ORIGINAL

Stage 1 Archaeological Assessment
Background Study and Property Inspection

Four Solar Projects in Strathroy
Renewable Energy Environmental Assessment

Former Township of Cadadoc, Middlesex County
Strathroy, Ontario

FT #

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Renewable Energy Environmental Assessment

Former Township of Cadadoc, Middlesex County
Strathroy, Ontario

EXECUTIVE SUMMARY

Archaeological Services Inc (ASI) was contracted by exp. (Brampton) to conduct a Stage 1 background Study for the Strathroy Solar Projects Renewable Energy Approvals (REA) in Strathroy, Ontario. The project involves the installation of two solar projects north of Scotchmere Drive (west of McEvoy Road), and two solar projects adjacent to Union Drive (west of Amiens Road) in Strathroy, Ontario.

The Stage 1 background study determined that three archaeological sites have been registered within 1 km of the study area. A review of the geography and history of the study area suggested that the study area has potential for the identification of Aboriginal and Euro-Canadian archaeological resources.

The Stage 1 property inspection determined that all four L.P. locations included in the Strathroy Solar Projects study area exhibit archaeological potential.

In light of these results to date, the ASI makes following recommendation:

1. Archaeological potential exists in the Strathroy Solar Projects study area. All these lands will require a Stage 2 Property Assessment, which must be conducted in accordance with Sections 2.1.1 and 2.1.2 of the 2011 *Standards and Guidelines for Consultant Archaeologists*. The Stage 2 assessment must involve a combination of pedestrian survey of all ploughable lands and test pit survey for the remainder.

    - Pedestrian survey involves systematically walking over freshly ploughed and weathered agricultural lands; and,
    - Test pit survey involves the systematic excavation of small units at 5 metre intervals and can be conducted only in areas where ploughing is not feasible.

2. Should the proposed work extend beyond the current Strathroy Solar Projects study area then further Stage 1 archaeological assessment must be conducted to determine the archaeological potential of the surrounding lands.

ARCHAEOLOGICAL SERVICES INC.
ENVIRONMENTAL ASSESSMENT DIVISION

PROJECT PERSONNEL

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1.0 PROJECT CONTEXT

Archaeological Services Inc (ASI) was contracted by exp. (Brampton) to conduct a Stage 1 Archaeological Assessment as part of the Four Solar Projects in Strathroy Renewable Energy Environmental Assessment (EA) in Strathroy, Ontario. The project involves the installation of four solar projects in Strathroy, Ontario (Figure 1). The locations of the four projects include:

- L.P. #1: 9307 Union Drive, Strathroy, Omtario
- L.P. #5 and #6: 8338 Scotchmere Drive, Strathroy, Ontario
- L.P. #7: 9274 Union Drive, Strathroy, Ontario

This assessment was conducted under the project management of Sarah Jagelewski and senior project management of Robert Pihl (P057), both of ASI; Mr. Pihl was also the licensee for the project (PIF P057-689-2012).

The objectives of this report are:

- To provide information about the geography, history, previous archaeological fieldwork and current land condition of the study area;
- To evaluate in detail the archaeological potential of the study area which can be used, if necessary, to support recommendations for Stage 2 Archaeological Assessment for all or parts of the property; and
- To recommend appropriate strategies for Stage 2 Archaeological Assessment, if necessary.

This report describes the Stage 1 assessment that was conducted for this project and is organized as follows: Section 1.0 describes the project context and summarizes the background study that was conducted to provide the archaeological and historical context for the project study area; Section 2.0 describes the field methods used during the assessment and summarizes the results of the property inspection; Section 3.0 provides an analysis of the assessment results and evaluates the archaeological potential of the study area; Section 4.0 provides recommendations for the next assessment steps; and the remaining sections contain other report information that is required by the Ministry of Tourism, Culture and Sport's (MTCS) *Standards and Guidelines for Consultant Archaeologists (S&G)*, e.g., advice on compliance with legislation, works cited, mapping and photo-documentation.

1.1 Development Context

All work has been undertaken as part of Ontario Regulation 359/09 within the Renewable Energy Approvals (REA) process under Part V.0.1 of the *Environmental Protection Energy Act*.

All activities carried out during this assessment were completed in accordance with the terms of the *Ontario Heritage Act* (2005) and the *S&G*.

Permission to access the study area and to carry out all activities necessary for the completion of the assessment was granted by exp. on January 30, 2012.

1.2 Archaeological Context

This section provides background research pertaining to previous archaeological fieldwork conducted within and in the vicinity of the Strathroy Solar Projects study area, its environmental characteristics (including drainage, soils or surficial geology and topography, etc.), and current land use and field conditions. Three sources of information were consulted to provide information about previous archaeological research in the study area; the site record forms for registered sites housed at the MTCS; published and unpublished documentary sources; and the files of ASI.

1.2.1 Current Land Use and Field Conditions

According to the County of Middlesex Official Plan (OP), all four L.P. locations are designated as Agricultural Areas with Natural Environment Areas (2006). As discussed in Section 3.3 of the Middlesex OP, the purpose of the agricultural areas designation is to strengthen the agricultural community while protecting agricultural lands from the intrusion of land uses that are incompatible with agricultural operations. Under this designation, agricultural areas are recognized as a major economic component for the County of Middlesex.

As described in Section 3.4 of the Middlesex OP, Natural Environment Area policies address the appropriateness of development and restrict development to locations that will not adversely affect the sustainability of environmental features and ecosystems within the County. The natural environment area designation includes wetlands, flood regulated watercourses, and associated floodplains. The study area has a natural environment designation due to the presence of wetlands at all four L.P. locations.

The Stage 1 property inspection was conducted by Peter Carruthers (P163) ASI, on March 29, 2012. The study area includes four solar projects that are grouped together in three separate locations. All L.P. locations are located in a rural setting and in agricultural fields.

1.2.2 Previous Archaeological Research

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

According to the OASD (email communication, Robert von Bitter, MTCS Data Coordinator, February 1, 2012), three identified archaeological sites are located within 1 km of the study area. Details of the registered sites are summarized in Table 1.

Table 1: List of previously registered within 1 km of the study area

Borden #	Site Name	Cultural Affiliation	Site Type	Researcher
AfHj-90	Culloden Acres	Early Paleo-Indian, Early-Late Archaic, Euro-Canadian	Game Processing Station	C. Ellis and D.B. Deller (1990)
AfHj-101	Samplonious	Paleo-Indian, Early-Late Archaic, Early Woodland, Small Point	Lithic Scatter	C. Ellis and D.B. Deller (1990)
AfHj-104	Caradoc	Paleo-Indian	Sacred	C. Ellis (1997)

1.2.3 Geography

In addition to the known archaeological sites, the state of the natural environment is an important predictor of archaeological potential. Accordingly, a description of the physiography and soils in the study area is provided below.

Section 1.3.1 of the *S&G* stipulates that primary water sources (lakes, rivers, streams, creeks, etc.), secondary water sources (intermittent streams and creeks, springs, marshes, swamps, etc.), ancient water sources (glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, cobble beaches, etc.), as well as accessible or inaccessible shorelines (high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh, etc.) are characteristics that indicate archaeological potential.

Water has been identified as the major determinant of site selection and the presence of potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in Ontario after the Pleistocene era, proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most commonly used variables for predictive modeling of site location.

