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ORIGINAL REPORT

Stage 1 Archaeological Assessment

Proposed Residential Development
800 Cedarview
Concession 4 R.F., Part Lots 21, 22, 23, 24, 25
Geographic Township of Nepean
City of Ottawa, Ontario

Prepared For
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Report: PA1103-1

1.0 Executive Summary

Paterson Group was contracted by Mattamy Homes to conduct a Stage 1 archaeological assessment of 800 Cedarview, on Part Lots 21, 22, 23, 24, and 25 Concession 4 R.F., in the former township of Nepean, Carleton County (Map 1). Mattamy Homes is planning to develop the property for residential use (Map 2). This archaeological assessment was required by the City of Ottawa as part of the Draft Plan of Subdivision application process under the Planning Act.

The Stage 1 assessment included a review of updated Ontario Ministry of Tourism, Culture and Sport (MTCS) archaeological site databases, a review of relevant environmental, historical and archaeological literature, primary historical research, including: historical maps and land registry records. Small portions of the northern half of the study area and the majority of the southern half were found to exhibit archaeological potential.

Based on the results of this investigation it is recommended:

1. A Stage 2 archaeological assessment be conducted for portions of the study area as seen in Map 8 by a licensed consultant archaeologist using the test pit survey method at five metre intervals as per Section 2.1.2 of the Standards and Guidelines for Consultant Archaeologists (Ministry of Tourism Culture and Sport 2011).
2. A portion of the study area meets the criteria for exclusion from survey as per Section 1.4 Standard 1.f., which indicates areas deeply disturbed by former aggregate extraction and Section 2.1 Standard 2.a. i., (MTCS 2011), which includes areas that are permanently wet (Map 8).

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3.0 Project Personnel

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4.0 Project Context

4.1 Development Context

Paterson Group was contracted by Mattamy Homes to conduct a Stage 1 archaeological assessment of 800 Cedarview, on Part Lots 21, 22, 23, 24, and 25 Concession 4 R.F., in the former township of Nepean, Carleton County (Map 1). Mattamy Homes is planning to develop the property for residential use (Map 2). This archaeological assessment was required by the City of Ottawa as part of the Draft Plan of Subdivision application process under the Planning Act.

The City of Ottawa has an archaeological management plan which was developed in 1999, *The Archaeological Resource Potential Mapping Study of the Regional Municipality of Ottawa-Carleton*. The management plan covers the Township of Nepean (Archaeological Services Inc. and Geomatics International Inc. 1999). According to the management plan, large portions of Lots 21, 22, 23, 24, and 25 have archaeological potential, triggering the assessment process (Map 3).

At the time of the archaeological assessment, the study area was owned by Mattamy Homes. Permission to access the study property was granted by Mattamy Homes prior to the commencement of any field work; no limits were placed on this access.

4.2 Historical Context

4.2.1 Historic Documentation

The study area is located in the geographic township of Nepean, former County of Carleton. Nepean was one of the first townships in the country to be surveyed (Belden 1879). The early history of Nepean is best described in Bruce Elliot's *The City Beyond: A History of Nepean, Birthplace of Canada's Capital* (1991). Other useful resources include Sara Craig's *Hello Nepean* (1974), *The Carleton Saga* by Harry and Olive Walker (1968), Courtney Bond's *The Ottawa Country* (1968), and Belden's *Illustrated Historical Atlas of Carleton County* (1879).

4.2.2 Pre-Contact Period

The Ottawa Valley was not hospitable to human occupation until the retreat of glaciers and the draining of the Champlain Sea, some 10,000 years ago. The Laurentide Ice Sheet of the Wisconsinian glacier blanketed the Ottawa area until about 11,000 B.P. At this time the receding glacial terminus was north of the Ottawa Valley, and water from the Atlantic Ocean flooded the region to create the Champlain Sea. The Champlain Sea encompassed the lowlands of Quebec on the north shore of the Ottawa River and most of Ontario east of Petawawa, including the Ottawa Valley and Rideau Lakes. However, by 10,000 B.P. the Champlain Sea was receding and within 1,000 years was gone from Eastern Ontario (Watson 1990:9).

By circa 11,000 B.P., when the Ottawa area was emerging from glaciations and being flooded by the Champlain Sea, northeastern North America was home to what are commonly referred to as the Paleo-Indian people. For Ontario the Paleo-Indian period is divided into the Early Paleo-Indian period (11,000 - 10,400 B.P.) and the Late Paleo-Indian period (10,500-9,400 B.P.), based on changes in tool technology (Ellis and Deller 1990). The Paleo people, who had moved into hospitable areas of southwest Ontario (Ellis and Deller 1990), likely consisted of small groups of exogamous hunter-gatherers relying on a variety of plants and animals who

ranged over large territories (Jamieson 1999). The few possible Paleo-Indian period artifacts found, as surface finds or poorly documented finds, in the broader region are from the Rideau Lakes area (Watson 1990) and Thompson's Island near Cornwall (Ritchie 1969:18). In comparison, little evidence exists for Paleo-Indian occupations in the immediate Ottawa Valley, as can be expected given the environmental changes the region underwent, and the recent exposure of the area from glaciations and sea. However, as Watson (1999:38) suggests, it is possible Paleo-Indian people followed the changing shoreline of the Champlain Sea, moving into the Ottawa Valley in the late Paleo-Indian Period, although archaeological evidence is absent.

As the climate continued to warm, the ice sheet receded further allowing areas of the Ottawa Valley to be travelled and occupied in what is known as the Archaic Period (9,500 – 2,900 B.P.). This period is generally characterized by increasing populations, developments in lithic technology (e.g., ground stone tools), and emerging trade networks. Archaic populations remained hunter-gatherers with an increasing emphasis on fishing. Sites from this period in the region include Morrison's Island-2 (BkGg-10), Morrison's Island-6 (BkGg-12) and Allumette Island-1 (BkGg-11) near Pembroke, and the Lamoureaux site (BiFs-2) in the floodplain of the South Nation River (Clermont 1999).

The Woodland Period is characterized by the introduction of ceramics. Populations continued to participate in extensive trade networks that extended across much of North America. Social structure appears to have become increasingly complex with some status differentiation recognized in burials. Towards the end of this period domesticated plants were gradually introduced to the region. This coincided with other changes including the development of semi-permanent villages. The Woodland period is commonly divided into the Early Woodland (1000 – 300 B.C.), Middle Woodland (400 B.C. to A.D. 1000), and the Late Woodland (A.D. 900 – European Contact) periods.

The Early Woodland is typically noted via lithic point styles (i.e., Meadowood bifaces) and pottery types (i.e., Vinette I). Early Woodland sites in the Ottawa Valley region include Deep River (CaGi-1) (Mitchell 1963), Constance Bay I (BiGa-2) (Watson 1972), and Wyght (BiGa-11) (Watson 1980). The Middle Woodland period is identified primarily via changes in pottery style (e.g., the addition of decoration). Some of the best documented Middle Woodland Period sites from the region are from Leamy Lake Park (BiFw-6, BiFw-16) (Laliberté 1999).

The identification of pottery traditions or complexes (Laurel, Point Peninsula, Saugeen) within the Northeast Middle Woodland, the identifiers for the temporal and social organizational changes signifying the Late Woodland Period, subsequent phases within in the Late Woodland, and the overall 'simple' culture history model assumed for Ontario at this time (e.g., Ritchie 1969; Wright 1966, 2004) are much debated in light of newer evidence and improved interpretive models (Engelbrecht 1999; Ferris 1999; Hart 2012; Hart and Brumbach 2003, 2005, 2009; Hart and Englebrecht 2012; Martin 2008; Mortimer 2012). Thus the shift into the period held as the Late Woodland is extremely fuzzy. Needless to say there are general trends for increasingly sedentary populations, the gradual introduction of agriculture, and changing pottery and lithic styles. However, nearing the time of contact, Ontario was populated with somewhat distinct regional populations that broadly shared many traits. In the southwest, in good cropland areas, groups were practicing corn-bean-squash agriculture in semi-permanent, often palisaded villages which are commonly assigned to Iroquoian peoples (Wright 2004:1297-1304). On the shield and in other non-arable environments, including portions of the Ottawa Valley, there seems to remain a less sedentary lifestyle often associated with the Algonquian groups noted in the region at contact (Wright 2004:1485-1486).

4.2.3 Contact period

Initial contact between the Ottawa Valley Algonquian groups and European explorers occurred during Champlain's travels in 1613. At this time the Algonquian people along the Ottawa River Valley, an important and long-standing trade route to the interior, were middle-men in the rapidly expanding fur-trade industry and alliances were formed or reinforced with the French. Early historical accounts note many different Algonquian speaking groups in the region at the time. Of note for the lower Ottawa Valley area were the Kichesipirini (focused around Morrison Island); Matouweskarini (upstream from Ottawa, along the Madawaska River); Weskarini (around the Petite Nation, Lièvre, and Rouge rivers west of Montreal), Kinouchepirini (in the Bonnechere River drainage); and the Onontchataronon, (along the South Nation River) (Joan Holmes & Associates 1993; Morrison 2005; Pilon 2005). However, little archaeological work has been undertaken of contact period Algonquins (Pilon 2005).

Starting in the 1630s and continuing into the 1700s, European disease spread among the Algonquian groups along the Ottawa River, bringing widespread death (Trigger 1986:230). Additionally, up to 1650 warfare and raiding into the lower Ottawa Valley by the Five Nation Iroquois forced the various Algonquin groups from the area (Morrison 2005:26). By 1701 the Iroquois had been driven from most of southern Ontario and the Ottawa Valley was occupied by the Algonquin Nation (Morrison 2005:27-28).

A traditional lifeway was continued by many of the Algonquian groups in the lower Ottawa Valley above Montreal through to the influx of European settlement in the late 1700s and early 1800s. This included bands noted to be living along the Gatineau River and other rivers flowing into the Ottawa. These traditional bands maintained a seasonal round focused on harvesting activities into the 1800s when development pressures and assimilation policies implemented by the colonial government saw Algonquian lands taken up, albeit under increasing protest and without consideration for native claims, for settlement and industry

4.2.4 Post-Contact Period

The Township of Nepean was first surveyed in 1794, and was named for Sir Evan Nepean, a British Administrator (Elliot 1991). It was laid out in the typical mile and a quarter concessions, but had two fronts: one facing the Ottawa River, and one facing the Rideau River (Belden & Co. 1971:207). Settlement during the first 30 years after survey was slow and by 1822 Nepean's population was only 191, divided between 35 families (Elliot 1991:13). Most of the township was initially granted to United Empire Loyalists and then changed hands, but was never settled (Elliot 1991:6).

