

Stage 1 Archaeological Assessment of Doctors McLean District Park, Part of Lots 7-9, Concession 7, Geographic Township of Vaughan, County of York, Now in the City of Vaughan, Regional Municipality of York

Original Report

Prepared for:

City of Vaughan

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Project Information Form P449-0709-2023

Archaeological Services Inc. File: 23PL-037

30 May 2023



Executive Summary

Archaeological Services Inc. was contracted by the City of Vaughan to undertake a Stage 1 Archaeological Assessment of Doctors McLean District Park, Part of Lots 7-9, Concession 7, in the Geographic Township of Vaughan, County of York, now in the City of Vaughan, Regional Municipality of York. The project area is approximately 17 hectares.

The Stage 1 background research entailed consideration of the proximity of previously registered archaeological sites and the original environmental setting of the project area, along with a review of available aerial imagery and the guidance of the *Archaeological Management Plan for the Regional Municipality of York* (York Region, 2014). This research suggested that there was potential for the presence of both Indigenous and Euro-Canadian archaeological sites within the project area.

The Stage 1 field review, conducted on April 25, 2023, confirmed that approximately 20% of the project area retains archaeological potential. Therefore, it is recommended that a Stage 2 archaeological assessment be required.



Project Personnel

- **Senior Project Manager:** Jennifer Ley, Honours Bachelor of Arts (R376), Lead Archaeologist, Manager, Planning Assessment Division
- **Project Manager:** Robb Bhardwaj, Master of Arts (P449), Associate Archaeologist, Project Manager, Planning Assessment Division
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1.0 Project Context

Archaeological Services Inc. was contracted by the City of Vaughan to undertake a Stage 1 Archaeological Assessment of Doctors McLean District Park, Part of Lots 7-9, Concession 7, in the Geographic Township of Vaughan, County of York, now in the City of Vaughan, Regional Municipality of York (Figure 1). The project area is approximately 17 hectares.

1.1 Development Context

This assessment was conducted under the senior project management of Jennifer Ley (R376), and the project management and project direction of Robb Bhardwaj (P449) under Ministry of Citizenship and Multiculturalism (hereafter the “Ministry”) Project Information Form P449-0709-2023. All activities carried out during this assessment were completed as part of park improvements, as required by the City of Vaughan. All work for this project was completed in accordance with the *Ontario Heritage Act* (Ministry of Culture [now the Ministry], 1990) and the *Standards and Guidelines for Consultant Archaeologists* (hereafter the “Standards”) (the Ministry of Tourism and Culture [now the Ministry], 2011). It was also guided by *The Archaeological Management Plan for the Regional Municipality of York* (York Region, 2014), which provides further refinement with regard to potential buffers surrounding any noted features or characteristics that affect archaeological potential.

Permission to access the subject property and to carry out all activities necessary for the completion of the assessment was granted by the proponent on February 23, 2023.

1.2 Historical Context

The purpose of this section is to describe the past and present land use and settlement history, and any other relevant historical information gathered through the Stage 1 background research. First, a summary is presented of the current understanding of the Indigenous land use of the area. This is followed by a review of historical Euro-Canadian settlement trends.



1.2.1 Indigenous Land-Use Settlement

Table 1 provides a general summary of the pre-contact Indigenous settlement history of southern Ontario from approximately 11,500 Before Common Era (B.C.E.) to the year 1650 Common Era (C.E.).

Table 1: Pre-contact Indigenous Temporal Culture Periods in Southern Ontario

Period	Description
Paleo > 11,500 – 8,500 B.C.E.	<ul style="list-style-type: none"> • First human occupation of Ontario • Astronomers/ Artists/ Hunters/ Gatherers/ Foragers • Language Unknown • Small occupations • Non-stratified populations
Archaic 8,500 – 1,000 B.C.E.	<ul style="list-style-type: none"> • Astronomers/ Artists/ Hunters/ Gatherers/ Foragers • Small occupations • Non-stratified populations • Mortuary ceremonialism • Extensive trade networks for raw materials and finished objects
Early Woodland 1,000 – 450 B.C.E.	<ul style="list-style-type: none"> • Astronomers/ Artists/ Hunters/ Gatherers/ Foragers • General trend in spring/summer congregation and fall/winter dispersal • Small and large occupations • First evidence of community identity • Mortuary ceremonialism • Extensive trade networks for raw materials and finished objects



Period	Description
Middle Woodland 450 B.C.E. – 750 C.E. Transitional Woodland 600 – 900 C.E.	<ul style="list-style-type: none"> • Astronomers/ Artists/ Hunters/ Gatherers/ Foragers • A general trend in spring/summer congregation and fall/winter dispersal into large and small settlements • Kin-based political system • Increasingly elaborate mortuary ceremonialism • Incipient agriculture in some regions • Longer term settlement occupation and reuse
Late Woodland (Early) 900 – 1300 C.E.	<ul style="list-style-type: none"> • Foraging with locally defined dependence on agriculture • Villages, specific and special purpose sites • Socio-political system strongly kinship based
Late Woodland (Middle) 1300 – 1400 C.E.	<ul style="list-style-type: none"> • Major shift to agricultural dependency • Villages, specific and special purpose sites • Development of socio-political complexity
Late Woodland (Late) 1400 – 1650 C.E.	<ul style="list-style-type: none"> • Complex agricultural society • Villages, specific and special purpose sites • Politically allied regional populations

1.2.2 Post-Contact Settlement

The Toronto Purchase (Treaty 13)

The project area is within Treaty 13, the Toronto Purchase. In 1787, representatives of the Crown met with members of the Mississaugas at the Bay of Quinte to negotiate the sale of lands along the shore of Lake Ontario near the settlement of York, the seat of the colonial government. Due to disputes over the boundaries, a new agreement, the Toronto Purchase, was signed on August 1, 1805, in which the Mississaugas ceded to the Crown 250,830 acres of land. Both the 1787 Purchase and its 1805 Indenture are known as Treaty 13. The



Mississaugas claimed that the Toronto Islands and other lands were not part of the purchase, and a land claim settlement was reached for these areas in 2010 (Mississauga of the New Credit First Nation, 2001; Mississaugas of the Credit First Nation, 2017).

Township of Vaughan

The first survey of the Township of Vaughan was undertaken in 1793, and the first legal settlers occupied their land holdings in 1796. The township was named in honour of Benjamin Vaughan, who was one of the negotiators for the Treaty of Paris, which ended the American Revolutionary War in 1783. In 1805, Boulton (1805:89) noted that the soil in Vaughan was “much improved,” and due to its proximity to York “may be expected to form an early and flourishing settlement.” Vaughan was initially settled by Loyalists, their offspring, disbanded soldiers, and by Americans including the Pennsylvania Dutch, French Huguenots, and Quakers. By the 1840s, the township was noted for its excellent land and “well cleared and highly cultivated farms” (Boulton 1805:89; Smith 1846:199; Reaman 1971:19; Armstrong 1985:148; Rayburn 1997:355).

The Township of Vaughan was incorporated in 1850 as a municipal government. Tremaine’s map (1860) shows a developed agricultural landscape, traversed by the Humber River and its tributaries, with small hamlets, a local road system and churches and schoolhouses. The Township continued to develop economically in the 1860s and 1870s. The Illustrated Historical Atlas (1878) shows a well-established and prosperous agricultural township dotted with farmsteads, small hamlets, and villages. Agriculture continued as the principal land use throughout the nineteenth century.

