

# Stage 1 Archaeological Assessment, City Operations Campus

110 Dunlop Drive, Part of Lots 3, 4 and 5, Concession 1 Division C, Geographic Township of Guelph, Wellington County, now City of Guelph, Ontario

City of Guelph

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## Executive Summary

AECOM Canada Ltd. (AECOM) was retained by the City of Guelph to conduct a Stage 1 archaeological assessment of the proposed City Operations Campus, in the City of Guelph, Ontario. The overall goal of this assignment is comprehensively develop and build a new City Operations Campus to support the City's Transit, Fleet, Corporate Building Maintenance, Operations and Solid Waste Resource departments, over the next 25 plus years so that they may work efficiently and effectively and continue to satisfy service delivery requirements. The Stage 1 archaeological assessment was triggered by the City of Guelph's Master Plan and build on the vision and principles of the GID Secondary Plan.

This report details the rationale, methods and results of the Stage 1 archaeological assessment (AA). Stage 1 background research into the archaeological land use history of the study area using documentary sources, historic maps, and satellite imagery indicated that it had potential for containing archaeological remains. AECOM conducted the Stage 1 site inspection on May 06, 2021. The study area consisted of several disturbed areas, as well as a low lying and wet area and areas requiring Stage 2 assessment. The disturbed areas consisted of a developed industrial area, large mounds of dirt, a storm water management pond and an area with utilities. There was a low lying and wet area in the southeast corner of the study area. The remaining portions contain archaeological potential.

Given the results of this assessment, AECOM makes the following recommendations:

1. The areas shaded green in Figure 11 contain archaeological potential. These areas must be subject to Stage 2 archaeological assessment before any land alteration takes place, in accordance with *Section 2.1 Property Survey of the Standards and Guidelines for Consultant Archaeologists* (2011).
2. Much of the study area has been subject to deep and extensive disturbance from previous commercial development, as well as the construction of roadways and associated infrastructure (areas shaded red in Figure 11). These areas are cleared of further archaeological concerns.

## **Project Personnel**

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## **Acknowledgements**

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<b>Approval Authority:</b>	Ministry of Environment, Conservation, and Parks

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# 1. Project Context

## 1.1 Development Context

AECOM Canada Ltd. (AECOM) was retained by the City of Guelph to conduct a Stage 1 archaeological assessment for the proposed Guelph City Operations Campus in the Guelph, Ontario. The City of Guelph is looking to comprehensively develop and build a new City Operations Campus to support the City's Transit, Fleet, Corporate Building Maintenance, Operations and Solid Waste Resource departments, over the next 25 plus years so that they may work efficiently and effectively and continue to satisfy service delivery requirements. The study area is located at 110 Dunlop Drive, formerly part of Lots 3, 4 and 5, Concession I, Division C, Township of Guelph, County of Wellington.

The Stage 1 archaeological assessment was triggered by the City of Guelph's Master Plan and build on the vision and principles of the GID Secondary Plan. The Stage 1 archaeological assessment was triggered by the requirements of the *Environmental Assessment Act* in accordance with subsection 11(1) (Ontario Government 1990a). This project is subject to the requirements of the *Ontario Heritage Act* (Government of Ontario 1990b) and the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

The Stage 1 AA was completed under the project direction of Samantha Markham [Licence #P438] (AECOM). Permission to access the property to conduct all required archaeological fieldwork, including the recovery of artifacts, was granted by The City of Guelph. No limits were placed on this access. This report provides the results of the Stage 1 AA and provides a recommendation.

### 1.1.1 Objectives

The objective of the Stage 1 background study is to document the archaeological and land use history and present conditions within the study area. This information will be used to support recommendations regarding cultural heritage values or interests as well as assessment and mitigation strategies. The results of Stage 1 archaeological assessment presented in this report are drawn in part from:

- Recent and historical maps of the study area;
- Reports of previous archaeological assessments within 50 metres of the study area;

- The Ministry of Heritage, Sport, Tourism and Culture Industries’ (MHSTCI) Archaeological Sites Database (ASDB) for a listing of registered archaeological sites within a 1 kilometre radius of the study area;
- A visual inspection of the existing conditions of the study area and surroundings; and,
- Archaeological management plans or other archaeological potential mapping, where available.

The Stage 1 archaeological assessment has been conducted to meet the requirements of the MHSTCI *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011).

## 1.2 Historical Context

Years of archaeological research and assessments in southern Ontario have resulted in a well-developed understanding of the historic use of land in Wellington County from the earliest Indigenous people to the more recent Euro-Canadian settlers and farmers. Table 1 provides a breakdown of the cultural and temporal history of past occupations in Wellington County.

**Table 1: Cultural Chronology for Wellington County**

Archaeological Period	Time Period	Characteristics
<b>Early Paleo</b>	9000-8400 BC	<ul style="list-style-type: none"> <li>■ Fluted Points</li> <li>■ Arctic tundra and spruce parkland, caribou hunters</li> </ul>
<b>Late Paleo</b>	8400-8000 BC	<ul style="list-style-type: none"> <li>■ Holcombe, Hi-Lo and Lanceolate Points</li> <li>■ Slight reduction in territory size</li> </ul>
<b>Early Archaic</b>	8000-6000 BC	<ul style="list-style-type: none"> <li>■ Notched and Bifurcate base Points</li> <li>■ Growing populations</li> </ul>
<b>Middle Archaic</b>	6000-2500 BC	<ul style="list-style-type: none"> <li>■ Stemmed and Brewerton Points, Laurentian Development</li> <li>■ Increasing regionalization</li> </ul>
<b>Late Archaic</b>	2000-1800 BC	<ul style="list-style-type: none"> <li>■ Narrow Point</li> <li>■ Environment similar to present</li> </ul>
<b>Late Archaic</b>	1800-1500 BC	<ul style="list-style-type: none"> <li>■ Broad Point</li> <li>■ Large lithic tools</li> </ul>
<b>Late Archaic</b>	1500-1100 BC	<ul style="list-style-type: none"> <li>■ Small Point</li> <li>■ Introduction of bow</li> </ul>
<b>Terminal Archaic</b>	1100-950 BC	<ul style="list-style-type: none"> <li>■ Hind Points, Glacial Kame Complex</li> <li>■ Earliest true cemeteries</li> </ul>
<b>Early Woodland</b>	950-400 BC	<ul style="list-style-type: none"> <li>■ Meadowood Points</li> <li>■ Introduction of pottery</li> </ul>
<b>Middle Woodland</b>	400 BC – AD 500	<ul style="list-style-type: none"> <li>■ Dentate/Pseudo-scallop Ceramics</li> <li>■ Increased sedentism</li> </ul>

<b>Archaeological Period</b>	<b>Time Period</b>	<b>Characteristics</b>
<b>Middle Woodland</b>	AD 550-900	<ul style="list-style-type: none"> <li>■ Princess Point</li> <li>■ Introduction of corn horticulture</li> </ul>
<b>Late Woodland</b>	AD 900-1300	<ul style="list-style-type: none"> <li>■ Agricultural villages</li> </ul>
<b>Late Woodland</b>	AD 1300-1400	<ul style="list-style-type: none"> <li>■ Increased longhouse sizes</li> </ul>
<b>Late Woodland</b>	AD 1400-1650	<ul style="list-style-type: none"> <li>■ Warring nations and displacement</li> </ul>
<b>Contact Period</b>	AD 1600-1875	<ul style="list-style-type: none"> <li>■ Early written records and treaties</li> </ul>
<b>Historic</b>	AD 1749-present	<ul style="list-style-type: none"> <li>■ European settlement (French and English)</li> </ul>

Notes: Taken from Ellis and Ferris (1990)

The following sections provide a detailed summary of the archaeological cultures that have settled in the vicinity of the study area. As Chapman and Putnam (1984) illustrate, the modern physiography of southern Ontario is largely a product of events of the last major glacial stage and the landscape is a complex mosaic of features and deposits produced during the last series of glacial retreats and advances prior to the withdrawal of the continental glaciers from the area. Southwestern Ontario was finally ice free by 12,500 years ago. With continuing ice retreat and lake regressions the land area of southern Ontario progressively increased while barriers to the influx of plants, animals, and people steadily diminished (Karrow and Warner 1990). The lands within Wellington County have been extensively utilized by Indigenous people who began occupying southwestern Ontario as the glaciers receded from the land, as early as 11,000 BC.

### **1.2.1 Pre-Contact First Nation Settlement**

#### **The Paleo Period**

In this area the first human settlement can be traced back to 11,000 BC; these earliest well-documented groups are referred to as Paleo which literally means old or ancient. During the Paleo period people were non-agriculturalists who depended on hunting and gathering of wild food, they moved their encampments on a regular basis to be in the locations where these resources naturally became available, and the size of the groups occupying any particular location would vary depending on the nature and size of the available food resources (Ellis and Deller 1990). The picture that has emerged for the early and late Paleo is of groups at low population densities who were residentially mobile and made use of large territories during annual cycles of resource exploitation.

#### **The Archaic Period**

The next major cultural period following the Paleo is termed the Archaic, which is broken temporally into the Early, Middle, and Late Archaic periods. There is much

debate on how the term Archaic is employed; general practice bases the designation off assemblage content as there are marked differences in artifact suites from the preceding Paleo and subsequent Woodland periods. As Ellis *et al.* (1990) note, from an artifact and site characteristic perspective the Archaic is simply used to refer to non-Paleo manifestations that pre-date the introduction of ceramics. Ellis *et al.* (1990) stress that Archaic groups can be distinguished from earlier groups based on site characteristics and artifact content.