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

The study area falls within the Caradoc Sand Plains physiographic region of southwestern Ontario (Chapman and Putnam 1984:146). The surface of the region is nearly level except near Mount Brydges where some old fixed dunes and other sandy ridges appear. This region generally consists of gravelly alluvium spread over the terraces of the Thames River, with three main soil types: Fox fine sandy loam, Berrien sandy loam, and Burford gravely loam. Soils in the study area vary between the various solar project locations. Each location and associated soils are briefly discussed below.

Soils in the L.P. #1 vicinity include Huron clay loam (Experimental Farms Service 1931). Huron clay loam has rolling to smooth topography with some steep slopes near streams. Soil drainage for this soil group is fair to good and stones are frequently found. Huron clay loam is used for general farming including dairying and beef raising, pasture, and a variety of other crops. It should be noted that Huron clay loam is also present in the vicinity of L.P. #7.

Soils in the area of L.P. #5 and #6 include Berrien sandy loam and Fox fine sandy loam (Experimental Farms Service 1931). Berrien sandy loam has level to undulating topography with good to poor drainage. Agricultural crops for this soil include canning crops, small fruits, tree fruits, potatoes, as well as general farming and dairying. Fox fine sandy loam has level to undulating topography and very good to excessive drainage. This soil group supports the same crops as Berrien Sandy Loam.

Soils in the L.P. #7 area include Huron clay loam and Tuscola silt loam (Experimental Farms Service 1931). Tuscola silt loam has level to undulating topography and features fair to poor drainage. This soil group supports the same agricultural crops as Huron clay loam, which is discussed above for L.P. #1.

Surficial geology information is mapped and presented in Figure 2 and soil drainage is presented in Figure 3.

The study area falls within the Syndenham Headwaters watershed (SCRCA 2008). Gold Creek runs through the study area for L.P. #1 and L.P. #7. An unnamed creek is located approximately 250 m south of L.P. # 5 and #6.

1.3 Historical Context

This section provides a brief summary of historic research for the study area. A review of available primary and secondary source material was undertaken to produce a contextual overview, including a general description of settlement and historic land use. Historically, the study area is located in former Township of Caradoc, Middlesex County. The lots and concessions included in the study area listed in Section 1.3.3 of this report.

1.3.1 Contact Period

The lands between Lake Erie and Lake Huron were highly contested during the contact period of southwestern Ontario (Johnston 2004:9). An early Jesuit map entitled Nouvelle France depicts this area as a border zone between peoples of difference cultures and languages. The introduction of European trade goods, weapons, missionaries, and diseases served to exacerbate previous tensions between Aboriginal groups (Johnston 2004:9). One result of this was that the between 1648 and 1650 Iroquois from New York State conducted a series of attacks on Neutral and Huron-Wendat groups in southern and southwestern Ontario. These attacks weakened the Huron-Wendat and Neutral and caused them to disperse to other locations in Ontario (Goodspeed and Goodspeed 1889:16).
The Iroquoian dominance of the region did not go unchallenged and by 1653, the Jesuits reported that several nations, including the Anishnaabeg (Chippewa *or* Ojiway, Mississauga, Ottawa, Pottawatomi) and the remains of the Neutral had united against the Iroquois (Warren 1885:97).

As a result there were many battles in the area between Lake Erie and Georgian Bay. Burial mounds in this region reflect the territorial disputes between the Iroquois and other Aboriginal groups during this period.

Peace was achieved between the Iroquois and the Anishnaabeg Nations in August of 1701 when representatives of more than twenty Anishnaabeg Nations assembled in Montreal to participate in peace negotiations (Johnston 2004:10). During these negotiations captives were exchanged and the Iroquois and Anishnaabeg agreed to live together in peace. Peace between these nations was confirmed again at council held at Lake Superior when the Iroquois delivered a wampum belt to the Anishnaabeg Nations (Johnston 2004).

By 1718 several well-established villages were documented in the vicinity of Detroit. In addition to the Huron-Wendat, Potawatami, and Ottawas villages, a known village of Mississauga and Chippewa was located on the shore of Lake Huron, north of the Thames River (Johnston 2004:12). Despite the disruptions in settlements due to disease and warfare, the area between Lake Erie and Lake Huron had been restored to peace by the turn of the 18th century (Warren 1885:79).

The Anishnaabeg were early and consistent allies of the French and were one of the first Aboriginal groups to receive firearms. With the aid of guns they were able to drive the Sioux into the Great Plains and the Sauk, Mesquaki, and Kickapoo groups southward towards northern Wisconsin (Waldman 2006:67). In the mid-1700s the Anishnaabeg fought the British in the French and Indian wars and in Pontiac's Rebellion. Later, during the American Revolution, the Anishnaabeg became allies of the British against the American rebels. They also fought against the Americans again in the Indian wars for the Old Northwest and in the War of 1812 (Waldman 2006:67).

1.3.2 Township Survey and Settlement

Middlesex County was first settled in 1793 after Lieutenant Simcoe passed through the area on his way to visit Detroit (H.R. Page & Co. 1878). Simcoe was struck by the landscape and decided that the future capital of Upper Canada should be constructed along the Thames River. His plans did not materialize but London, located at the forks of the Thames River, did become a significant city in southern Ontario (Mika and Mika 1981:663). The first permanent settlement of Middlesex County was established in the Township of Delaware, near the Thames River. Much of Middlesex County is comprised of rich agricultural lands, which are drained by the Thames River and its tributaries.

The lands included in Middlesex County were originally a part of the Western District. When the district system was abolished in 1850, these lands were named Suffolk County. Suffolk County was replaced when Middlesex County was established in 1796 (Rayburn 1997:xxiv). During the initial settlement of the area, the lands of Middlesex County were still a part of the Western District (Mika and Mika 1981:662).

Caradoc Township was named in 1820 after a revered king of Wales, who was killed in a battle between the Welsh and the Saxons in the year 1795 (Rayburn 1997: 56). The Township was surveyed in 1822 by Colonel Burwell (H.R. Page & Co 1878). Immediately after the survey settlers began to settle the Township including Benjamin Lockwood, and Richard Genwick. Other

early settlers of the area include Benjamin Bartlett, Charles Bateman, Robert Parker, Robert and George Bateman (Goodspeed & Goodspeed 1889:472). An early settler, Donald McGugan, settled on Concession 7, Lot 23 in 1828. His descendants, including his son Malcolm, continued to live and farm the property throughout the nineteenth century. It should be noted that L.P. #7 is located on the property of Donald MuGugan and his son Malcolm is listed as the property owner (See Section 1.3.3. of this report for historic map review).

The Town of Strathroy is in close proximity to the study area, located 2.5 km northeast of L.P. #5 and #6. Strathroy is one of two incorporated towns in Middlesex County. Strathroy is located close to the Sydenham River and grew up around a sawmill built by John Buchanan in 1836 (Ontario Heritage Trust 2012). A townsite was not officially established until 1850 (Mika and Mika 1981:664). Strathroy was incorporated as a village soon after the arrival of the Great Western Railway in 1856 and was official granted town status in 1870.

The Township of Caradoc contains reservations for two Aboriginal groups, the Chippewa of the Thames and the Muncee First Nations. The Chippewas of the Thames are descended from a part of the Ojibway Nation that migrated from the Nipissing/Lake Superior Region into southwestern Ontario at the beginning of the 18th century (Goodspeed and Goodspeed 1889:19; Indian Claim Commission 2005). The land of the Chippewas of the Thames First Natiuon is located on the west bank of the Thames River, and was reserved from the area ceded to the Crown in 1819. In 1834, part of the reserve was surrendered for sale by the Crown. The money collected from the subsequent land sales was to be held in trust by the Crown of behalf of and for the benefit of the First Nation. In 1851, the Chippewas possessed 9000 acres of land in the Township of Caradoc.