Although Yonge Street on the east side of the township was the principal route to the markets in York to the south, the construction of the two railways through the township greatly increased market access for the farmers and contributed to the township’s prosperity. Construction for the Ontario Simcoe and Huron Railway began in 1852 and the line was opened through Vaughan Township in 1853 with a station in Concord. It was renamed the Northern Railway Company in 1858, and later became part of the Grand Trunk Railway and then Canadian National



Railway, circa 1920. The Toronto, Grey and Bruce Railway was opened through the west part of the Township in 1871.

In the period from 1850 to 1950, Vaughan witnessed the introduction of railways, improved rural-urban roadways, larger villages and towns, and industrialization. This facilitated growth in population of both rural and urban communities in the Township of Vaughan. After World War II an influx of immigration occurred in the Township, and the process of urbanization of the land began in the south and gradually moved northward. Highway 400 was built north to south through the western part of Vaughan Township in the late 1940s. Urbanization of the township slowly moved northward from Steeles Avenue, and the southern part of Vaughan Township developed quickly from the 1970s onwards. In 1971, the new regional government of York Region was established, and Vaughan Township merged with the Village of Woodbridge to form the Town of Vaughan. That same year, the Police Village of Thornhill ceased to exist, and the community was divided between the newly created Towns of Markham and Vaughan in the Regional Municipality of York Act. In 1991, it officially changed its legal status to City of Vaughan.

The City of Vaughan has continued to evolve through the urbanization of the agricultural lands and intensification of former nineteenth-century hamlets and villages. Echoes of its early centres of settlements remain, with names such as Carrville, Coleraine, Elder Mills, Nashville, Patterson, Pinegrove, Purpleville, Richvale, Teston, and Vellore. At the same time the larger historical centres of settlement, such as Thornhill and Woodbridge, grew correspondingly as new families moved to more affordable, larger residential properties and sought commercial centres. New nodes of residential and commercial areas have begun to emerge as a result of the development.

Village of Woodbridge

The south part of the project area overlies the southeast edge of the historic Village of Woodbridge in Lot 7, Concession 7. The Crown patent for Lot 7, Concession 7 was first granted to Hugh Cameron on May 20, 1801 (Land Registry Office, no date). After changing hands several times, Rowland Burr purchased the west half of the lot in 1837 and the east half in 1839. Burr established a flour mill



on the Humber River in the west half and in subsequent years, added sawmills and a woolen mill to his enterprise, and divided the land into village lots (Mika and Mika, 1983:668). The settlement soon became known as Burwick, which is recorded on the Tremaine map (Tremaine, 1860). In 1855, when the first post office was established with John F. Howell as postmaster, a new name was chosen for the village, Woodbridge, since there was already a Berwick registered. In the 1860s, John Abell founded an agricultural equipment factory in Woodbridge, which by 1874, employed over 200 people in the community (City of Vaughan, 2023). When Woodbridge was incorporated as a village in 1882, Abell was made the first reeve. By that date, the population had burgeoned to 1,000, and the community included a library, a school, two churches, two hotels, general stores, a local newspaper, a butcher, a chemist, a printer, a publisher, a watchmaker, and a physician and surgeon. However, after a dispute between John Abell and the railway in the late 1880s, in which Abell was refused a spur line to Woodbridge, Abell's Agricultural Equipment factory was moved to Toronto, which thrust the community into decline (Mika and Mika, 1983:668).

In the early twentieth century, the roads surrounding Woodbridge were paved and improved and the railway was finally altered to pass through the settlement (City of Vaughan, 2023). This enabled the community to grow once again, particularly with the influx of immigration after World War II.

In 1971, Vaughan Township was divided, with portions becoming part of the City of Richmond Hill, and other parts, including the Town of Woodbridge amalgamating into the Town of Vaughan (Mika and Mika, 1983:668) (Scott, 1997:230). In 1993, the population of Woodbridge was 19,800, and today, that number has expanded to 106,810 (Statistics Canada, 2021).

Village of Pine Grove

The Village of Pine Grove was situated within Lot 9, Concession 7, northeast of the project area. In 1828, John Schmidt established a sawmill and a gristmill on the Humber River northwest of Toronto (Mika and Mika, 1983:218). A community began to grow around the mills after he opened a store. In 1840, John Gamble acquired Schmidt's mills and established a woolen mill and a distillery. Two decades later, the Gooderham and Worts firm purchased the businesses.



Gooderham and Worts was an established business from Toronto, headed by William Gooderham Senior (August 29, 1790-August 20, 1881) and his nephew, James Gooderham Worts. William Gooderham Senior was born in Scold, Norfolk (England) to farmers (Newell, 1982), moved to London (England) at twelve years old to work for his maternal uncle who was an East Indies trader, and later became a Royal York Ranger, fighting in the Napoleonic wars in Martinique (1808) and Guadeloupe (1810). After marrying Harriet Tovell Herring (1802-1885), he and his brother-in-law James Worts (a flour miller), moved both families, their servants and 11 orphans, to York, Upper Canada in 1831, where they established the Worts and Gooderham milling business. Worts died in 1834, and his son, James Gooderham Worts joined William Gooderham, forming a new expanded distilling business with milling and farming enterprises through the counties of York and Peel (Newell, 1982; Find a Grave, 2010). Renamed Gooderham and Worts, it became the largest distillery in Canada West by 1861. Although William Gooderham and most of his family lived in Toronto near the main business headquarters on Front Street, his son, Alfred L. Gooderman, was the first postmaster at Pine Grove in 1865 (Mika and Mika, 1983:218).

In 1971, Pine Grove was amalgamated with Woodbridge and other settlements into the Town of Vaughan (Mika and Mika, 1983:668; Scott, 1997:230).

1.2.3 Review of Map Sources

A review of nineteenth- and early twentieth-century mapping was completed to determine if these sources depict any nineteenth-century Euro-Canadian settlement features that may represent potential historical archaeological sites within or adjacent to the project area. Historic map sources are used to reconstruct/predict the location of former features within the modern landscape by cross-referencing points between the various sources and then georeferencing them to provide the most accurate determination of the location of any property from historic mapping sources. The results can be imprecise (or even contradictory) because sources of error, such as the vagaries of map production, differences in scale or resolution, and distortions caused by the reproduction of the sources, introduce error into the process. The impacts of this error are dependent on the size of the feature in question, the constancy of reference



points on mapping, the distances between them, and the consistency with which both are depicted on historic mapping.

In addition, not all settlement features were depicted systematically in the compilation of these historical map sources, given that they were financed by subscription, and subscribers were given preference with regards to the level of detail provided. Thus, not every feature of interest from the perspective of archaeological resource management would have been within the scope of these sources.

On the 1860 *Tremaine Map of the County of York* (Tremaine, 1860) (Figure 2), the project area overlies parcels owned by Samuel Smith in the north and centre, and J. W. Gamble in the east. The west and south parts of the project area extend into the eastern parts of the Village of Burwick (later Woodbridge), which is centred on modern-day Clarence Street and Woodbridge Avenue to the southwest. The Humber River is depicted as entering the project area at its northwest corner, flowing along the west side and then meandering into the centre where it meets the East Humber River. The river then flows south to exit the project area at the south limit. The settlement road of present-day Clarence Street is illustrated aligning with the west limit of the project area, and present-day Woodbridge Avenue and Islington Avenue are drawn as a continuous corduroy roads that connect Brownville to the south, to Woodbridge to the west, and then Pine Grove to the northeast. Christ's Church and a woollen mill are indicated on the opposite side of this corridor, southeast of the project area, and a store, post office, an inn, a wagon shop, the Burwick Hotel, and other businesses are recorded on the main streets of Burwick to the west. A third road, present-day Mounsey Street, is depicted at the project area's northwest corner, which connects Clarence Street with the Village of Pine Grove to the northeast.