The first settler in Nepean was Ira Honeywell, who in 1810 built a cabin on the Ottawa River (Elliot 1991:9). Ira was given 1,000 acres (five U.E.L. claims) that his father Rice Honeywell of Prescott had acquired from Loyalists that had not settled but instead sold off their claims (Belden & Co. 1971:207). In 1814, American Jerard B. Chapman became Nepean's second settler, establishing himself near the Jock River (Elliot 1991:10). Road surveys in the late 1820s and early 1830s led to some settlement in the interior of Nepean, and the establishment of communities such as Jockvale.

The population of Nepean did not see major increases until influxes of immigrants and settlers began with the construction of the Rideau Canal and more so into the mid 1800s. By 1851, the Township of Nepean had grown to 3,800 inhabitants. At this time there were 21 stone houses, 21 frame houses, 306 log cabins and 238 shanties. By 1861, 4,410 people called Nepean home, living in 36 stone houses, 45 frames houses, and 539 log cabins (Bond 1968:22-24). By 1878, Nepean was the wealthiest township of Carleton County. It had a population of 7,031.

The 60,774 acres that encompassed the township held 2,540 head of cattle, 2,504 sheep, 1,399 horses, and 1,117 pigs (Belden & Co. 1971:105).

4.2.5 Study Area Specific History

Lot 21

Lot 21, Concession 4 R.F. was subdivided amongst the O'Keefe family, with multiple dwellings as early as 1863 (Map 4). At this time the lot shows M. O'Kief [sp] (Michael) at the western side, a D. O'Kief [sp] (David) centrally located on the southern side, P. (Patrick) O'Kief in the southeast corner, and a Jno (Jonathan) Burns to the north of that. Notably, none of the structures are within the study area.

The 1851 census of Nepean Township provides some insight into the O'Keefe family and lists Michael (Sr.) O'Kief at age 68. He is a farmer of Irish decent, married to Ester, age 44, from Lower Canada. In 1851 they had eight children ranging in age from 28 to 4: Patrick, David, Ellen, Michael (Jr.), Margaret, Cornelius, Johannah, Bridged, and Francis. An eleventh resident, Mary O'Kief, is listed last in the chronologically ordered census of the dwelling at age 24; she is likely a wife of one of the elder sons. At the time, all 11 people lived in a single story log house (Statistics Canada 1851).

By 1871, Michael Sr. was deceased, leaving his widow Ester living with their son Francis (as the head of the household), and daughter Johanna (Statistics Canada 1871). At this time Patrick and David are listed in the census in their own homes, which are also shown in the 1879 map (Map 4) where the more formal division of the lot is noted. Again at this time there are no structures within the study area. The O'Keefe family maintained a presence in the area for generations, and today the street fronting the property is named for the family.

Lot 22

Lot 22, Concession 4 R.F. was unoccupied as early as 1863 (Map 4). By 1879, Lot 22 had been subdivided amongst James Lyttle on the west, James Byrne, P. Byrne, and P. Moylan on the east (Map 4). James Lyttle, who also owned property in Lot 23, is listed in the 1871 Census of Canada (Statistics Canada 1871) as a 31-year-old Canadian farmer married to Letitia Lyttle and with two young children: Elizabeth and Adela. There is no information in the 1871 Census about a James Byrne, however the 1861 Census lists John Byrne, a 50-year-old Irish man, as living in Nepean (Statistics Canada 1861). Peter Byrne is listed in the 1871 census as a 35-year-old Irish farmer married to Johanna Byrne and with one child, Catherine, aged 1 (Statistics Canada 1871). There is no information in the 1851, 1861, or 1871 Censuses for P. Moylan, who also owned property on Lot 25. The eastern half of the Lyttle property and western edge of the J. Byrne family lie within the study area. A structure indicated on the 1879 map on the Lyttle property is included within the study area and the structure indicated on the J. Byrne property is outside of the study area.

Lot 23

Lot 23, Concession 4 R.F., was unoccupied as early as 1863 (Map 4). By 1879 Lot 23 was subdivided amongst W. Brennan, F. Flood, W. Scott, and J. Lyttle (Map 4). In the 1871 Census of Canada (Statistics Canada 1871) William Brennan is listed as an unmarried 23-year-old Canadian carpenter. Francis Flood is listed as a 33-year-old Canadian farmer married to Eliza Flood and with 5 children under the age of 10: Mary, Eliza, William, Francis, and Albert. William Scott is listed as a 67-year-old Irish farmer married to Letitia Scott. James Lyttle, as

previously discussed in Lot 22, was a 31-year-old Canadian farmer married to Letitia Lyttle and with two young children: Elizabeth and Adela. The eastern edge of the Brennan property, all the Flood property, and the western edge of the Scott property are included within the study area. Structures indicated on the 1879 map for the Brennan and Flood property are within the study area while the structure indicated on the Scott property is outside of the study area.

Lot 24

Lot 24, Concession 4 R.F. was occupied as early as 1863 by T.G. Anderson (Map 4). T.G. (Thomas G.) Anderson is listed in the 1851, 1861, and 1871 Censuses of Canada (Statistics Canada 1851, 1861, 1871) as being a Scottish farmer married to Cynthia Anderson with 8 children, whose ages in 1871 ranged from 30 to 13: John, Daniel, Thomas, Henrietta, James, Lamira, Alexander, and Christianna. By 1879, Lot 24 had been subdivided between T.G. Anderson on the west half and W.M. Bradley on the east half (Map 4). William Bradley was listed in the 1861 and 1871 Censuses as an Irish farmer, married to Ann Bradley and with 10 children of unknown ages: James, Thomas, Jane, Mary, Arthur, Sarah, David, Catherine, and Elizabeth (Statistics Canada 1861, 1871). The eastern half of the 1879 Anderson property and the western edge of the Bradley property lie within the study area. No structures indicated on the 1879 map are included within the study area.

Lot 25

Lot 25, Concession 4 R.F., was occupied as early as 1863 by H. Brennan (Map 4). According to the 1861 Census of Canada, the only Brennan listed in Nepean was 31-year-old Irish labourer Michael Brennan. A 78-year-old Irish farmer named Hugh Brennan, however, was registered in the 1861 Census as living in nearby Huntley (Statistics Canada 1861). By 1879, Lot 25 had been subdivided amongst David (D.) O'Keefe on the west, James Patterson on the northeast, and P. Moylan on the southeast (Map 4). David O'Keefe was a 40-year old Canadian farmer, married to E. O'Keefe and with two young children: Michael and Esther, at the time of the 1871 Census of Canada (Statistics Canada 1871). James Patterson is listed in the 1871 Census as a 59-year-old Irish farmer married to Margaret Patterson and with 3 children whose ages ranged from 21 to 9: Hannah, Elizabeth, and William (Statistics Canada 1871). As previously discussed, no information is known about P. Moylan. The southeast corner of the O'Keefe property, a small western portion of the Patterson property (excluding the northwest corner), and the northwest corner of the Moylan property lie within the study property. There are no structures indicated on the 1879 map for the O'Keefe and Moylan properties, however the structure indicated on the Patterson property is within the study area.

4.3 Archaeological Context

4.3.1 Current Conditions

The western edge of the study area is located along the eastern side of The Queen's Highway 416 from Lytle Ave south to approximately 400 m north of O'Keefe Court. As the southern edge of the study area moves east, a thin strip extends south along the western edge of Lytle Park to O'Keefe Court. The study area continues along the northern border of Lytle Park to the northeast corner of the park before moving north. As it travels north the study area is bordered on the east by residential properties until it reaches its northeast corner at the Highway 416. The property can be accessed via a gravel road from the west end of O'Keefe Court, or via pedestrian paths off Cedarhill Drive and Onassa Circle in the north. The study area is bound to the north and west by Highway 416. The south end of the study area is bound by O'Keefe

Court and Lytle Park, and the east side is bound by residential properties. The study area consists of approximately 75.7 ha (Map 2).

The study area is currently vacant, overgrown scrubland and wooded pockets scattered throughout. Generally it is mostly topographically flat with many lower lying, poorly draining areas. Wooded portions of the study area tend to be low lying cedar forests, prone to inundation, however there are some elevated areas. The elevated areas tend to be thinly covered by topsoil, and limestone bedrock boulders and bedrock is commonly observed.

Along the eastern side of the study area in Lot 23 is a large pond and an associated wetland, which appears in the aerial photography back to the 1960s to some extent (Map 5). On the western side of the study area in Lot 24 is a water filled quarry from former aggregate extraction. The aggregate extraction area and extent is notable in the 1965 air photograph (Map 5). To the west of the pond in Lot 23 is a large bare grassy patch of land bordered on the west by Highway 416. In aerial photographs prior to 1999 the area is unremarkable agricultural or scrubland, but in 1999 this patch appears to have been stripped or filled, and by 2002 is covered back up with grass (Map 5). While the purpose for this activity is unknown, the timing does correlate with the construction of the adjacent 416, and there is a connecting road in the 1999 aerial photograph, perhaps indicating this is an area of blast rock disposal (from an adjacent rock cut for the 416), aggregate removal, staging, etc. (Map 5).

4.3.2 Physiography

The study area lies in the Ottawa Valley Clay Plain with the northern portion exhibiting limestone plains and the southern clay plain landforms (Map 6). The region is characterized by poorly drained topography of clay plains interrupted by ridges of rock or sand that offer moderately better drainage. This topography was influenced by the post glacial sequence Champlain Sea (*ca.* 10,500 to 8,000 B.C.) that deposited these clay soils and were subsequently covered by sand deposits from the emerging fresh water drainage. Some of these sands were eroded to the underlying clay deposits by later channels of the developing Ottawa River. The sections to the north and south of the Ottawa River are characteristically different. On the Ontario side there is a gradual slope, although there are also some steep scarps (Chapman and Putnam 2007:205-208).