The Muncee First Nation originated from New York State and fought for the British during the War of 1812 (Goodspeed and Goodspeed 1889:19). Following the war, they reached a temporary agreement with the Chippewa of the Thames to share their land. The Canadian Government purchased the land from the Chippewas during the 1880s so that the Muncees could have a permanent settlement in the Township of Caradoc.

1.3.3 Historic Map Review

The 1878 *Illustrated Historical Atlas of the County of Middlesex* was reviewed to determine the potential for the presence of historic archaeological resources within the study area during the nineteenth century (Figure 4). It should be noted, however, that not all features of interest were mapped systematically in the Ontario series of historical atlases, given that they were financed by subscription, and subscribers were given preference with regard to the level of detail provided on the maps. Moreover, not every feature of interest would have been within the scope of the atlases.

Historically, the study area is located in the former Township of Caradoc, Middlesex County. The lots and concessions in the study area provided below and Table 2 provides a summary of historical land owners and features associated with the effective lots.

- L.P. #1: Concession 6, Lot 23
- L.P. #5 and #6: Concession 8, Lot 15
- L.P. #7: Concession 7 Lot 23

Table 2: Nineteenth century property owners/tenants

Con #	Lot #	Property Owner/Tenant	Historic Feature(s)
VI	23	Duncan McKellar	Farm Houses (2), Orchard, Union Drive
VII	23	Malcolm McGugan	Farm House, Orchard, Union Drive
VIII	15	Alex Graham, Hugh Graham	Farm Houses (2), Orchards (2), Scotchmere Drive

The historic mapping demonstrates that a number of historic features are located in the vicinity of the four L.P. locations. All L.P. locations are located adjacent to historically surveyed roads; Scotchmere Drive and Union Drive. Further, all four locations are located in close proximity with historic farmsteads and orchards.

For the Euro-Canadian period, the majority of early nineteenth century farmsteads (i.e., those which are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth century maps) are likely to be captured by the basic proximity to the water model outlined in Section 1.2.2 of this report since these occupations were subject to similar environmental constraints.

Section 1.3.1 of the *S&G* stipulates that areas of early Euro-Canadian settlement (pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries, are considered to have archaeological potential. Early historical transportation routes (trails, passes, roads, railways, portage routes), properties listed on a municipal register or designated under the *Ontario Heritage Act* or a federal, provincial, or municipal historic landmark or site are also considered to have archaeological potential.

2.0 FIELD METHODS

A property inspection was conducted in order to gain first-hand knowledge of the geography, topography, and current conditions of the Strathroy Solar Projects study area as per Section 1.2 of the *S&G*. A property inspection is a visual inspection only and does not include excavation or collection of archaeological resources.

Where applicable, Section 1.2, Standards 1-5 of the *S&G* were met as follows during the course of the property inspection:

- The Strathroy Solar Projects study area was inspected systematically during optimal weather conditions which permitted good visibility of land features;
- Weather conditions were overcast, and 3^{o}C with no snow or precipitation;
- Coverage was sufficient to identify previously identified features of archaeological potential and additional features not visible on mapping; and,
- Additional features were documented as well as any features that will affect assessment strategies.

The property inspection found that the entire study area retained archaeological potential. Field observations are compiled onto a map of the study area in Section 7.0 (Figures 6-8) and associated photography is presented in Section 8.0 (Plates 1-6).

3.0 ANALYSIS AND CONCLUSIONS

The archaeological and historical context was analyzed to help determine the archaeological potential of the study area. A summary of the archaeological potential of the Strathroy Solar Projects Road study area is presented in Section 3.1 and 3.2 of this report and an evaluation of the property inspection results is presented in Section 3.3.

3.1 Analysis of Archaeological Potential

Section 1.3.1 of the *S&G* lists characteristics that indicate where archaeological resources are most likely to be found, and archaeological potential is confirmed when one or more features of archaeological potential are present. Accordingly, the Strathroy Solar Projects study area meets the following criteria used for determining archaeological potential:

- Previously known archaeological sites (e.g. Caradoc AfHj-104)
- Water source: primary, secondary, or past water source (e.g. Gold Creek)
- Early historical transportation routes (e.g. Scotchmere Drive)
- Areas of early Euro-Canadian settlement (e.g. farmsteads)
- Pockets of well-drained sandy soil (e.g. Fox fine sandy loam)

These criteria characterize the study area as having potential for the identification of Aboriginal and Euro-Canadian archaeological resources.

3.2 Archaeological Potential Model

An archaeological potential model is developed as a tool to assist land-use planners and policy makers in evaluating the threat to archaeological resources that might occur through proposed land-development projects. Since the majority of archaeological sites have not yet been documented or registered with the OASD, the only alternative it to use archaeological science to partition the landscape into zones that exhibit archaeological potential versus those that do not. The result is an archaeological potential map against which the footprint of proposed development alternatives can be evaluated.

Using the information from known archaeological sites and historic features, GIS mapping was reviewed to determine if archaeological potential is present within the study area. The mapping of archaeological site potential confirmed that the majority of the study area exhibits archaeological potential. Archaeological potential mapping is presented in Figure 6.

It should be noted that the purpose of an archaeological potential model is to identify areas with archaeological potential based on the indicators outlined in Section 1.3.1 of the *S&G*. It is important to recognize that the model is a predictor of archaeological potential only and cannot be used to eliminate archaeological potential from lands included in the model since recent developments and disturbances are not taken into account. The results of the property inspection, presented below, are used to assess whether the study area has been disturbed by previous activity (e.g. quarrying, major landscaping, building footprints, sewage and/or infrastructure development).

3.3 Analysis of Property Inspection Results

As mentioned in Section 1.0 of this report, the Strathroy Solar Projects project involves the installation of four solar projects in Strathroy, Ontario. The property inspection results for each solar project location are discussed separately below.

3.3.1 L.P. #1

The property inspection for L.P. #1 revealed that the planned layout is located in a relatively undisturbed agricultural field, and is in close proximity to Gold Creek, a historically surveyed road, and a historic farmstead. According, the L.P. #1 location exhibits archaeological potential and will require further archaeological assessment (Plates 1 and 2; Figure 6: areas marked in green). This determination is made in accordance with Section 1.3.1 of the *S&G*.

3.3.2 L.P. #5 and #6

The property inspection for L.P. #5 and #6 revealed that the planned layout is located in a relatively undisturbed agricultural field, and is in close proximity to a historically surveyed road and an unnamed creek. According, the L.P. #5 and #6 location exhibits archaeological potential and will require further archaeological assessment (Plates 3 and 4; Figure 7: areas marked in green). This determination is made in accordance with Section 1.3.1 of the *S&G*.

3.3.3 L.P. #7

The property inspection for L.P. #7 revealed that the planned layout is located in a relatively undisturbed agricultural field, and is in close proximity to former beach strands, a historically surveyed road, and a historic farmstead. According, the L.P. #7 location exhibits archaeological potential and will require further archaeological assessment (Plates 5 and 6; Figure 8: areas marked in green). This determination is made in accordance with Section 1.3.1 of the *S&G*.

