

Stage 1-2 Archaeological Assessment Etobicoke Creek Trunk Sewer Improvements and Upgrades, Part of Lots 13-14, Concession 2 East of Centre Road; Lots 11-12, Concession 3 East of Centre Road; and Lot 11, Concession 4 East of Centre Road (Former Township of Toronto, County of Peel), Cities of Brampton and Mississauga, Regional Municipality of Peel, Ontario

Original Report

Prepared for:

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Executive Summary

Archaeological Services Inc. (ASI) was contracted by Jacobs, on behalf of the Regional Municipality of Peel, to conduct a Stage 1-2 Archaeological Assessment as part of the Etobicoke Creek Trunk Sewer Improvements and Upgrades. The proposed work includes both subsurface microtunnel boring and open cut trenching along the proposed Deep Trunk Alignment from Kennedy Road, south of First Gulf Boulevard, following Etobicoke Creek northeast to Dixie Road before extending southeast and ending at Derry Road East.

A Stage 1 assessment as part of the Etobicoke Creek Trunk Sewer Improvements and Upgrades Schedule C Municipal Class Environmental Assessment was previously conducted by ASI (2020). Background research and a property inspection determined that portions of the Study Area retained archaeological potential and Stage 2 test pit survey was recommended.

The Stage 1-2 property survey was conducted on November 15, 16, and 19, 2021, and on October 28, 2022, in accordance with the *Ontario Heritage Act* and the S & G by test pit survey. An additional Stage 1 property inspection was completed for the revised Study Area on June 8, 2022. Background research determined that 67 percent of the Study Area (2.62 hectares) was previously assessed without further recommendations and was therefore not subject to Stage 2 survey. An additional 19 percent of the Study Area (0.74 hectares) did not demonstrate archaeological potential through visual inspection on account of previous deep and pervasive disturbance, steeply sloped conditions, and permanently low and wet conditions. The remaining 14 percent of the Study Area (0.57 hectares), comprising scrubland bordering Etobicoke Creek, was subject to test pit survey at five metre intervals and judgmental test pit survey at 10 metre intervals to confirm previous disturbance. No archaeological resources were encountered during the Stage 1-2 survey for the Etobicoke Creek Trunk Sewer Improvements and Upgrades project, and no further archaeological assessment is recommended.



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1.0 Project Context

Archaeological Services Inc. (ASI) was contracted by Jacobs, on behalf of the Regional Municipality of Peel, to conduct a Stage 1-2 Archaeological Assessment as part of the Etobicoke Creek Trunk Sewer Improvements and Upgrades (Figure 1). A Municipal Class Environmental Assessment previously completed for the Etobicoke Creek Trunk Sewer Improvements and Upgrades project determined the Deep Trunk Alignment option to be the preferred sewer alignment. The Deep Trunk Alignment starts at Kennedy Road, south of First Gulf Boulevard, and approximately follows Etobicoke Creek northeast to Dixie Road before extending southeast and ending at Derry Road East (Figure 1). It measures approximately 3.8 kilometres in total length.

The proposed work includes both subsurface microtunnel boring and open cut trenching. Along the Deep Trunk Alignment, five shafts (Shafts 1-5) will allow access for microtunnel boring of a 1500-millimetre diameter sewer line between Shafts 1 to 5 at depths of 10-50 metres below the ground surface. Open trenching will occur at the shaft and connection locations, in addition to the section between Shaft 5 and Derry Road.

A revised design changed the locations of Shafts 1-6 and the Biscayne Connection after the initial Stage 1-2 property survey was completed. The former impact areas are no longer planned to be disturbed by construction, however the results are included in this report to fulfil archaeological licensing requirements.

All activities carried out during this assessment were completed in accordance with the *Ontario Heritage Act* (*Ontario Heritage Act*, R.S.O. c. O.18, 1990, as amended in 2019) and the 2011 *Standards and Guidelines for Consultant Archaeologists* (S & G), administered by the Ministry of Citizenship and Multiculturalism (MCM), formerly the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) (MHSTCI, 2011).



1.1 Development Context

All work has been undertaken as required by the *Environmental Assessment Act*, RSO (Environmental Assessment Act, R.S.O., 1990 as amended 2020) and regulations made under the Act, and are therefore subject to all associated legislation. This project is being conducted in accordance with the Municipal Engineers' Association document *Municipal Class Environmental Assessment* (Municipal Class Environmental Assessment, 2000, as amended 2015).

In addition, this Stage 1-2 assessment has been commissioned to satisfy the recommendations of the previous Stage 1 assessment that was undertaken as part of the Etobicoke Creek Trunk Sewer Improvements and Upgrades Schedule C Municipal Class Environmental Assessment (ASI 2020).

ASI has been actively engaging with Indigenous communities who have expressed an interest in the archaeological work within the Study Area for this project on behalf of the Regional Municipality of Peel. Fieldwork was coordinated with the Huron-Wendat Nation and the Mississaugas of the Credit First Nation. No concerns were expressed during the execution of the fieldwork. A detailed account of all First Nations engagement can be found in the *Supplementary Documentation: Indigenous Engagement* document associated with this report.

Authorization to access and carry out all activities necessary for the completion of this Stage 1-2 assessment was granted by Jacobs on January 21, 2021, the City of Mississauga on November 5, 2021, and by Ontario Infrastructure and Lands Corporation on January 13, 2022.

1.1.1 Treaties and Traditional Territories

The Study Area is within Treaty 13a, signed on August 2, 1805, by the Mississaugas and the British Crown in Port Credit at the Government Inn. A provisional agreement was reached with the Crown on August 2, 1805, in which the Mississaugas ceded 70,784 acres of land bounded by the Toronto Purchase of 1787 in the east, the Brant Tract in the west, and a northern boundary that ran six miles back from the shoreline of Lake Ontario. The Mississaugas also reserved the sole right of fishing at the Credit River and were to retain a one-mile strip of



land on each of its banks, which became the “Credit Indian Reserve”. On September 5, 1806, the signing of Treaty 14 confirmed the Head of the Lake Purchase between the Mississaugas of the Credit and the Crown (Mississauga of the New Credit First Nation, 2001; Mississaugas of the Credit First Nation, 2017).

1.2 Historical Context

1.1.1. Indigenous Land Use and Settlement

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

Between approximately 10,000-5,500 BP, the Great Lakes basins experienced low-water levels, and many sites which would have been located on those former shorelines are now submerged. This period produces the earliest evidence of heavy wood working tools, an indication of greater investment of labour in felling trees for fuel, to build shelter, and watercraft production. These activities suggest prolonged seasonal residency at occupation sites. Polished stone and native copper implements were being produced by approximately 8,000 BP; the latter was acquired from the north shore of Lake Superior, evidence of extensive exchange networks throughout the Great Lakes region. The earliest evidence for cemeteries dates to approximately 4,500-3,000 BP and is indicative of increased social organization, investment of labour into social infrastructure, and the establishment of socially prescribed territories (Brown, 1995, p. 13; Ellis et al., 1990, 2009).

Between 3,000-2,500 BP, populations continued to practice residential mobility and to harvest seasonally available resources, including spawning fish. The Woodland period begins around 2,500 BP and exchange and interaction networks broaden at this time (Spence et al., 1990, pp. 136, 138) and by approximately 2,000 BP, evidence exists for small community camps, focusing on the seasonal harvesting of resources (Spence et al., 1990, pp. 155, 164). By 1,500 BP there is



macro botanical evidence for maize in southern Ontario, and it is thought that maize only supplemented people's diet. There is earlier phytolith evidence for maize in central New York State by 2,300 BP – it is likely that once similar analyses are conducted on Ontario ceramic vessels of the same period, the same evidence will be found (Birch & Williamson, 2013, pp. 13–15). As is evident in detailed Anishinaabek ethnographies, winter was a period during which some families would depart from the larger group as it was easier to sustain smaller populations (Rogers, 1962). It is generally understood that these populations were Algonquian-speakers during these millennia of settlement and land use.

From the beginning of the Late Woodland period at approximately 1,000 BP, lifeways became more similar to that described in early historical documents. Between approximately 1000-1300 Common Era (CE), the communal site is replaced by the village focused on horticulture. Seasonal disintegration of the community for the exploitation of a wider territory and more varied resource base was still practised (Williamson, 1990, p. 317). By 1300-1450 CE, this episodic community disintegration was no longer practised and populations now communally occupied sites throughout the year (Dodd et al., 1990, p. 343). By the mid-sixteenth century these small villages had coalesced into larger communities (Birch et al., 2021). Through this process, the socio-political organization of the First Nations, as described historically by the French and English explorers who first visited southern Ontario, was developed.

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



1.1.2. Post-Contact Settlement

Historically, the Study Area is located in the Geographical Toronto Township, County of Peel in the following Lots and Concessions:

- Lots 13-15, Concession 2 East of Centre Road
- Lots 11-12, Concession 3 East of Centre Road
- Lot 11, Concession 4 East of Centre Road

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

For the Euro-Canadian period, the majority of early nineteenth century farmsteads (i.e., those that are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth century maps) are likely to be located in proximity to water. The development of the network of concession roads and railroads through the course of the nineteenth century frequently influenced the siting of farmsteads and businesses. Accordingly, undisturbed lands within 100 metres of an early settlement road are also considered to have potential for the presence of Euro-Canadian archaeological sites.