Early Archaic sites have been reported throughout much of southwestern Ontario and extend as far north as the Lake Huron Basin region and as far east as Rice Lake (Deller *et al.* 1986). A lack of excavated assemblages from southern Ontario has limited understandings and inferences regarding the nature of stone tool kits in the Early Archaic and tool forms other than points are poorly known in Ontario; however, at least three major temporal horizons can be recognized and can be distinguished based on projectile point form (Ellis *et al.* 1990). These horizons are referred to as Side-Notched (*ca.* 8,000 to 7,700 BC), Corner-Notched (*ca.* 7,700 to 6,900 BC), and Bifurcated (*ca.* 6,900 to 6,000 BC) (Ellis *et al.* 1990). Additional details on each of these horizons and the temporal changes to tool types can be found in Ellis *et al.* (1990).

The Middle Archaic period (6,000 to 2,500 BC), like the Early Archaic, is relatively unknown in southern Ontario. Ellis *et al.* (1990) suggest that artifact traits that have come to be considered as characteristic of the Archaic period as a whole, first appear in the Middle Archaic. These traits include fully ground and polished stone tools, specific tool types including banner stones and net-sinkers, and the use of local and/or non-chert type materials for lithic tool manufacture (Ellis *et al.* 1990).

The Late Archaic begins around approximately 2,000 BC and ends with the appearance of ceramics and the Meadowood Phase at roughly 950 BC. Much more is known about this period than the Early and Middle Archaic and a number of Late Archaic sites are known. Sites appear to be more common than earlier periods, suggesting some degree of population increase. True cemeteries appear and have allowed for the analysis of band size, biological relationships, social organization, and health. Narrow and Small point traditions appear as well as tool recycling wherein points were modified into drills, knives, end scrapers, and other tools (Ellis *et al.* 1990). Other tools including serrated flakes used for sawing or shredding, spokeshaves, and retouched flakes manufactured into perforators, graters, micro-perforators, or piercers. Tools on coarse-grained rocks such as sandstone and quartz become common and include hammerstones, net-sinkers, anvils, and cobble spalls. Depending on preservation, several Late Archaic sites include bone and/or antler artifacts which likely represent fishing toolkits and ornamentation. These

artifacts include bone harpoons, barbs or hooks, notched projectile points, and awls. Bone ornaments recovered have included tubular bone beads and drilled mammal canine pendants (Ellis *et al.* 1990).

Throughout the Early to Late Archaic periods the natural environment warmed and vegetation changed from closed conifer-dominated vegetation cover, to the mixed coniferous and deciduous forest in the north and deciduous vegetation in the south we see in Ontario today (Ellis *et al.* 1990). During the Archaic period there are indications of increasing populations and decreasing size of territories exploited during annual rounds; fewer moves of residential camps throughout the year and longer occupations at seasonal campsites; continuous use of certain locations on a seasonal basis over many years; increasing attention to ritual associated with the deceased; and, long range exchange and trade systems for the purpose of obtaining valued and geographically localized resources (Ellis *et al.* 1990).

### **The Woodland Period**

The Early Woodland period is distinguished from the Late Archaic period primarily by the addition of ceramic technology, which provides a useful demarcation point for archaeologists but is expected to have made less difference in the lives of the Early Woodland peoples. The settlement and subsistence patterns of Early Woodland people shows much continuity with the earlier Archaic with seasonal camps occupied to exploit specific natural resources (Spence *et al.* 1990). During the Middle Woodland well-defined territories containing several key environmental zones were exploited over the yearly subsistence cycle. Large sites with structures and substantial middens appear in the Middle Woodland associated with spring macro-band occupations focussed on utilizing fish resources and created by consistent returns to the same site (Spence *et al.* 1990). Groups would come together into large macro-bands during the spring-summer at lakeshore or marshland areas to take advantage of spawning fish; in the fall inland sand plains and river valleys were occupied for deer and nut harvesting and groups split into small micro-bands for winter survival (Spence *et al.* 1990). This is a departure from earlier Woodland times when macro-band aggregation is thought to have taken place in the winter (Ellis *et al.* 1988; Granger 1978).

The period between the Middle and Late Woodland period was both technically and socially transitional for the ethnically diverse populations of southern Ontario and these developments laid the basis for the emergence of settled villages and agriculturally based lifestyles (Fox 1990). The Late Woodland period began with some groups shifting settlement and subsistence patterns, involving an increasing reliance on corn horticulture. Corn may have been introduced into southwestern Ontario from the American Midwest as early as 600 AD. However, it did not become

a dietary staple until at least three to four hundred years later. The first agricultural villages in southwestern Ontario date to the 10th century A.D. Unlike the riverine base camps of the Middle Woodland period, Late Woodland sites are located in the uplands, on well-drained sandy soils.

In the Late Woodland period, between 900 and 1300 AD, villages tended to be small settlements with nearby camps and hamlets that served as temporary spaces for hunting game and gathering resources outside of the villages. At this time, small village sites were characterized by the presence of longhouses with villages being occupied considerably longer than later in the Woodland period. Villages tended to be moved when nearby soils had been depleted by farming and conveniently collected firewood grew scarce. The Jesuits reported that the Huron moved their villages once every 10 to 15 years as they relied less heavily on corn than did later groups, and since their villages were much smaller, there was less demand on nearby resources. Small amounts of corn appear to have been a dietary component at this time; however, archaeological evidence suggests that its role was not as a dietary staple at this time but was possibly supplemental in nature.

Between 1300 and 1400 AD, village sizes grew significantly, resulting in the development of complex community political systems. This period also marks the emergence of fully developed horticulture, including the cultivation of corn, beans, and squash. Additionally, changes in ceramic styles may reflect increasing levels of inter-community communication and integration. This is supported by Michi Saagiig (Mississauga Anishinaabeg) oral histories, which speak to the coming of the corn growers and the symbiotic relationships that Algonkian speaking groups had with the Huron-Wendat in particular.

By the beginning of the fourteenth century, larger fortified village sites were often cleared to accommodate the cultivation of corn, beans, and squash as a result of an increasing reliance on horticulture. Longhouses also continued to grow in size until 1450 AD when a decrease in house length is observed. This decrease in house length may be partially attributed to large scale drops in population size associated with the introduction of European diseases.

### **1.2.2 Post-Contact Period Settlement**

The post-contact Indigenous occupation of southern Ontario was heavily influenced by the dispersal of Iroquoian speaking peoples, including the Six Nations of the Iroquois – Mohawk, Cayuga, Oneida, Seneca, Onondaga, and Tuscarora. This was followed by the return of Algonkian speaking groups from northern Ontario, including the Michi Saagig, who had temporarily retreated to their wintering

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grounds in the mid-1600s to avoid warfare and disease as a result of colonial settlement. Algonkian speaking Ojibwe (Chippewa), Odawa (Ottawa), and Pottawatomi, known as the Three Fires Confederacy, remained in their traditional territory that covered a vast area of southern Ontario as well as eastern Michigan.

As European settlers encroached on their territory the nature of First Nation population distribution, settlement size and material culture changed. Despite these changes it is possible to correlate historically recorded villages with archaeological manifestations and the similarity of those sites to more ancient sites reveals an antiquity to documented cultural expressions that confirms a long historical continuity to systems of Indigenous ideology and thought (Ferris 2009).

It is important to note that, when discussing the historical documentation of the movement of Indigenous people, what has been documented by early European explorers and settlers represents only a very small snap-shot in time. Documentation of where Indigenous groups were residing during European exploration and settlement is restricted to only a very short period of time and does not reflect previous and subsequent movements of these groups. This brief history does not reflect the full picture of the pre- or post-contact period occupation of Indigenous groups or cultures. As such, relying on historic documentation in regards to Indigenous occupation and movement across the landscape can lead to misinterpretation. For example, noting the movement of Indigenous groups into an area may incorrectly suggest to the reader that these groups had not occupied the area previously; however, this is not the case. It is clear from Indigenous oral histories and the archaeological record that pre-contact Indigenous populations were extremely mobile and not tied to any one specific area. Over the vast period of time prior to the arrival of Europeans, Indigenous groups, language families, and cultures were fluid across the landscape.

The study area for the proposed Guelph City Operations Campus falls within the lands described in the Between the Lakes Treaty – Treaty 3 as part of the Upper Canada Land Surrenders. The Between the Lakes Purchase was signed on December 7, 1792, by representatives of the Crown and certain Mississauga people. The territory described in the written treaty covers approximately 3 million acres.

The original Between the Lakes Purchase was signed in 1784. Due to uncertainties with the description of the lands in the original surrender, Treaty 3 was entered into in 1792 to clarify what was ceded. The Between the Lakes Purchase was named as such because it included all the land lying and being between the Lakes Ontario and Erie.

