for the Project. This map was then geo-referenced by Stantec's GIS team and a digital file (i.e., a shape file) was created of the Project's anticipated assessment area (i.e., the study area). The digital file was uploaded to handheld GPS devices for use in the field.

Approximately 66% of the study area was subject to test pit survey at five metre intervals as per Section 2.1.2 of the *SGCA* (MTCS 2011) (Figure 7). Each test pit was approximately 30 centimetres in diameter and excavated, where possible, five centimetres into sterile subsoil. Each test pit was examined for stratigraphy, cultural features, and evidence of fill. A typical soil profile in undisturbed portions of the study area was approximately 10 to 15 centimetres of dark brown sandy loam topsoil over top of a yellowish to reddish brown sandy subsoil (Photo 9), which is typical for a Fox Sand soil profile in the area (Hoffman and Richards 1953). All excavated soil was screened through six millimetre mesh hardware cloth to facilitate the recovery of small artifacts and then used to back fill the test pit. Test pits were excavated to within one metre of built structures. No archaeological resources were identified during test pit survey at five metre intervals and so no survey intensification took place.

When evidence of disturbance was encountered within a test pit, as was witnessed at the rear of the residential lots in the form of significant soil mottling with gravel and clay inclusions associated with the construction of the infrastructure associated with the burial of Mary Fix Creek (Photo 10), the test pit intervals were increased to 10 metres to confirm disturbance in accordance with Section 2.1.8 of the SGCA (MTCS 2011). Other than the increased interval distance all aspects of the test pit survey at 10 metres was identical to that at five metre intervals. Approximately 16% of the study area was surveyed by test pitting at 10 metre intervals (Figure 7). No archaeological resources were identified during test pit survey at ten metres and so no survey intensification took place.



Field Methods February 15, 2019

Stage 2 survey was not conducted on the portions of the study area determined to be disturbed (approximately 8%) during the Stage 2 survey as per Section 2.1, Standard 2.b of the *SGCA* (MTCS 2011). These areas were disturbed through the construction of asphalt driveways at the front of each residential lot. These portions of the study area were documented photographically (Photos 1, 2 and 3), but not subject to Stage 2 survey as per Section 2.1, Standard 6 and Section 7.8.6 of the *SGCA* (MTCS 2011).

Stage 2 survey was not conducted on the portions of the study area identified through the Stage 1 property inspection as disturbed (approximately 10%) (Figure 7) as per Section 2.1, Standards 2.c of the SGCA (MTCS 2011).



Record of Finds February 15, 2019

# 3.0 RECORD OF FINDS

An inventory of the documentary record generated by Stage 2 archaeological fieldwork is provided in Table 5.

Table 5: Inventory of Documentary Record

Document Type	Current Location of Document Type	Additional Comments
2 pages of field notes	Stantec office, Markham	In original field book and photocopied in project file
1 hand drawn map	Stantec office, Markham	In original field book and photocopied in project file
1 map provided by the Client	Stantec office, Markham	Hard and digital copies in project file
44 digital photographs	Stantec office, Markham	Stored digitally in project file

No archaeological resources were identified within the study area and so no material culture was collected. As a result, no artifact storage arrangements were required.



Analysis and Conclusions February 15, 2019

# 4.0 ANALYSIS AND CONCLUSIONS

The Stage 2 archaeological survey was conducted on December 21, 2018 through test pit survey at five metre intervals, moving to 10 metre intervals in areas of disturbance (Figure 7). No archaeological resources were identified within the study area during the Stage 2 archaeological assessment. Because no archaeological resources were identified within the study area, there is no requirement for further archaeological assessment of the study area, a conclusion consistent with Section 2.2 of the SGCA (MTCS 2011).



Recommendations February 15, 2019

# 5.0 RECOMMENDATIONS

Given the results of the Stage 2 archaeological assessment of the 2512-2532 Argyle Road study area, the following recommendation is made:

1. No archaeological resources were identified within the 2512-2532 Argyle Road study area; therefore the study area may be considered free of further archaeological concern and no further archaeological assessment of the study area is required.

The MTCS is asked to review the results presented and accept this report into the *Ontario Public Register* of Archaeological Reports.



Advice on Compliance with Legislation February 15, 2019

# 6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c O.18 (Government of Ontario 1990b). The report is reviewed to make sure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the MTCS, 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* (Government of Ontario 1990b) 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 fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act* (Government of Ontario 1990b).

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* (Government of Ontario 1990b). 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* (Government of Ontario 1990b).

The Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33 (Government of Ontario 2002), requires that any person discovering or having knowledge of a burial site shall immediately notify the police or coroner. It is recommended that the Registrar of Cemeteries at the Ministry of Government and Consumer Services is also immediately notified.



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# 8.0 IMAGES

# 8.1 PHOTOGRAPHS

Note: the location and direction of all photographs are indicated on Figure 7

Photo 1: Front yard and driveway of 2512 Argyle Road, facing southwest



Photo 2: Front yard and driveway of 2522 Argyle Road, facing southwest





Photo 3: Front yard and driveway of 2532 Argyle Road, facing southwest



Photo 4: Stage 2 test pit survey of the study area at five-metre intervals, facing west





Photo 5: Stage 2 test pit survey in the rear yard of 2512 Argyle Road within one metre of the structure, facing east



Photo 6: Stage 2 test pit survey of the study area at five-metre intervals, facing northeast





Photo 7: Disturbed portion of rear yards of the study area showing constructed swale and catch basin associated with the burial of Mary Fix Creek, facing northwest



Photo 8: View of rear yard of 2532 Argyle Road, facing southwest





Photo 9: Example of soil from a typical test pit indicating the soil was friable and unfrozen at the time of the survey, facing northeast



Photo 10: Example of heavily disturbed soil at the rear of the residential lots with mottled clay and gravel inclusions associated with the burial of Mary Fix Creek and the installation of buried stormwater management infrastructure, facing southwest