Six soil types are found within the study area: Organic, Fallowfield, Nepean, Farmington, Franktown, and Grenville Shallow Phase (Map 6). Organic soils are found in a small central eastern patch of the study area and consist of decomposed organic materials over 40 cm thick. Fallowfield soils are found only in a very small portion of the northeast corner of the study area and consist of a shallow organic layer over top of a dark yellow-brown sand and is subject to short periods of water saturation. Nepean soils are found in the northern portion of the study area and, similarly to Fallowfield soils, consist of a shallow organic layer overtop of yellow-brown sand though are better drained. Farmington soils are found within southwest corner of the study area and consist of well-draining shallow loam or sandy loam on top of limestone bedrock. Franktown soils are found within the west central portion of the study area and are similar to Farmington soils but are more subject to water saturation and include yellow-brown mottled subsoil. Grenville Shallow Phase soils are found in the southeast half of the study area and consist of light brown and yellow-brown loams full of small, compact stones which are well-draining (Marshall, et al. 1979). The soils of Lot 24 have not been mapped and are unknown.

4.3.3 Previous Archaeological Assessments

Archaeological work in the region has primarily consisted of cultural resource management studies related to specific properties or development projects. This includes Stage 1 & 2 Assessments of 4310 Fallowfield Road and 4401 Fallowfield Road to the east, neither recommending further studies (Adams 2011a, b). A Stage 1 assessment of the proposed Nortel Networks Strandherd Campus, to the southeast, found potential and recommended Stage 2 Assessment (Adams 2000). Slightly farther afield, in 2013, Paterson conducted a Stage 1-3 assessment of the Hoolahan Farmhouse site (BhFw-30) (Paterson Group 2013a, b). In 2015 Paterson conducted a Stage 1 at 4497 O'Keefe Court, directly neighbouring the study area, no archaeological potential remained on that property due to extensive and complete disturbance associated with previous aggregate removal (Paterson Group 2015).

Previous archaeological work within the region identified BhFw-1, a historic quarry site referred to as the Nepean Lime Kiln. BhFw-1 was excavated in 1975 by Susan Jamieson. Prior to the 1975 excavations, the National Capital Commission (NCC) worked on site to stabilize the existing structures, and it was unknown as to whether ownership of the land had been transferred to the NCC. The site, a late 19th century lime kiln and quarry included the roadways to Fallowfield Road and agricultural areas to Moodie Drive and was in use between 1870 – 1880 through 1906 – 1907 (Jamieson 1975). The site today is located within Concession 5 R.F., in the northeast part of Lot 25, Nepean Township.

4.3.4 Registered Archaeological Sites and Commemorative Plaques

A search of the Ontario Archaeological Sites Database on November 28, 2017 indicated that one registered archaeological site is located within a 1 km radius of the study area. The Nepean Lime Kiln. BhFw-1, is a late 19th century lime kiln and quarry excavated by Sue Jamieson in 1975 (Jamieson 1975).

No commemorative plaques or monuments are located near the study area.

4.4 Archaeological Potential

The study property exhibits some indicators for pre-contact archaeological potential including proximity to water sources. Based on current knowledge of the pre-contact archaeology of the Ottawa Valley, there is potential for pre-contact archaeological sites in this area. The census records, and historic maps show that although this area was mainly rural, the property was occupied from early in the nineteenth century. Lots 21, 24, and 25, Concession 4 R.F. were settled relatively early by the O'Keefe, Anderson, and Brennan families, and Lots 22 and 23 shortly after by the Brennan, Flood, Byrne, and Scott families.

There is potential that any structures related to occupation of the Lyttle and Flood families may be found within the study area in Lots 22 and 23. Structures related to occupation of the Brennan family may rest on or immediately outside the western edge of the study area in Lot 23. Furthermore, one other known historic period archaeological site is located within a 1 km radius of the study property.

Based on the Archaeological Resource Potential Map, several areas within the study area hold archaeological potential for historic and pre-contact materials at the time of the study (Map 3) (Archaeological Services Inc. and Geomatics International Inc. 1999). Small, intermittent portions of the northern half of the study area hold archaeological potential. Most of the southern half of the study area holds archaeological potential.

As seen through aerial photographs, portions of the study area have been subject to disturbance over the years due to quarrying activities. Portions close to the northern (Lot 25) and southwest (Lot 22) edges of the study area, however, appear in the photos to have been kept intact and untouched over the years. As such, these portions hold the highest archaeological potential.

5.0 Field Methods

A field inspection of the subject property was undertaken on December 4, 2017. Permission to access the property was provided by the client, with no limitations. Weather conditions were overcast, with a light breeze and temperatures of 1° Celsius. During the site visit the entire property was systematically inspected.

This inspection was undertaken to confirm the extent of disturbances, wetlands, (Map 4) and to determine what survey strategies would be appropriate for a Stage 2 assessment. Areas of archaeological potential were examined to confirm if features of archaeological potential were present and if there were any areas of disturbance which would have removed archaeological potential.

Field notes and photographs of the property were taken during the visit in order to document the current land conditions as per Standard 1.a., Section 7.8.6 (MTCS 2011). The photograph locations and directions were noted and all photographs were catalogued (see Appendix A). Photograph locations and directions are shown on Map 7. Please note that photographs are mapped using their catalogue number (e.g., D01) and not by report figure for consistency. The map and document catalogues is listed in Appendices B and C.

6.0 Findings

The southern linear extension of the study area in Lot 21, a proposed access road corridor, consists of a portion of a large berm to the west (Figure 1) and a low-lying reed filled marshy area along the eastern side (Figure 2). This area is disturbed to the west from previous aggregate extraction activity (Paterson Group 2015), and permanently wet along the east and therefore has low archaeological potential. At the boundary to Lot 22 the corridor widens, and the area is all low lying and wet cedar forest.

The southern portion of the study area in Lot 22 is interspersed cedar swamp, vernal pools, mixed forest, and grassy scrubland (Figure 3, Figure 4, and Figure 5).

Lot 23 contains a large pond and wetland in the east (Figure 6), and the large disturbances shown in the aerial photography from 1999 in the west (Figure 7), removing archaeological potential from a large portion of this area. There is a small area of well drained light forest and grassland towards the middle of the study area, where a dry-laid limestone farmhouse foundation and an associated stone-lined well were found (Figure 8 and Figure 9). These are likely the remains of the Francis Flood homestead.

Lot 24 contains the former aggregate extraction operation, as evidenced by the water filled limestone quarry and evidence of topsoil stripping in the vicinity (Figure 10). While a small southern portion of the lot may retain moderate archaeological potential, the majority of the lot is deeply disturbed and therefore does not retain potential.

The northernmost portion of the study area is mixed forests with pockets of standing water and the occasional open grassy area (Figure 11, Figure 12, and Figure 13). It appears better drained than the southern areas, and retains archaeological potential for historic archaeological sites, but is a significant distance from a water source and therefore has a low potential for precontact occupation.

7.0 Analysis and Conclusions

Archaeological potential for portions of the property has been removed through deep and extensive disturbances related to aggregate extraction confirmed via air photography and a site visit as per Section 1.4 Standard 1.f.(MTCS 2011) (Map 8). The site visit confirmed some areas to be permanently wet, which included a small pond and marsh land, and therefore have no archaeological potential as per Section 2.1 Standard 2.a.i. (MTCS 2011) (Map 8).

Large areas of the study area maintain archaeological potential for both pre-contact and historic period archaeological sites (Map 8). Therefore these areas will require Stage 2 archaeological assessment.

8.0 Recommendations

The study area includes large areas of archaeological potential as noted on the Archaeological Resources Potential Map.

Based on the results of this investigation it is recommended:

1. A Stage 2 archaeological assessment be conducted for portions of the study area as seen in Map 8 by a licensed consultant archaeologist using the test pit survey method at five metre intervals as per Section 2.1.2 of the Standards and Guidelines for Consultant Archaeologists (Ministry of Tourism Culture and Sport 2011).
2. A portion of the study area meets the criteria for exclusion from survey as per Section 1.4 Standard 1.f., which indicates areas deeply disturbed by former aggregate extraction and Section 2.1 Standard 2.a. i., (MTCS 2011), which includes areas that are permanently wet (Map 8).

9.0 Advice on Compliance with Legislation

- a. This report is submitted to the *Minister of Tourism and Culture* as a condition of licencing 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 Tourism and Culture, 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.
- b. It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licenced 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 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*.
- c. 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 licenced consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.
- d. The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

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 licence.

10.0 Closure

Paterson has prepared this report in a manner consistent with the time limits and physical constraints applicable to this report. No other warranty, expressed or implied is made. The strategies incorporated in this study comply with those identified in the Ministry of Tourism, Culture and Sport's *Standards and Guidelines for Consultant Archaeologists* (2011) however; archaeological assessments may fail to identify all archaeological resources.

The present report applies only to the project described in the document. Use of this report for purposes other than those described herein or by person(s) other than Mattamy Homes or their agent(s) is not authorized without review by this firm for the applicability of our recommendations to the altered use of the report.

Unless otherwise indicated, all materials in the report are copyrighted by Paterson Group. All rights reserved. Paterson Group authorizes the client and approved users to make and distribute copies of this report only for use by those parties. No part of this document either text, map, or image may be used for any purpose other than those described herein. Therefore, reproduction, modification, storage in a retrieval system or retransmission, in any form or by any means, electronic, mechanical or otherwise, for reasons other than those described herein, is strictly prohibited without prior written permission of Paterson Group.

This report is pending Ministry approval.

If you have any questions or we may be of further assistance, please contact the undersigned.

Paterson Group Inc.



Ben Mortimer, M.A., A.P.A.
Senior Archaeologist

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12.0 Images



Figure 1: Low lying area (right side) at south beside high berm where access road will be located (D07).



Figure 2: Low lying area with phragmites at south with high berm where access road will be located (D04).



Figure 3: Open cedar forest along southeast side (D20).



Figure 4: Open cedar forest along southeast side with low lying vernal pool wet area (D23).



Figure 5: Open grassy area (D29).



Figure 6: Southern extent of the pond along the west side of the property (D25).



Figure 7: Eastern extent of large fill pile, approximately 2 m high (D35).



Figure 8: Dry laid limestone cellar foundations walls (D33).



Figure 9: Stone lined well, open (D34).



Figure 10: Former aggregate pit (D43).



Figure 11: Elevated forest area (D67).