On the 1878 *Illustrated Historical Atlas of the County of York* (Miles and Company, 1878) (Figure 3), the project area is depicted on parcels of land now owned by Samuel Smith in the north and centre, and Davis Higgins in the east. The project area is shown partially overlying buildings associated with the Village of Woodbridge in the west, which has expanded in all directions and is further subdivided into village parcels. It should be noted that the built up area, as



shown, is a mapping convention rather than an accurate rendering of the location or extent of any particular structure. The Toronto, Grey and Bruce railway corridor is shown passing to the west of the village, with a station indicated at the western terminus of Woodbridge Avenue. Abell's Agricultural Works is illustrated immediately south of the project area, on the opposite side of present-day Woodbridge Avenue, and there is now a church fronting present-day Islington Avenue, immediately northeast of the area's limits.

On the Village of Woodbridge inset from the 1878 *Illustrated Historical Atlas of the County of York* (Figure 4), the project area is shown to overlie portions of village parcels in the west. The Humber River is depicted meandering through the project area along the west side and there is a bridge fording the watercourse in the centre-west of the area. In the centre of the project area, the Humber River and the East Humber River are shown on the same alignment as previous mapping. A third, minor tributary is depicted beginning in the north of the area and flowing through the centre to meet the main confluence. No structures are illustrated within the project area on this map, however very few are illustrated within the surrounding area in general.

Early topographic mapping was also reviewed for the presence of potential historical features (Figure 5). Land features such as waterways, wetlands, woodlots, and elevation are clearly illustrated on this series of mapping, along with roads and structure locations. The 1914 and 1926 Bolton Topographic Maps (Department of Militia and Defence, 1914; Department of National Defence, 1926) both illustrate the northern areas of the project area as consisting of part of the southern extent of a broad, cleared plateau, with an elevation of 575 feet (175 metres) above sea level in the north and centre. This elevation abruptly declines to 500 feet (152.4 metres) to the south, on lands within the Humber River and East Humber River valleys, which run along the west, east, and southern project area limits. Wooded areas are depicted along this decline on both maps. A house fronts present-day Islington Avenue at the base of the slope in the extreme northeast of the project area.

On the 1926 map, a wooden bridge fords the Humber River in the centre-west of the project area, and there is a greater concentration of houses fronting Clarence



Street and Park Drive to the west, including a house that is now illustrated along the northwest limits of the area.

1.2.4 Review of Twentieth-Century Aerial Imagery

Aerial imagery spanning from 1954 to 2012 was reviewed to better understand the previous land use and development of the project area (Hunting Survey Corporation Limited, 1954; York Region, no date; Google Earth Pro, 2022).

Figure 6 displays the project area on aerial imagery from 1954, 1970, and 1978 (Hunting Survey Corporation Limited, 1954; York Region, no date). In the 1954 image, the project area consists mainly of parkland along the course of the Humber River with woodlots in the northwest corner and in the southwest. The winding alignment of watercourses remains the same as in previous mapping. A structure is visible in the north-centre of the project area, accessible via a curving laneway from the west side of Islington Avenue to the east. An additional laneway extends from this structure further to the southwest, towards the Humber River, where it was shown to have been spanned by a wooden bridge at the end of Meeting House Road in 1926 topographic mapping. Within the northeastern portion of the project area, there is a parking lot as well as an adjacent structure. Residences front Clarence Street to the west; the property limits abut the residential lots to the west and the new alignment of Davidson Drive, and several residences are being developed to the north. There is a structure fronting Islington Avenue that abuts the northeast corner of the subject property, corresponding roughly to the that illustrated in early twentieth century mapping.

In the 1970 image, the Humber River and East Humber River within the project area limits have been channelized and their courses straightened in the west and east of the area, meeting in the centre and flowing to the south, through former residential and wooded lands. A new bridge has been constructed immediately south of the project area where the Humber River flows under the improved Woodbridge Avenue. Islington Avenue, widened and improved, has been extended south along the east side of the channelized Humber River and along the extent of the southeast limit of the project area. Both the central structure, its laneway, as well as the northeast parking lot and associated structure have been removed. There is now a driveway along the course of the former lane in the



northeast, which ends at a rectangular parking lot with a small structure in the north-central part of the area. The property mainly consists of grassed areas with a few small trees, in addition to some wooded lands along its northern limits. The residential development along Davidson Drive is now complete and there are now areas of grading abutting the north limit of the project area. Another graded area abuts the project area to the south, fronting Woodbridge Road, and there are two small structures within this area on the southern boundary. To the northeast of the area, ongoing development can be seen on an adjacent property fronting onto Islington Avenue.

The 1978 image depicts the project area in a similar context to the previous image; however, the outline of Wakelin Court is now visible to the north of the area, and a church building (presently M.L. Montessori School), which had been under construction in 1970, is now visible to the immediate northeast.

Figure 7 displays the project area on aerial photography from 1988, 1995, and 1999 (York Region, no date). On the 1988 image, the project area remains as parkland, dotted with trees, and with wooded areas along its northern limits. There are now residences lining Wakelin Court, immediately north of the project area limits. The image from 1995 indicates that two play areas had been constructed in the centre of the area, southwest of the parking lot. The image from 1999 demonstrates that the project area's features remained consistent through the end of the millennium.

1.2.4 Review of Twentieth-First-Century Orthographic Imagery

Figure 8 shows the project area on orthographic imagery from 2009 and 2012 (Google Earth Pro, 2022). In the 2009 image, the features of the area remain constant with the previous imagery; however, the parking lot and driveway in the north-centre and northeast had been paved, and the wooded areas had expanded and matured. A playground had been constructed adjacent to the church, abutting the northeast corner of the subject property. Islington Avenue, as well as the bridge on Woodbridge Avenue, had been widened along the extent of the south and east limits of the project area. In 2012, a structure had been placed to



the south of the parking lot in the north-central part of the area and one of the two playgrounds in the centre of the area had been removed.

1.3 Archaeological Context

This section provides background research pertaining to previous archaeological fieldwork conducted within and in the vicinity of the project area, its environment characteristics (including drainage, soils, surficial geology, and topography), and current land use and field conditions.

1.3.1 Registered Archaeological Sites

In order that an inventory of archaeological resources could be compiled for the project area, three sources of information were consulted: the site record forms for registered sites housed at the Ministry, published and unpublished documentary sources, and the files of Archaeological Services Inc.

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database, which is maintained by the Ministry. This database contains archaeological sites registered within the Borden system. The Borden system was first proposed by Doctor Charles E. Borden and is based on a block of latitude and longitude. Each Borden block measures approximately 13 kilometres east-west by 18.5 kilometres north-south and is referenced by a four-letter designator. Sites within a block are numbered sequentially as they are found. The project area is in the AkGv Borden block.

There are 10 archaeological sites registered within a 1.5-kilometre radius of the project area (Ministry, 2023). All sites are presented below in Table 2. The nearest site is the MacKenzie (AkGv-2) site, a Woodland village and burial located approximately 250 metres southeast of the area's limits. The Boyd (AkGv-3) site, a second Late Woodland village, is located approximately 1.5 kilometres northeast of the project area.