## **1.2.3 Euro-Canadian Settlement**

### **Wellington County**

The study area is located in the historical Township of Guelph, County of Wellington, Ontario. Wellington County was created in 1837 by an Act of Government. It was created out of part of the Gore District and named after Arthur Wellesely, the First Duke of Wellington (Walker and Miles 1877: 3). The County of Wellington included the townships of Proton, Luther, Amaranth, Melancthon, Guelph, Garafraxa, Eramosa, Erin, Nichol, Waterloo, Wilmot, Woolwich, Peel, Mayboro and Wellesley (Walker and Miles 1877: 3). Guelph was named the County Seat. Transportation was much improved in the mid-19<sup>th</sup> century first with the Brock Road (now part of Highway 6) and then the first railway arriving in Guelph in 1852. In 1854 this railway was extended to Galt, and by 1867 the Wellington, Grey and Bruce Railway Company had been established. The railway was extended to Fergus and then Harriston in 1870 and then to Southampton in 1872. Wellington County has been an area suitable for animal husbandry since its early days. In 1837 Roland Wingfield purchased a large amount of land in Wellington and brought over Durham cattle, Southdown sheep and Berkshire hogs (Historical Atlas Publishing Co. 1906: 2-3).

### **Geographic Township of Guelph and City of Guelph**

The Geographic Township of Guelph was originally patented to the Canada Company, a British land development company, in 1829. Prior to that, a tract of land spanning from Burlington Bay to Port Burwell had been purchased by the British Crown for just over 1,000 British pounds from Algonkian-speaking Indigenous people in 1792, which would include the future Geographic Township of Guelph (Stead 2019). The City of Guelph was founded in 1827 and was selected by the first superintendent of the Canada Company, John Galt, a Scottish writer, as the location of headquarters of the company ("The Priory"), as well as his personal residence. The first frame store was built in the same year, by the firm of Gilkinson and Leaden, who was also responsible for building the first sawmill in Guelph. "The Priory" would also provide shelter for new settlers to the area before becoming the location of the Canadian Pacific Railway Priory station before its demolition. In 1845 the first newspaper was published in Guelph, and by 1851 Guelph had received a village charter. Galt was also partly responsible for the early urban planning of the township; having researched the layout of American cities such as Buffalo, Galt designed a radial plan that included five streets in a fan shape, and emphasized the importance of erecting public structures such as taverns, mills (The Guelph Mill, and later the Wellington or People's Mill), stores and schoolhouses, as well as churches

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(including what is now the Basilica of our Lady Immaculate), in order to encourage settlement. Galt first sold 50- and 100-acre lots to Scottish settlers, and the Canada Company would continue to sell lots in the area until the 1950s. Guelph would attain town status in 1855, and the establishment of the Grant Trunk Railway in 1856 allowed for easier travel, movement of goods, and further land speculation (Stead 2019). Extensive construction of limestone structures began in 1870, including the Customs House/Post Office and the Wellington Hotel, despite economic hardship in the latter half of that decade. Guelph would finally attain city status in 1879 with a population of 10,000 inhabitants. In the early 20<sup>th</sup> century it boasted a Carnegie library, seven primary schools and one secondary school (Historical Atlas Publishing Co, 1906: 4).

### **19<sup>th</sup> Century Land Use and Settlement of the Study Area**

The study area is historically located on part of Lots 3, 4 and 5, Concession 1 Division C in the Geographic Township of Guelph, Wellington County. The 1861 and the 1877 *Illustrated Historical Atlas of Waterloo and Wellington Counties* were reviewed to determine the presence of 19<sup>th</sup> century settlement features within the study area as the presence of historic features elevates the potential for the recovery of 19<sup>th</sup> century archaeological resources. The 1861 map indicates that William Allen was the landowner of the southern half of Lots 11, 4 and 5 (Figure 4). No structures are illustrated on the map, though concession roads are visible including modern day Stone Road East to the south and Watson Road South to the east. William Allan was a prosperous miller in the Township of Guelph. Allan's Mill and distillery were located on the Speed River near present-day Wellington Street East and Elizabeth Street in Guelph (AECOM 2021). The 1877 map illustrates D Allan as the landowner for Lots 4 and 5, and a homestead structure is visible on the southeast end of Lot 4. In the mid-19th century, David Allan, son of William Allen, was recognized as a prominent pioneer in the Township of Guelph. In 1840, he was hired as the contractor for the construction of the Wellington County Court House, located at 74 Woolwich Street in Guelph (AECOM 2021).

It should be noted that not all features of interest, particularly farmhouses and smaller homesteads, were mapped systematically as this would have been beyond the intended scope of the Ontario historical atlas series. In addition, given that atlases were funded by subscription, preference with regard to the level of detail included was given to subscribers. As such, the absence of structures or other features on historic atlas maps does not preclude the presence of historic features at the time the area was surveyed.

The southwestern corner of the study area includes the former Ontario Reformatory Quarry, consisting of a large limestone outcrop seemingly separated into three

different sites of extraction consisting of an exposed quarry face wall and the flat form bottom floor (Photo 9). The quarry located within Lots 3 and 4, Concession 1, District C were referred to as “The Rocks” in a 1861 survey completed by Frederick Jasper Chadwick (Provincial Land Surveyor), and in 1865, the Corporation of the Township of Guelph sold Lot 3 to David Allan (Heritage Guelph Designation Working Group 2021; AECOM 2021). The material from “The Rocks” is believed to have been used in the construction of the dam at Allan’s Mill on the Speed River, and the Grand Trunk Railway Bridge over Wellington Street at the Speed River. “The Rocks” were also a great source of dry timber for construction as well (AECOM 2021). There is evidence of at least two quarry sites in operation by David Allen, referenced in his journal documents consulted as part of the Heritage Impact Assessment completed by AECOM (2021).

In 1909, 453 hectares were purchased along York Street for the purpose of creating a new prison known as the Guelph Correctional Centre, formally known as the Ontario Reformatory. In 1910, the property was cleared in order to build roads and lay small gauge tracks to transport stone from the quarry to a lime kiln (Yorklands Green Hub n.d; AECOM 2021). The bridge and spur line were built by the Province and gave access to the CPR and the Guelph Junction Railway. The quarry located on Ontario Reformatory land provided much of the stone for the prison and surrounding area. In 1910, a lime kiln and stone crusher were built by the Eramosa River in the vicinity of “The Rocks” (Shelley 2019; AECOM 2021). Lime was made through a burning process in the wood fired kiln that was loaded with crushed stone, from the crusher. Lime is the ingredient in products such as mortar, plaster and cement. The quarry on the property provided the primary building material for extensive landscaping features, including stone walls, terraced gardens, gateways and bridges within the Ontario Reformatory grounds (Piper 2007; AECOM 2021). In addition, another quarry was opened in 1910 within the northern portion of Lot 3, Concession I-C (AECOM 2021). By 1972, the Ministry of Correctional Services discontinued the operation of the farm, and the facility was decommissioned in 2001.

## **1.3 Archaeological Context**

### **1.3.1 Natural Environment**

The study area falls within the Great Lakes St. Lawrence Lowlands – West Lowland Region physiographic region which extends from the Niagara River on a sinuous westerly and northwesterly course to the Bruce Peninsula and Manitoulin Island. The surface west of the escarpment slopes gradually southwestward through an

area of rolling topography of low relief. East of the escarpment, the land rises gently northward from Lake Ontario. The Great Lakes - St. Lawrence Lowlands border the Shield on the southeast, extending from the west end of Lake Huron and the head of Lake Erie Northeast to the Strait of Belle Isle. The lowlands are plain-like areas that were all affected by the Pleistocene glaciations and are therefore covered by surficial deposits and other features associated with the ice sheets.

Most of the study area is comprised of Farmington Loam as defined by the Canadian National Soil Database. The entire study area except for a small area at the Northern boundary is described as well drained brown loam till of depths no greater than approximately 30 cm and is very gently sloping and very stony. The Northern boundary of the study area is comprised of Burford loam described as grey-brown gravel and is also well drained and stoney.

During the Stage 1 site inspection it was identified that the centre of the study area immediately north of the limestone cliffs utilized in historic quarrying operations is a drumlin. Drumlins are elongated, teardrop-shaped hills of rock, sand, and gravel that formed under moving glacier ice.

The single most important environmental feature necessary for extended human occupation is potable water. As such, proximity to water is regarded as a useful index for the determination of potential for the presence of archaeological resources. The Eramosa River defines the Southwest boundary of the study area and would have provided immediate access to fresh water, riverine food resources, and transportation for pre-contact and historic inhabitants of the study area.

These environmental characteristics would have provided an ideal environment for both temporary and permanent settlement throughout the pre-and post-contact periods. These water sources would have served as important pre- and post-contact transportation routes as well as sources of potable water and riverine resources.

During the 19<sup>th</sup> and 20<sup>th</sup> century, rapid deforestation resulted in significant land clearance across Guelph Township and over time, the once diverse forest life and wide range of tree species and natural resources would have also been depleted as agricultural and modern residential and commercial development continued. As a result of continuing urban development, this part of southern Ontario is almost completely deforested today.

### **1.3.2 Previous Archaeological Work**

To inform the current Stage 1 archaeological assessment and further establish the archaeological context of the study area, a search of the ASDB was conducted by

AECOM to determine if any previous archeological work has been completed within the current study area or within 50 metres of the study area boundaries. Table 2 lists reports regarding previous archaeological work relevant to the study area.