The first Europeans to arrive in the area were transient merchants and traders from France and England, who followed Indigenous pathways and set up trading posts at strategic locations along the well-traveled river routes. All of these occupations occurred at sites that afforded both natural landfalls and convenient access, by means of the various waterways and overland trails, into the hinterlands. Early transportation routes followed existing Indigenous trails, both along the lakeshore and adjacent to various creeks and rivers (ASI 2006a).



Toronto Township

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

Graham Pioneer or King’s Cemetery

The cemetery is located within the west half of Lot 14, Concession 2 East of Credit River in the former Toronto Township. The lot was deeded to Hugh Graham in 1846. In 1856, the County map indicates Graham as the property owner, but by 1877 the lot was indicated on the historical atlas as owned by George Rutledge. A history of the cemetery property was provided in a Stage 3 archaeological assessment conducted adjacent to the cemetery (Archeoworks Inc., 2007). The report notes that local renowned Peel historian William Perkins Bull in 1930 wrote that ten to forty settlers were buried there while the Graham family owned the lot (Perkins Bull, 1930). The 2007 cemetery report also notes that a 2003 ground-penetrating radar survey was conducted to locate the burials, which only identified four internments, four probable internments and two areas of “internment activity” (Landmark Discoveries, 2003). Presently, Graham Pioneer Cemetery is separated from the Study Area by Etobicoke Creek, and is located 50 metres southwest of the Study Area. The Cemetery was later renamed King’s Cemetery.

1.1.3. Map Review

The 1859 *Map of the County of Peel* (Tremaine, 1859), the 1877 *Illustrated Historical Atlas of the County of Peel* (Pope, 1877), the 1909 topographic map Brampton sheet (Department of Militia and Defence, 1909), the 1942 topographic map Brampton sheet (Department of National Defence, 1942), and



the 1974 National Topographic System Brampton sheet (Department of Energy, Mines and Resources, 1974) were examined to determine the presence of historic features within the Study Area during the nineteenth and twentieth centuries (Figure 2-Figure 6).

The 1859 map (Figure 2), 1877 map (Figure 3), 1909 map (Figure 4), and 1942 map (Figure 5) show the Study Area following the alignment of Etobicoke Creek. Kennedy Road, Westcreek Boulevard/Tomken Road, Dixie Road, and Derry Road were historically surveyed. The 1909 map (Figure 4) and 1942 map (Figure 5) shows sloped and wooded valley lands between Shafts 1 and 2. Bridges are depicted allowing travel over Etobicoke Creek at Kennedy Road, Westcreek Boulevard/Tomken Road, Dixie Road, and Derry Road.

The 1859 map (Figure 2), 1877 map (Figure 3), and 1909 map (Figure 4), and 1942 map (Figure 5) show Graham Pioneer Cemetery on the southwest side of Etobicoke Creek, just northwest of the intersection of Dixie Road and Derry Road. None of the maps depict any features within the Study Area.

The 1974 map (Figure 6) shows former Shaft 3 and Shaft 3 within a sewage treatment plan on the west of Westcreek Boulevard/Tomken Road.

1.1.4. Aerial and Orthoimagery Review

Aerial photography from 1954 (Hunting Survey Corporation Limited, 1954) was examined to determine the extent and nature of development and land uses within the Study Area (Figure 7). The aerial photograph shows Etobicoke Creek meandering from southeast of Dixie Road and Derry Road to west of Kennedy Road. While the creek valley lands are mostly wooded, the surrounding lands consist of agricultural fields.

A review of available Google Earth satellite imagery shows the following areas have been subject to previous disturbance and no longer exhibit archaeological potential:

- In 2015, the former Shaft 2 location was graded and sodded for a cricket field within the Brampton Rugby Union Football facility located at 7575



Kennedy Road South (Image 23). A berm was created around the northern limits of the field (Image 5). During the summer of 2019, temporary buildings and structures were erected surround the entire playing area (Image 24). All structures had been removed by the fall of 2019. By 2020, additional work had been conducted to enlarge the size of cricket field (Image 25).

- In 2003, the location of Shaft 2 shows evidence that the lands had been recently graded prior to the development of the Pepsi Co Foods distribution facility (Image 26).
- In 2006, a section of Etobicoke Creek was open cut to accommodate the construction of a concrete encasement surrounding a sanitary trunk sewer (Image 27). The construction record showing the existing sanitary sewer alignment and extent of its development impacts are provided in Figure 21.

1.3 Archaeological Context

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

1.3.1 Current Land Use and Field Conditions

The Stage 1-2 Study Area is generally located in a mixed agricultural and industrial context centered on Etobicoke Creek and its floodplain near the intersection of Highways 410 and 407 at the Mississauga-Brampton border. The west portion of the Study Area (Shaft 1) is adjacent to Kennedy Road which follows a northwest-southeast alignment and features between four and six lanes of vehicular traffic with a sidewalk on each side of the roadway. East of Kennedy Road is an athletic complex with sports fields and the Etobicoke Creek Trail which



intersects with the Study Area (former Shaft 2, Shaft 2, former Biscayne Connection, and Biscayne Connection). Further east, just north of Etobicoke Creek and the intersection of Highways 407 and 410, the Study Area intersects with the location of the former Brampton Wastewater Treatment facility, now overgrown (former Shaft 3 and Shaft 3).

A hydro corridor, agricultural fields, industrial/commercial facilities, and the Dixie Road right-of-way are located between Highway 407 and Derry Road in proximity to the eastern portion of the Study Area (former Shafts 4 and 5, Shafts 4 and 5, Shaft 6, and the open cut trench). Dixie Road follows a northwest-southeast alignment and features between six and nine lanes of undivided vehicular traffic and generally lacks sidewalks. Dixie Road is bound by industrial and commercial facilities to the west and recreation facilities and undeveloped lands to the east between Drew Avenue in the north and Dixie Road East in the south.

The Stage 1-2 survey for the Etobicoke Creek Trunk Sewer Improvements and Upgrades project was conducted on November 15, 16, and 19, 2021, under the field direction of Emily Meikle (R1191), and October 28, 2022, under the field direction of Hannah Curtis (R1296). Due to Study Area revisions, an additional Stage 1 property inspection was conducted on June 8, 2022, by Blake Williams (P383).

1.3.2 Geography

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

The S & G stipulates that primary water sources (lakes, rivers, streams, creeks, etc.), secondary water sources (intermittent streams and creeks, springs, marshes, swamps, etc.), ancient water sources (glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, cobble beaches, etc.), as well as accessible or inaccessible shorelines (high bluffs, swamp or marsh fields by the edge of a lake, sandbars



stretching into marsh, etc.) are characteristics that indicate archaeological potential.

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

Other geographic characteristics that can indicate archaeological potential include elevated topography (eskers, drumlins, large knolls, and plateaux), pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground, distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings. Resource areas, including food or medicinal plants (migratory routes, spawning areas) are also considered characteristics that indicate archaeological potential (S & G, Section 1.3.1).

The Study Area is located within the bevelled till plains of the Peel Plain physiographic region of southern Ontario (Chapman & 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 150 and 230 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 a number of 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, 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 & Putnam, 1984, pp. 174–175).

Figure 8 depicts surficial geology for the Study Area. The surficial geology mapping demonstrates that the Stage 1 Study Area is underlain by clay to silt-textured till derived from glaciolacustrine deposits; fine- and coarse-textured glaciolacustrine deposits; and modern alluvial deposits; Paleozoic bedrock (Ontario Geological Survey, 2010). Soils in the Study Area are (Figure 9):

- Cashel clay, a grey-brown podzolic with good drainage;
- Peel clay, a grey-brown podzolic with imperfect drainage; and,
- Bottom Land, an alluvial soil with little profile differentiation and variable drainage.

The Study Area is in proximity to, and contains a section of, Etobicoke Creek. Etobicoke is derived from the Algonkian word “Wah-do-be kaug” meaning “place where the alders grow”. The Etobicoke Creek watershed, including its major tributaries Spring Creek, Little Etobicoke Creek, and West Etobicoke Creek, drains an area of approximately 211 square kilometres within the cities of Brampton, Mississauga, Toronto, and the Town of Caledon. The creeks flow south from its headwaters in Caledon into Lake Ontario through 68 percent urban, 27 percent rural and five percent urbanizing land (Toronto and Region Conservation Authority, 2018).



The section of Etobicoke Creek which overlaps with the Study Area was previously disturbed during open cut construction for the existing sanitary trunk sewer which lies within a concrete encasement below the creek (Figure 21; Image 27). As this section of the creek bed has been previously disturbed, it no longer exhibits archaeological potential.

1.3.3 Previously Registered Archaeological Sites

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

According to the Ontario Archaeological Sites Database, seven previously registered archaeological sites are located within one kilometre of the Study Area, none of which are located within 50 metres (MHSTCI 2022). A summary of the sites is provided below in Table 1.

Table 1: Registered Sites within One Kilometre of the Study Area

Borden Number	Site Name	Temporal/ Cultural Affiliation	Site Type	Researcher
AkGw-78	Beanfield	Indigenous; Early to Middle Archaic	Camp	Stewart 1995
AkGw-79	Sniper	Indigenous; Middle to Late Woodland	Camp	Stewart 1994



Borden Number	Site Name	Temporal/ Cultural Affiliation	Site Type	Researcher
AkGw-81	Wild Pear	Pre-contact Indigenous	Findspot	Stewart 1994
AkGw-82	Spitfire	Indigenous; Late Archaic	Findspot	Stewart 1994
AkGw-302	Mount Charles	Euro-Canadian	Blacksmith shop	ASI 2006a
AkGw-477	Moore Site	Euro-Canadian	Homestead	Stantec 2014, 2016
AkGw-541	King's Park Findspot	Indigenous; Middle Archaic	Findspot	Toronto and Region Conservation Authority 2021

1.3.4 Previous Archaeological Assessments

According to the background research, 12 previous reports detail fieldwork within 50 metres of the Study Area.