Table 2: Registered Sites within a 1.5-Kilometre radius of the Project Area

Borden number	Site Name	Temporal/Cultural Affiliation	Site Type	Researcher
AkGv-2	MacKenzie	Woodland	Village, burial	Wright 1966; Konrad 1977
AkGv-3	Boyd	Late Woodland	Village	Sweetman, 1958
AkGv-63	Kline Mills	Euro-Canadian	Homestead	Mayer, Pihl, Poulton and Associates, 1987
AkGv-68	Dalmosh	Pre-contact	Campsite	Mayer, Pihl, Poulton and Associates, 1987
AkGv-283		Late Archaic	Campsite	Archaeological Associates Limited, 2008
AkGv-284	Little Dunpar	Indigenous	Findspot	Archaeological Associates Limited, 2016
AkGv-326	Thompson- Neighswander	Euro-Canadian	Homestead	Archaeological Services Inc., 2014a, 2014b, 2016
AkGv-335		Pre-contact	Campsite	Timmins Martelle Heritage Consultants Inc., 2016, 2017, 2018



Borden number	Site Name	Temporal/Cultural Affiliation	Site Type	Researcher
AkGv-342	Monsheen	Pre-contact	Campsite	Toronto Region Conservation Authority, 2010a, 2010b, 2018
AkGv-348	Pine Grove Site	Euro-Canadian	Homestead	This Land Archaeology Inc., 2018, 2021

1.3.2 Previous Assessments

During the course of the background research, it was determined that two previous archaeological assessments have been completed within 50 metres of the project area. No previous archaeological assessments were found to have been completed within the project area.

In 2017, This Land Archaeology Inc. conducted a Stage 1 Archaeological Assessment of a large parcel of active golf course lands overlying parts of Lots 8-12, Concession 7, and Lots 10-11, Concession 8 (This Land Archaeology Inc., 2017; Project Information Form P379-0129-2017). The 117-hectare study area for this assessment lies to the northwest of the current project area, with its closest point being approximately 20 metres to the west of the northwest area limits, on the west side of Clarence Street. The background research revealed that most of the study area retained significant archaeological potential due to its association with the course of the Humber River and proximity to a number historical features, including the Village of Woodbridge and early transportation routes. Further archaeological assessment was recommended ahead of development.

In 2017, Archeoworks Inc. completed a Stage 1-2 Archaeological Assessment of a 1.6-hectare parcel at 55 Mounsey Street (Archeoworks Inc., 2017; Project Information Form P390-0209-2016). The study area was located on a parcel north



of Davidson Drive, immediately to the northeast of the northernmost edge of the current project area. Test pit survey was conducted at five and 10 metre intervals in all areas retaining archaeological potential; however, no archaeological remains were encountered. It was recommended that no further archaeological assessment be required.

1.3.3 Physiography

The project area is situated within the bevelled till plains of the Peel Plain physiographic region of southern Ontario (Chapman and Putnam, 1984). The Peel Plain is a level-to-undulating area of clay soil, which covers an area of approximately 77,700 hectares across the central portions of the regional municipalities of York, Peel, and Halton. The Peel Plain has a general elevation of between 500 and 750 feet (152-229 metres) above sea level with a gradual uniform slope towards Lake Ontario. The Peel Plain is sectioned by the Credit, Humber, Don, and Rouge rivers with deep valleys as well as several other streams such as the Bronte, Oakville, and Etobicoke creeks. These valleys are in places bordered by trains of sandy alluvium. The region is devoid of large, undrained depressions, swamps, and bogs though nevertheless the dominant soil possesses imperfect drainage.

The Peel Plain overlies shale and limestone till, which in many places is veneered by occasionally varved clay. This clay is heavy in texture and more calcareous than the underlying till and was presumably deposited by meltwater from limestone regions and deposited in a temporary lake impounded by higher ground and the ice lobe of the Lake Ontario basin. The Peel Plain straddles across the contact of the grey and red shales of the Georgian Bay and Queenston Formations, respectively, which consequently gives the clay southwest of the Credit River a more reddish hue and lower lime content than the clay in the eastern part of the plain. Additionally, the region exhibits exceptional isolated tracts of sandy soil specifically in Trafalgar Township, near Unionville, and north of Brampton where in the latter location there is a partly buried esker. The region does not possess any good aquifers and the high level of evaporation from the clay's now deforested surface is a disabling factor in ground-water recharge. Further, deep groundwater accessed by boring is often found to be saline (Chapman and Putnam, 1984:174–175). The subject property exists within a smaller



physiographic landform area characterized by bevelled till plains (Ontario Geological Survey, 2007).

The surficial geology of the project area consists of modern alluvial deposits of clay, silt, sand, gravel, and organic remains (Ontario Geological Survey, 2018).

The project area is within the Humber River watershed (Ministry of Natural Resources and Forestry, 2020). The Humber River flows through the west side of the area and meets the East Humber River in the centre before continuing to the south, exiting the project area along its southern boundary (Figure 1).

1.3.4 Existing Conditions

The project area, approximately 17 hectares in size, consists of the Doctors McLean District Park surrounding the confluence of the Humber River and East Humber River (Figure 9). There is a paved driveway providing access to the park from Islington Avenue at the northeast limit, which extends to a paved parking lot in the north-central part of the area. Two structures and a playground are southwest of the parking lot. There is a concrete utility building in the northwest corner of the area on the south bank of the Humber River, accessible via a paved driveway from the east side of Clarence Street. Residential subdivisions abut the area to the west and north, and Islington Avenue aligns with the east and southeast limits. A residential complex and a commercial property on the northwest side of Islington Avenue are excluded from the project area. Fred Armstrong Parkette and Woodbridge Avenue abut the southern limits of the project area.

1.3.5 Review of Archaeological Potential

The Standards, Section 1.3.1 stipulates that primary water sources (such as, lakes, rivers, streams, and creeks), secondary water sources (intermittent streams and creeks, springs, marshes, and swamps), as well as 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, and cobble beaches) are characteristics



that indicate archaeological potential. Geographic characteristics also indicate archaeological potential and include distinct topographic features and soils.

Potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in south central Ontario after the Pleistocene era, 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 used variables for predictive modelling of site location.

Other geographic characteristics can indicate pre-contact archaeological potential, including elevated topography (eskers, drumlins, large knolls, plateaux), pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground, and distinctive land formations that might have been special or spiritual places for indigenous populations, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use by indigenous peoples, such as burials, structures, offerings, rock paintings or carvings. Resource areas, including food or medicinal plants (migratory routes, spawning areas, prairie), and scarce raw materials (quartz, copper, ochre, or outcrops of chert) are also considered characteristics that indicate pre-contact archaeological potential.

The generic distance to water potential model has been refined for the *Archaeological Management Plan for the Regional Municipality of York* (York Region, 2014). According to the modelling criteria, undisturbed land within 250 metres of major rivers and their tributaries, in addition to the Lake Ontario and Lake Simcoe shorelines has potential for the presence of Indigenous archaeological sites. This 250-metre potential zone is also extended to the lands above glacial lake strands, while 200 metre buffers are applied to the lands below glacial lake strands. The *Management Plan* also identifies potential for Indigenous resources within 100 metres of registered Indigenous sites. The *Archaeological Management Plan for the Regional Municipality of York* also includes an Ossuary Potential Model, which places a 1000 metre buffer around Late Woodland village sites for which an ossuary has not been identified, in lands which are located within 300 metres of a current or former water source.



Given that the project area is situated on land in which two important waterways, the Humber River and East Humber River, come together, and that there is a Woodland village site and a burial approximately 240 metres from the project area, a second Late Woodland village approximately 1.5 kilometres to the northeast, and several sites along the course of the Humber River, there is significant archaeological potential for Indigenous materials within the property limits. In addition, the north part of the property comprises part of a plateau that overlooks the waterways and their confluence.