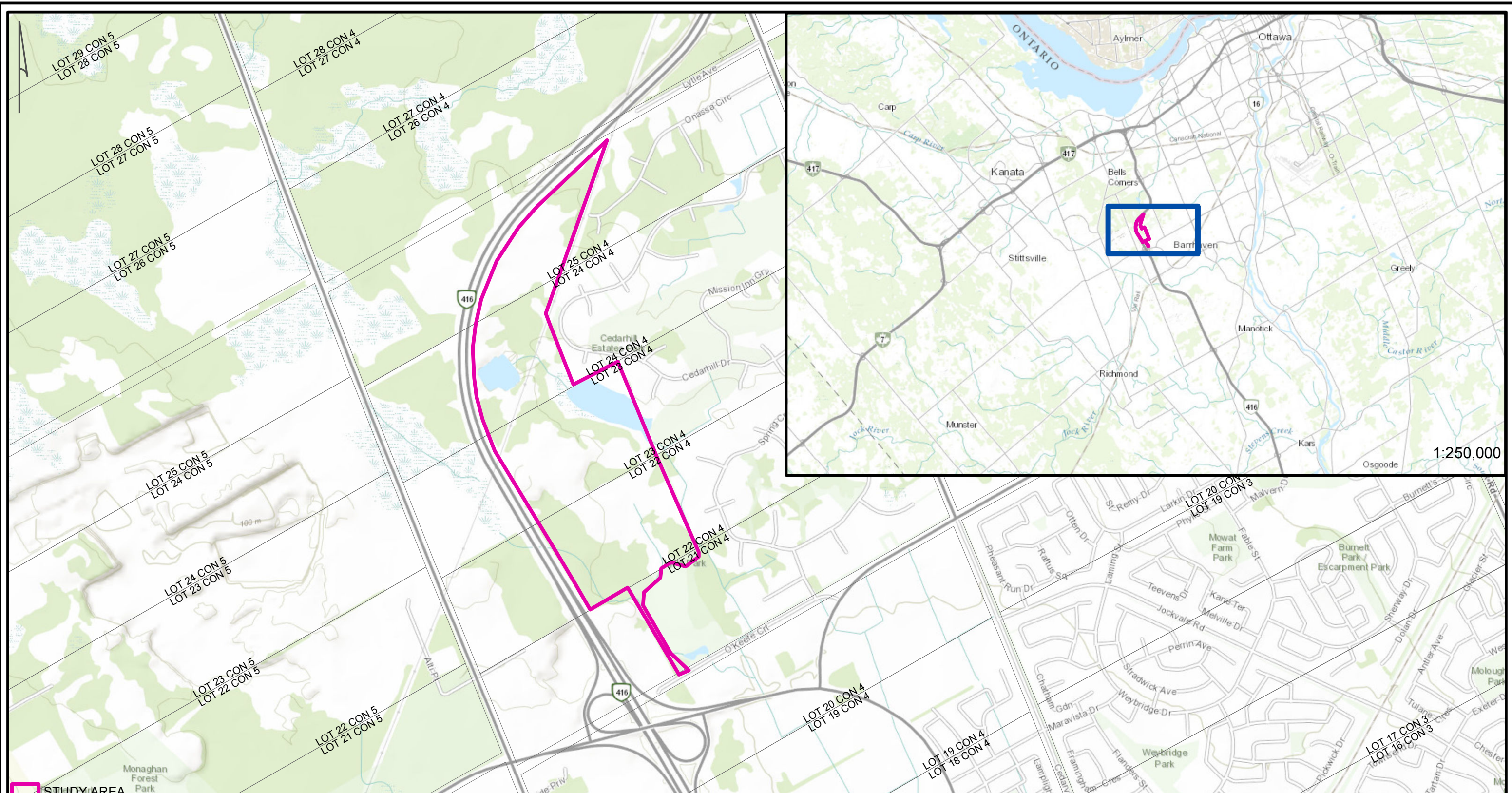


Figure 12: Low lying forest area (D75).

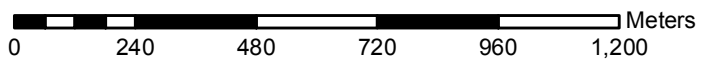


Figure 13: Open grassy area near the aggregate extraction area (D80).

13.0 Maps



STUDY AREA
 lotConcessionTwp



REFERENCES:
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 SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, DELORME, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), SWISSTOPO, MAPMYINDIA, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

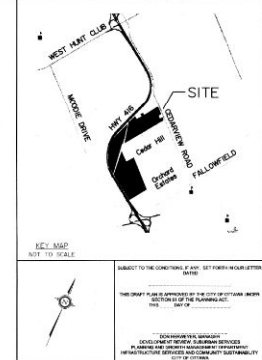
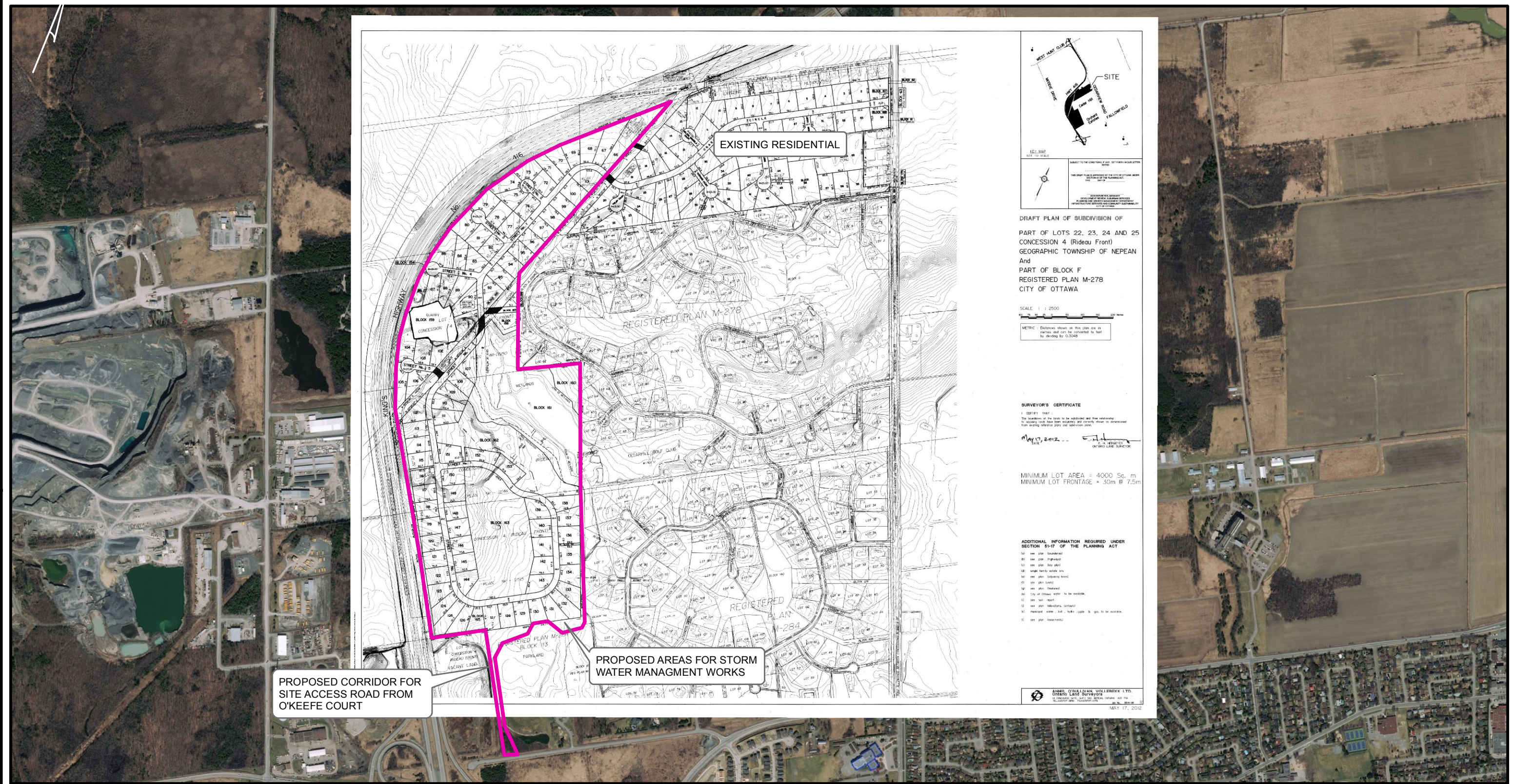
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 consulting engineers
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 Project PA1103
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STAGE 1 ASSESSMENT
 CEDARVIEW LANDS
 PROPOSED RESIDENTIAL DEVELOPMENT
 800 CEDARVIEW, OTTAWA, ON

LOCATION

File: PA1103-MAP ST1 PIF
 Date: 27/11/2017
 Map: 1



DRAFT PLAN OF SUBDIVISION OF
 PART OF LOTS 22, 23, 24 AND 25
 CONCESSION 4 (Rideau Front)
 GEOGRAPHIC TOWNSHIP OF NEPEAN
 And
 PART OF BLOCK F
 REGISTERED PLAN M-278
 CITY OF OTTAWA

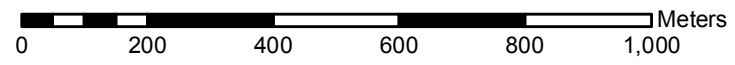
SCALE 1 : 2500
 METRIC: Distances shown on this plan are in metres and can be converted to feet by dividing by 0.3048

SURVEYOR'S CERTIFICATE
 I CERTIFY THAT:
 The boundaries of the lots to be subdivided and the relations
 to adjacent lots have been surveyed and correctly shown in accordance
 with existing reference plans for subdivision plans.
 May 17, 2012
 [Signature]
 ONSHORE SURVEYOR

MINIMUM LOT AREA = 4000 Sq. m
 MINIMUM LOT FRONTAGE = 30m @ 7.5m

- ADDITIONAL INFORMATION REQUIRED UNDER SECTION 51-17 OF THE PLANNING ACT
- (a) see plan boundaries
 - (b) see plan highway
 - (c) see plan site plan
 - (d) see plan zoning
 - (e) see plan (supporting services)
 - (f) see plan (land)
 - (g) see plan (roads)
 - (h) City of Ottawa: water to be installed
 - (i) see soil report
 - (j) see plan (utilities, services)
 - (k) see plan (water, gas, tele- / cable & gas, to be installed)
 - (l) see plan (sewerage)

ANDRÉ O'BRIEN & ASSOCIATES LTD.
 CIVIL ENGINEERS
 1000 SHEPPARD AVENUE EAST, SUITE 100, SCARBOROUGH, ONTARIO M1S 1T6
 TEL: (416) 291-1111 FAX: (416) 291-1112
 MAY 17, 2012