3.4 Conclusions

The Stage 1 Archaeological Assessment was conducted to assist with the Strathroy Solar Projects EA. The assessment determined that three archaeological sites have been registered within 1 km

of the study area. A review of the geography of the study area suggested that the study area has potential for the identification of Aboriginal and Euro-Canadian archaeological resources. The property inspection determined that all four L.P. locations included in the Strathroy Solar Projects study area exhibit archaeological potential.

4.0 RECOMMENDATIONS

In light of the results of the background research and property inspection undertaken for the Stage 1 Archaeological Assessment of the Strathroy Solar Projects study area, ASI makes the following recommendations:

1. Archaeological potential exists in the Strathroy Solar Projects study area (Figures 6-8: areas marked in green). All these lands will require a Stage 2 Property Assessment, which must be conducted in accordance with Sections 2.1.1 and 2.1.2 of the 2011 *Standards and Guidelines for Consultant Archaeologists*. The Stage 2 assessment must involve a combination of pedestrian survey of all ploughable lands and test pit survey for the remainder.

    - Pedestrian survey involves systematically walking over freshly ploughed and weathered agricultural lands; and,

    - Test pit survey involves the systematic excavation of small unit at 5 metre intervals and can be conducted only in areas where ploughing is not feasible.

2. Should the proposed work extend beyond the current Strathroy Solar Projects study area then further Stage 1 Archaeological Assessment must be conducted to determine the archaeological potential of the surrounding lands.

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

5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

ASI advises compliance with the following legislation:

- This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 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, Culture and Sport, 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 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*.

- Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the *Ontario Heritage Act*; and

- 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.

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7.0 MAPS

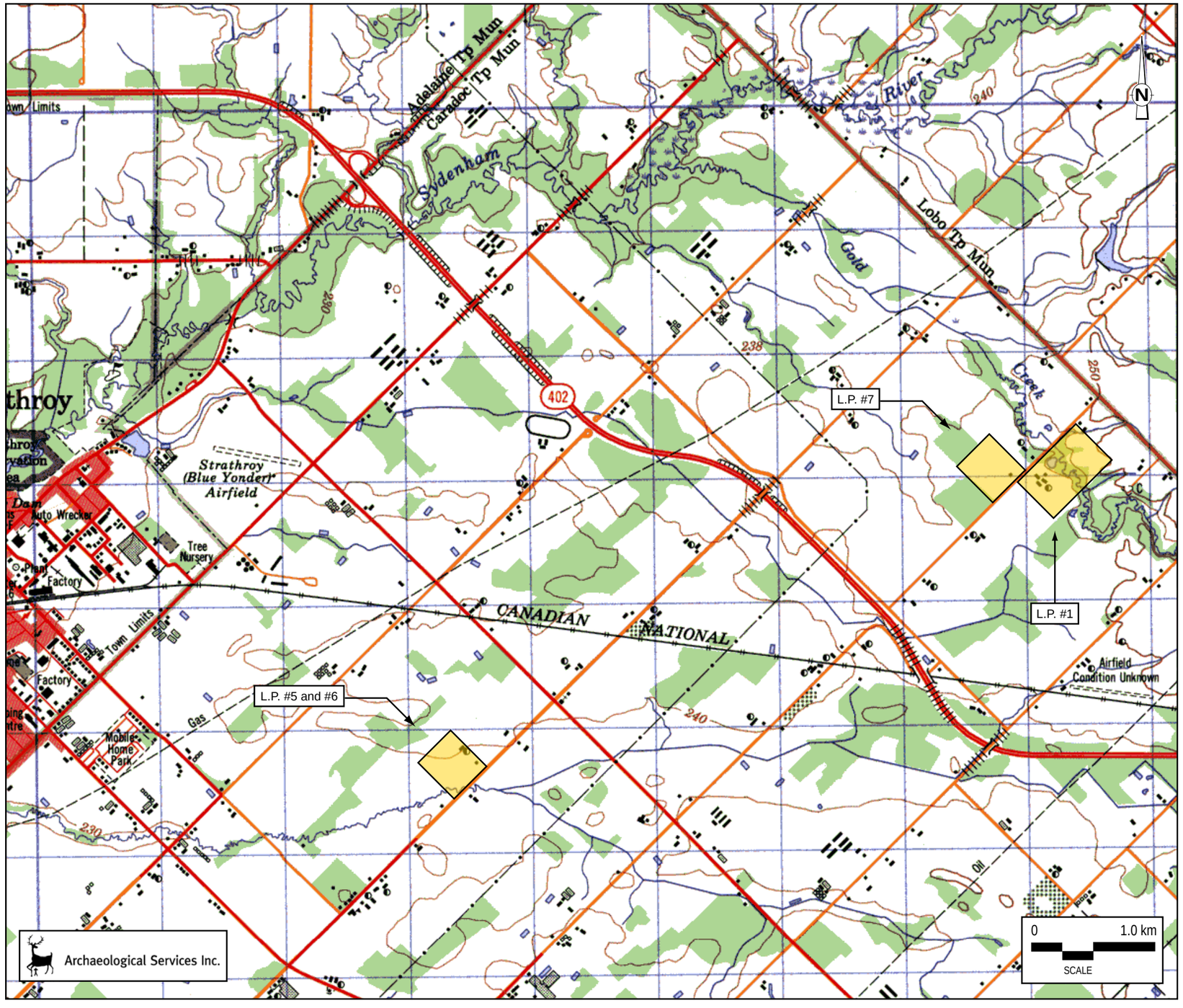


Figure 1: Location of the study area

Base Map: NTS Sheet 40 I/13 (Strathroy)