For the post-contact period, Section 1.3.1 of the Standards stipulates that those areas of early Euro-Canadian settlement, including places of early military pioneer settlement (pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches, and early cemeteries, are considered to have archaeological potential. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks. 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 historical landmark or site, and properties that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations are also considered to have archaeological potential.

The majority of early nineteenth century farmsteads, which are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth century maps, are likely to be captured by the basic proximity to the water model, since these occupations were subject to similar environmental constraints. An added factor, however, is the development of the network of concession roads and railroads through the course of the nineteenth century. These transportation routes frequently influenced the siting of farmsteads and businesses. Accordingly, undisturbed lands within 100 metres of an early historical transportation route are also considered to have potential for the presence of Euro-Canadian archaeological sites.

The *Archaeological Management Plan for the Regional Municipality of York* (York Region, 2014) considers a similar suite of criteria or indicators. There is potential



for historical sites within 100 metres of registered or designated historical sites, cemeteries, and features illustrated on historical maps. There is also potential within 200 metres of settlement roads and within 50 metres of early railways.

Historical mapping indicates that the project area was situated between the densely settled historical Village of Woodbridge to the west (including its industrial sites that spanned the Humber River immediately south of the park) and an early plank road to the south and east. There was also an historical road that connected Woodbridge with the community of Pine Grove to the northeast, which abutted the north of the project area in the west. In addition, historical mapping indicates that there was a nineteenth-century church immediately northeast of the project area, fronting the plank road (present-day Islington Avenue). Hence, there is potential for the presence of Euro-Canadian archaeological resources in the project area, depending on the impacts of subsequent land development.

2.0 Field Methods

The Stage 1 field assessment was conducted on April 25, 2023, to inventory, identify, and describe any archaeological resources extant within the project area prior to development. All fieldwork was conducted under the field direction of Lauren Vince (R1235) and was carried out in accordance with the Standards. The weather conditions were appropriate for the completion of fieldwork, permitting good visibility of the land features.

Representative photos documenting the field conditions during the Stage 1 fieldwork are presented in Section 7.0 of this report, and photo locations and field observations have been compiled on project mapping (Figure 10; Images 1-14).

2.1 Findings

The assessment was conducted by means of a visual inspection. During this review, approximately 80% of the project area was determined to retain no archaeological potential due to disturbance, and physical characteristics including low/wet areas and steep slope (Figure 10).



Approximately 65% of the project area was found to be devoid of archaeological potential due to extensive and deep land alteration. These disturbances consist of the areas adjacent to the watercourse that were extensively channelized in the mid-twentieth century (Figure 6), as well as the footprints of former and existing buildings and parking areas in the north of the project area, and the playground in the south of the project area (Images 1-6). In accordance with the Standards, Section 1.3.2, these disturbances are considered too deep and extensive to warrant further survey.

The West Humber River and East Humber River enter the project area in the northwest and northeast corners, respectively, meet in the centre of the project area, and then flow south to exit at the southern limit (Images 7-11). In accordance with the Standards, Section 2.1, Standard 2.a.i, the watercourses retain no archaeological potential on account of their physical characteristics.

The north part of the project area, approximately 10% of the total area, is steeply sloped (Image 12-14). In accordance with the Standards, Section 2.1, Standard 2.a.iii., this area retains no archaeological potential due to its physical characteristics.

3.0 Analysis and Conclusions

Archaeological Services Inc. was contracted by the City of Vaughan to undertake a Stage 1 Archaeological Assessment of Doctors McLean District Park, Part of Lots 7-9, Concession 7, in the Geographic Township of Vaughan, County of York, now in the City of Vaughan, Regional Municipality of York. The project area is approximately 17 hectares.

The Stage 1 background research entailed consideration of the proximity of previously registered archaeological sites, the original environmental setting of the project area, and a review of available aerial imagery, along with the guidance of the *Archaeological Management Plan for the Regional Municipality of York* (York Region, 2014). This research suggested that there was potential for the presence of both Indigenous and Euro-Canadian archaeological sites on the project area, depending on the degree of subsequent land altering activities.



The Stage 1 field review confirmed that approximately 80% of the project area retains no archaeological potential due to previous ground disturbance, steep slope, and permanently low/wet areas. The balance of the project area will require further assessment ahead of development.

4.0 Recommendations

In light of these results, the following recommendation is made:

1. Prior to any land-disturbing activities within the project area, a Stage 2 Archaeological Assessment must be conducted in accordance with the Ministry of Citizenship and Multiculturalism's 2011 *Standards and Guidelines for Consultant Archaeologists* all portions of the project area identified as having archaeological potential.
 - a) The Stage 2 Archaeological Assessment of the portion of the project area with archaeological potential (Figure 10) must be carried out by means of a test pit survey. All test pits must be excavated at least five centimetres into sterile subsoil, with all soils being screened through six-millimeter mesh to facilitate artifact recovery. All test pits must be at least 30 centimetres in diameter and backfilled upon completion. Test pit excavation must be initiated at five-metre transect intervals, but intervals may be adjusted in light of considerations of disturbance, topography, and drainage, as outlined in the Standards, Section 2.1.2.

NOTWITHSTANDING the results and recommendations presented in this study, Archaeological Services Inc. 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 Ministry of Citizenship and Multiculturalism must be immediately notified.

The above recommendations are subject to Ministry approval, and it is an offence to alter any archaeological site without Ministry of Citizenship and



Multiculturalism concurrence. No grading or other activities that may result in the destruction or disturbance of any archaeological sites are permitted until notice of Ministry approval has been received.

The documentation and materials related to this project will be curated by Archaeological Services Inc. until such a time that arrangements for their ultimate transfer to His Majesty the King in right of Ontario, or other public institution, can be made to the satisfaction of the project owner(s), the Ontario Ministry of Citizenship and Multiculturalism, and any other legitimate interest groups.

5.0 Advice on Compliance with Legislation

Archaeological Services Inc. advises compliance with the following legislation:

- This report is submitted to the Ministry of Citizenship and Multiculturalism as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, RSO 2005, 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 Citizenship and Multiculturalism, a letter will be issued by the Ministry stating that there are no further concerns with regards 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 Archaeological 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 Section 48 (1) of the Ontario Heritage Act.
- The Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33, requires that any person discovering or having knowledge of a burial site shall immediately notify the police or coroner. It is recommended that the Registrar, Funeral, Burial, Ministry of Public and Business Services Delivery is also immediately notified.
- Archaeological sites recommended for further archaeological field work or protection remain subject to Section 48(1) of the Ontario Heritage Act and may not be altered, nor may artifacts be removed from them, except by a person holding an archaeological license.

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7.0 Images



Image 1: View of the driveway at the entrance to the park in the northeast corner of the project area.



Image 2: View of the parking lot and pavilion in the north of the project area.



Image 3: View of the driveway and parking lot in the north of the project area.



Image 4: View of the structure, pavilion, and children's playground in the north of the project area.



Image 5: View of a pavilion and part of the parking lot in the north of the project area. Note the steep slope in the background at the northern limit of the project area.



Image 6: View of the playground in the south of the project area.



Image 7: View of the Humber River in the northwest corner of the project area.



Image 8: View of the Humber River in the centre of the project area, looking southeast.



Image 9: View to the East Humber River in the northeast of the project area.



Image 10: View of the East Humber River in the south-central part of the project area.



Image 11: View of the Humber River in the south of the project area.



Image 12: View of steeply sloped area in the northwest corner of the project area.



Image 13: View of steeply sloped area in the north of the project area.