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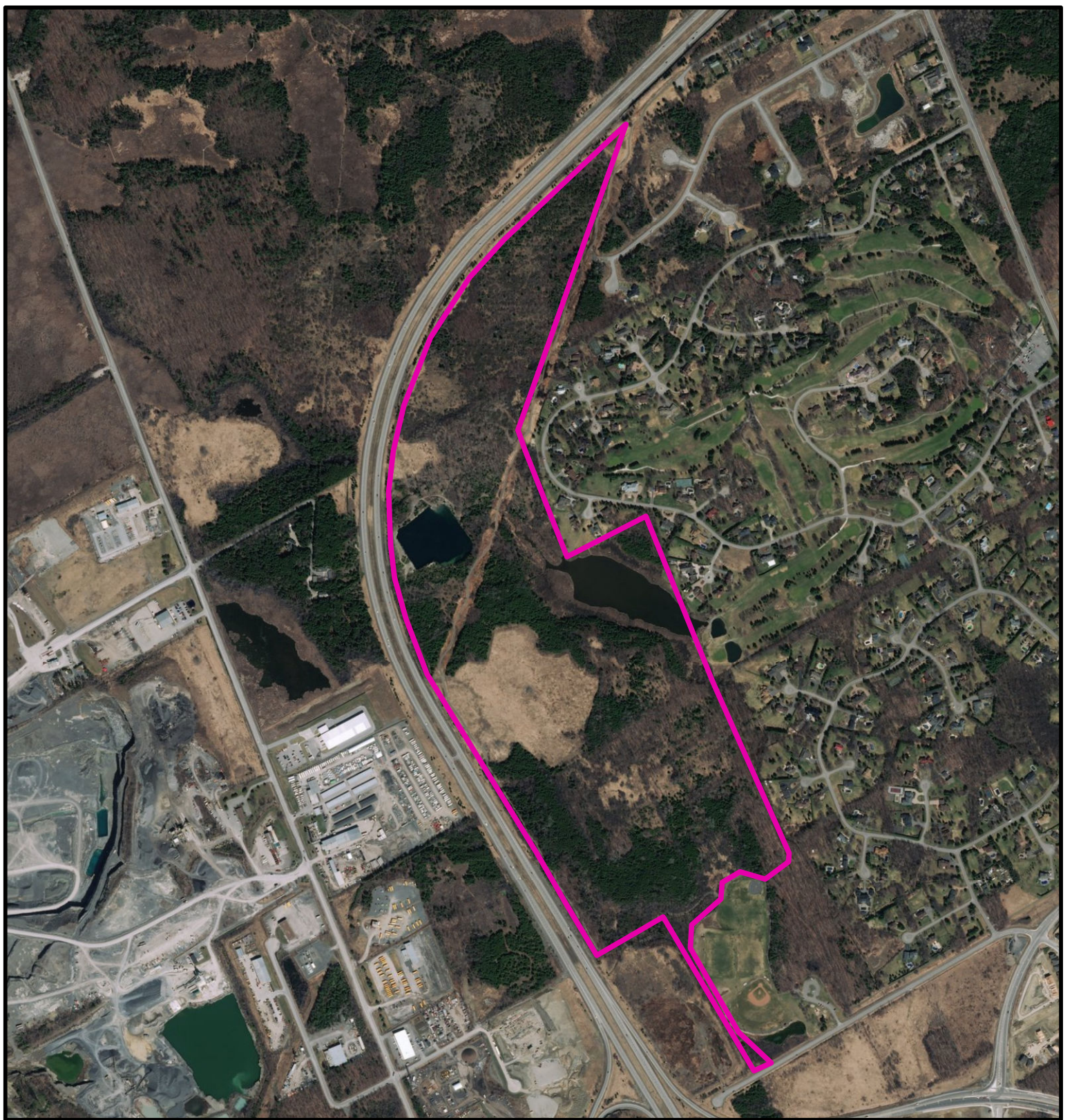
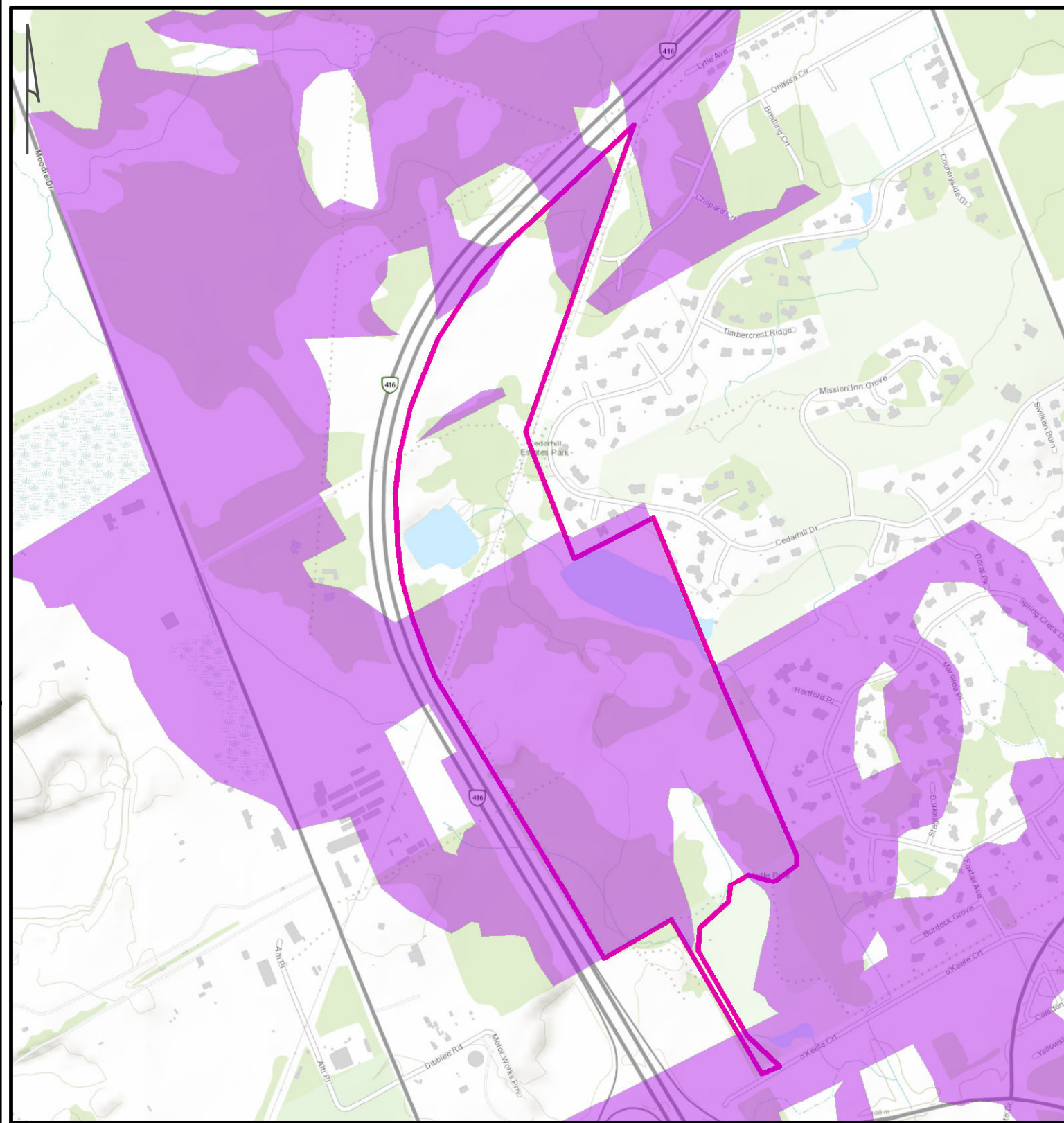
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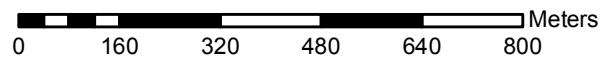
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 CEDARVIEW LANDS
 PROPOSED RESIDENTIAL DEVELOPMENT
 800 CEDARVIEW, OTTAWA, ON