**Table 2: Archaeological Reports with Relevant Background Information**

<b>Year</b>	<b>Title</b>	<b>Author</b>	<b>PIF Number</b>
<b>2001</b>	<i>Stone Road Class Environmental Assessment, Gordon Street to Watson Road, City of Guelph, Wellington County, Ontario</i>	Archaeological Services Inc. (ASI)	CIF 2000116-056
<b>2006</b>	<i>The Stage 1 Archaeological Assessment Component of the Cultural Heritage Assessment of the Guelph Correctional Centre (N00249), City of Guelph, Wellington County, Ontario ORC Project No. K80004</i>	D.R. Poulton and Associates Inc	P116-070
<b>2007</b>	<i>The Stage 2 Archaeological Assessment of Part of the Guelph Correctional Centre, 785 York Road, City of Guelph, Ontario, Realty Corporation Project Number D00251</i>	Archaeological Assessments Limited	P013-292-2007
<b>2009</b>	<i>Stage 2 Property Survey Guelph Correctional Centre, Ministry of Energy and Infrastructure, Part of Lot 12, Concession 1 Broken Front, east side of Division G, Lots 3, 4, 5, inclusive of Concession 1 and Lots 3 and 4, Division C, 785 York Road, City of Guelph, Geographic Township of Guelph, Wellington County, ORC Project #D00251</i>	Central Archaeology Group	P272-021-2008

In 2001, ASI completed a Stage 1 archaeological assessment to support an EA of Stone Road for approximately 6 kilometres from Gordon Street to Watson Road. The Stage 1 background research found that there is potential for the identification of pre-contact and historic archaeological resources throughout much of the study area. Therefore, it was recommended that any disturbance beyond the existing disturbed right-of-ways should be subject to Stage 2 archaeological assessment (ASI 2001). A portion of the ASI study area is within the current study area boundaries (Figure 10).

In 2006, D.R. Poulton and Associates completed a Stage 1 for the Guelph Correctional Centre. Their assessment found that there was potential for the identification of pre-contact and Euro-Canadian archaeological resources throughout most of their study area. They recommended further Stage 2 work (DR Poulton and Associates Inc, 2006).

In 2007 Archaeology Assessments Limited completed the Stage 2 assessment of part of the Guelph Correctional Centre. Their assessment consisted of Stage 2 test

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pit survey. They did not recover any archaeological resources and cleared the property of further archaeological concerns (Archaeology Assessments Limited, 2007).

In 2009, the Central Archaeology Group undertook a Stage 2 of the remaining sections of the Guelph Correctional Centre which had not been completed by Archaeology Assessments in 2007 but had been recommended for Stage 2 assessments by D.R. Poulton in 2006. Their assessments resulted in the recovery of archaeological resources, but background research proved that they were 20<sup>th</sup> Century sites and the study area was cleared of further archaeological resources (Central Archaeology Group. 2009).

To the best of our knowledge, there are no other reports concerning archaeological work conducted within or in close proximity (i.e., within 50 metres) of the study area; however, it should be noted that the MHSTCI does not maintain a database of all properties that have had past archaeological investigations and searches of the MHSTCI's public register do not always result in a complete listing of all archaeological work conducted in a given area. In consequence, in some cases the only way a consulting archaeologist will know that a past assessment has been conducted in a given area is if they have personal knowledge of it, or if the assessment resulted in the discovery and registration of one or more archaeological sites.

### **City of Guelph Official Plan**

The *City of Guelph Official Plan* was reviewed as part of this Stage 1 archaeological assessment. Section 4.8.6 of the Official Plan details the policies and plans in place for archaeological resources. They are:

1. The City recognizes that there are archaeological remnants of precontact and early historic habitation within the City. The Archaeological Master Plan – Planning Report (January 2001) identified lands that have the potential for the discovery of archaeological resources. Additional areas may be identified by the City on the basis of the definition for areas of archaeological potential as defined in this Plan and in relevant provincial standards and guidelines as amended.
2. Where archaeological resources or areas of potential archaeological resources have been identified or have the potential to be present on lands proposed for development or site alteration, the City shall require the preparation of an Archaeological Assessment by a consultant

archaeologist holding a valid professional license as per Section 48 of the Ontario Heritage Act.

3. Development and site alteration shall only be permitted on lands containing archaeological resources or areas of potential archaeological resources if it has been demonstrated that the significant archaeological resources have been conserved by removal and documentation, or by preservation on site. Where significant archaeological resources must be preserved on site, only development and site alteration which maintains the integrity of the archaeological resource may be permitted.
4. Development and site alteration shall not commence on lands containing archaeological resources or areas of potential archaeological resources until an Archaeological Assessment, prepared to the satisfaction of the Province and the City, has been completed that:
  - a) identifies the affected areas of archaeological potential and archaeological resources;
  - b) assesses the archaeological significance of the subject land;
  - c) recommends conservation and/or preservation measures required to retain the heritage value, attributes and integrity of the resource; and
  - d) meets the Standards and Guidelines for Consultant Archaeologists, as amended, the Ontario Heritage Act and its regulations.
5. Six Nations of the Grand River and the Mississaugas of the Credit First Nation shall be notified at such time that City of Guelph Council commences an Archaeological Master Plan and shall be invited to participate in the process.
6. Six Nations of the Grand River and Mississaugas of the Credit First Nation shall be provided notification in regards to the identification of burial sites and significant archaeological resources relating to the activities of their ancestors.

### **Municipal Registers of Heritage Properties**

A review of the City of Guelph Municipal Heritage Register was completed to determine the presence of any heritage properties or historically significant sites within or in close proximity to the study area. The results of this search identified one resource within the study area and four resources adjacent, listed in Table 3.

**Table 3: Properties on the Municipal Heritage Register**

<b>Property</b>	<b>Address</b>	<b>Status</b>
<b>Reformatory Quarry Area</b>	110 Dunlop Drive	Listed, non-designated on the heritage register under section 27 Part IV of the Ontario Heritage Act
<b>Reformatory Wooden Trestle Railway Bridge</b>	-	included in the GRWH Bridge Inventory.; non-designated on the heritage register under section 27 Part IV of the Ontario Heritage Act
<b>Ontario Reformatory (Guelph Correctional Centre lands)</b>	785 York Road	Cultural Heritage Landscape; Provincial Property of Provincial Significance Ont R 10/06; City of Guelph has published its intention to Designate under section 29 Part IV of the Ontario Heritage Act
<b>McQuillan’s Bridge (Stone Road Bridge)</b>	-	Designated under Part IV of the Ontario Heritage Act (By-law (2004)-17357A); Listed on Ontario Heritage Bridge Inventory
<b>Eramosa River</b>	-	Canadian Heritage River; Cultural Heritage Landscape; designated under section 29 Part IV of the Ontario Heritage Act

This archaeological assessment identifies known (i.e., listed, designated or otherwise recognized) heritage properties from the City of Guelph Municipal Register for Heritage Properties and AECOM’s Cultural Heritage Resource Impact Assessment only. At the time of production of this report, a Cultural Heritage Resource Impact Assessment: 80 and 110 Dunlop Drive was in development for the Project. For further information, the reader should consult the completed Cultural Heritage Report for the Project (AECOM 2021).

### **1.3.3 Known Archaeological Sites**

AECOM conducted a data search of the ASDB to determine if any registered archaeological sites are located within the study area as well as within 1 kilometre of the current study area boundaries. This search resulted in the identification of 13 registered archaeological sites, though no sites are within the current study area boundaries. Table 4 provides details on the registered archaeological sites within 1 kilometre of the current study area.

**Table 4: Registered Archaeological Sites within 1 kilometre of the Study Area**

<b>Borden #</b>	<b>Site Name</b>	<b>Cultural Affiliation</b>	<b>Site Type</b>	<b>Development Status*</b>
AjHb-27	Turf Grass Institute	Indigenous	Other – camp / campsite	No information in database
AjHb-37	-	Euro-Canadian	Homestead	No information in database
AjHb-49	Fabio	Indigenous	Findspot	No information in database
AjHb-50	Simon-Wood	Indigenous	Findspot	No information in database
AjHb-52	-	Indigenous	Findspot	No information in database
AjHb-53	-	Indigenous	Findspot	No information in database
AjHb-55	Creighton	Indigenous, Euro-Canadian	Findspot, Homestead	No information in database
AjHb-72	Murphy	Euro-Canadian	Homestead	No further CHVI
AjHb-76	Martin	-	-	No information in database
AjHb-86	Harrison House	Euro-Canadian	Farmstead	Further CHVI
AjHb-87	-	Euro-Canadian	House	Further CHVI
AjHb-88	-	Euro-Canadian	House	Further CHVI
AjHb-89	-	Euro-Canadian	House	Further CHVI

Note: \* CHVI = Cultural Heritage Value or Interest

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

### 1.3.4 Existing Conditions

The study area is located at 110 Dunlop Drive in the City of Guelph and is approximately 164.83 hectares in size. It consists of built up industrial area, a storm management pond, a large mound of dirt, some open meadow areas and some areas of scrub brush. There are gravel access roads leading to piles of fill, and a small wetland and wooded area along Watson Parkway South. A water reservoir from the 1930s is in the northeast corner, along with a channelized ditch to the south. Some remnants of the quarry operations are visible above ground, and

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include the remnants of the Canadian Pacific Railway spur, a timber retaining wall, a concrete base for the stone loader, and evidence of the three extraction sites with the exposed quarry faces and flat-form bottom floors.

Existing buildings on the property include the Water Resources Innovation Center, and associated infrastructure and outbuildings.