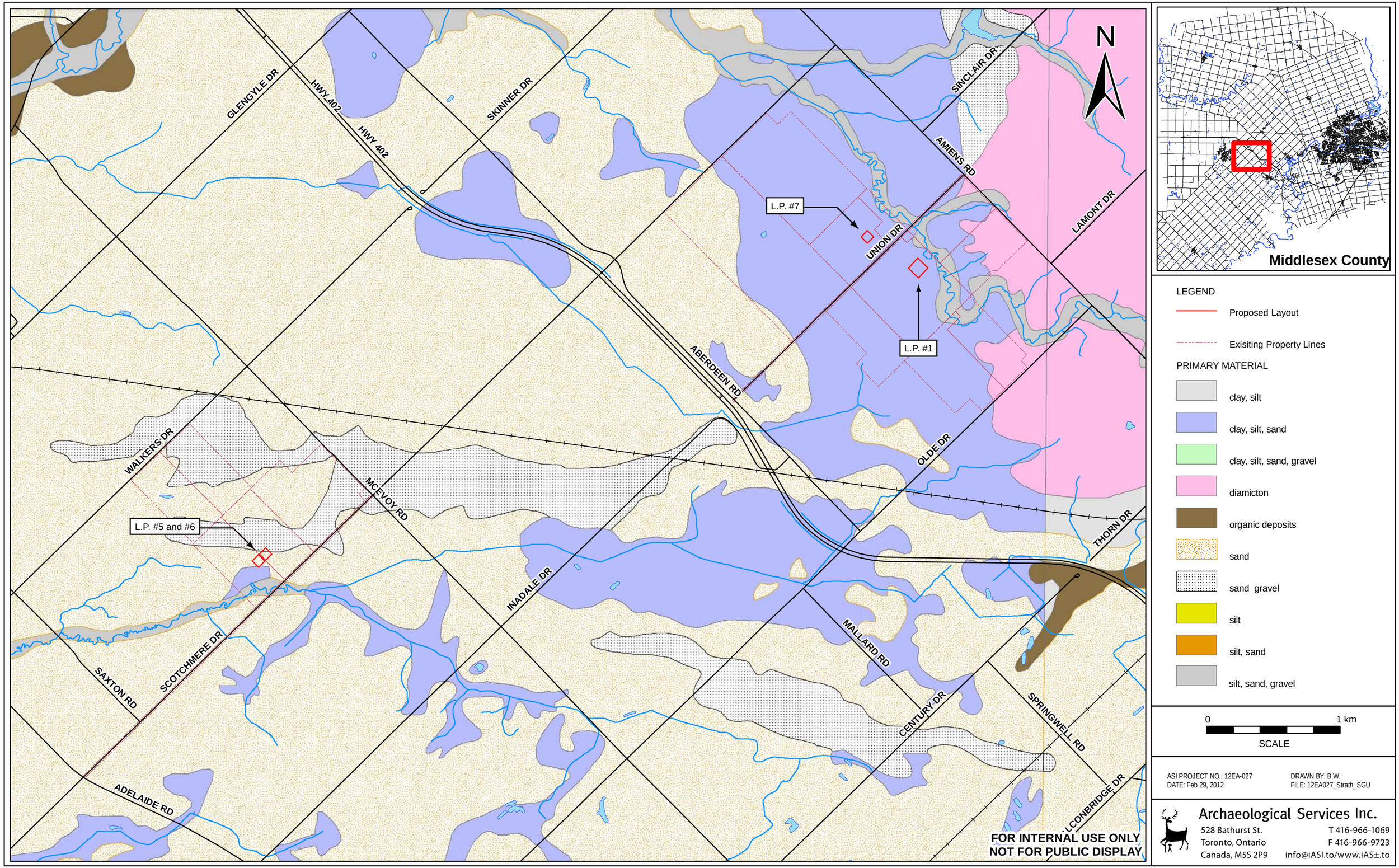
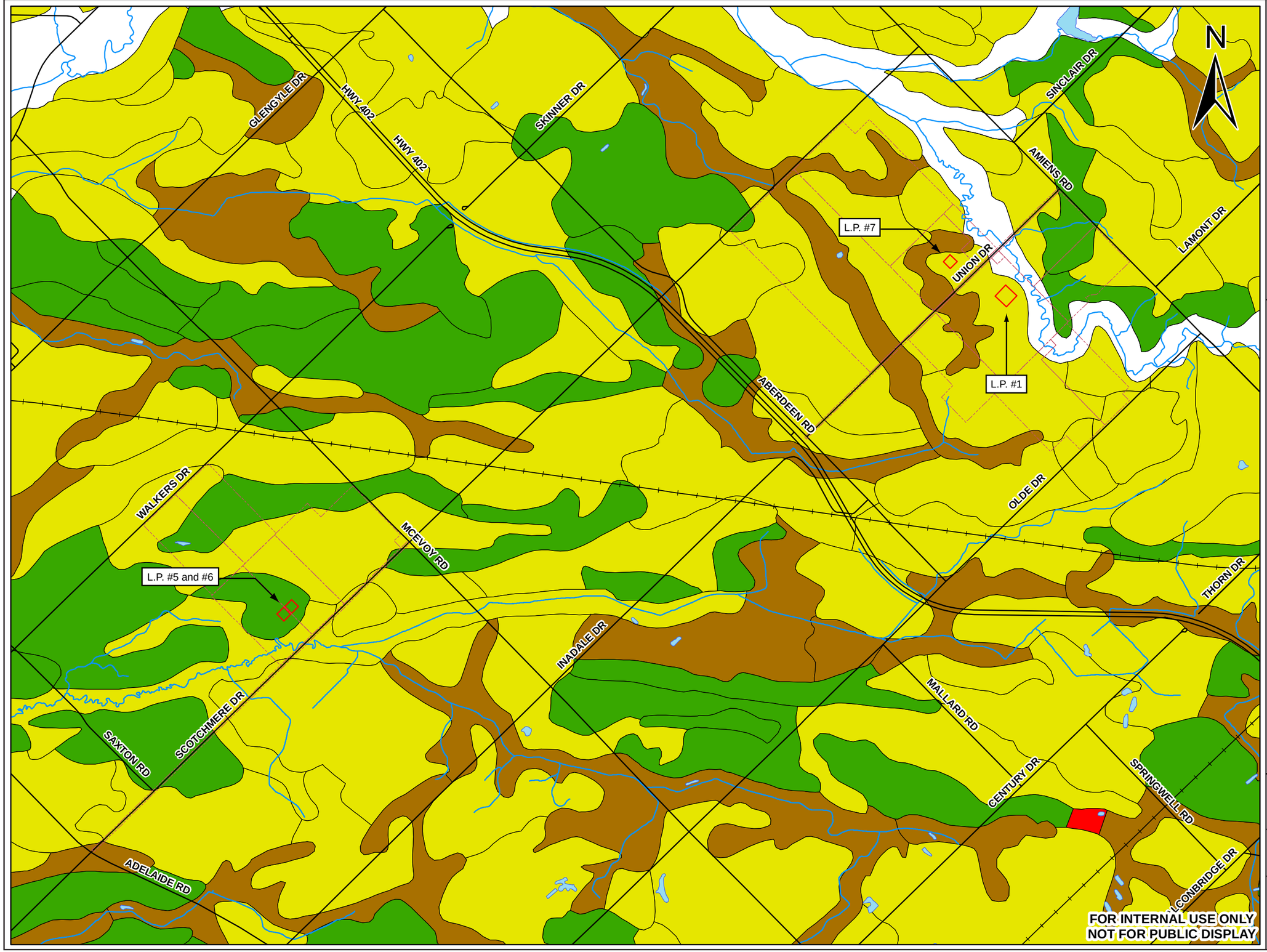
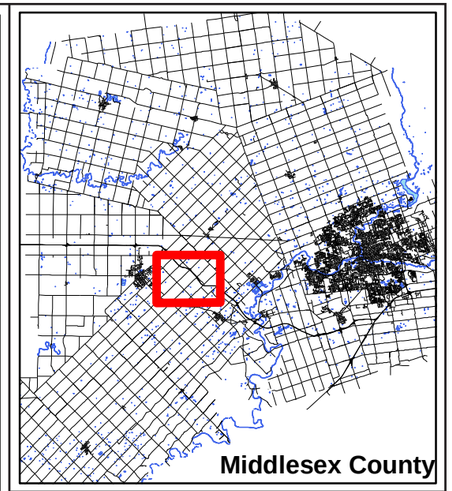


Figure 2: Surficial geology in the study area





LEGEND

Proposed Layout

Existing Property Lines

SOIL DRAINAGE

No Data

Well Drained

Imperfectly Drained

Poorly Drained

Very Poorly Drained

0 1 km

SCALE

ASI PROJECT NO.: 12EA-027
DATE: Feb 29, 2012

DRAWN BY: B.W.
FILE: 12EA027_Strath_Drain

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Figure 3: Soil Drainage in the Study Area