DEVELOPMENT
 PLAN

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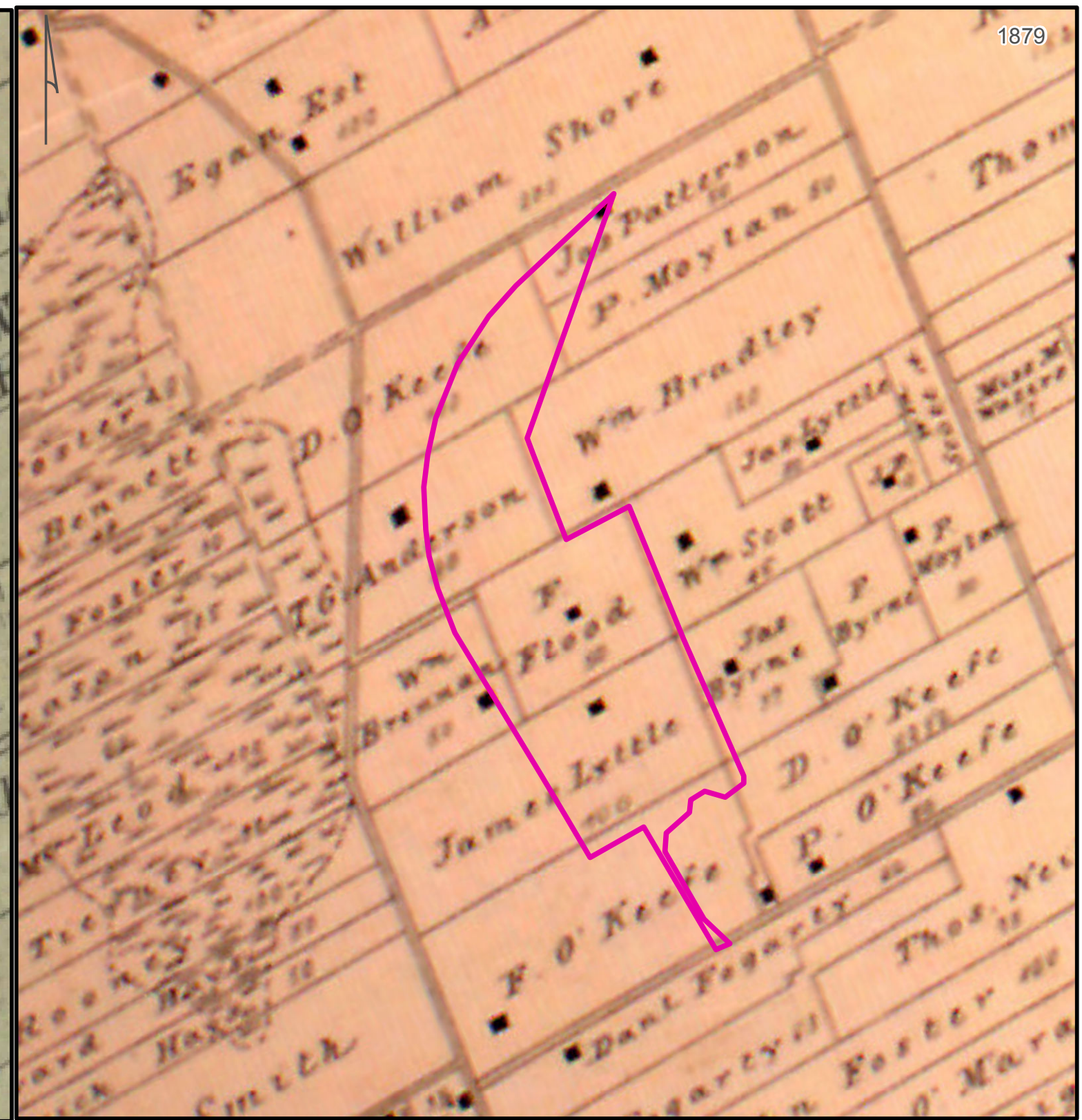
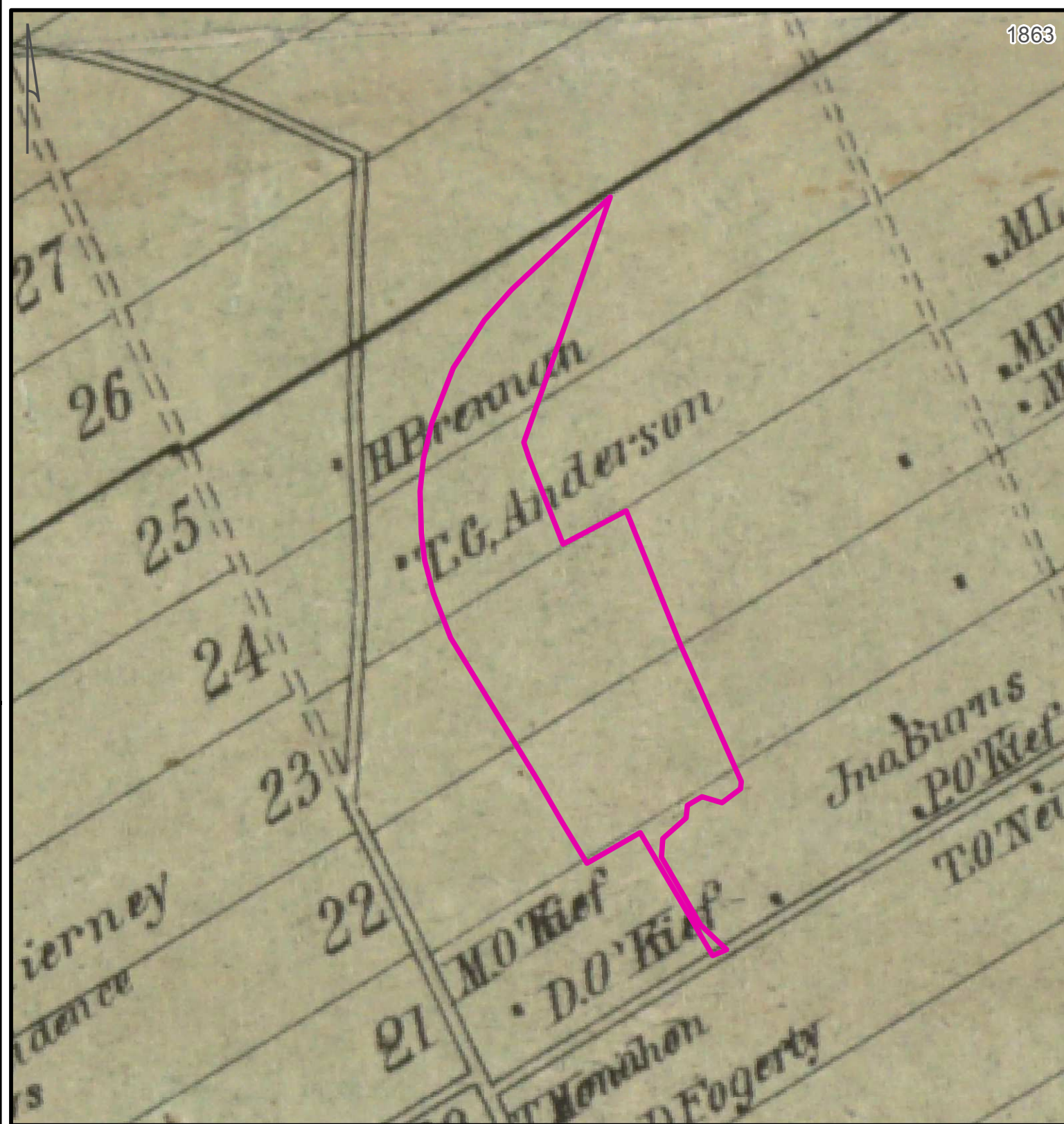


ARCHAEOLOGICAL POTENTIAL
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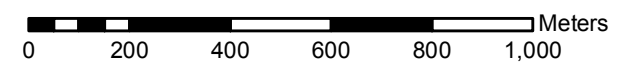


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 ARCHAEOLOGICAL POTENTIAL MAPPING FROM GEOOTTAWA



 STUDY AREA



REFERENCES:

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1965



1976

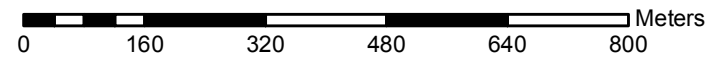


1999



2002

 STUDY AREA



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consulting engineers
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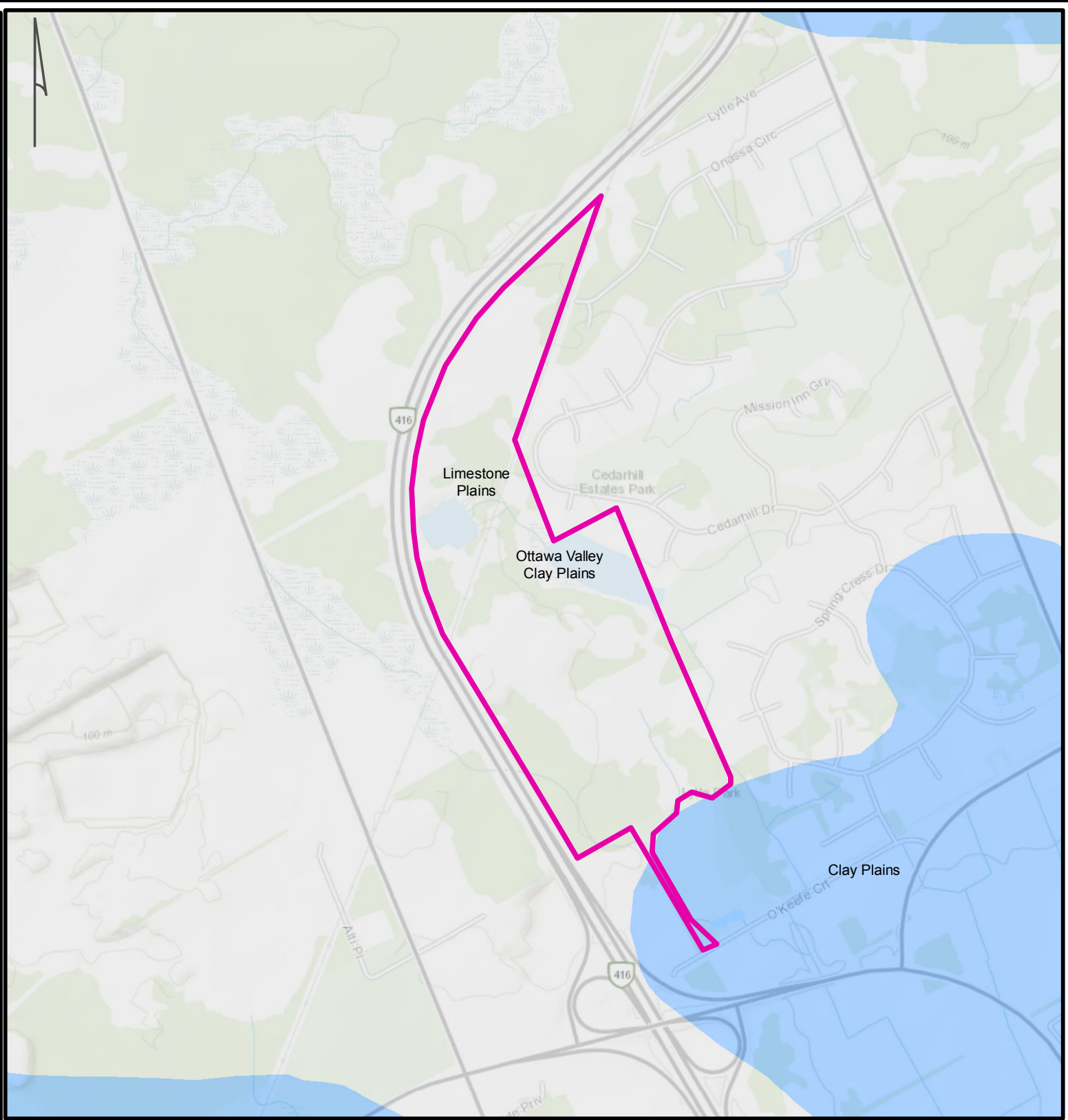
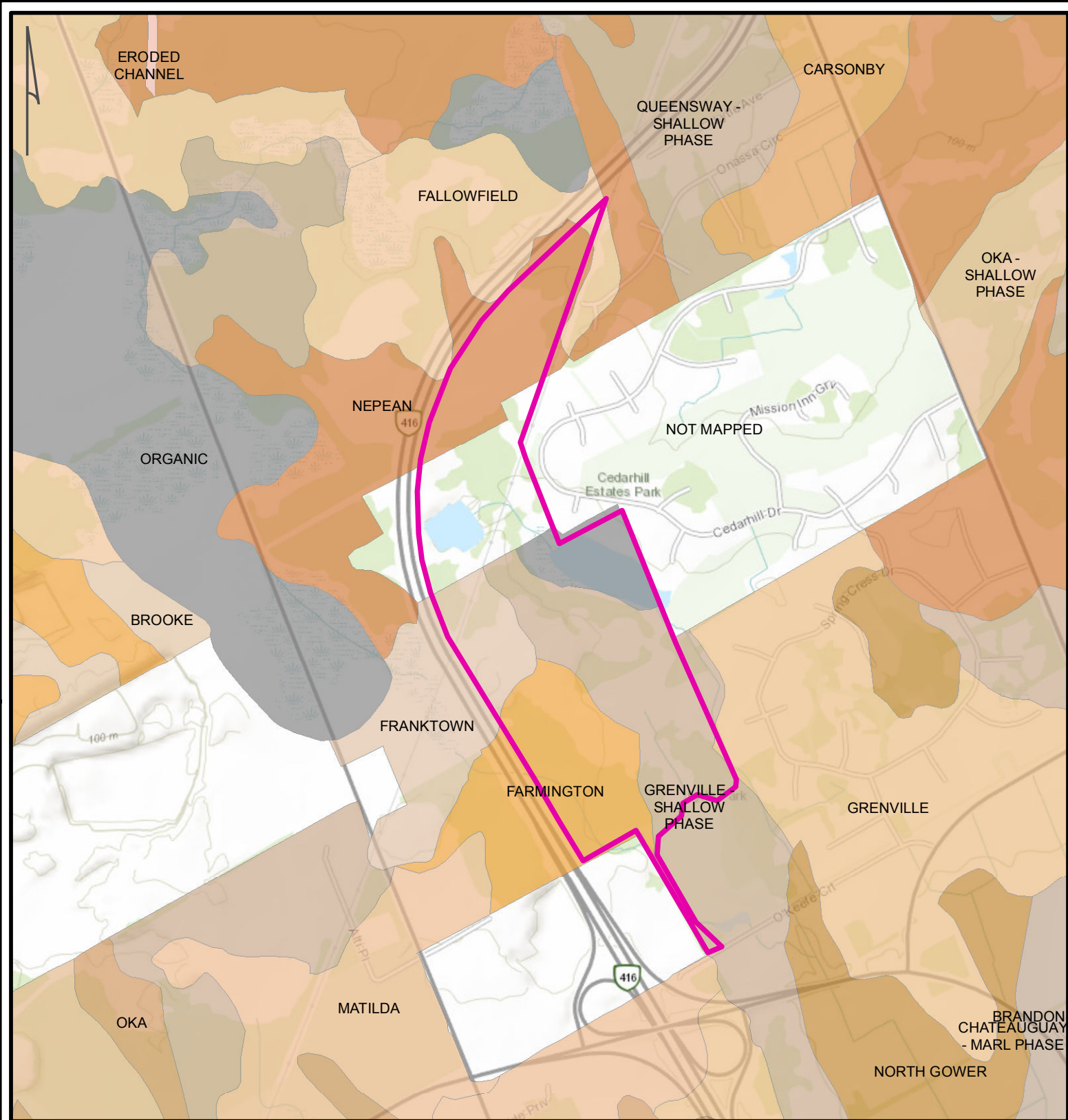
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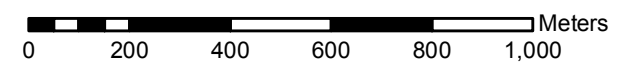
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CEDARVIEW LANDS
PROPOSED RESIDENTIAL DEVELOPMENT
800 CEDARVIEW, OTTAWA, ON