Reports within the Study Area

(ASI 1992) Stage One Archaeological Assessment of the Dixie Road Widening from Derry Road to Steeles Avenue, Regional Municipality of Peel, Ontario. Licence #92-010.

The project area overlaps the Study Area at Dixie Road. The Dixie Road right-of-way was determined to be disturbed, and no further work was recommended.



(ASI 1999) Stage 1/2 Archaeological Resource Assessment of Block 8, Orion Gate City of Brampton Regional Municipality of Peel, Ontario. CIF 1999-007-027.

The project area overlaps the Study Area at Shaft 1 and the former Biscayne Connection. The project area was recommended to be free of any further archaeological concern.

(ASI 2006b) Stage 2 Archaeological Assessment Dixie Road and Derry Road Intersection Improvement Class Environmental Assessment, City of Brampton, Regional Municipality of Peel, Ontario. P057-250-2006.

The project area overlaps the Study Area northeast of the Dixie Road and Derry Road intersection. The east limit north of the Derry Road right-of-way was visually assessed and determined to be disturbed. No further archaeological assessment was recommended.

(ASI 2006c) Stage 2 Archaeological Assessment Twinning of Etobicoke Trunk Sewer Section S.13B Class Environmental Assessment City of Mississauga and City of Brampton, Regional Municipality of Peel, Ontario. P057-235-2006. ASI file 06EA-069.

The project area overlaps the Study Area at Shafts 4, 5 and 6, former Shafts 4 and 5, and the proposed open cut between Shaft 5 and Derry Road. The field review determined that construction commenced prior to the Stage 2 archaeological assessment and thus there were no undisturbed areas remaining to test pit. The project area was recommended to be free of further archaeological concern.

(ASI 2009) Stage 1 Archaeological Assessment Drew Road Extension Class Environmental Assessment from Dixie Road to Tomken Road, Regional Municipality of Peel, City of Mississauga. P057-522-2009. ASI file 08EA-325.

The project area overlaps the Study Area west of Dixie Road between Shaft 5 and former Shaft 5. The field review determined the project area did not hold archaeological potential due to disturbance, and no further archaeological assessment was recommended.



(ASI 2020) Stage 1 Archaeological Assessment Etobicoke Creek Trunk Sewer Improvements and Upgrades Lots 11-15, Concessions 1-4 ECR Former Toronto Township, County of Peel, City of Brampton, City of Mississauga, Regional Municipality of Peel, Ontario. P380-0065-2020.

The project area overlaps the Study Area at the former Biscayne connection, Shaft 2, Shaft 4, former Shaft 4, and former Shaft 5. Parts were recommended for Stage 2 archaeological assessment.

(Timmins Martelle Heritage Consultants Inc., 2016b) Stage 1 & 2 Archaeological Assessment Infrastructure Ontario 220 Westcreek Boulevard (N03906) Part of Lot 13, Concession 2, East of Centre Road/Hurontario Street (EHS) Former Geographic Township of Toronto, Former County of Peel Now City of Brampton, Regional Municipality of Peel, Ontario. P1075-0021-2016.

The project area overlaps the Study Area at former Shaft 3 and Shaft 3 within the former Brampton Wastewater Treatment facility located at 220 Westcreek Boulevard. Test pit survey was conducted at five-metre intervals and increased to ten-metre intervals when met with disturbance. No archaeological resources were discovered, and no further archaeological assessment was recommended.

(Toronto and Region Conservation Authority, 2013) Archaeological Assessment (Stage 1-2) in the Humber River and Etobicoke Creek Watersheds, Peel Region Humber and Etobicoke HIP: Peel Region. P303-134-2013.

The project area called “Area E” overlaps part of the Study Area at the former Biscayne connection within a naturalized parkland east of First Gulf Boulevard. Background research determined Area E to have high archaeological potential. Area E was subject to test pit survey at five metre intervals and was recommended to require no further archaeological assessment.

(WSP, 2018) Stage 1 Archaeological Assessment 7575 Kennedy Road Lots 13 & 14, Concession 2 East of Centre Road (Hurontario Street), Geographic Township of Toronto, City of Brampton, Regional Municipality of Peel. P476-0005-2018.

The project area overlaps parts of the Study Area at former Shaft 2 within the Brampton Sports Park, south of Etobicoke Creek. The overlapping area was recommended for Stage 2 archaeological assessment.



Additional Reports within 50 metres of the Study Area

(Timmins Martelle Heritage Consultants Inc., 2016a) Stage 1 & 2 Archaeological Assessment 7715 Kennedy Road South, City of Brampton Part of Lot 14, Concession 2 (East of Hurontario Street) former Geographic Township of Toronto former Peel County, now R.M. of Peel, Ontario (Official Plan Amendment OP2006-092 and Zoning By-law 204-2013). P083-112-2011.

The project area is within 50 metres of the Study Area and Additional Study Area at 7715 Kennedy Road South. Test pit survey was conducted at five-metre intervals. No archaeological resources were recovered, and no further archaeological assessment was recommended.

(Toronto and Region Conservation Authority, 2008) Archaeological Assessment of TRCA Property in Peel Region (Non-Consulting Stages 1-2) Archaeological Inventory for Habitat Enhancement in the Etobicoke Creek Watershed: Peel Region, Lot 8 Concession IV East – Brampton South Maitland Creek Park Phase II, Lot 2, Concession I West – Brampton Elgin Woods Park, Lot 15, Concession II East – Brampton Heart Lake Conservation Area Aquatic Recreation Site, Lot 11, Concession IV East – Mississauga Dixie Road and Derry Road. P019-108-2007.

The project area is within 50 metres of the Study Area, northeast of Dixie Road at Derry Road. The project area was assessed by pedestrian survey at 1.5 metre intervals. During the survey, 27 artifacts were recovered from 19 discrete locations. These artifacts included 17 fragments of glass, four ceramic, two nails, a horseshoe, and fragments of metal objects. The artifacts had a wide range of possible dates from the mid-nineteenth century to present day, with exception of an olive bottle finish when could be assigned a date earlier than the twentieth century. The project area was recommended to be considered clear of further archaeological concerns.



(Toronto and Region Conservation Authority, 2021) Stage 1-2 Archaeological Assessment King's Park Wetland Lot 11, Concession IV East of Hurontario Street Geographic Township of Toronto, Historic Peel County in the City of Mississauga, Regional Municipality of Peel. P303-0597-2020.

The project area is within 50 metres of the Study Area, northeast of Dixie Road at Derry Road. The project area was subject to pedestrian survey at one-metre intervals. One findspot (AkGw-451), consisting of a Middle Archaic Laurentian Normanskill point, was encountered and not recommended to require further archaeological assessment. The project area was recommended to not require further archaeological assessment.

2.0 Field Methods

The Stage 1-2 Study Area comprises sections of the Deep Trunk Alignment which starts at Kennedy Road south of First Gulf Boulevard and approximately follows Etobicoke Creek northeast to Dixie Road before extending southeast and ending at Derry Road East (Figure 1). It measures approximately 3.8 kilometres in total length and covers an area of 3.93 hectares (Figure 10-Figure 20).

The Stage 1-2 property survey was conducted under the field direction of Emily Meikle (R1191) on November 15, 16, and 19, 2021, and under the field direction of Hannah Curtis (R1296) on October 28, 2022, and an additional Stage 1 property inspection was conducted by Blake Williams (P383) on June 8, 2022. All fieldwork was completed in accordance with the *Ontario Heritage Act* and the S & G, Sections 1 and 2. During the field assessments, weather and lighting conditions permitted good visibility and were in accordance with the S & G, Section 2.1, Standard 3. During the time of survey, conditions were seasonal with cloudy skies and temperatures of 5-9 degrees Celsius. Photographs of all field conditions were taken (Image 1-Image 22), and the location and direction of each photograph is mapped in Figure 11 to Figure 20.

As per Section 2.1 of the S & G, all lands were within areas where ploughing was not possible or viable and therefore subject to test pit survey. According to Section 2.1.2, Standard 2 of the S & G, any undisturbed areas requiring test pit survey within 300 metres of any feature of archaeological potential must be



subject to systematic assessment at five metre intervals. Test pits were placed at five metre intervals until disturbance was encountered, and then judgmentally increased to ten metres intervals as per S & G Section 2.1.8. All test pits were excavated following the S & G Section 2.1.2 Standards 2-9. All test pits were excavated by hand to a minimum of 30 centimetres in diameter and into the first five centimetres of subsoil. Each test pit was examined for stratigraphy, cultural features, and evidence of fill. Test pit fill was screened through six-millimetre mesh to facilitate artifact recovery. Afterwards, all test pits were backfilled, and their locations were recorded on field maps. Any factors that precluded the excavation of test pits (e.g., excessive slope, drainage, exposed bedrock, previous disturbance) were noted, and the areas were mapped and photographed.

Fieldwork was conducted using a Samsung Galaxy S4 tablet running Esri Collector software equipped with a sub-metre Trimble Catalyst Global Navigation Satellite System in conjunction with project mapping provided by Jacobs to ensure the assessment remained within the Study Area limits.