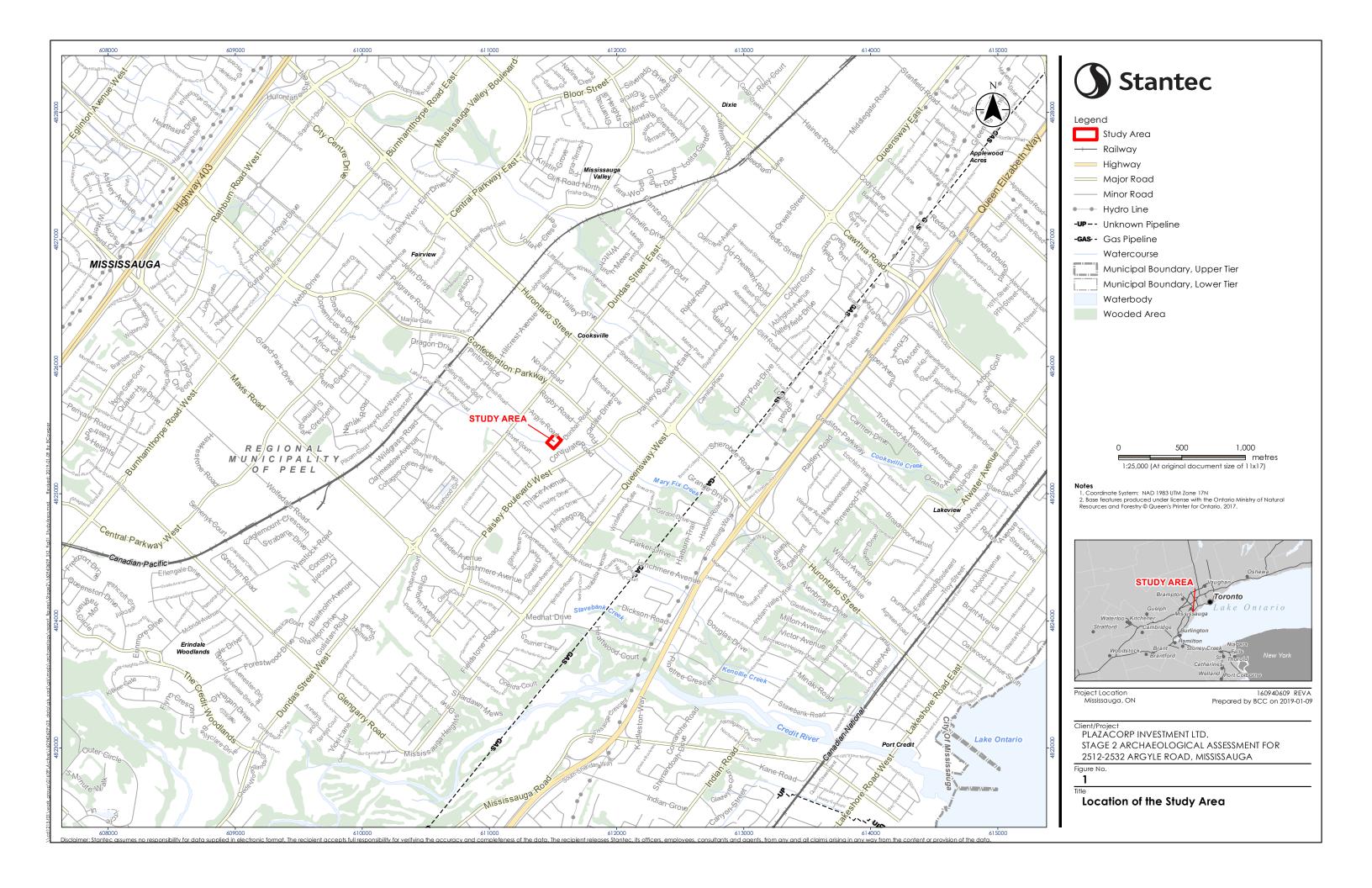
8.5

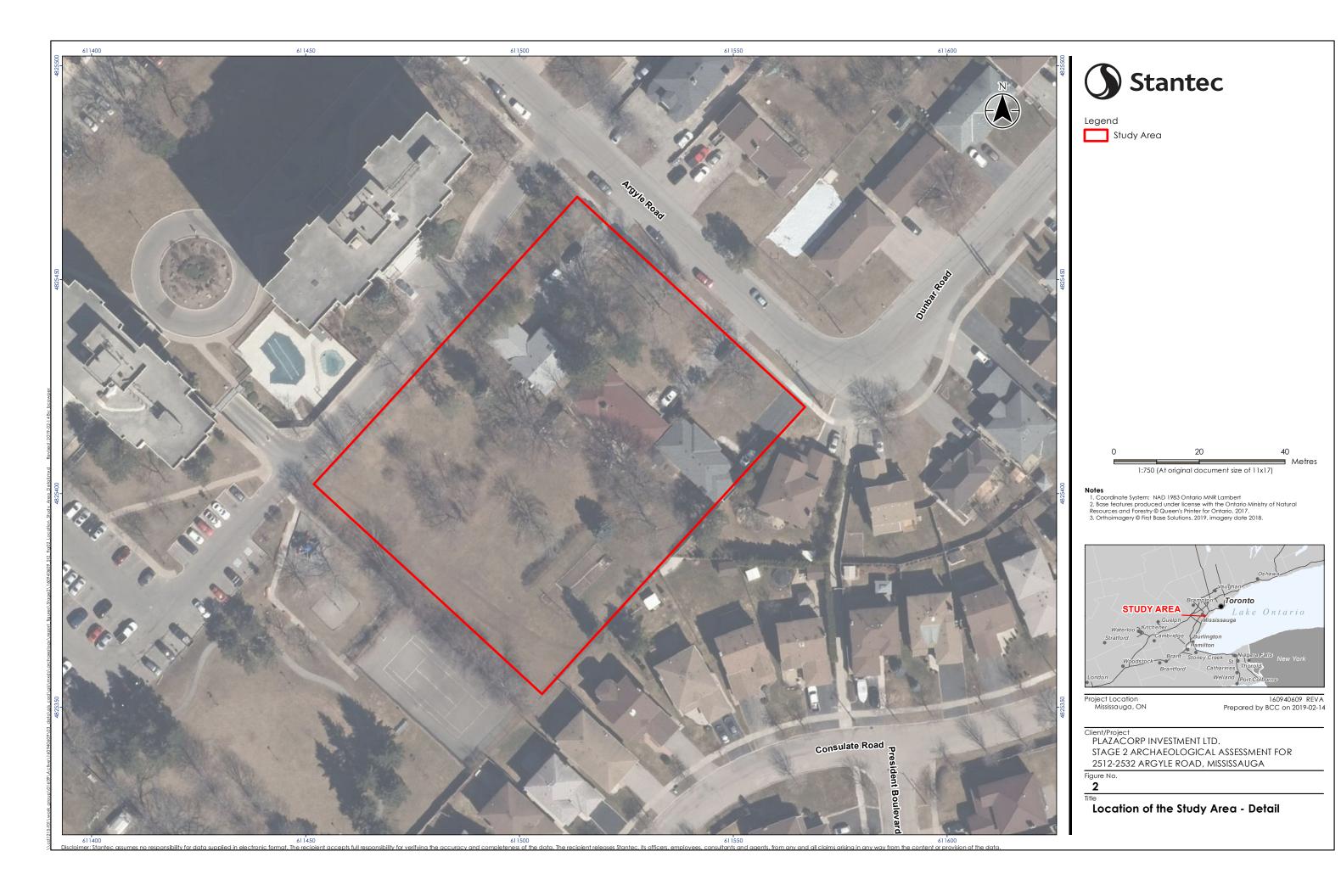
Maps February 15, 2019