AERIAL PHOTOGRAPHY

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Date: 01/12/2017
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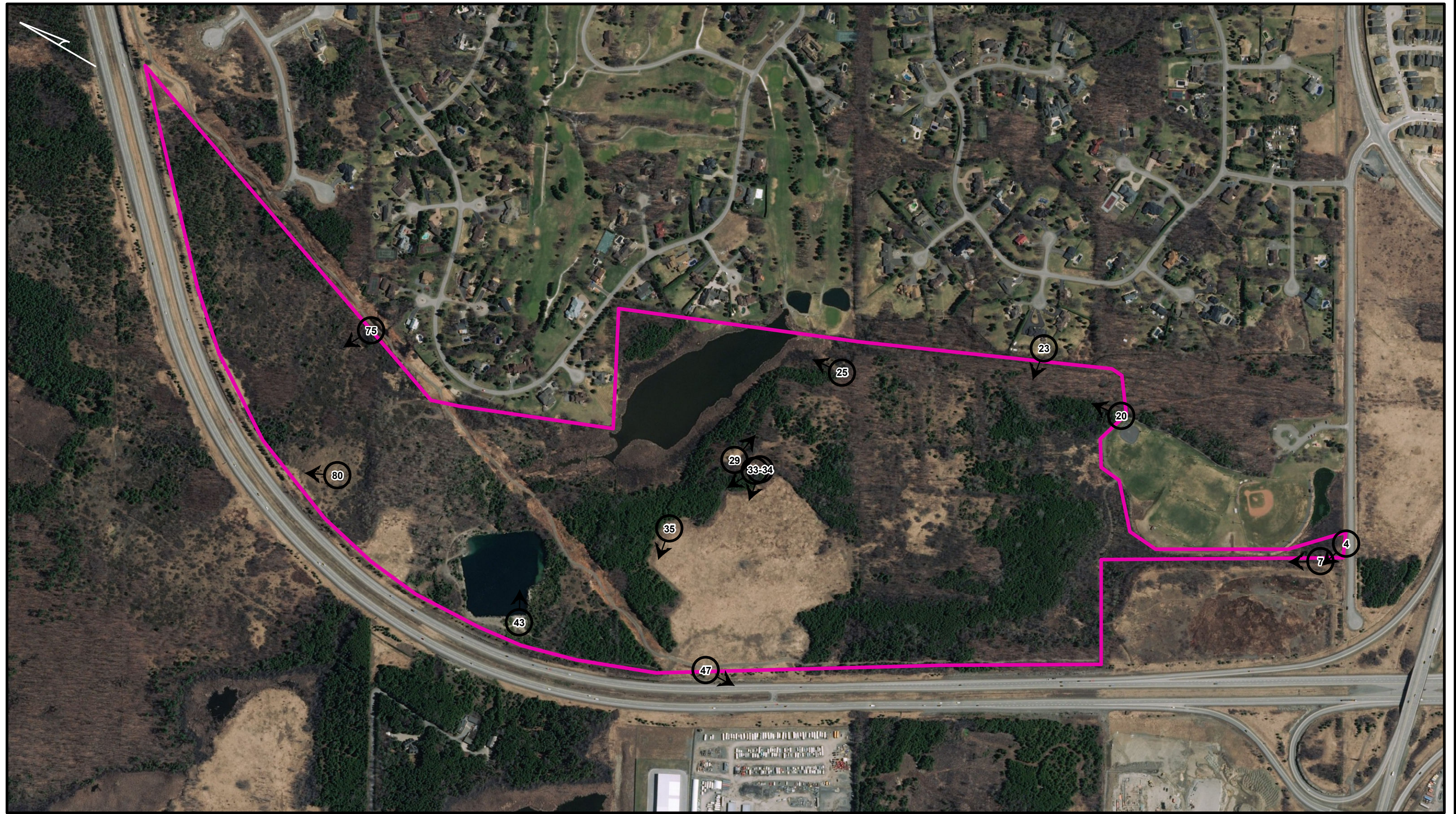
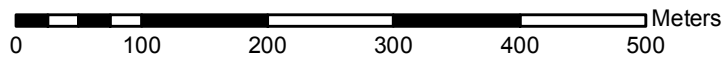


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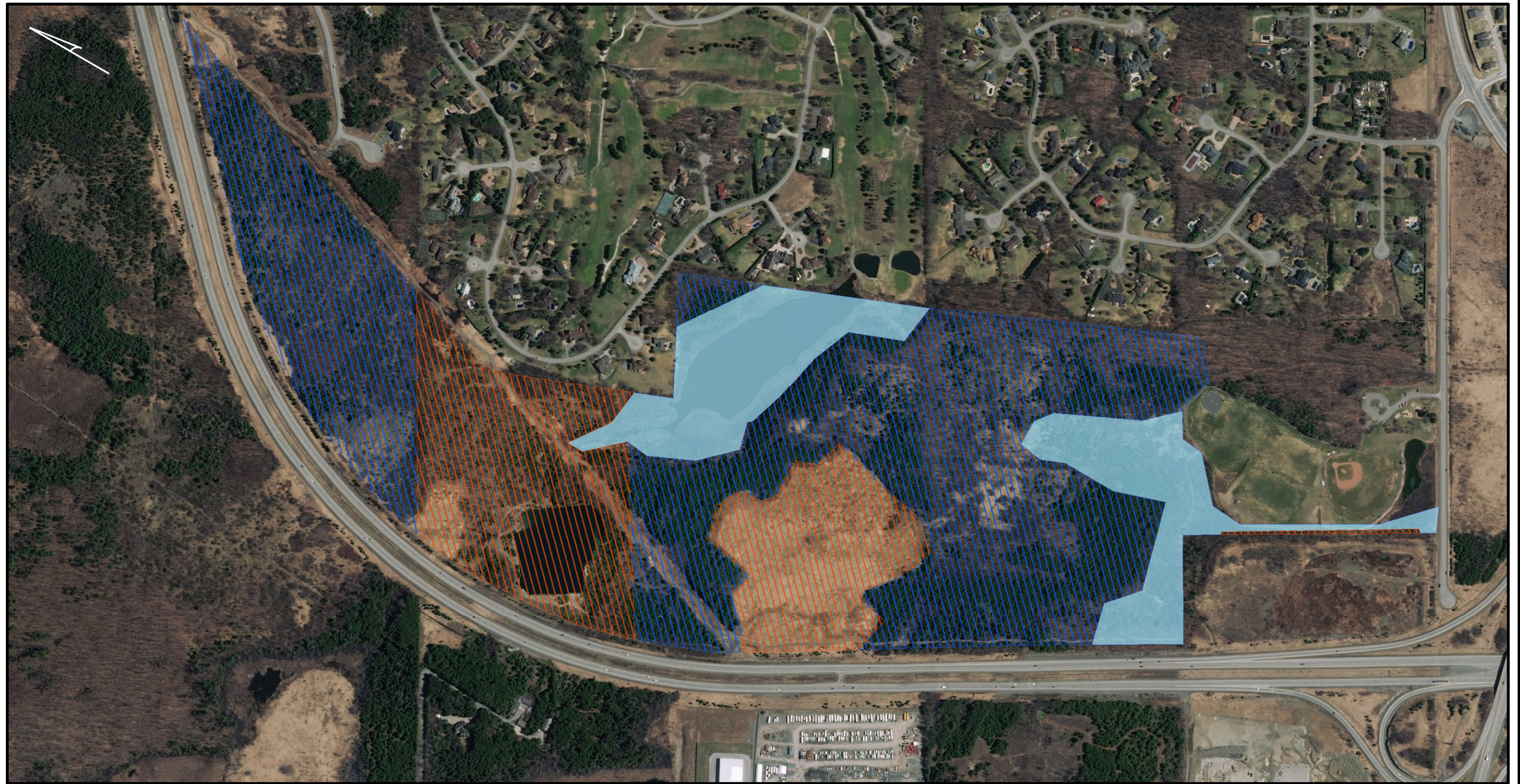
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STAGE 1 ASSESSMENT
 CEDARVIEW LANDS
 PROPOSED RESIDENTIAL DEVELOPMENT
 800 CEDARVIEW, OTTAWA, ON