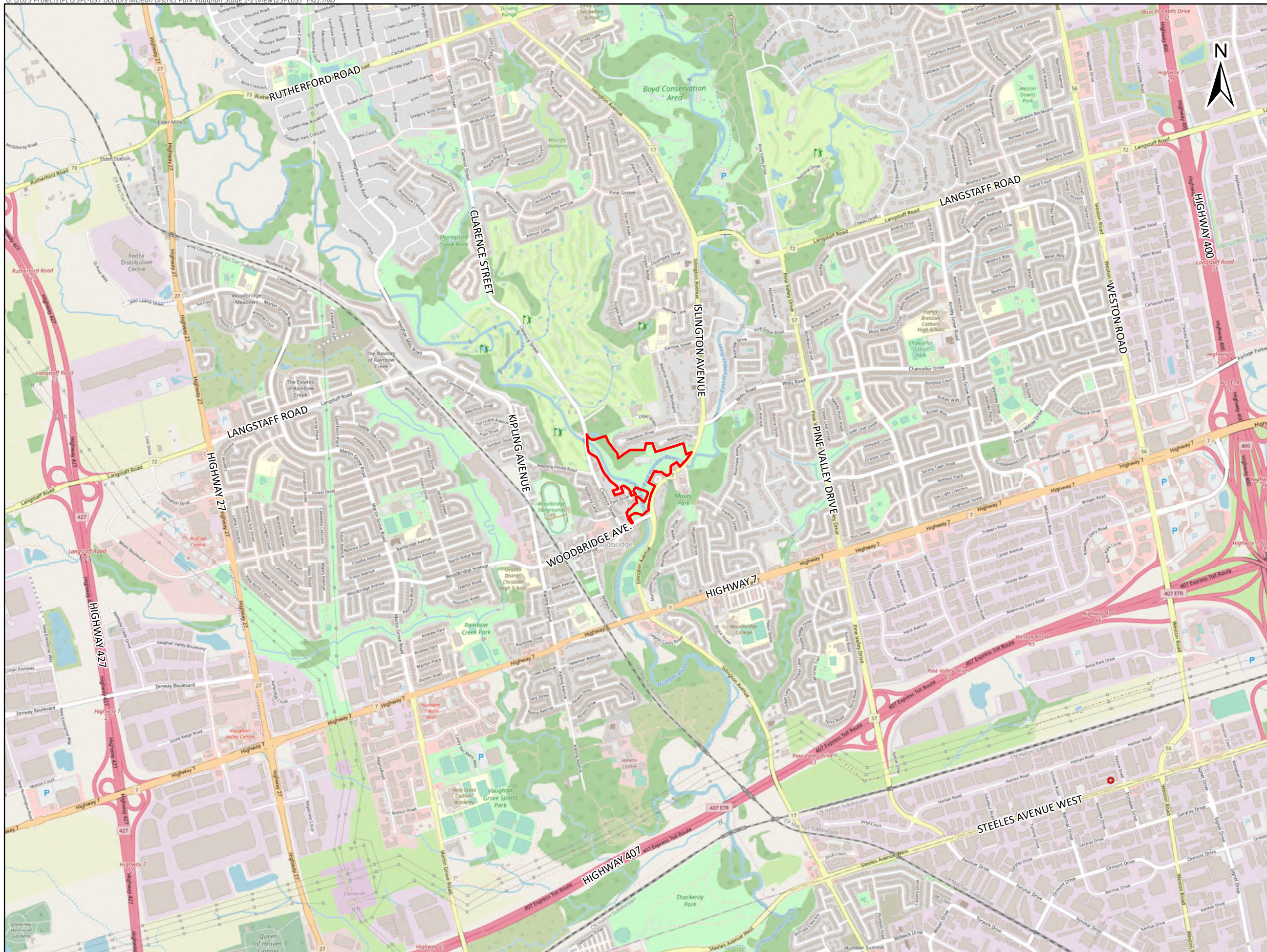


Image 14: View of steeply sloped area in the north-central part of the project area.

8.0 Maps

See following pages for detailed assessment mapping and figures





 PROJECT AREA

Sources: Open Street Map
 Projection: NAD 1983 UTM Zone 17N
 Scale: 1:750,000
 Page Size: 11 x 17



ASI PROJECT NO.: 23PL-037
 DATE: 2023-02-28
 DRAWN BY: A.C.
 FILE: 23PL037_Fig1



Providing Archaeological & Cultural Heritage Services
 528 Bathurst Street Toronto, ONTARIO M5S 2P9
 T 416-966-1069 F 416-966-9723 asiheritage.ca

Figure 1: Location of the Project Area

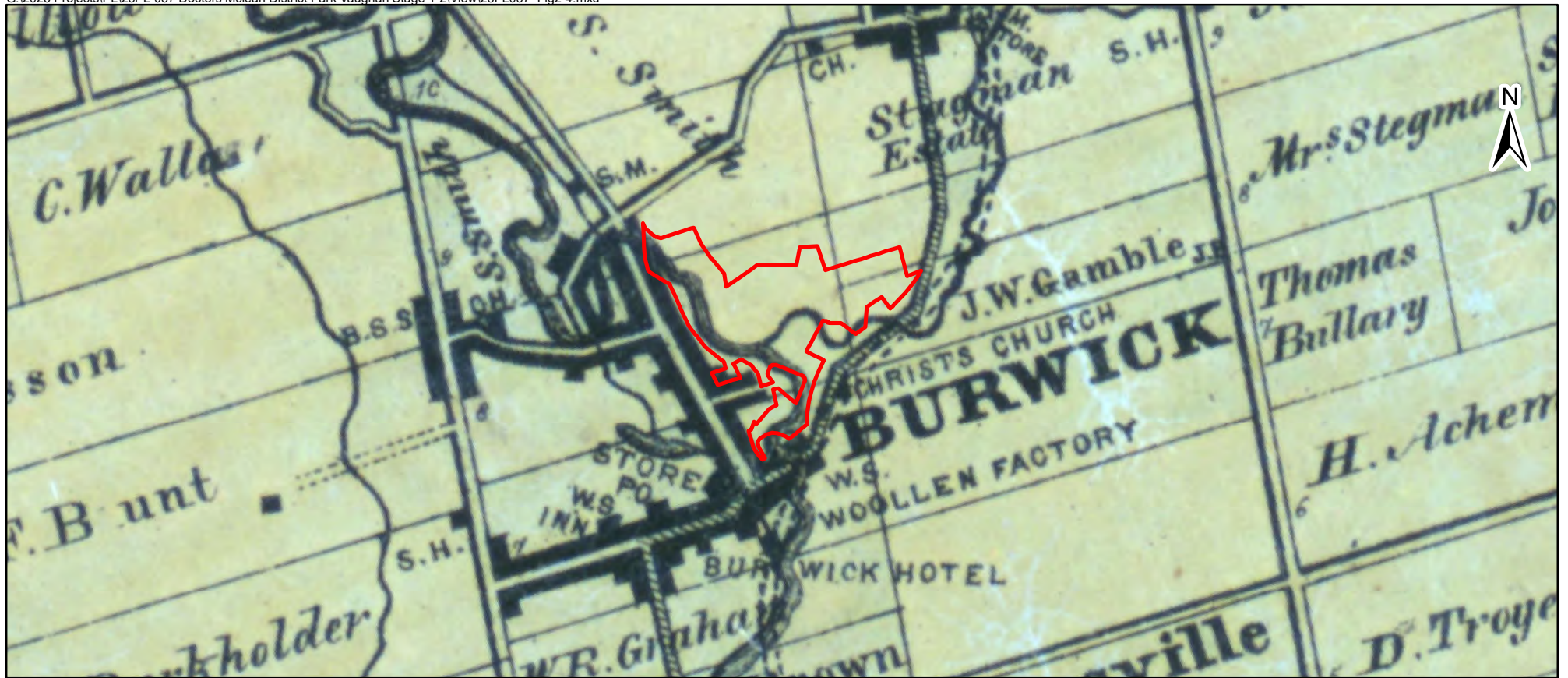


Figure 2: Project Area located on the 1860 Tremain Map of the County of York



Figure 3: Project Area located on the 1878 Illustrated Historical Atlas of the County of York