2.1 Areas of No Archaeological Potential

Approximately 67 percent of the Study Area (2.62 hectares) was previously assessed and not subject to Stage 2 assessment as per S & G Section 2.1, Standard 2.c (ASI 1992, ASI 1999, ASI 2006c, ASI 2006b, ASI 2009, ASI 2020; Timmins Martelle Heritage Consultants Inc., 2016b; Toronto and Region Conservation Authority, 2013) (Figure 11-Figure 20).

Visual assessment determined that a significant portion of the Study Area did not retain archaeological potential. Approximately 16 percent of the Study Area (0.64 hectares) had been previously subject to deep and extensive ground disturbance and was not subject to Stage 2 survey, as per S & G Section 2.1, Standard 2.b. The lands documented as being previously disturbed include the embankment supporting the Kennedy Road right-of-way at Shaft 1 (Figure 11; Image 1-Image 2), a drainage culvert extending from under Kennedy Road to Etobicoke Creek at Shaft 1 (Figure 11; Image 3), a previously graded cricket pitch at former Shaft 2 (Figure 13; Image 4-Image 5, Image 23-Image 25), the previously graded Pepsi Co Foods lands at Shaft 2 (Figure 14; Image 6, Image 26) the existing sewer alignment and access road at Shaft 4 (Figure 16; Image 7), the section of



Etobicoke Creek which was open cut for existing sewer infrastructure (Figure 17; Image 27), and the previously disturbed baseball diamond, gravel access roads, existing sewer infrastructure, and Dixie Road right-of-way at Shaft 6 (Figure 19; Image 8-Image 12).

Approximately two percent of the Study Area (0.06 hectares) was documented as having naturally sloped conditions in excess of 20 degrees and not subject to Stage 2 survey, as per S & G Section 2.1, Standard 2.a.iii. The areas documented as being naturally sloped have no archaeological potential and include Etobicoke Creek valley lands at the Biscayne Connection (Figure 12; Image 13).

Approximately one percent of the Study Area (0.04 hectares) was documented as being permanently low and wet and was not subject to Stage 2 survey, as per S & G Section 2.1, Standard 2.a.i. The areas documented as being permanently low and wet include a marsh associated with Etobicoke Creek (Figure 16; Image 14).

2.2 Test Pit Survey

Approximately five percent of the Study Area (0.21 hectares) was found to contain natural topsoil (A-horizon) and was subject to test pit survey at five metre intervals following S & G Section 2.1.2, Standards 1-9. The areas subject to test pit survey at five metre intervals include scrubland adjacent to Etobicoke Creek at Shaft 1 and the scrubland at and east of former Shaft 5 (Figure 11, Figure 17, Figure 18; Image 15-Image 16).

Undisturbed stratigraphy in the Study Area is characterized by approximately 20-40 centimetres of brown (10YR 4/3) to very dark grayish brown (10YR 3/2) silty clay topsoil (A-horizon) overlying a reddish brown (2.5YR 4/3) to grayish brown (10YR 5/2) silty clay subsoil (B-horizon) (Image 17-Image 18).

Approximately nine percent of the Study Area (0.36 hectares) did not contain natural topsoil (A-horizon) and was subject to judgmental test pit survey at 10 metre intervals to confirm previous disturbance following S & G Section 2.1.8, Standards 1-2. The areas subject to judgmental test pit survey include scrubland adjacent to the Etobicoke Creek Trail at Shaft 1 and the Biscayne Connection



(Figure 11, Figure 12; Image 19), and scrubland between former Shaft 5 and Dixie Road (Figure 17, Figure 18; Image 20).

Disturbed stratigraphy in the Study Area is characterized by 10 centimetres of redeposited very dark grayish brown (10YR 3/2) clay loam topsoil, atop at least 50 centimetres of yellowish brown (10YR 5/4) clay fill mixed with grayish brown (10YR 5/2) and brown (10YR 4/3) clay containing gravel and asphalt (Image 21-Image 22).

2.3 Stage 1-2 Assessment Results Summary

A summary of the Stage 1-2 assessment results for the Etobicoke Creek Trunk Sewer Improvements and Upgrades project can be found in Table 2 below.



Table 2: Stage 1-2 Survey Results Summary

Survey Method	Area	Description	Images
Not assessed due to previous assessment; no archaeological potential	2.62 hectares (67 percent)	ASI 1992, 1999, 2006b, 2006c, 2009, 2020; Timmins Martelle Heritage Consultants Inc. 2016b, Toronto and Region Conservation Authority 2013	N/A
Visually assessed as being previously disturbed; no archaeological potential	0.64 hectares (16 percent)	<p>Kennedy Road right-of-way embankment and culvert at Shaft 1;</p> <p>Previously graded cricket pitch at former Shaft 2, and Pepsi Co Foods lands at Shaft 2;</p> <p>The existing sewer alignment and access road at Shaft 4;</p> <p>Section of Etobicoke Creek with underlying sewer infrastructure;</p> <p>Previously graded baseball diamond, gravel access roads, existing sewer infrastructure, and Dixie Road ditching at Shaft 6</p>	1-12, 27

Survey Method	Area	Description	Images
Visually assessed as naturally sloped (greater than 20 degrees); no archaeological potential	0.06 hectares (two percent)	Etobicoke Creek valley lands at the Biscayne Connection	13
Visually assessed as having permanently low and wet conditions; no archaeological potential	0.04 hectares (one percent)	Marsh associated with Etobicoke Creek at former Shaft 4	14
Test pit survey; five metre intervals	0.21 hectares (five percent)	Scrubland adjacent to Etobicoke Creek at Shaft 1 and former Shaft 5	15-18
Judgmental test pit survey; 10 metre intervals	0.36 hectares (nine percent)	Scrubland adjacent to Etobicoke Creek and trail at the Biscayne Connection, and east of former Shaft 5	19-22

3.0 Record of Finds

No archaeological resources were encountered during the course of the Stage 1-2 Archaeological Assessment for the Etobicoke Creek Trunk Sewer Improvements and Upgrades project.

3.1 Inventory of Documentary and Material Record

The documentation related to this archaeological assessment will be curated by ASI 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 MCM, and any other legitimate interest groups.

Table 3 provides an inventory and location of the documentary and material record for the project in accordance with the S & G, Sections 6.7 and 7.8.2.3.

Table 3: Inventory of Documentary and Material Record

Material	Location	Comments
Written Field Notes, Annotated Field Maps, GPS Logs, etc.	Archaeological Services Inc., 528 Bathurst Street, Toronto, Ontario, M5S 2P9	Hard copy notes stored in Archaeological Services Inc. project folder 20EA-212; GPS and digital information stored on ASI network servers
Field Photography (Digital)	Same as above	Stored on ASI network servers.



Material	Location	Comments
Research/Analysis/ Reporting Materials (Various Formats)	Same as above	Hard copy and/or digital files stored on ASI network servers.

4.0 Analysis and Conclusions

ASI was contracted by Jacobs, on behalf of the Regional Municipality of Peel, to conduct a Stage 1-2 Archaeological Assessment as part of the Etobicoke Creek Trunk Sewer Improvements and Upgrades. The proposed work includes both subsurface microtunnel boring and open cut trenching along the proposed Deep Trunk Alignment from Kennedy Road, south of First Gulf Boulevard, following Etobicoke Creek northeast to Dixie Road before extending southeast and ending at Derry Road East.

A Stage 1 assessment as part of the Etobicoke Creek Trunk Sewer Improvements and Upgrades Schedule C Municipal Class Environmental Assessment was previously conducted by ASI (2020). Background research and a property inspection determined that portions of the Study Area retained archaeological potential and Stage 2 test pit survey was recommended.

The Stage 1-2 property survey was conducted on November 15, 16, and 19, 2021, and on October 28, 2022, in accordance with the *Ontario Heritage Act* and the S & G by test pit survey. An additional Stage 1 property inspection was completed for the revised Study Area on June 8, 2022. Background research determined that 67 percent of the Study Area (2.62 hectares) was previously assessed without further recommendations, and was therefore not subject to Stage 2 survey (ASI 1992, ASI 1999, ASI 2006c, ASI 2006b, ASI 2009, ASI 2020; Timmins Martelle Heritage Consultants Inc., 2016b; Toronto and Region Conservation Authority, 2013) (Figure 11-Figure 20). An additional 19 percent of the Study Area (0.74 hectares) did not demonstrate archaeological potential through visual inspection and background research on account of previous deep and pervasive disturbance (Figure 11, Figure 13, Figure 14, Figure 16, Figure 17, Figure 19,



Figure 21; Image 1- Image 12, Image 23- Image 27), steeply sloped conditions (Figure 12; Image 13), and permanently low and wet conditions (Figure 16; Image 14).

The remaining 14 percent of the Study Area (0.57 hectares), comprising scrubland bordering Etobicoke Creek, was subject to test pit survey at five metre intervals judgmental test pit survey at 10 metre intervals to confirm previous disturbance (Figure 11, Figure 12, Figure 17, Figure 18; Image 15-Image 22). No archaeological resources were encountered during the Stage 1-2 survey for the Etobicoke Creek Trunk Sewer Improvements and Upgrades project, and no further archaeological assessment is recommended.

5.0 Recommendations

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

1. The Etobicoke Creek Trunk Sewer Improvements and Upgrades Study Area does not require further archaeological assessment; and
2. Should the proposed work extend beyond the current Study Area, or should changes to the project design or temporary workspace requirements result in the inclusion of previously un-surveyed lands, these lands should be subject to a Stage 2 archaeological assessment.