## 2. Stage 1 Property Inspection

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In order to confirm existing conditions and areas of disturbance not visible in the mapping or satellite imagery within the study areas, an optional Stage 1 property inspection was conducted by AECOM on May 6, 2021 under the direction of Joshua Keddy [P484]. The inspections were completed in accordance with Section 1.2 Property Inspection in the *Standards and Guidelines for Consultant Archaeologists* (MHSTCI, 2011), including conducting the property inspections in weather and lighting conditions which permit good visibility of land features. The weather for May 6, 2021 was 13°C and sunny. The conditions and results of the property inspection can be seen in **Section 8: Images**.

During the property inspection, photographs were taken to document the character of the study area including general landscapes and areas with recent development or disturbance (**Section 7: Images 1-13**). **Figure 11** in **Section 8** show the results of the Stage 1 property inspection. Section 1.3.2 of the *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011) details what sort of land alterations caused damage and remove archaeological potential. These include quarrying, major landscaping involving grading below topsoil, building footprints, and sewage and infrastructure developments.

Approximately 50% of the study area consists of some manicured lawn, overgrowth and scrub brush, 40% has been previously disturbed, and 10% is permanently wet. Areas of disturbance consist of the utilities required for the operation of the storm water management pond with associated utilities and ditching in the northeast corner, the existing Water Resources Innovation Center in the centre of the property with associated utilities and infrastructure, and a large area of soil and earth works located in the south central portion of the study area along Stone Road East. The wet areas are located in the northeast portion (storm water pond) and the southeast portion of the study area.

## **3. Analysis and Conclusions**

### **3.1 Determination of Archaeological Potential**

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. Criteria commonly used by the MHSTCI to determine areas of archaeological potential are listed in Section 1.3.1 of the *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011). Distance to modern or ancient water sources is generally accepted as the most important element for past human settlement patterns and when considered alone may result in a determination of archaeological potential. In addition, any combination of two or more of the listed criteria indicates archaeological potential.

Based on a review of the historical, environmental, and archaeological context of the study area, it has been determined that potential for the recovery of pre- and post-contact First Nation and 19<sup>th</sup> century Euro-Canadian archaeological resources within the study area is high based on the presence of the following features:

- Proximity to previously identified archaeological sites (13 sites within 1 kilometre);
- Distance to various types of water sources (Eramosa River on southwestern boundary of study area);
- Soil texture and drainage;
- Glacial geomorphology, elevated topography and the general topographic variability of the area (Drumlin);
- Resource areas including food or medicinal plants, scarce raw materials and early Euro-Canadian industry (Ontario Reformatory Quarry, aka “The Rocks”);
- Areas of early Euro-Canadian settlement and early transportation routes;
- Historic landmarks or sites (Guelph Correctional Centre, aka Ontario Reformatory).

Certain features indicate that archaeological potential has been removed, such as land that has been subject to extensive and intensive deep land alterations that have severely damaged the integrity of any archaeological resources. This includes landscaping that involves grading below the topsoil level, building footprints, quarrying and sewage and infrastructure development (Ontario Government 2011).

This includes land within and surrounding the Water Resources Innovation Center, and the water reservoir and channelized ditching. Soil piles are located within the south central portion of the study area along Stone Road East.

## **3.2 Conclusions**

AECOM's Stage 1 background study of the Guelph City Operation Campus study area has determined that the potential for the recovery of archaeological resources is high, given the proximity of the study area to previously identified archaeological sites, access to water sources, areas of early Euro-Canadian settlement and early transportation routes, properties that local histories or informants have identified with possible archaeological sites, historical events, activities or occupants, historic landmarks and sites. Areas where archaeological potential has been removed include areas determined to have been subject to extensive land alterations that have significantly compromised the recovery of archaeological materials and constructed roadways. All potentially undisturbed areas must be subject to Stage 2 field survey.

## 4. Recommendations

Given the results of this assessment, AECOM makes the following recommendations:

1. The areas shaded green in Figure 11 contain archaeological potential. These areas must be subject to Stage 2 archaeological assessment unless they have been previously assessed by another Consulting Firm (**Figure 6**) before any land alteration takes place, in accordance with *Section 2.1 Property Survey of the Standards and Guidelines for Consultant Archaeologists* (2011).
2. Much of the study area has been subject to deep and extensive disturbance from previous residential and commercial development, as well as the construction of roadways and associated infrastructure (red shaded areas in **Figure 11**). These areas are cleared of further archaeological concerns.

The MHSTCI is asked to accept this report into the Ontario Public Register of Archaeological Reports thereby concurring with the recommendations presented herein. As further archaeological assessment is required, archaeological concerns for the City Operations Campus in the City of Guelph, Ontario have not been fully addressed.

## **5. Advice on Compliance with Legislation**

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

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

Should previously undocumented 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*.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to section 48 (1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological license.

The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force in 2012) require that any person discovering human remains must notify the police or coroner and the Registrar of Burial Sites, War Graves, Abandoned Cemeteries, and Cemetery Closures.

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## **7. Images**

**Photo 1: Overview, facing Southwest.**



**Photo 2: Overview of drumlin, facing North.**



**Photo 3: Overview of cliff and lowlands in Southwest corner of study area, facing Southeast.**



**Photo 4: Overview of Northeast corner of study area, note large displaced mounds of disturbed soil. Possible undisturbed flat area on near side of silt fence.**



**Photo 5: Overview of waste-water storage pond, facing Southeast.**



**Photo 6: Overview of Southwest boundary of study area. Gently rolling, not obviously disturbed, facing East.**



**Photo 7: Remnant of historic quarry behind modern plant at Southwest study area boundary beside Eramosa River, facing Northeast.**



**Photo 8: Overview of scrubby area between drumlin and Stone Road at South of study area, facing Southeast.**



**Photo 9: Overview of historic quarry in Southwest corner of study area, facing East.**



**Photo 10: Overview of meadow area along Eramosa River edge at West boundary of study area, facing Southeast.**



**Photo 11: Overview of built up area in solid waste processing portion of study area, facing Southwest.**



**Photo 12: Waste water ditch, disturbed, facing South.**



**City of Guelph**

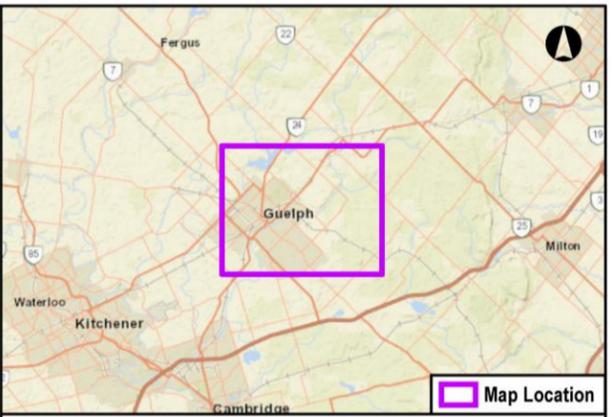
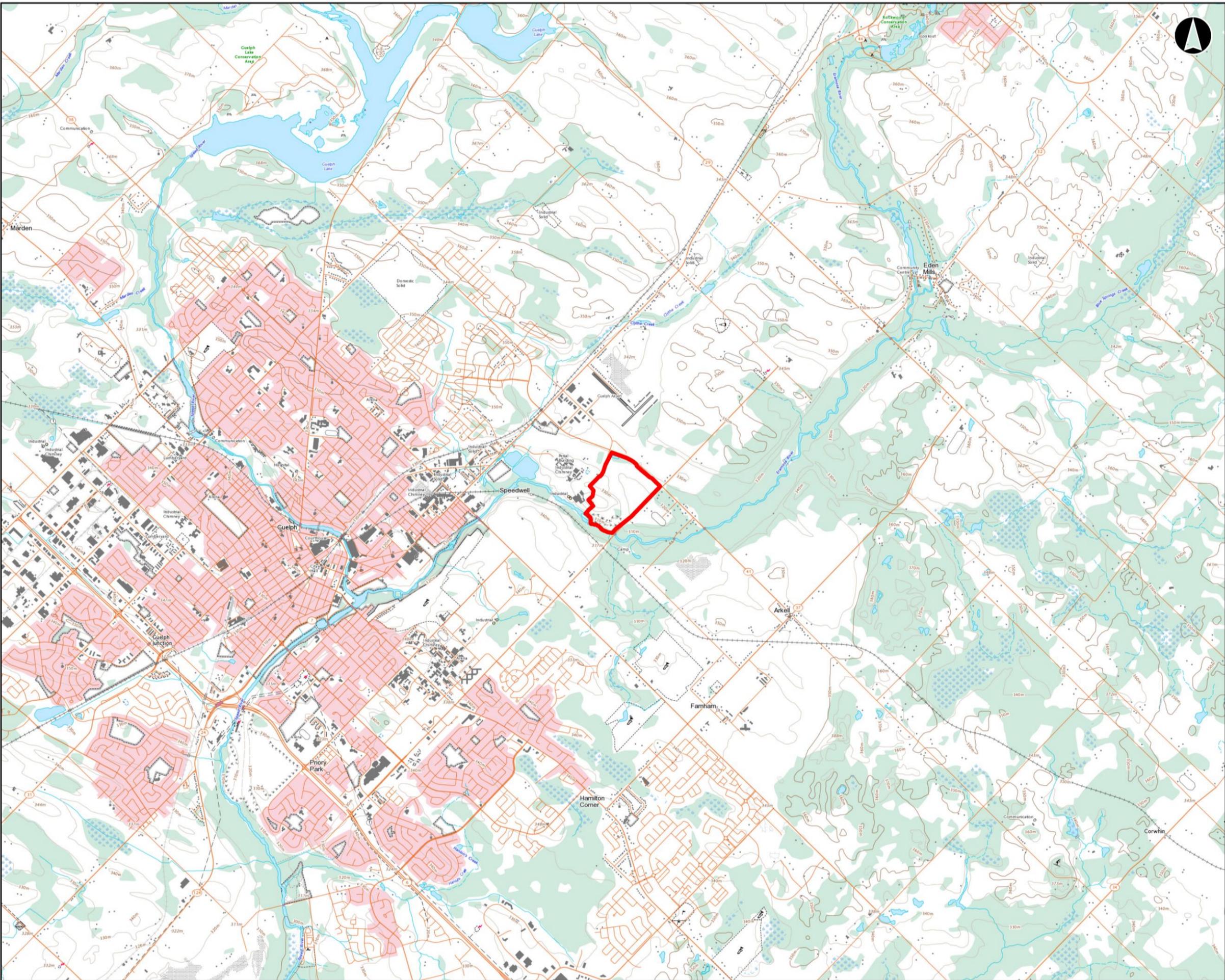
Stage 1 Archaeological Assessment, City Operations Campus