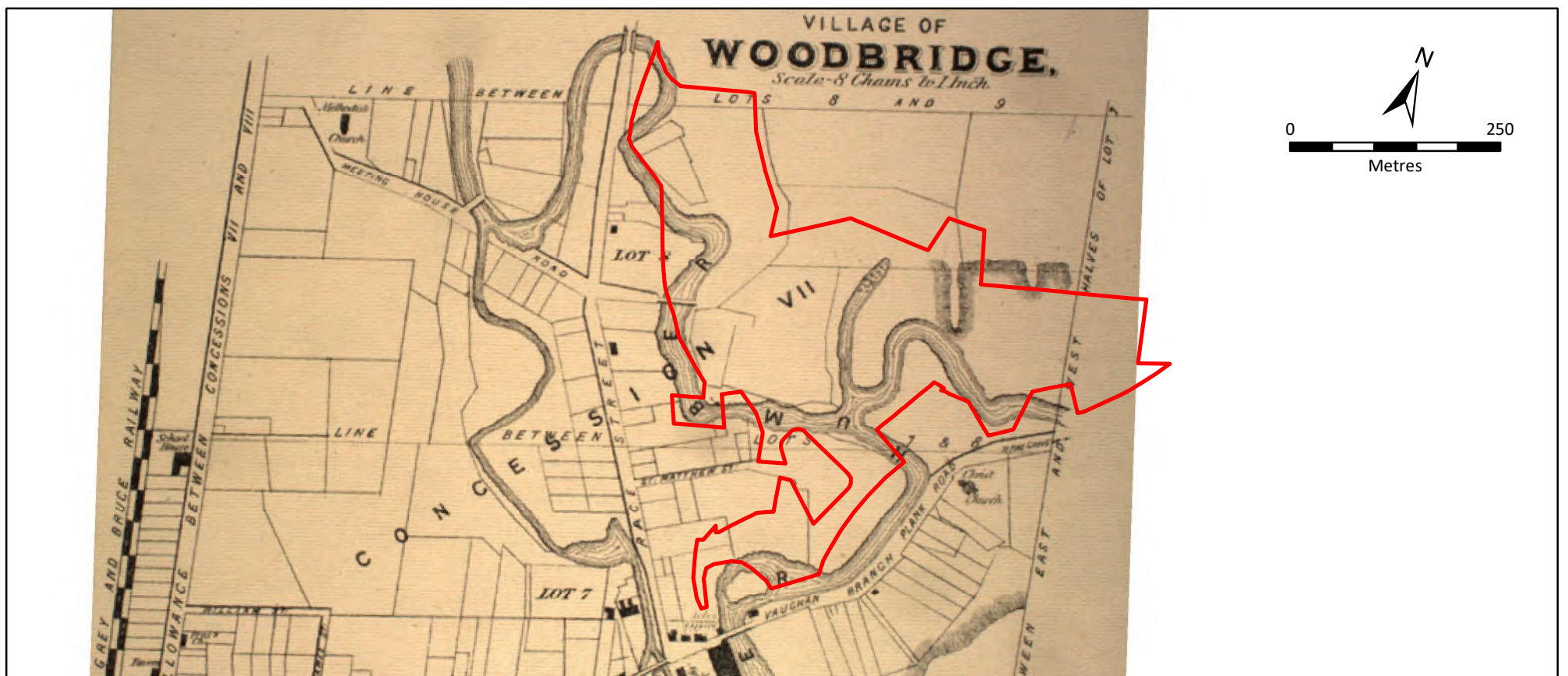
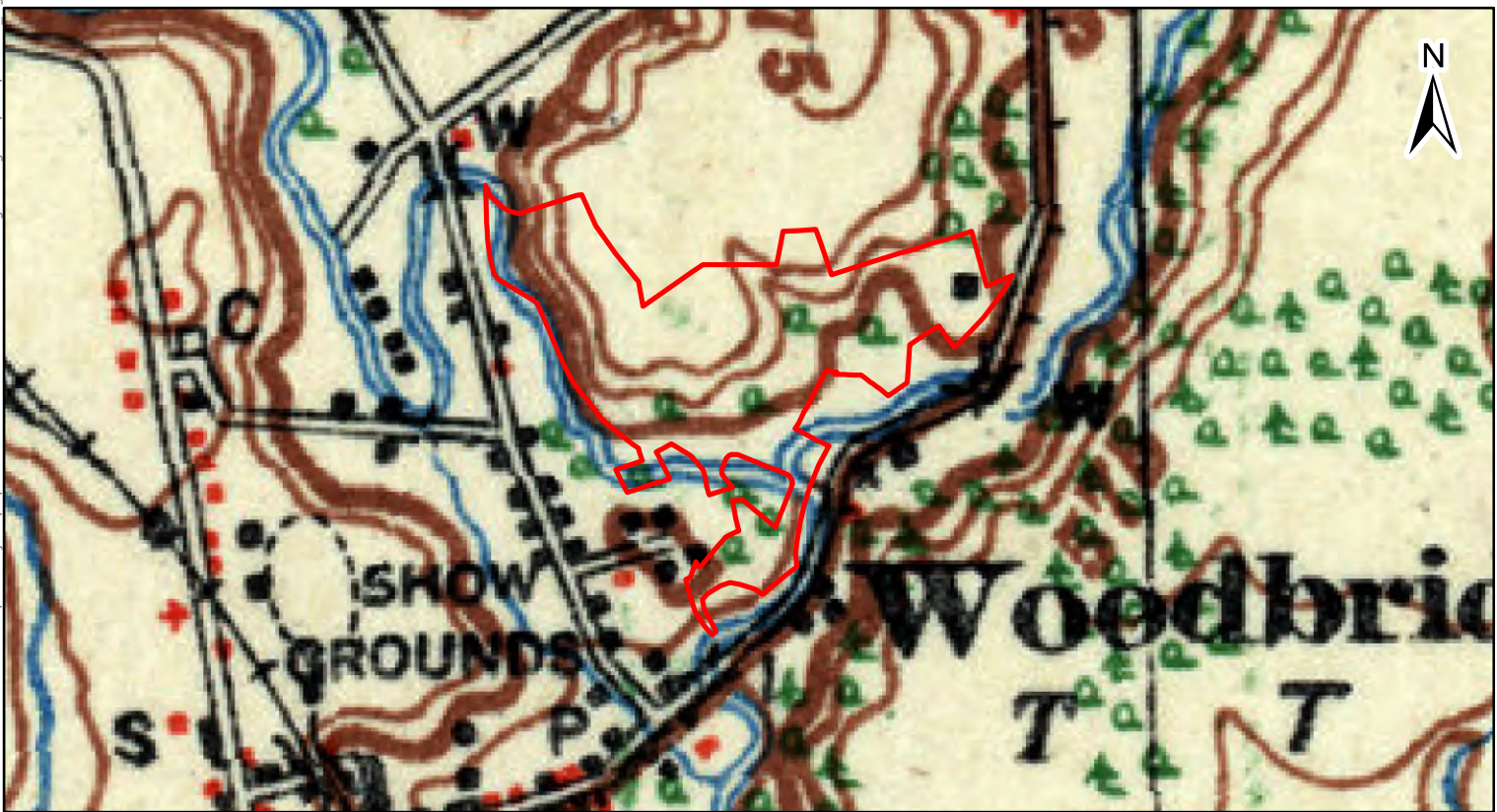
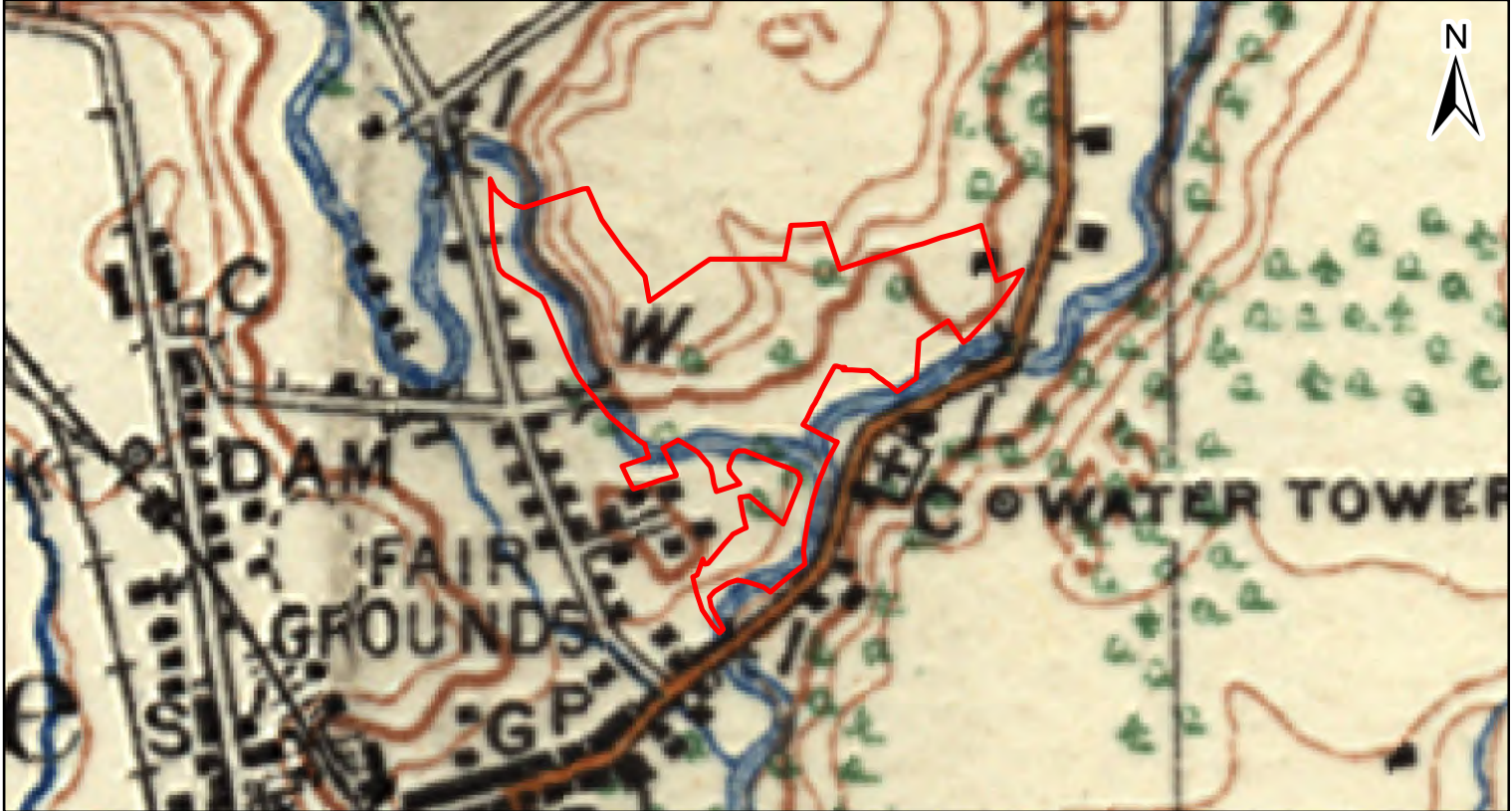