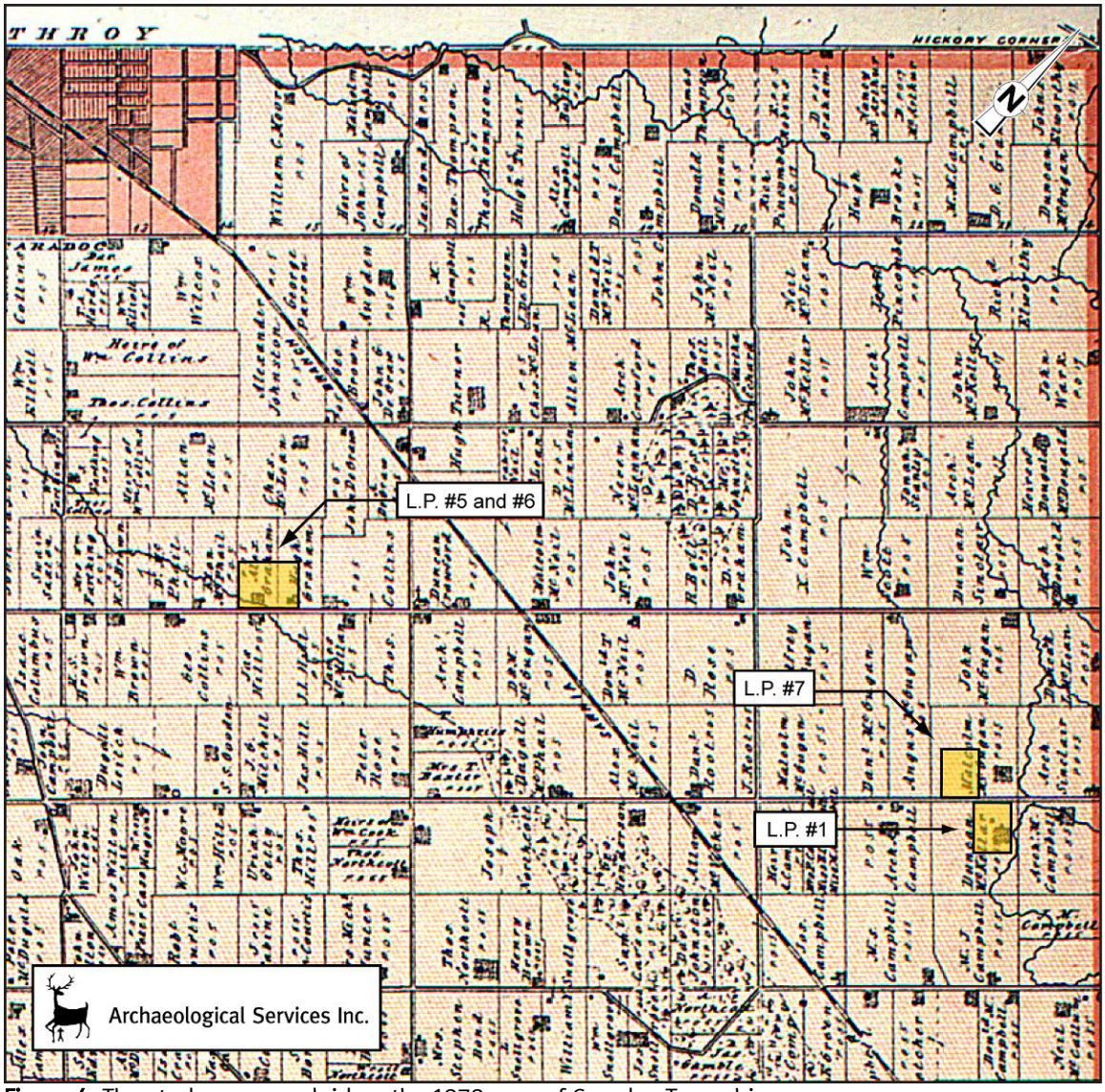


Figure 4: The study area overlaid on the 1878 map of Caradoc Townships

Base Map: The Illustrated Historical Atlas of the County of Middlesex, Ontario (H.R. Page & Co. 1878)