**Photo 13: Overview of scrubby disturbed area with excavated waste water canals, facing Southeast.**



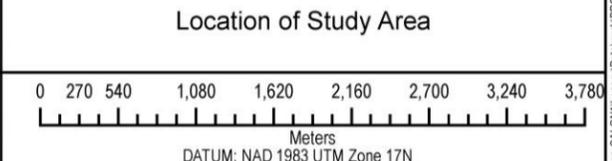
## **8. Figures**

All figures pertaining to the Stage 1 archaeological assessment for the City Operations Campus in City of City of Guelph, Ontario are provided on the following pages.



**Legend**  
 Study Area

**Stage 1 Archaeological Assessment  
 City Operations Campus, 110 Dunlop Drive  
 City of Guelph, Ontario**



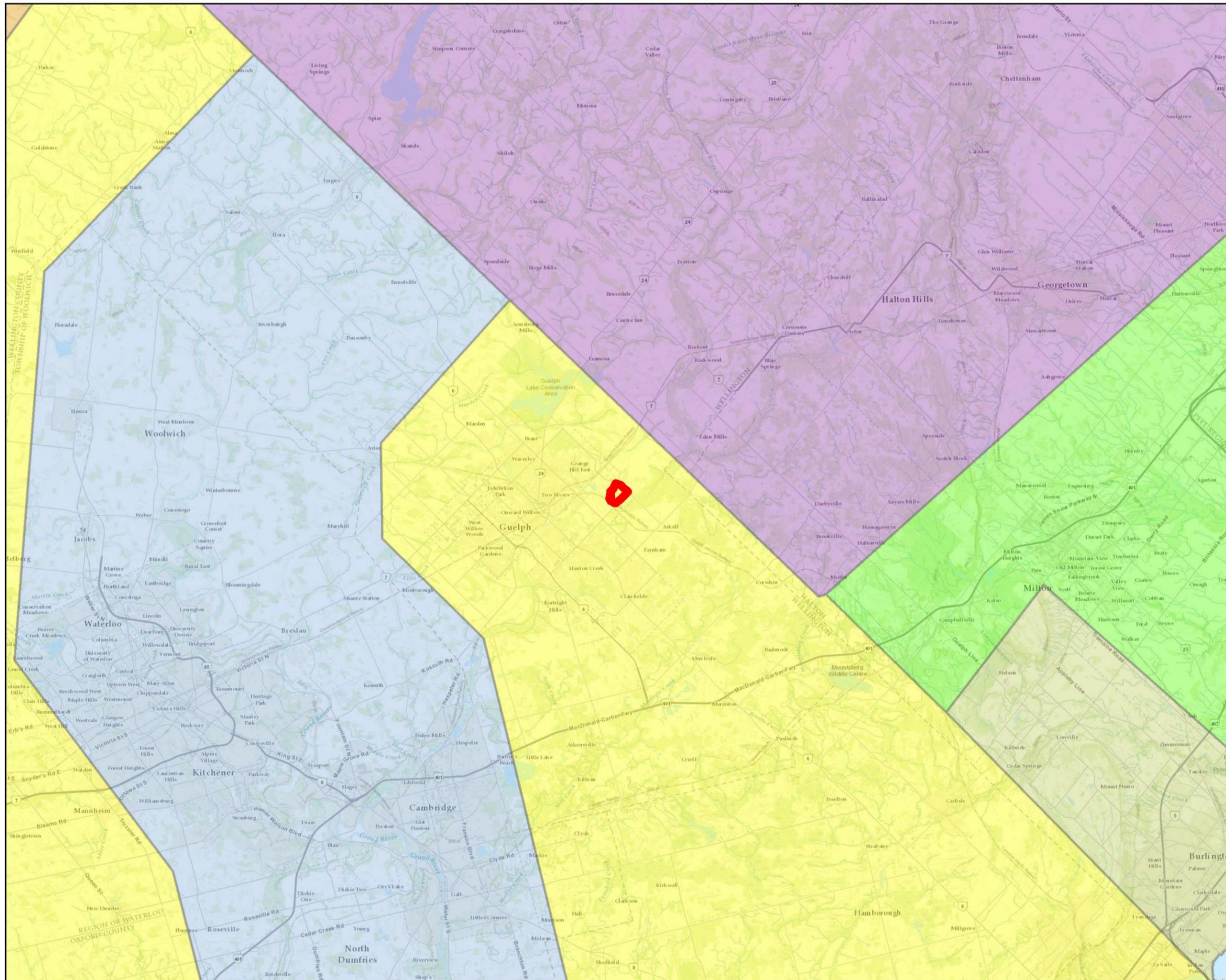
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P#: 60653073	V#:	

**AECOM** **Figure 1**

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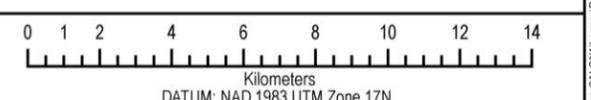


**Legend**

- Study Area
- Treaty**
- Ajetance Purchase, Treaty 19, October 28, 1818
- Between the Lakes Purchase, Treaty 3, December 2, 1792**
- Brant Tract, Treaty 3 3/4, October 24, 1795
- Crown Grant to the Six Nations or Haldimand Tract, Treaty 4, January 14, 1793
- Head of the Lake Purchase, Treaty 13A, August 2, 1805
- Huron Tract Purchase, Treaty 29, August 13, 1833

**Stage 1 Archaeological Assessment  
City Operations Campus, 110 Dunlop Drive  
City of Guelph, Ontario**

**Ontario Treaties Map**



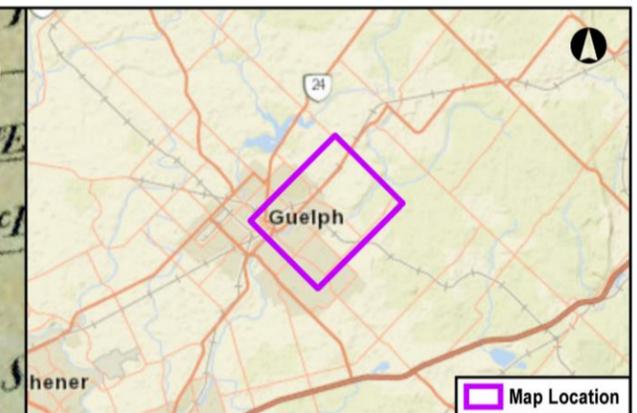
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**Figure 3**

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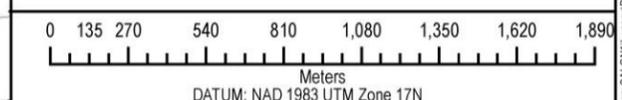
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**Legend**  
 Study Area

Stage 1 Archaeological Assessment  
 City Operations Campus, 110 Dunlop Drive  
 City of Guelph, Ontario

Study Area Overlaid on the 1861 Wheelock Map

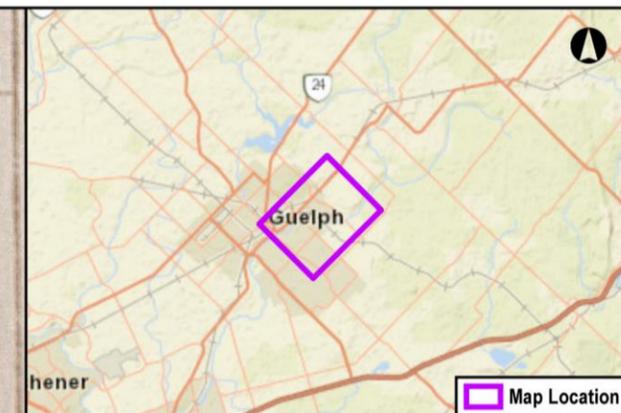


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**AECOM** **Figure 4**

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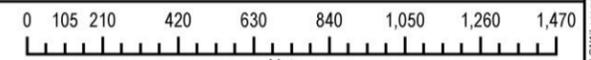
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**Legend**  
 Study Area

Stage 1 Archaeological Assessment  
 City Operations Campus, 110 Dunlop Drive  
 City of Guelph, Ontario