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

The above recommendations are subject to Ministry approval, and it is an offence to alter any archaeological site without MCM concurrence. No grading or other



activities that may result in the destruction or disturbance of any archaeological sites are permitted until notice of MCM approval has been received.

6.0 Legislation Compliance Advice

ASI 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 Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
- Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the *Ontario Heritage Act*.
- The *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 of Cemeteries at the Ministry of Consumer Services 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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8.0 Images

8.1 Field Photography



Image 1: Previously disturbed Kennedy Road right-of-way embankment at Shaft 1; no potential



Image 2: Previously disturbed Kennedy Road right-of-way embankment and underlying drainage culvert at Shaft 1; no potential



Image 3: Kennedy Road culvert draining into Etobicoke Creek at Shaft 1; no potential



Image 4: Previously graded cricket pitch containing utilities at former Shaft 2; no potential



Image 5: Previously graded cricket pitch at former Shaft 2; no potential



Image 6: Previously graded Pepsi Co Foods distribution facility lands at Shaft 2; no potential



Image 7: Previous disturbance caused by existing sewer access and infrastructure at Shaft 4; no potential



Image 8: Previous disturbance caused by existing sewer infrastructure at Shaft 6; no potential



Image 9: Previous disturbance caused by existing sewer access road at Shaft 6; no potential



Image 10: Previous disturbance caused by existing baseball diamond access road at Shaft 6; no potential



Image 11: Previously graded baseball diamond at Shaft 6; no potential



Image 12: Previously disturbed Dixie Road right-of-way with ditch; no potential



Image 13: Steeply sloping conditions at the Biscayne Connection; no potential



Image 14: Permanently low and wet marsh; no potential



Image 15: Test pit survey at five metre intervals in progress



Image 16: Test pit survey at five metre intervals in progress



Image 17: Intact soil stratigraphy demonstrating topsoil (A-horizon) overlying subsoil (B-horizon)



Image 18: Intact soil stratigraphy demonstrating topsoil (A-horizon) overlying subsoil (B-horizon)



Image 19: Judgmental test pit survey at 10 metre intervals at Biscayne Connection

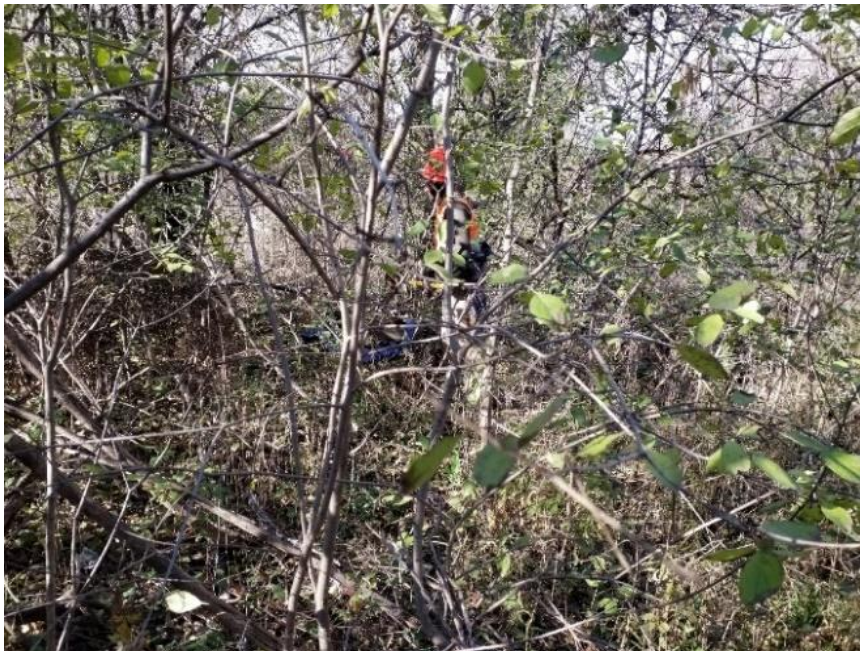


Image 20: Judgmental test pit survey at 10 metre intervals



Image 21: Disturbed soil stratigraphy demonstrating redeposited topsoil overlying fill; intact topsoil (A-horizon) is absent



Image 22: Disturbed soil stratigraphy demonstrating redeposited topsoil overlying fill; intact topsoil (A-horizon) is absent

8.2 Historical Imagery



Image 23: Previous grading and resodding of cricket pitch at former Shaft 2 within the Brampton Rugby Union Football facility (7575 Kennedy Road South) circa 2015 (City of Brampton, n.d.)



Image 24: Former Shaft 2 within the previously disturbed cricket pitch located at the Brampton Rugby Union Football club facility *circa* June 2019 (Google Earth)



Image 25: Previous grading and resodding of cricket pitch at former Shaft 2 within the Brampton Rugby Union Football facility *circa* 2020 (City of Brampton, n.d.)



Image 26: Shaft 2 within the previously graded Pepsi Co Foods commercial facility lands *circa* June 2003 (Google Earth)



Image 27: Disturbance to the Etobicoke Creek bed during Sanitary Trunk Sewer construction circa August 2006 (Google Earth); see Figure 21 for construction plan

9.0 Maps





Figure 1: Location of the Study Area





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



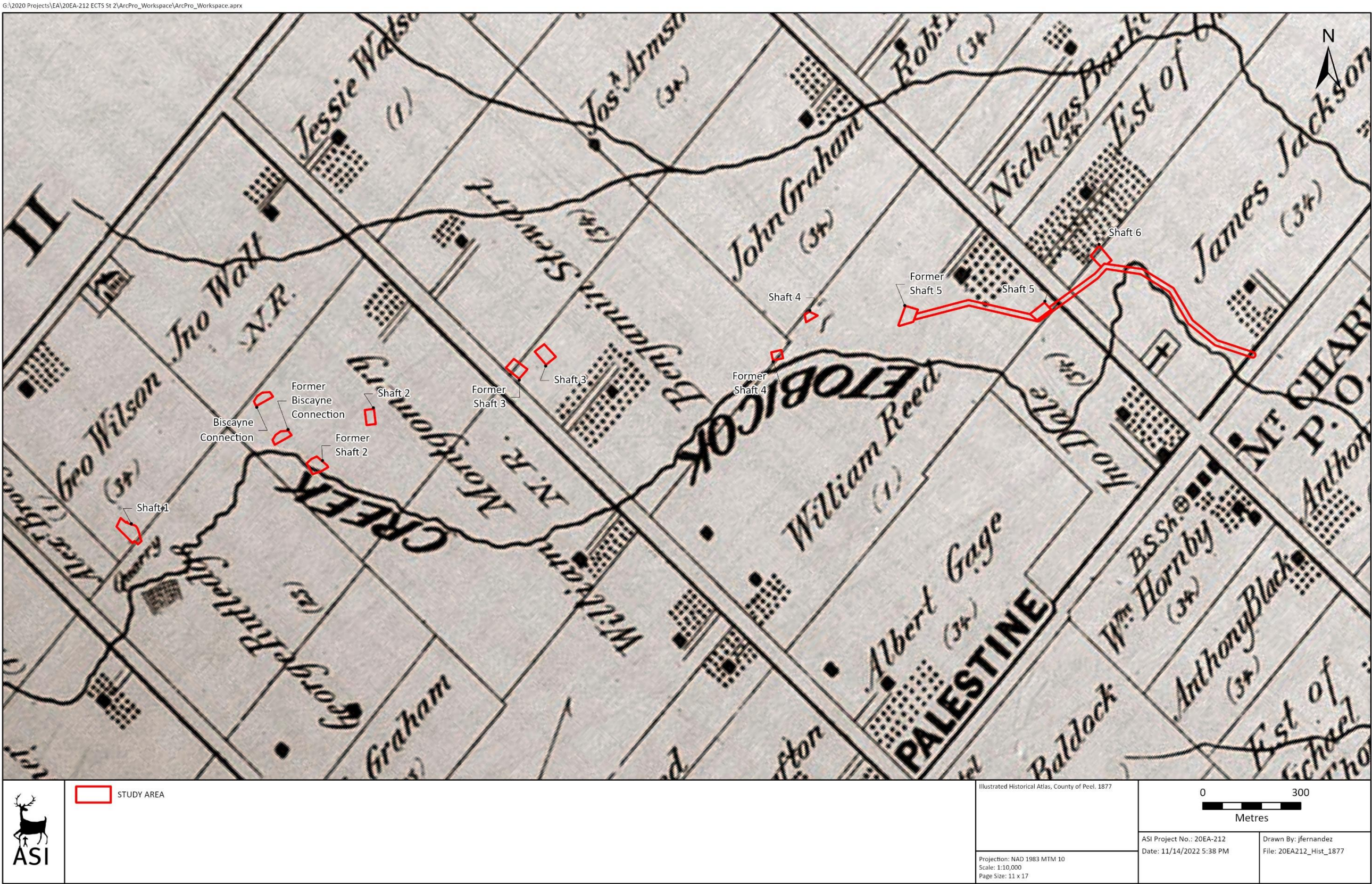


Figure 3: Study Area (Approximate Location) Overlaid on the 1877 Illustrated Historical Atlas of the County of Peel