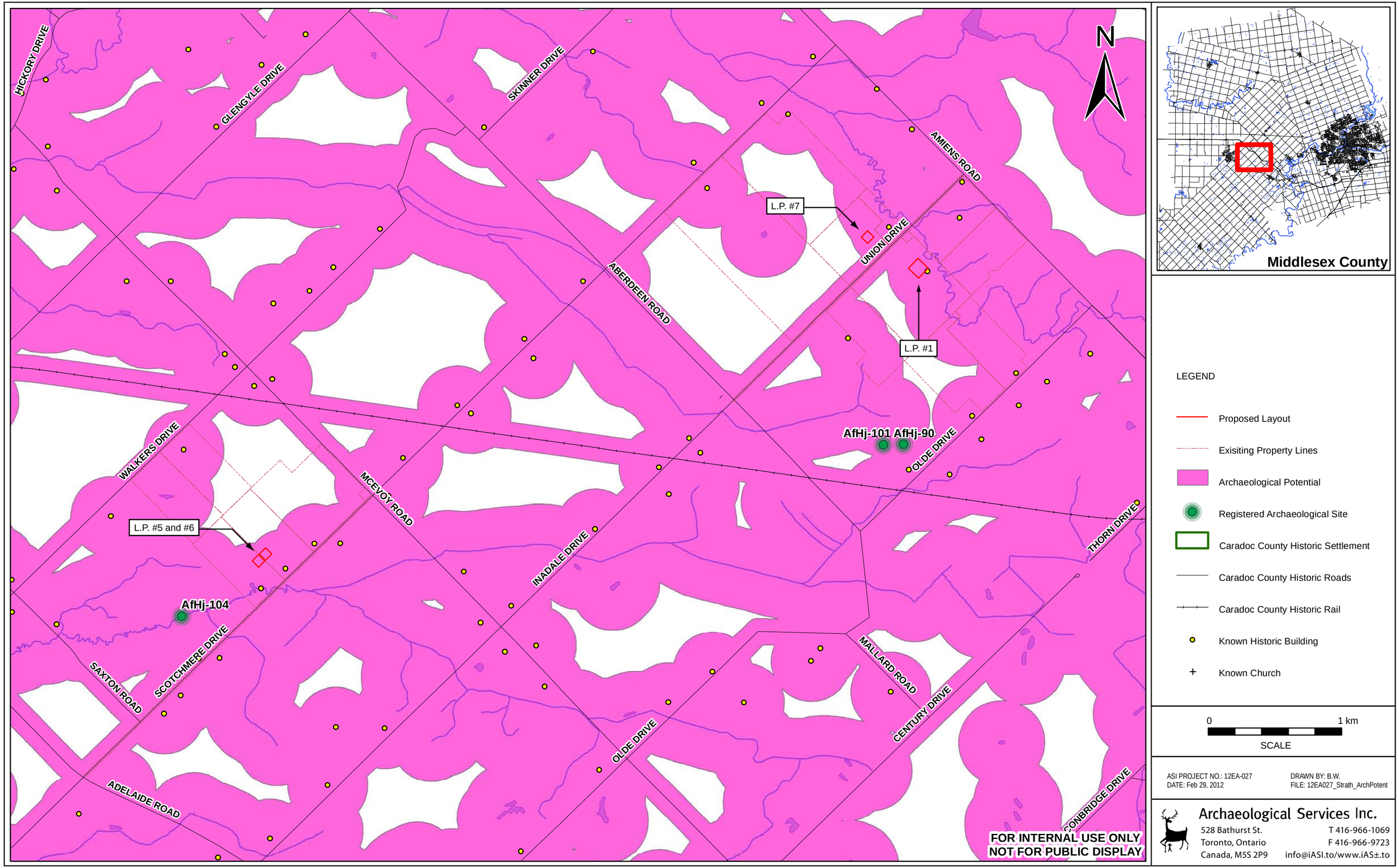
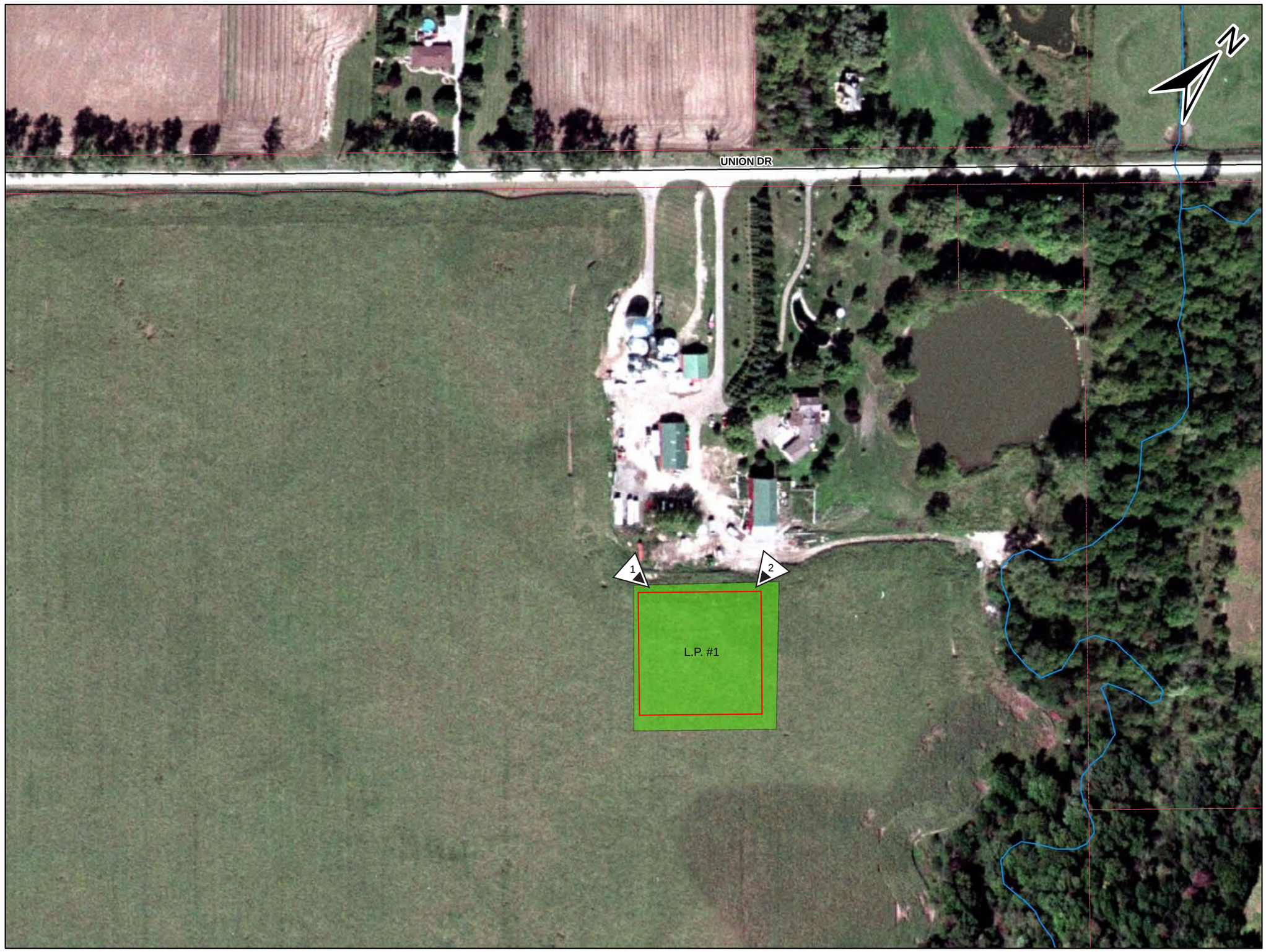
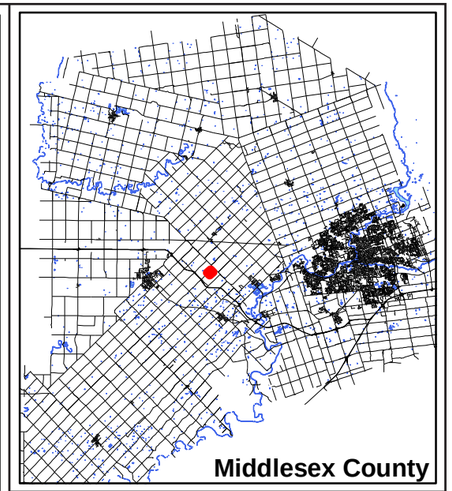


Figure 5: Archaeological Potential in the study area





LEGEND

- Proposed Layout
- Existing Property Lines
- No Potential - Disturbed
- No Potential - Low and Wet
- Archaeological Potential
- Photo Location and Direction

0 100 m

SCALE

ASI PROJECT NO.: 12EA-027
DATE: Apr 10, 2012

DRAWN BY: B.W.
FILE: 12EA027_Strath_L1

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Figure 6: Four Solar Projects in Strathroy (L.P. #1) - Results of Stage 1 Archaeological Assessment