Study Area Overlaid on 1877  
 Illustrated Historical Atlas Features



DATUM: NAD 1983 UTM Zone 17N

July 2021  
 P#: 60653073

1:20,000  
 V#:  
Source: MNRF 2020  
 Image Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap

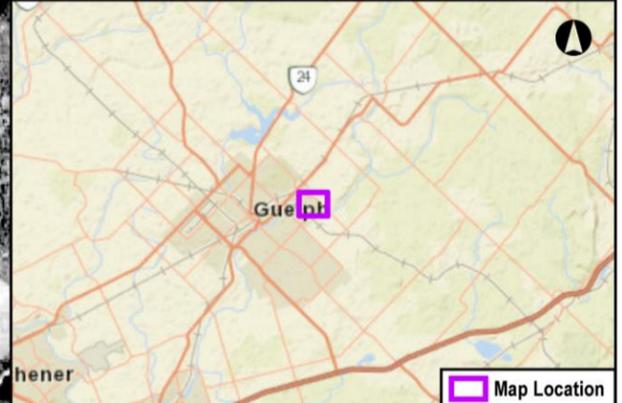
**AECOM** **Figure 5**

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Map location: \\na.aecomnet.com\GIS\MERL\London-CALONT\Legacy Data\work\PROJECT\60653073 - Dunlop Drive\60-CAD\_GIS\2020-09-29 (GIS-Graphics)\Design\01\_Repos\AAS11\_Figs-StudyArea1877.mxd  
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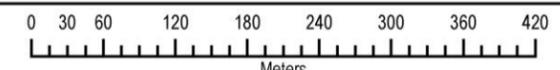
Map Location

**Legend**

 Study Area

Stage 1 Archaeological Assessment  
 City Operations Campus, 110 Dunlop Drive  
 City of Guelph, Ontario

Study Area Overlaid on the  
 1966 Aerial Map



DATUM: NAD 1983 UTM Zone 17N

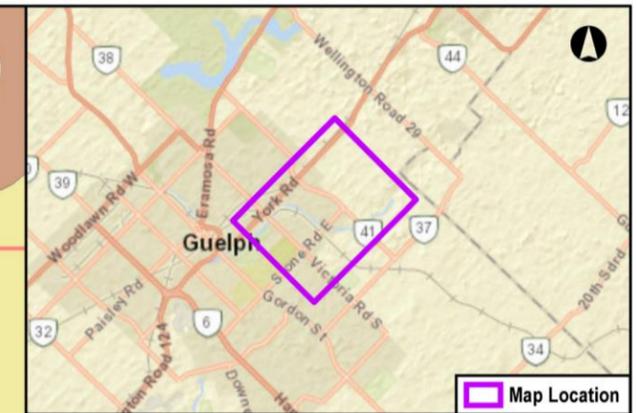
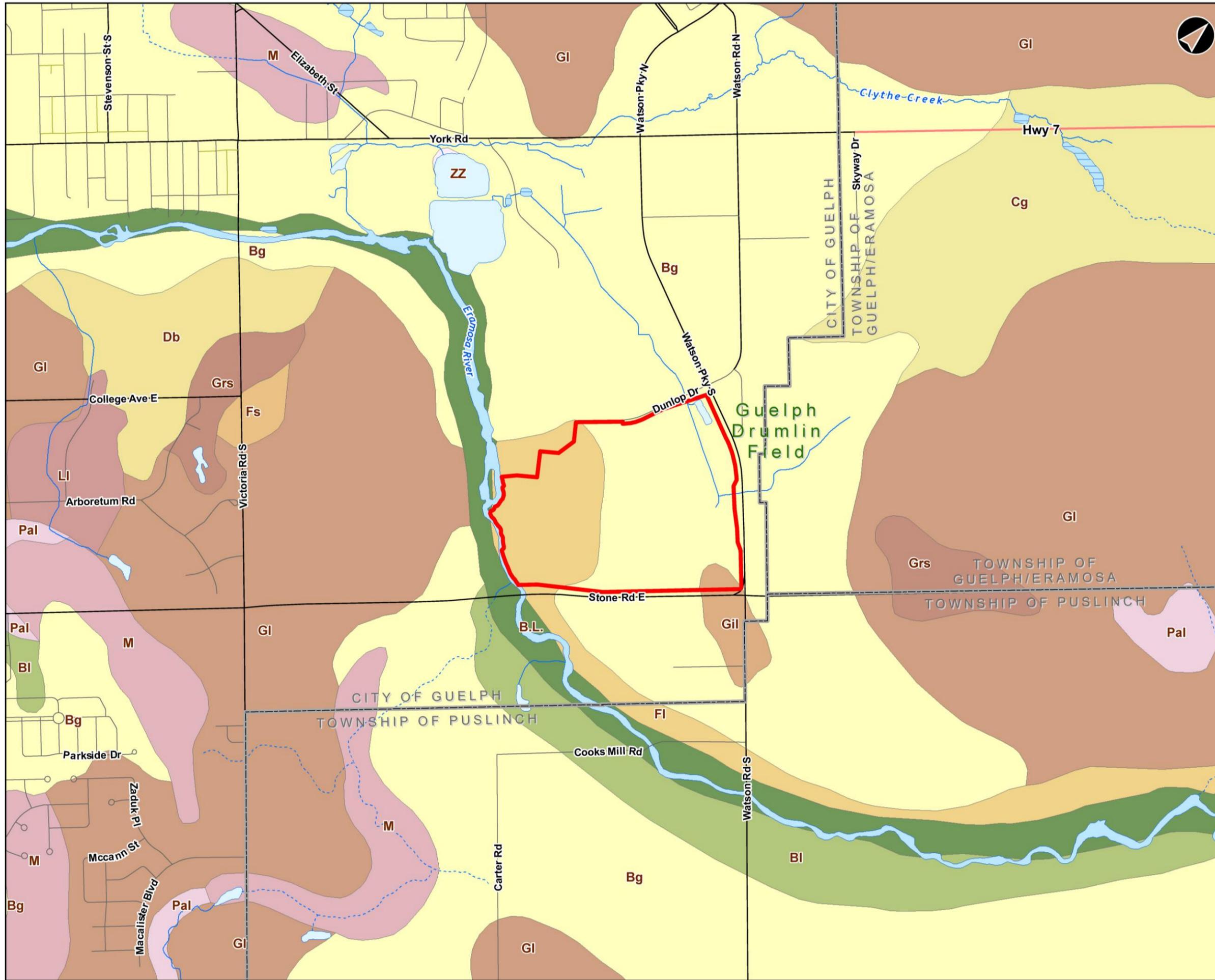
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P#: 60653073	V#:	

**AECOM**

**Figure 8**

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**Legend**

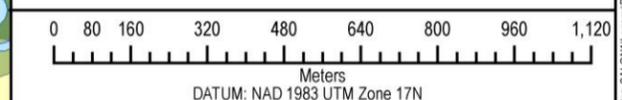
- Study Area
- Ontario Municipalities
- Physiographic Region

**Soils**

- B.L. - Unclassified
- Bg - Burford, Loam
- Bl - Brisbane, Loam
- Cg - Caledon, Fine Sandy Loam
- Db - Donnybrook, Sandy Loam
- FI - Farmington, Loam
- Fs - Fox, Sandy Loam
- Gil - Gilford, Loam
- GI - Guelph, Loam
- Grs - Granby, Sandy Loam
- LI - London, Loam
- M - Unclassified, Organic
- Pal - Parkhill, Loam
- ZZ - Water