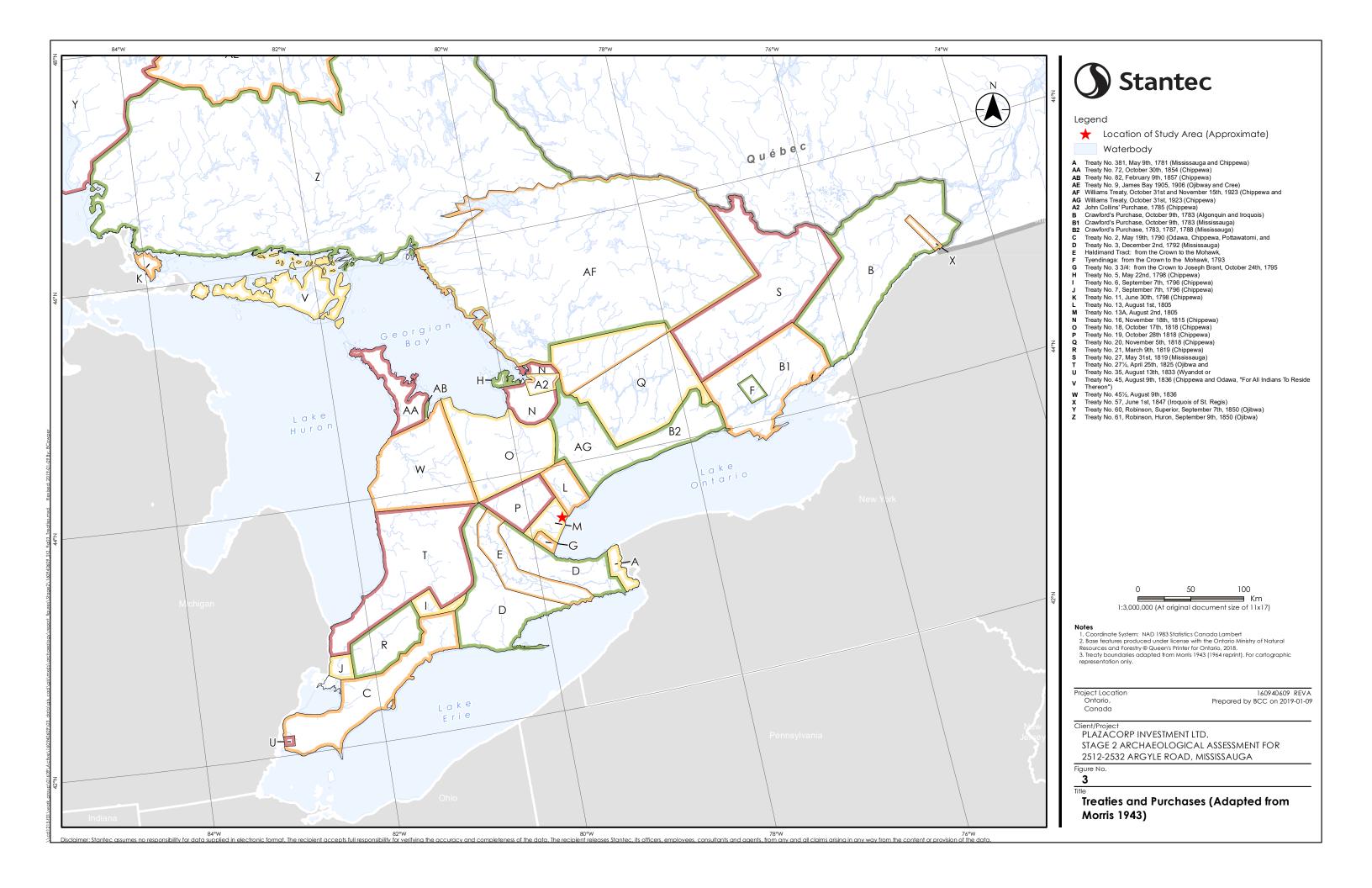
# **9.0 MAPS**

All maps will follow on the succeeding pages.