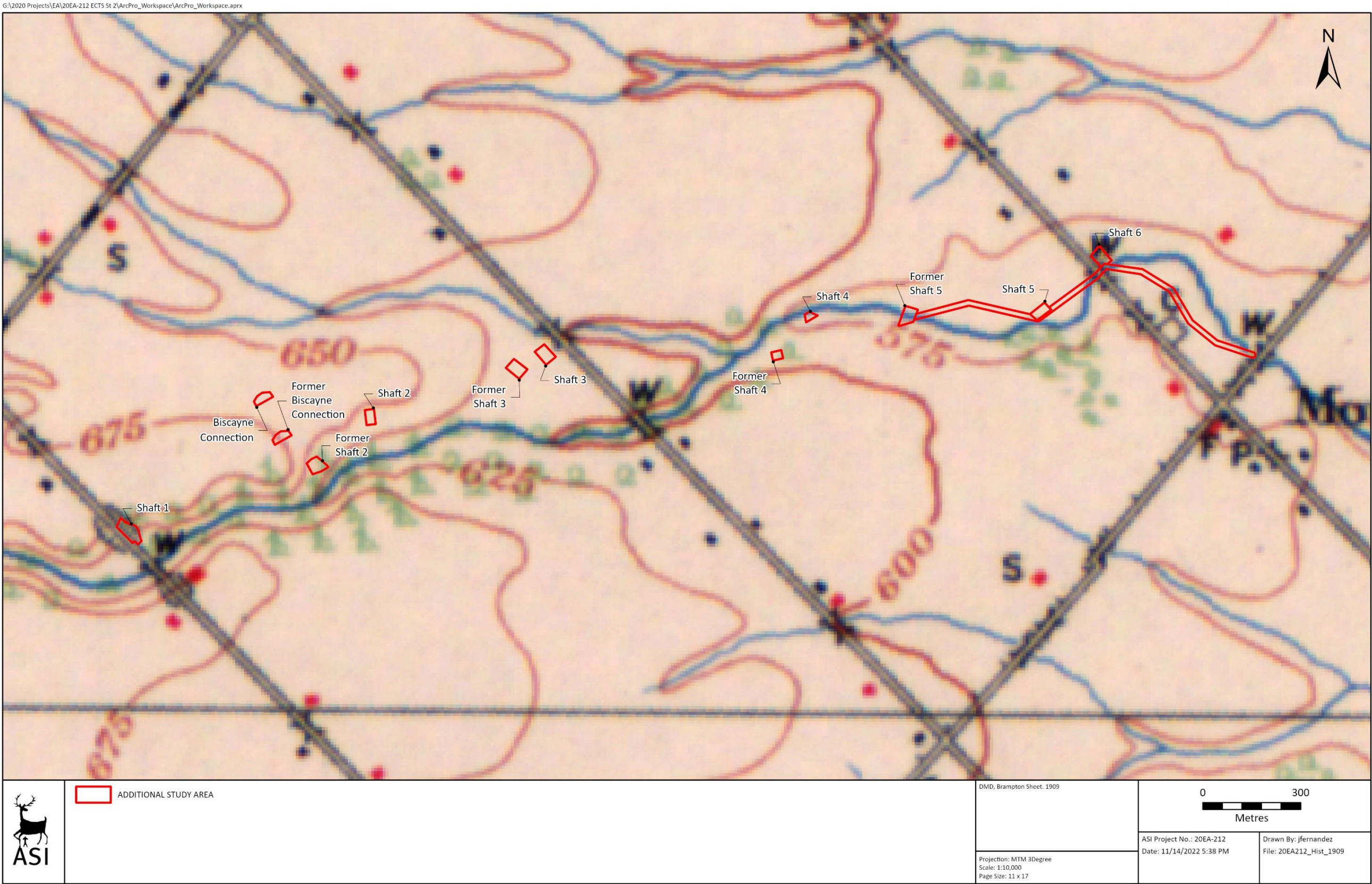


Figure 4: Study Area (Approximate Location) Overlaid on the 1909 Topographic Map Brampton Sheet



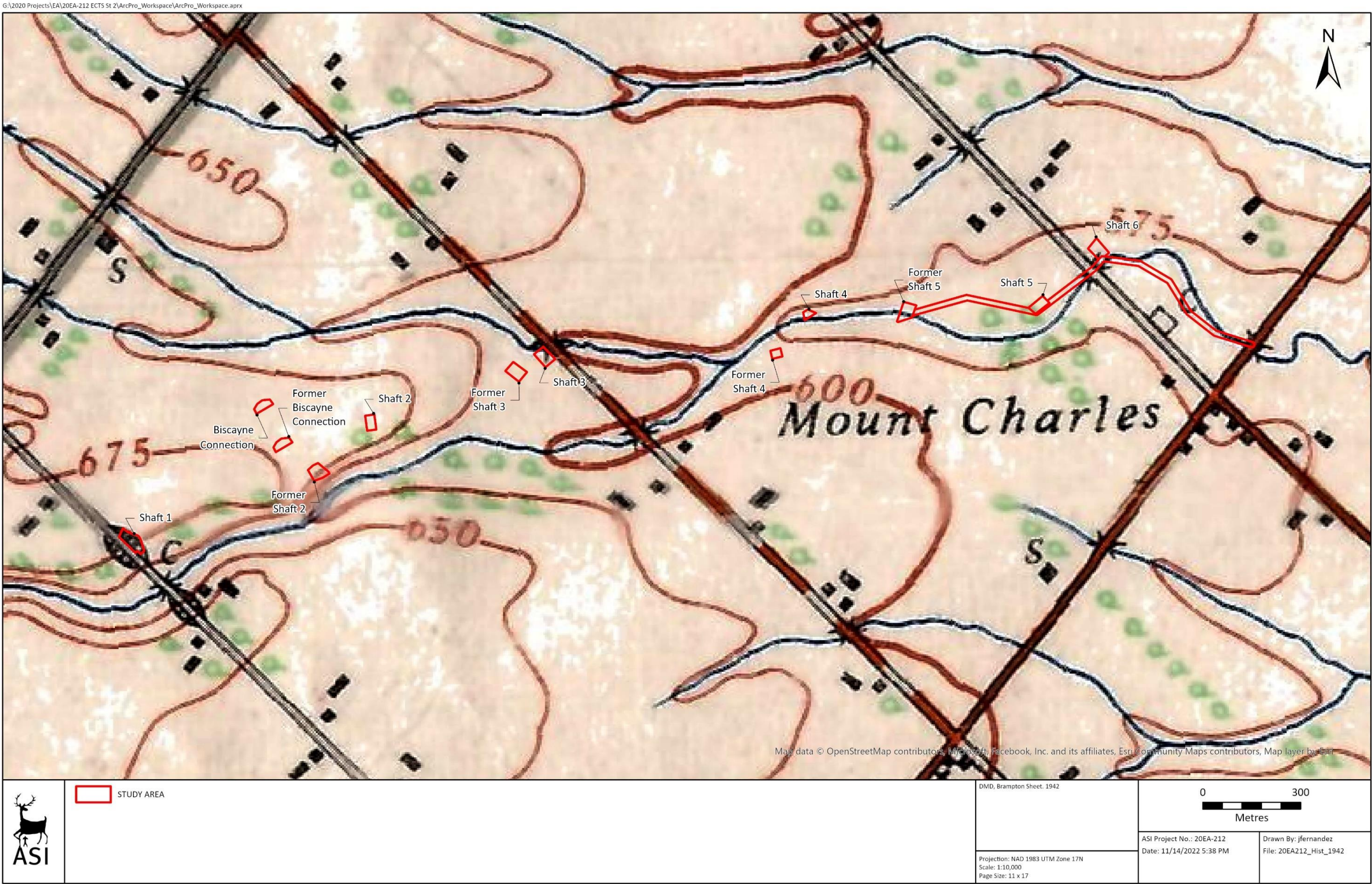


Figure 5: Study Area (Approximate Location) Overlaid on the 1942 Topographic Map Brampton Sheet





Figure 6: Study Area (Approximate Location) Overlaid on the 1974 National Topographic System Brampton Sheet