**Stage 1 Archaeological Assessment  
City Operations Campus, 110 Dunlop Drive  
City of Guelph, Ontario**

**Soils and Physiography of the Study Area**

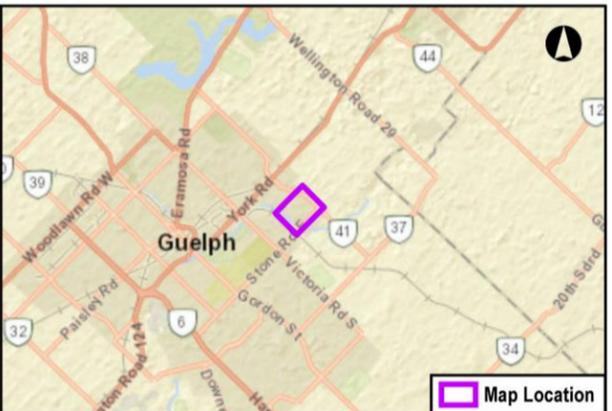
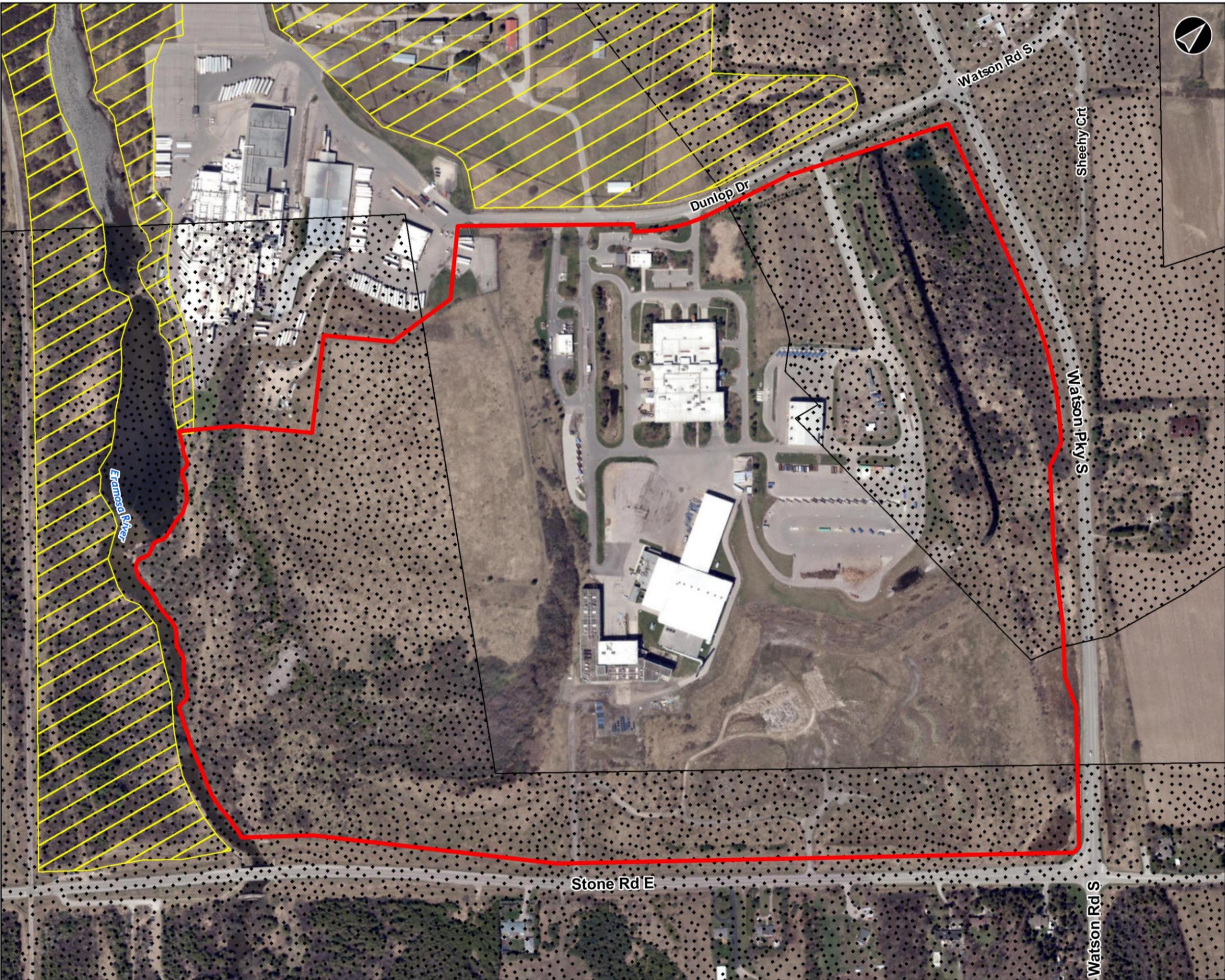


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**AECOM** **Figure 9**

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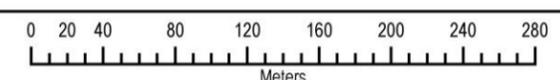
Map Location

**Legend**

- Study Area
- Previously Assessed (CAG 2009)
- Archaeological Potential (ASI 2001)

**Stage 1 Archaeological Assessment  
City Operations Campus, 110 Dunlop Drive  
City of Guelph, Ontario**

Previous Archaeological Assessment



DATUM: NAD 1983 UTM Zone 17N

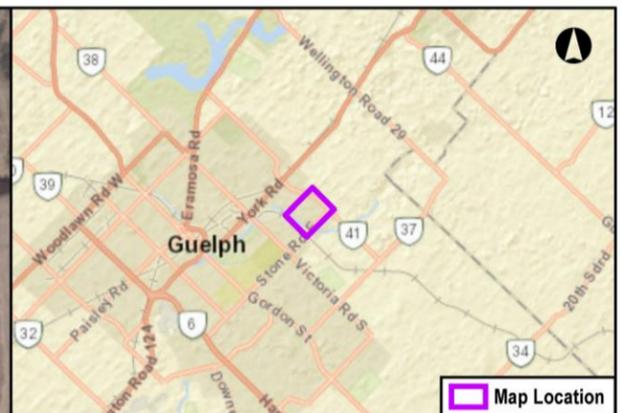
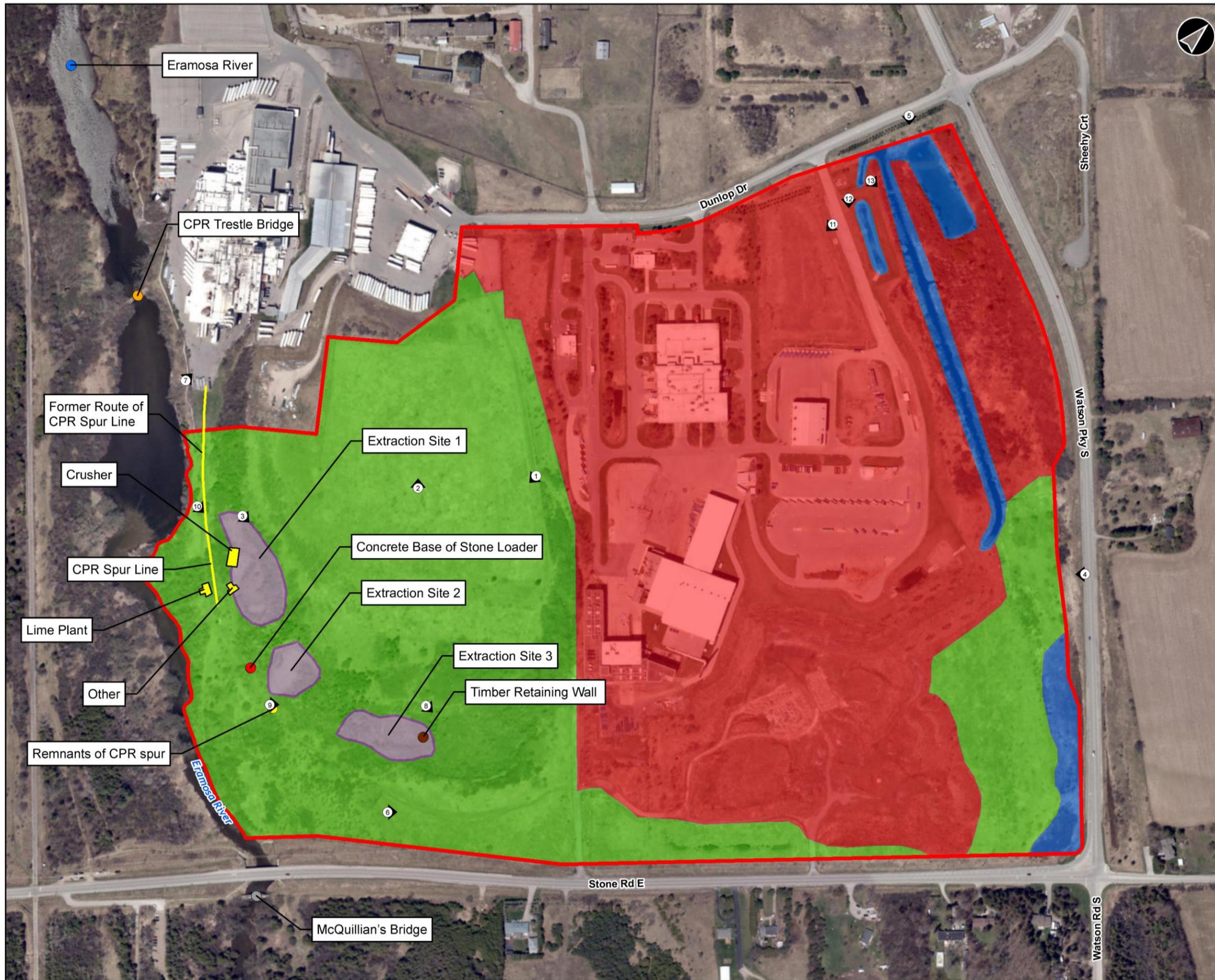
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P#: 60653073	V#:	

**AECOM**

**Figure 10**

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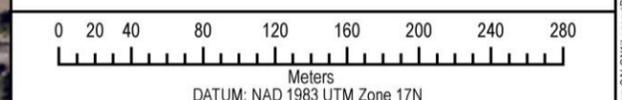
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Date saved: 7/22/2021 4:15:30 PM User Name: cabb



- ### Legend
- Photo Location and Direction
  - Concrete Base of Stone Loader
  - Timber Retaining Wall
  - CPR Trestle Bridge
  - Eramosa River
  - McQuillian's Bridge
  - The Ontario Reformatory Property at 785 York Road
  - Remnants of CPR spur
  - Former Route of CPR Spur Line
  - Extraction Site
  - Ontario Reformatory Building Footprints (1921)
  - Study Area
  - Test Pit Survey Required
  - Wet and Low-lying
  - Visually Confirmed Disturbance

**Stage 1 Archaeological Assessment  
City Operations Campus, 110 Dunlop Drive  
City of Guelph, Ontario**

**Results of Stage 1 Archaeological Assessment**



September 2021	1:4,000 when printed 11"x17"	Source: MNRF 2020 Image: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Sources: Esri, HERE, Garmin, USGS, Intermap,
P#: 60653073	V#:	

<b>AECOM</b>	<b>Figure 11</b>
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