Figure 4: Project Area located on the Village of Woodbridge inset from the 1878 Illustrated Historical Atlas of the County of York



1914



1926

	 PROJECT AREA	Sources:	
		Projection: NAD 1983 UTM Zone 17N Scale: 1:10,000 Page Size: 8.5 x 11	

Figure 5: Project Area located on the 1914 and 1926 Bolton Topographic Map



1954



1970



1978



 PROJECT AREA

Sources:

Projection: NAD 1983 UTM Zone 17N
Scale: 1:8,000
Page Size: 11 x 17

0 250
Metres

ASI PROJECT NO.: 23PL-037 DRAWN BY: A.C.
DATE: 2023-02-28 FILE: 23PL037_Fig6

Figure 6: Project Area located on 1954, 1970, and 1978 Aerial Photography



1988



1995



1999



 PROJECT AREA

Sources:

Projection: NAD 1983 UTM Zone 17N
Scale: 1:8,000
Page Size: 11 x 17

0 250
Metres

ASI PROJECT NO.: 23PL-037
DATE: 2023-02-28
DRAWN BY: A.C.
FILE: 23PL037_Fig7

Figure 7: Project Area located on 1988, 1995, and 1999 Aerial Photography



2009



2012

	 PROJECT AREA	Sources: Projection: NAD 1983 UTM Zone 17N Scale: 1:8,000 Page Size: 8.5 x 11	 <p>0 250 Metres</p> <p>ASI PROJECT NO.: 23PL-037 DRAWN BY: A.C. DATE: 2023-02-28 FILE: 23PL037_Fig8</p>
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Figure 8: Project Area located on 2009 and 2012 Orthographic Imagery






	 PROJECT AREA	Sources: ESRI and GIS USER COMMUNITY Projection: NAD 1983 UTM Zone 17N Scale: 1:4,000 Page Size: 8.5 x 11	<div style="text-align: center;">  <p>0 100 Metres</p> </div> <div style="font-size: small;"> <table border="0" style="width: 100%;"> <tr> <td>ASI PROJECT NO.: 23PL-037</td> <td>DRAWN BY: A.C.</td> </tr> <tr> <td>DATE: 2023-02-28</td> <td>FILE: 23PL037_Fig9</td> </tr> </table> </div>	ASI PROJECT NO.: 23PL-037	DRAWN BY: A.C.	DATE: 2023-02-28	FILE: 23PL037_Fig9
ASI PROJECT NO.: 23PL-037	DRAWN BY: A.C.						
DATE: 2023-02-28	FILE: 23PL037_Fig9						

Figure 9: Existing Conditions of the Project Area












	 PROJECT AREA	 STAGE 2 ARCHAEOLOGICAL ASSESSMENT REQUIRED	Sources: ESRI and GIS USER COMMUNITY Projection: NAD 1983 UTM Zone 17N Scale: 1:4,000 Page Size: 8.5 x 11	 0 100 Metres
	 CONTOUR (1m INTERVALS)	 STEEPLY SLOPED - NO POTENTIAL		
	 PHOTO LOCATION AND DIRECTION	 DISTURBED - NO POTENTIAL		
	 PERMANENTLY LOW / WET - NO POTENTIAL			ASI PROJECT NO.: 23PL-037 DATE: 2023-05-03
				DRAWN BY: A.C. FILE: 23PL037_Fig10

Figure 10: Stage 1 Archaeological Assessment Results