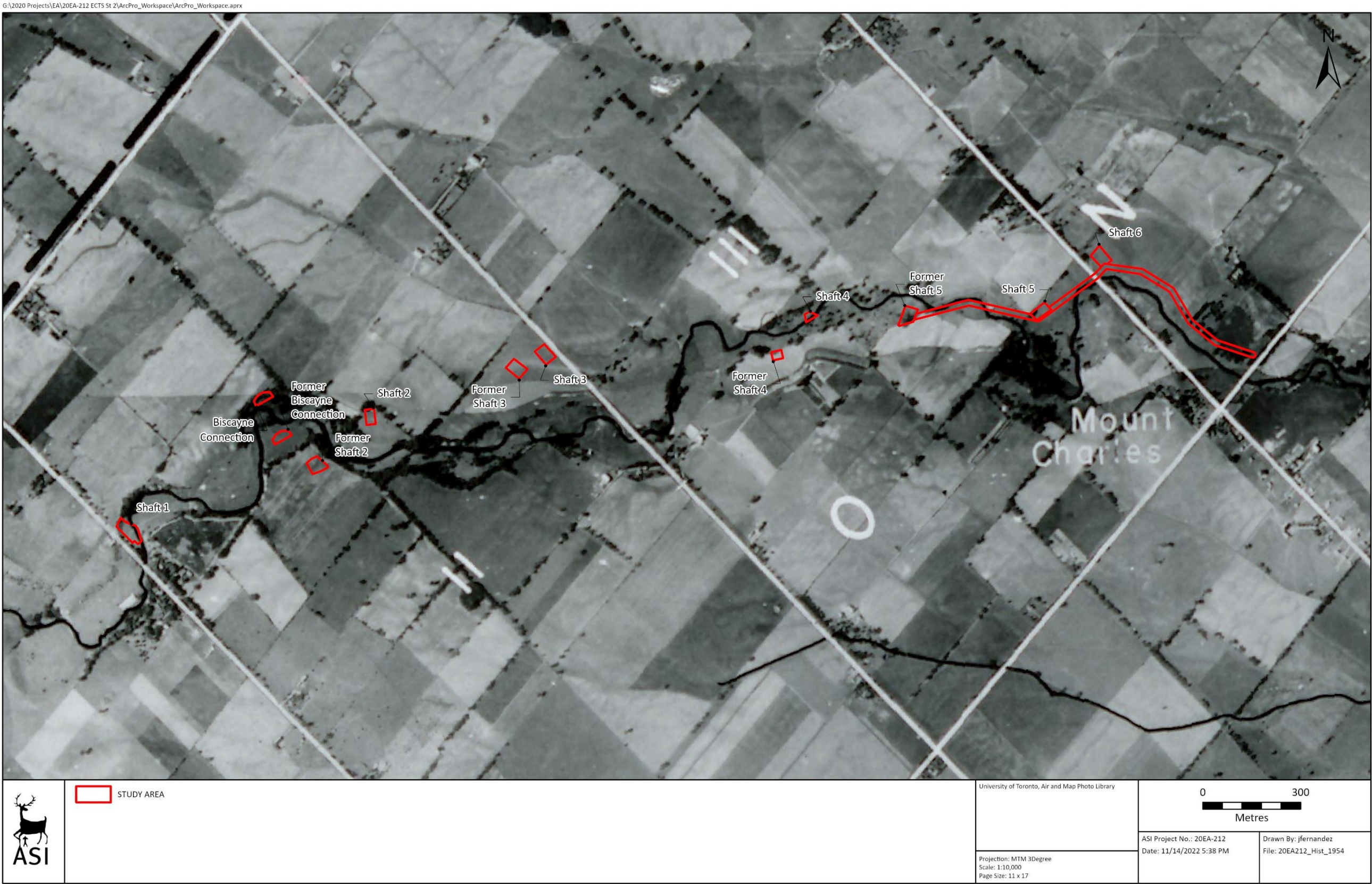


Figure 7: Study Area (Approximate Location) Overlaid on the 1954 Aerial Photography