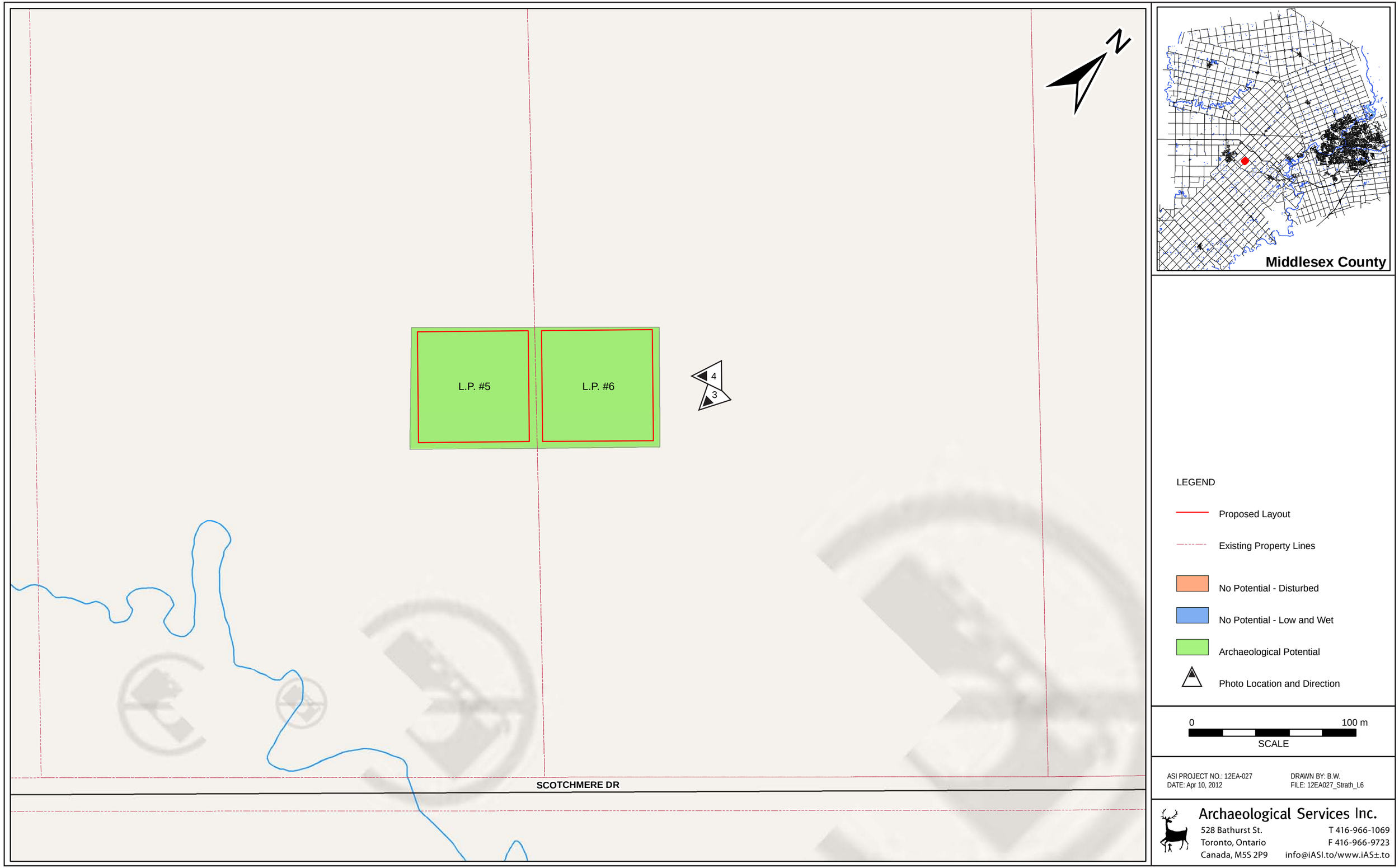
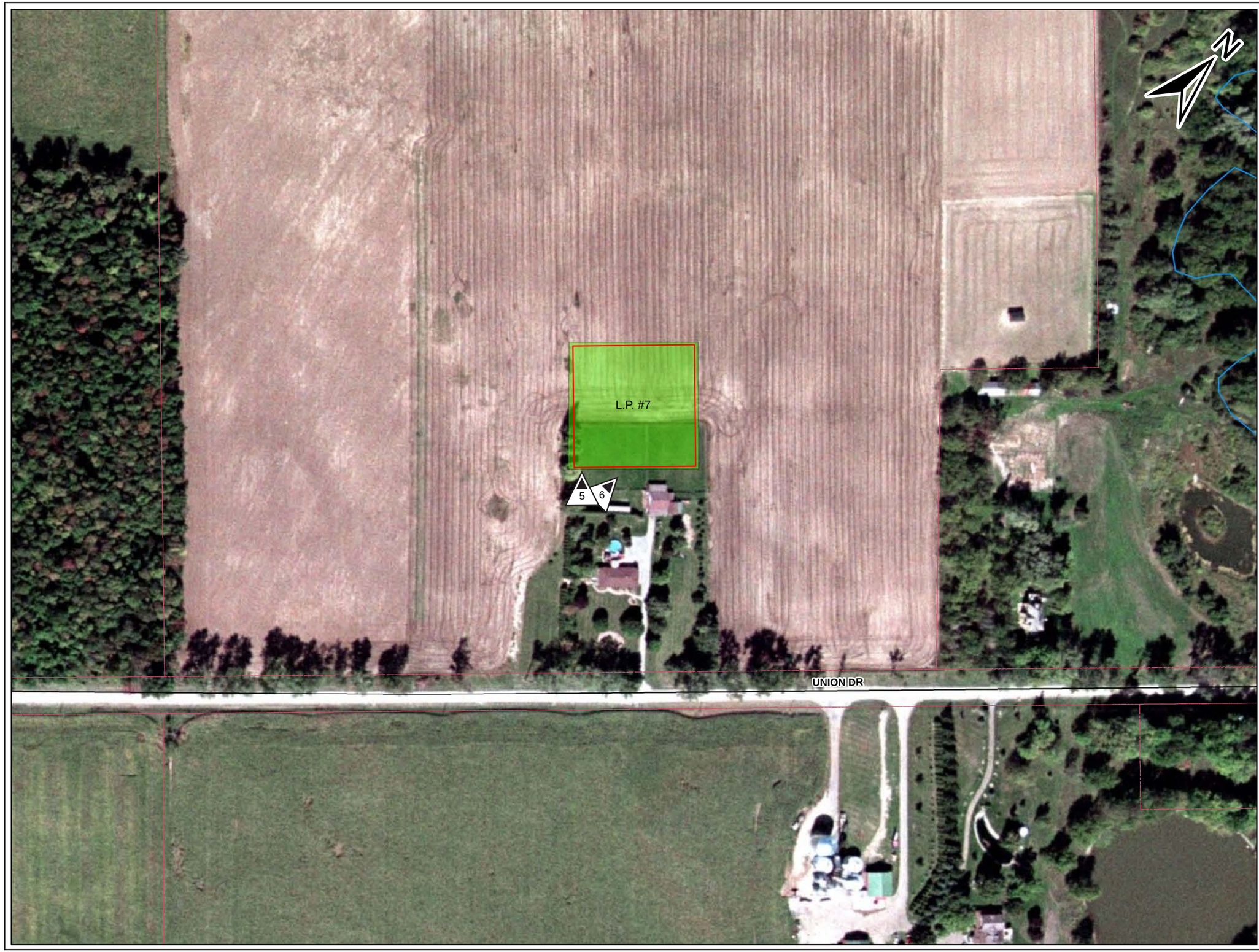
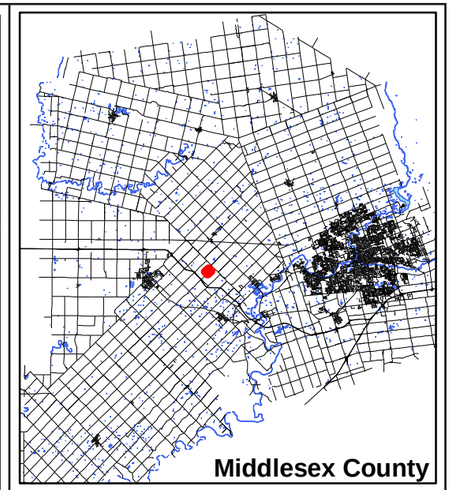


Figure 7: Four Solar Projects in Strathroy (L.P. #6) - Results of Stage 1 Archaeological Assessment





LEGEND

- Proposed Layout
- Existing Property Lines
- No Potential - Disturbed
- No Potential - Low and Wet
- Archaeological Potential
- Photo Location and Direction

0 100 m

SCALE

ASI PROJECT NO.: 12EA-027
DATE: Apr 10, 2012

DRAWN BY: B.W.
FILE: 12EA027_Strath_L7

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Figure 8: Four Solar Projects in Strathroy (L.P. #7) - Results of Stage 1 Archaeological Assessment

8.0 IMAGES

8.1 L.P. #1

Plate 1: East view across L.P. #1 study area. Field has potential.

Plate 2: South view across L.P. #1 study area. Field has potential.

8.2 L.P. #5 and #6

Plate 3: South view across L.P. #6 towards Scotchmere Drive. Field has potential.

Plate 4: Southwest view across study area for L.P. #5 and L.P. #6. Field has potential.

8.3 L.P. #7

Plate 5: Northwest view across L.P. #7. Field has potential.

Plate 6: North view across L.P. #7. Field has potential.