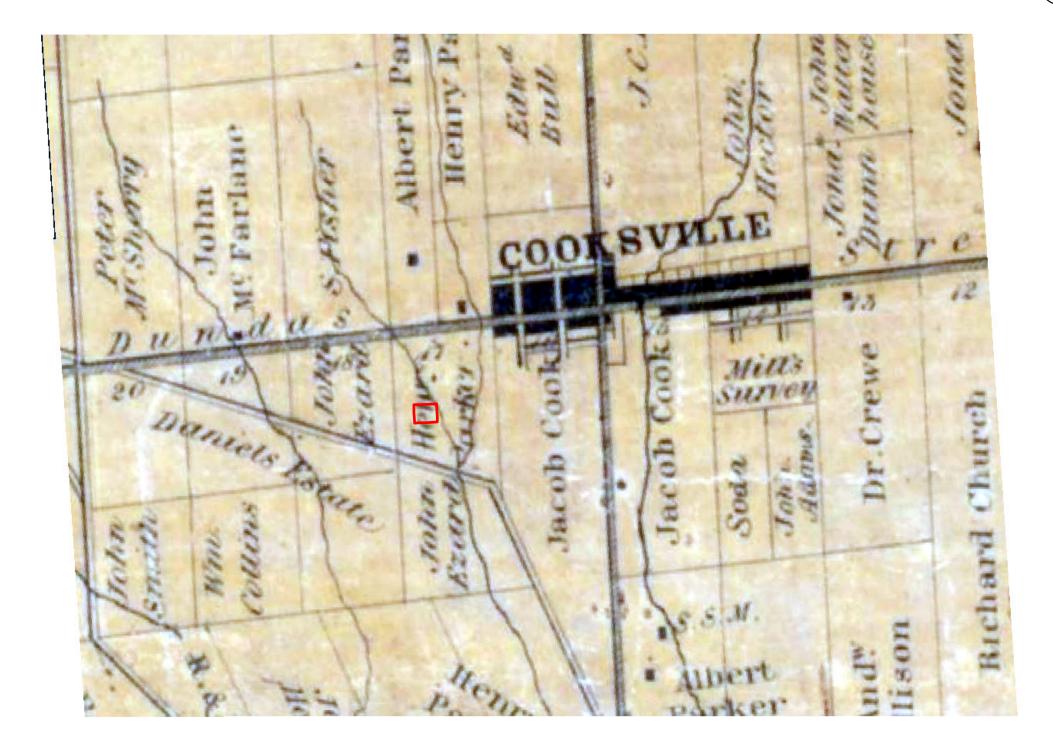














Legend

Study Area

Figure not to scale.

Notes
1. Reference: Tremaine, G. 1859. Tremaine's Map of the County of Peel. Toronto:
George C. Tremaine.

Project Location Mississauga, ON

160940609 REVA Prepared by BCC on 2019-02-15

Client/Project
PLAZACORP INVESTMENT LTD.
STAGE 2 ARCHAEOLOGICAL ASSESSMENT FOR
2512-2532 ARGYLE ROAD, MISSISSAUGA

Portion of 1859 Tremaine's Map of the **County of Peel** 





Legend

Study Area

Figure not to scale.

Notes
1. Reference: Pope, J.H. 1877. Illustrated Historical Atlas of the County of Peel, Ont. Toronto: Walker and Miles.

Project Location Mississauga, ON

160940609 REVA Prepared by BCC on 2019-02-14

Client/Project PLAZACORP INVESTMENT LTD. STAGE 2 ARCHAEOLOGICAL ASSESSMENT FOR 2512-2532 ARGYLE ROAD, MISSISSAUGA

Portion of the 1877 Walker and Miles Illustrated Historical Atlas of the County of Peel, Ontario







Legend

Study Area

Figure not to scale.

1968

Notes
1. Reference: City of Toronto Archives.