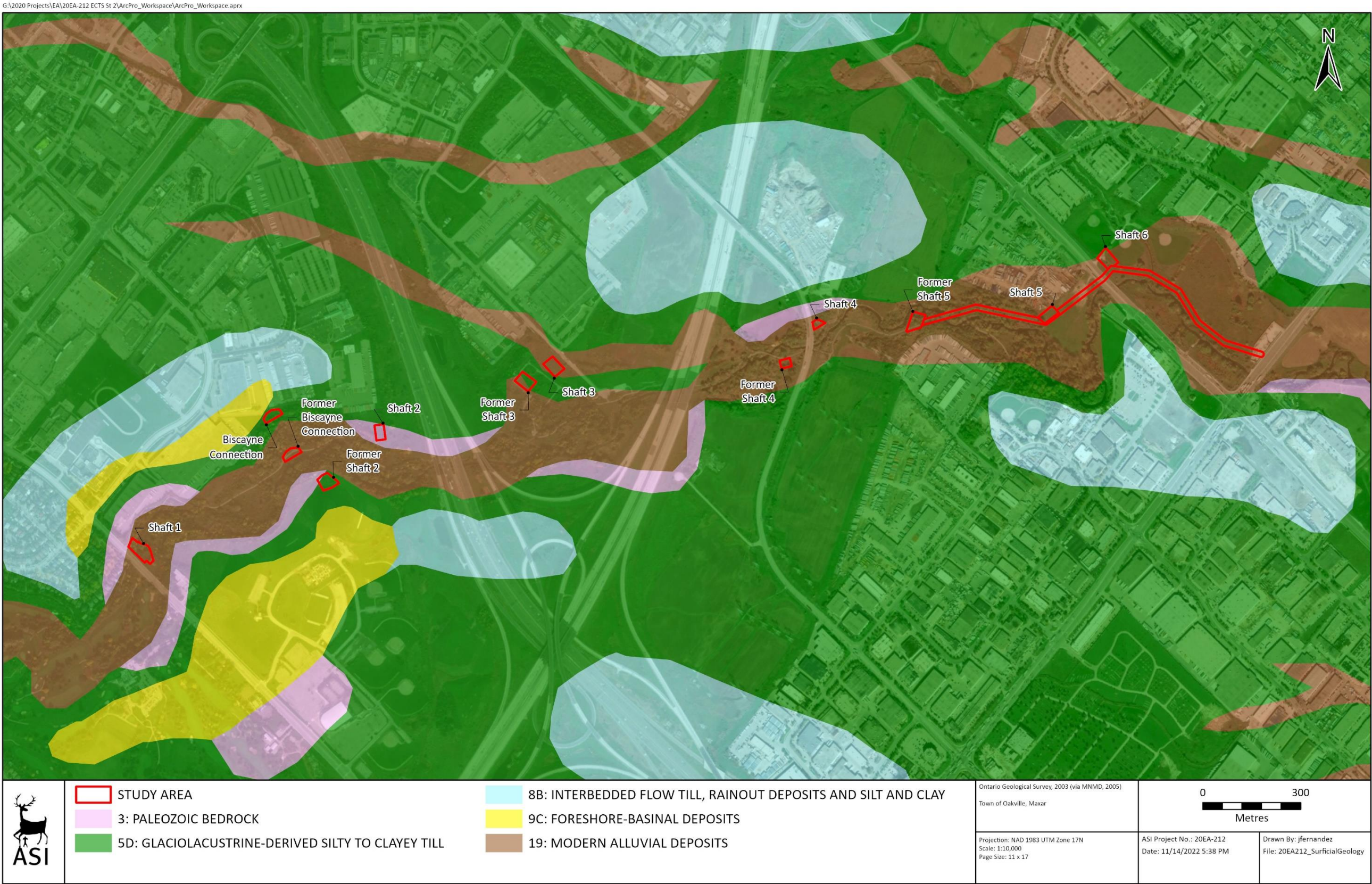


Figure 8: Study Area – Surficial Geology



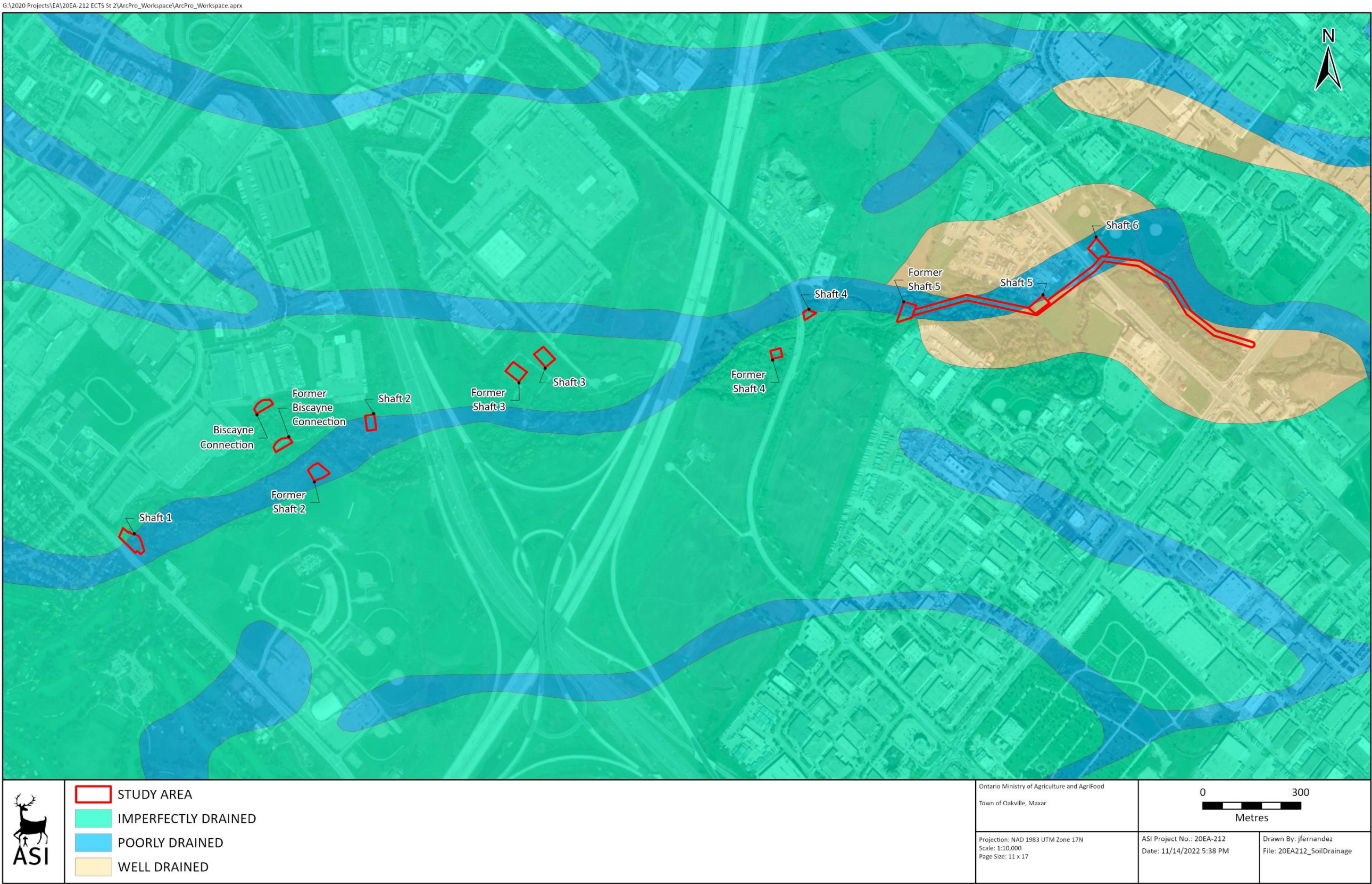


Figure 9: Study Area – Soil Drainage





Figure 10: Stage 2 Assessment Results – Sheet Key





Figure 11: Stage 2 Assessment Results – Sheet 1





Figure 12: Stage 2 Assessment Results – Sheet 2





Figure 13: Stage 2 Assessment Results – Sheet 3





Figure 14: Stage 2 Assessment Results – Sheet 4





Figure 15: Stage 2 Assessment Results – Sheet 5





Figure 16: Stage 2 Assessment Results – Sheet 6



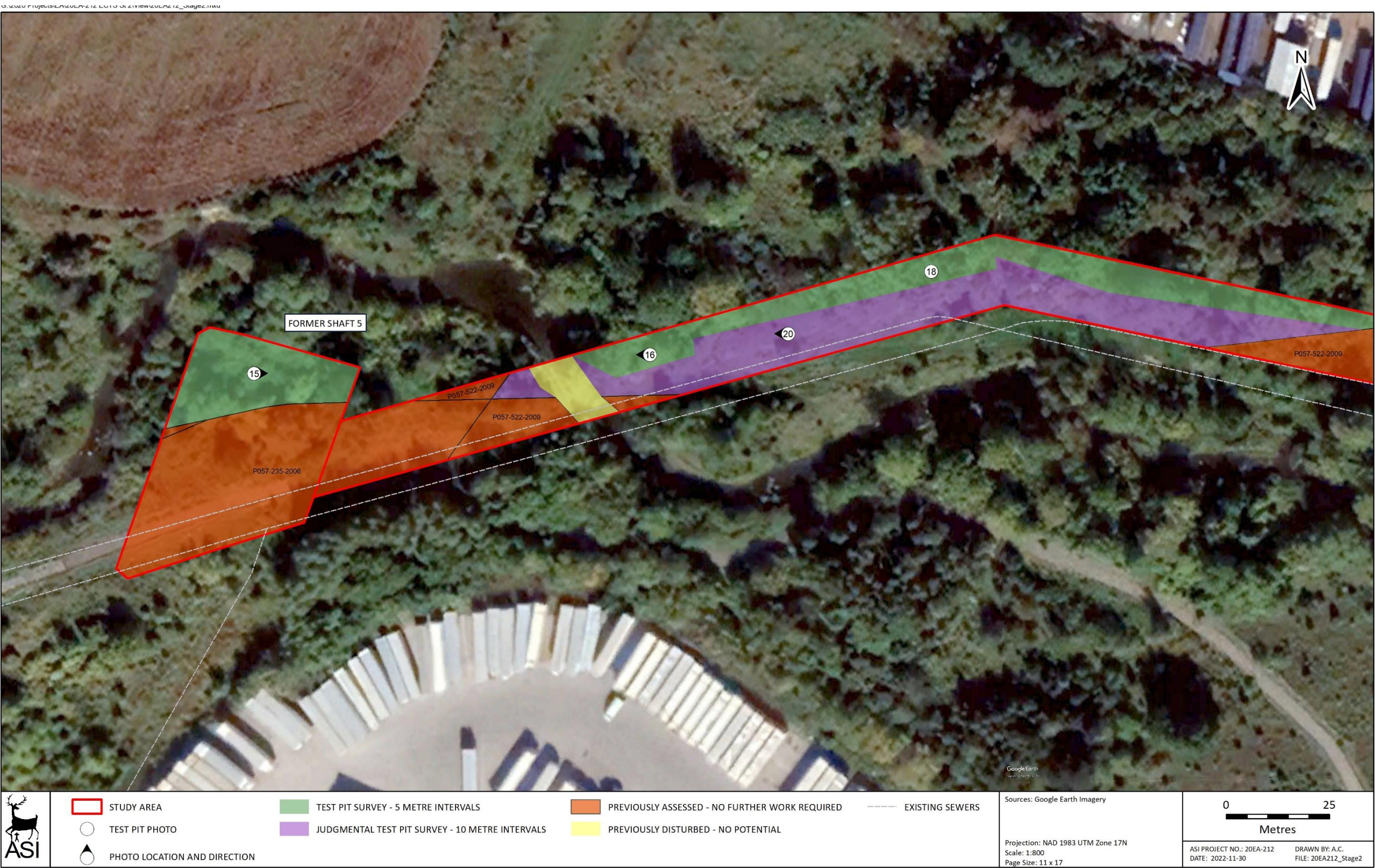


Figure 17: Stage 2 Assessment Results – Sheet 7





Figure 18: Stage 2 Assessment Results – Sheet 8





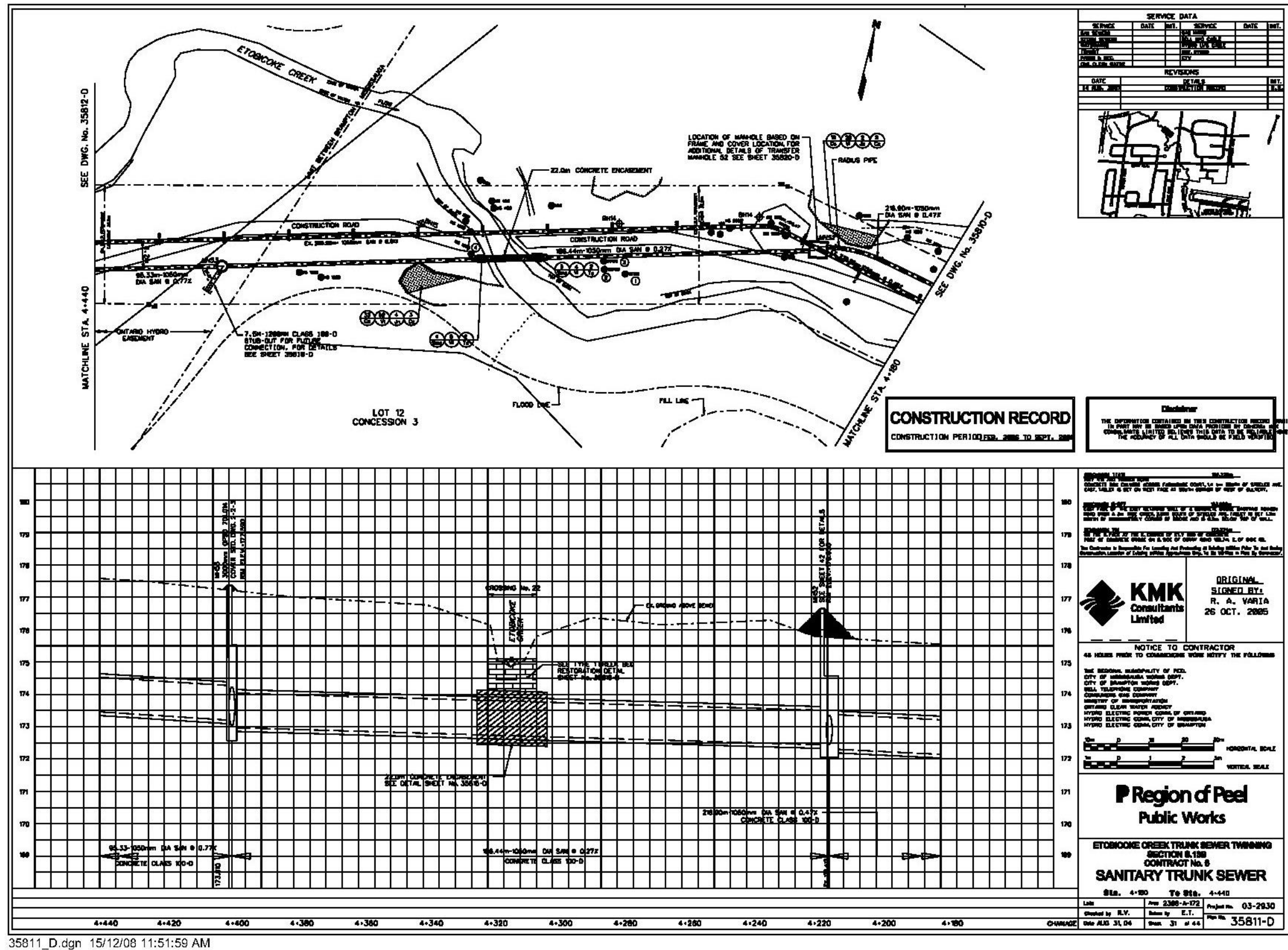
Figure 19: Stage 2 Assessment Results – Sheet 9





Figure 20: Stage 2 Assessment Results – Sheet 10





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Figure 21: Construction Record for the Existing Sanitary Trunk Sewer Showing Creek Bed Disturbance to Etobicoke Creek within the Study Area