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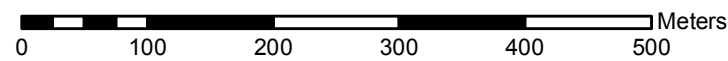


EXCLUSION FROM STAGE 2

- PERMANENTLY WET
- DEEPLY DISTURBED

STAGE 2 TESTING

- SHOVEL TEST (5 m)



REFERENCES:

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Appendix A: Photo Catalogue

Catalogue Number	Subject	Bearing	Date	Photographer
PA1103-D01	Low lying area at south end where access road will be located.	297	04/12/2017	BM
PA1103-D02	Low lying area (right side) at south beside high berm where access road will be located.	321	04/12/2017	BM
PA1103-D03	Low lying area (right side) at south beside high berm where access road will be located.	7	04/12/2017	BM
PA1103-D04	Low lying area with phragmites at south with high berm where access road will be located.	288	04/12/2017	BM
PA1103-D05	Overview of road access area from O'Keefe Court.	255	04/12/2017	BM
PA1103-D06	Existing stormwater management at south end of the city park.	295	04/12/2017	BM
PA1103-D07	Low lying area (right side) at south beside high berm where access road will be located.	329	04/12/2017	BM
PA1103-D08	View to low lying area below berm.	55	04/12/2017	BM
PA1103-D09	Typical lower lying cedar and mixed forest cover along the edge of the proposed southern access road.	332	04/12/2017	BM
PA1103-D10	Typical lower lying cedar and mixed forest cover along the edge of the proposed southern access road.	151	04/12/2017	BM
PA1103-D11	Bulrushes in wet areas along road access.	145	04/12/2017	BM
PA1103-D12	Bulrushes in wet areas along road access.	350	04/12/2017	BM
PA1103-D13	View from the berm just southwest of the study area, looking into the low lying area where the access road is proposed.	30	04/12/2017	BM
PA1103-D14	Drainage infrastructure and disturbances.	76	04/12/2017	BM
PA1103-D15	Rock piles from former aggregate extraction area to the south.	215	04/12/2017	BM
PA1103-D16	Low lying cedar forest, common to the study area.	40	04/12/2017	BM
PA1103-D17	Low lying cedar forest with marsh, common to the study area.	137	04/12/2017	BM
PA1103-D18	Marshy grass area.	25	04/12/2017	BM
PA1103-D19	Marshy grass area along the north end of the baseball diamonds.	352	04/12/2017	BM
PA1103-D20	Open cedar forest along southeast side.	353	04/12/2017	BM
PA1103-D21	Open cedar forest along southeast side.	356	04/12/2017	BM
PA1103-D22	Open cedar forest along southeast side with low lying wet area.	240	04/12/2017	BM
PA1103-D23	Open cedar forest along southeast side with low lying wet area.	260	04/12/2017	BM
PA1103-D24	Open grassy area.	263	04/12/2017	BM

Catalogue Number	Subject	Bearing	Date	Photographer
PA1103-D25	Southern extent of the pond along the west side of the property.	355	04/12/2017	BM
PA1103-D26	Lightly forested area.	302	04/12/2017	BM
PA1103-D27	Open cedar forest with exposed limestone bedrock.	215	04/12/2017	BM
PA1103-D28	Open cedar forest beside the pond and wetlands.	342	04/12/2017	BM
PA1103-D29	Open grassy area.	100	04/12/2017	BM
PA1103-D30	Open grassy area.	140	04/12/2017	BM
PA1103-D31	Metal plate covering a stone lined well.	267	04/12/2017	BM
PA1103-D32	Dry laid limestone cellar foundations walls.	207	04/12/2017	BM
PA1103-D33	Dry laid limestone cellar foundations walls.	230	04/12/2017	BM
PA1103-D34	Stone lined well, open.	299	04/12/2017	BM
PA1103-D35	Eastern extent of large fill pile, approximately 2 m high.	270	04/12/2017	BM
PA1103-D36	Eastern extent of large fill pile, approximately 2 m high.	225	04/12/2017	BM
PA1103-D37	View on top of fill pile.	208	04/12/2017	BM
PA1103-D38	View on top of fill pile.	174	04/12/2017	BM
PA1103-D39	Looking along the hydro corridor with the elevated pedestrian path and low lying areas along the edges.	198	04/12/2017	BM
PA1103-D40	Looking along the hydro corridor with the elevated pedestrian path and low lying areas along the edges.	7	04/12/2017	BM
PA1103-D41	Former aggregate pit.	5	04/12/2017	BM
PA1103-D42	Former aggregate pit.	27	04/12/2017	BM
PA1103-D43	Former aggregate pit.	61	04/12/2017	BM
PA1103-D44	Grassy area and cedar forest.	140	04/12/2017	BM
PA1103-D45	Monitoring well at northwestern base of the large fill pile.	88	04/12/2017	BM
PA1103-D46	Exposed fill at northwestern base of the large fill pile.	4	04/12/2017	BM
PA1103-D47	Overview of the 416 from the western side of the fill pile area, along the city trail.	179	04/12/2017	BM
PA1103-D48	Overview of the western side of the fill pile area, along the city trail.	150	04/12/2017	BM
PA1103-D49	Overview of the western side of the fill pile area, along the city trail.	128	04/12/2017	BM
PA1103-D50	Overview of the western side of the fill pile area, along the city trail.	103	04/12/2017	BM
PA1103-D51	Overview of the western side of the fill pile area, along the city trail.	80	04/12/2017	BM
PA1103-D52	Overview of the western side of the fill pile area, along the city trail.	57	04/12/2017	BM

Catalogue Number	Subject	Bearing	Date	Photographer
PA1103-D53	Overview of the western side of the fill pile area, along the city trail.	35	04/12/2017	BM
PA1103-D54	Southwestern end of the fill pile with large limestone boulders beside low lying cedar forest.	83	04/12/2017	BM
PA1103-D55	Southwestern end of the fill pile with large limestone boulders beside low lying cedar forest.	83	04/12/2017	BM
PA1103-D56	Looking along the city path with low lying forest to the left and the 416 to the right (not visible).	159	04/12/2017	BM
PA1103-D57	Marshy area in larger overall low lying cedar forest area.	96	04/12/2017	BM
PA1103-D58	Ponding area in larger overall low lying cedar forest area.	124	04/12/2017	BM
PA1103-D59	Ponding area in larger overall low lying cedar forest area.	357	04/12/2017	BM
PA1103-D60	Lightly forested area.	82	04/12/2017	BM
PA1103-D61	Lightly forested area.	144	04/12/2017	BM
PA1103-D62	Low lying cedar forest area.	73	04/12/2017	BM
PA1103-D63	Low lying cedar forest area.	97	04/12/2017	BM
PA1103-D64	Elevated forest area.	125	04/12/2017	BM
PA1103-D65	Elevated forest area with city trail.	139	04/12/2017	BM
PA1103-D66	Elevated forest area dropoff with exposed bedrock to low lying forest.	357	04/12/2017	BM
PA1103-D67	Elevated forest area with city trail.	259	04/12/2017	BM
PA1103-D68	Exposed bedrock boulders.	111	04/12/2017	BM
PA1103-D69	Exposed bedrock boulders in low lying cedar forest with marsh in the background.	354	04/12/2017	BM
PA1103-D70	Exposed bedrock boulders in low lying cedar forest with marsh in the background.	353	04/12/2017	BM
PA1103-D71	Typical mixed forest in the northern part of the study area.	284	04/12/2017	BM
PA1103-D72	Low lying areas along the hydro corridor.	7	04/12/2017	BM
PA1103-D73	Typical mixed forest in the northern part of the study area along the hydro corridor.	214	04/12/2017	BM
PA1103-D74	Typical mixed forest in the northern part of the study area.	303	04/12/2017	BM
PA1103-D75	Low lying forest area.	298	04/12/2017	BM
PA1103-D76	Low lying forest area.	337	04/12/2017	BM
PA1103-D77	Former aggregate removal area.	325	04/12/2017	BM
PA1103-D78	Former aggregate removal area.	221	04/12/2017	BM
PA1103-D79	Large blocks marking the property line for the former aggregate extraction activity.	271	04/12/2017	BM
PA1103-D80	Open grassy area near the aggregate extraction area.	334	04/12/2017	BM

Catalogue Number	Subject	Bearing	Date	Photographer
PA1103-D81	Open grassy area near the aggregate extraction area.	26	04/12/2017	BM

Appendix B: Map Catalogue

Map Number	Description	Created By
1	Location	B. Mortimer
2	Development Plan	B. Mortimer
3	Archaeological Potential and Conditions	B. Mortimer
4	Historic	B. Mortimer
5	Aerial Photography	B. Mortimer
6	Soils and Physiography	B. Mortimer
7	Photo Key	B. Mortimer
8	Recommendations	B. Mortimer

Appendix C: Document Catalogue

Project	Description	Created By
PA1061	4497 O'Keefe Court Field Notes, Stage 1 Site Visit (scanned to PDF "PA1061 – O'Keefe Court – Field Notes.pdf")	B. Mortimer