1961



Project Location Mississauga, ON

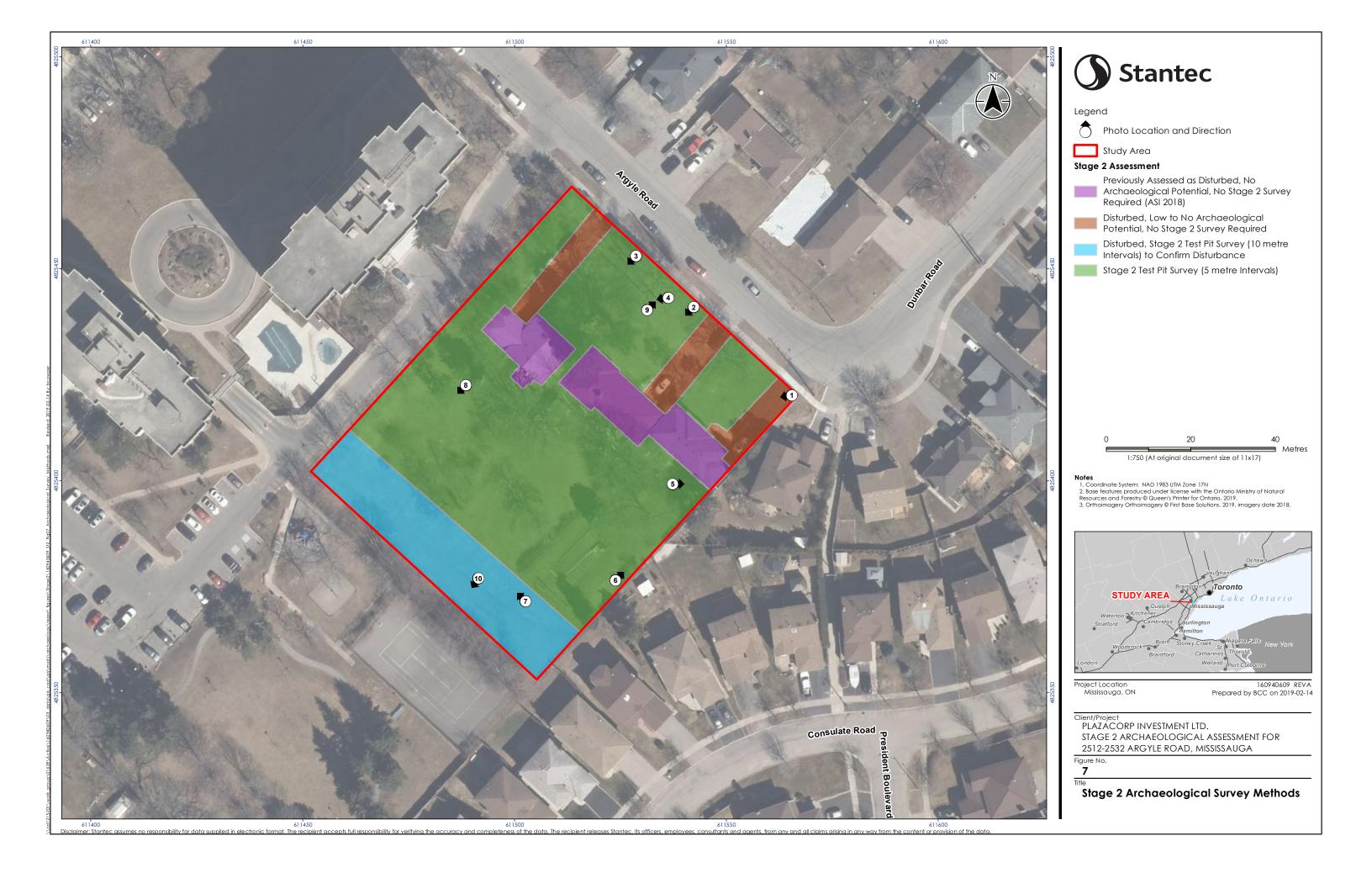
160940609 REVA Prepared by BCC on 2019-02-14

Client/Project
PLAZACORP INVESTMENT LTD.
STAGE 2 ARCHAEOLOGICAL ASSESSMENT FOR
2512-2532 ARGYLE ROAD, MISSISSAUGA

Mid-Twentieth Century Development of the Study Area



1975



Closure February 15, 2019

# 10.0 CLOSURE

This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential archaeological resources associated with the identified property.

All information received from the client or third parties in the preparation of this report has been assumed by Stantec to be correct. Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report and are based solely on the scope of work described in the report, the limited data available and the results of the work. The conclusions are based on the conditions encountered by Stantec at the time the work was performed. Due to the nature of archaeological assessment, which consists of systematic sampling, Stantec does not warrant against undiscovered environmental liabilities or that the sampling results are indicative of the condition of the entire property.

This report has been prepared for the exclusive use of the client identified herein and any use by any third party is prohibited. Stantec assumes no responsibility for losses, damages, liabilities or claims, howsoever arising, from third party use of this report. We trust this report meets your current requirements. Please do not hesitate to contact us should you require further information or have additional questions about any facet of this report.

Quality Review \_

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Senior Associate, Senior Archaeologist

