Cultural Heritage Resource Assessment:
Built Heritage Resources and Cultural Heritage Landscapes

SunE Newboro 1 Solar Farm
Township of Rideau Lakes, Ontario

Prepared for:

GENIVAR
600 Cochrane Drive, 5th Floor
Markham, ON L3R 5K3
Tel: (905) 475-8727
Fax: (905) 475-5994
Web: www.genivar.com
Email: Pat.Becker@genivar.com

ASI File 11EA-274

March 2012

Archaeological Services Inc.
528 Bathurst St.
Toronto, Ontario
Canada, M5S 2P9
T 416-966-1069
F 416-966-9723
info@iASI.to/www.iASI.to

Cultural Heritage Resource Assessment:
Built Heritage Resources and Cultural Heritage Landscapes

SunE Newboro 1 Solar Farm
Township of Rideau Lakes, Ontario

EXECUTIVE SUMMARY

Archaeological Services Inc. (ASI) was contacted by GENIVAR, Markham on behalf of SunEdison Canada, LLC (SunEdison) to conduct a cultural heritage resource assessment for the proposed SunE Newboro 1 Solar Farm in the Township of Rideau Lakes. SunEdison is proposing a single Class 3 Solar Facility with a nameplate capacity of 10 MW (AC) in the area of Crosby, Ontario. If approved, this facility will convert solar energy into electricity to be fed into the Hydro One distribution grid. The major components of the proposed project are as follows:

- Approximately 40,000 x MEMC solar modules (280-watt generation capacity)
- 320 disconnect combiners
- 44 kV Substation including pole-top motor-operated disconnect; 44kV switchgear; 10 MVA oil filled pad-mount transformer; interrupter switches, communication equipment, etc.
- 20 x 500-kW inverters and 10 corresponding 1000 kVA transformers
- Internal access driveways
- Temporary staging areas for the installation of the solar panels
- A 30-m tall communications tower (if required by Hydro One)

The defined study area covers approximately 142 hectares (ha) and is comprised of both the project location and a 120m setback which includes abutting properties. In accordance with Ministry of Tourism and Culture (now the Ministry of Tourism, Culture and Sport) Renewable Energy Assessment guidelines (2011), the following heritage assessment addresses both the project location and abutting properties. For the purposes of this report, the term 'study area' refers to both of these defined areas. The project location is bounded to the west by Narrows Lock Road (Highway 14) just south of McCann Road..

The proposed SunEdison Newboro 1Solar Farm has the potential to directly or indirectly impact identified cultural heritage resources in a variety of ways. These resources retain significance on the basis of their exterior architectural styles, their historical associations with early settlers in the former Township of South Crosby, and the retention of physical and visual links to their nineteenth-century agricultural roots. All of the identified cultural heritage resources were screened against Ministry of Tourism and Culture criteria in order to assess potential impacts on these cultural heritage resources. Based on the results of the background data collection, the field review, and a cultural heritage evaluation of the identified features, and impact assessment, the following recommendations are provided:

1. Minimize visual impacts to CHL 1, CHL 2, CHL 4, and CHL 9 and alterations to the setting of CHL 1 and CHL 2 by maximizing the setback between solar facility infrastructure and the Narrows Lock Road right-of-way. Solar modules presently sited nearest to the right-of-way should be re-sited to take full advantage of the available field and cultural thicket bordered by the deciduous maple forest along the northwest and northeast section of the study area.

2. Wherever possible existing fence rows, woodlots, hedge rows, and tree lines should be preserved where extant. This includes any existing tree and fence lines that mark historic field boundaries and lot lines around the perimeter and/or within the project location. Not only are these features historically and physically linked to the surrounding landscape, but they will act as a visual screen around the proposed undertaking which will introduce new visual elements that are not in keeping with the rural agricultural character of the area.

3. As CHL 1 and CHL 2 are expected to be impacted through alteration to their settings, removal of character-defining landscape features, and physical and visual encroachment by the introduction of elements that are not in keeping with the rural agricultural setting of the area, cultural heritage landscape documentation reports should be prepared in advance of construction activities to serve as a final record of each of the resources and the project location in general.

4. Staging and construction activities should be planned and undertaken to avoid impacts to identified cultural heritage resources.

PROJECT PERSONNEL

Corporate Responsibility:	Robert Pihl, MA, CAHP *Partner and Senior Archaeologist* *Manager, Environmental Assessment Division*
Senior Project Manager:	Rebecca Sciarra, MA, CAHP *Cultural Heritage Specialist* *Manager, Built Heritage and Cultural Heritage Landscape Division*
Project Manager:	Annie Veilleux, MA *Cultural Heritage Specialist*
Cultural Heritage Specialists:	Mary-Cate Garden, PhD *Cultural Heritage Specialist* Annie Veilleux, MA
Project Coordinator:	Sarah Jagelewski, Hon. BA *Research Archaeologist*
Project Administrator:	Carol Bella, Hon. BA *Research Archaeologist*
Archival Research:	Mary-Cate Garden Annie Veilleux
Report Preparation:	Annie Veilleux
Graphics Preparation:	Annie Veilleux
Report Reviewer:	Rebecca Sciarra

TABLE OF CONTENTS

EXECUTIVE SUMMARY i
PROJECT PERSONNEL iii
TABLE OF CONTENTS iv
1.0 INTRODUCTION 1
2.0 CONTEXT AND METHODOLOGY 1
2.1 Provincial Policy Framework 1
2.2 Data Collection and Methodology 4
3.0 BUILT HERITAGE AND CULTURAL HERITAGE LANDSCAPE ASSESSMENT 7
3.1 Introduction 7
3.2 Township Survey and Settlement 8
3.2.1 Crosby 8
3.2.2 Newboro 8
3.3 Land use History 9
3.3.1 Lot 26, Concession 1 9
3.3.1.1 South Half – 1806 to 1862 9
3.3.1.2 Southern 50 acre of North Half – 1806 to 1879 10
3.3.1.3 Southern 150 acre of Lot– 1862 to 1966 10
3.3.1.4 Southern 150 acre of Lot– 1966 to present 11
3.3.1.5 Residential Lot at 503 Narrows Lock Road 11
3.3.2 Lot 25, Concession 1 12
3.3.2.1 Lot 25 – 1806 to 1855 12
3.3.2.2 North Half – 1855 to 1886 12
3.3.2.3 North Half – 1886 to 1907 13
3.3.2.4 North Half – 1907 to 1963 13
3.3.2.5 North Half – 1963 to present 13
3.4 Desktop Data Collection Results 15
3.5 Existing Conditions of Study Area 17
3.6 Description and Evaluation of Cultural Heritage Resources Located within the Project Location 18
3.6.1 CHL 1: Farmscape at 393 Narrows Lock Road 19
3.6.1.1 Description of Resource 19
3.6.1.2 Evaluation of Resource 21
3.6.2 CHL 2: Farmscape at 503 Narrows Lock Road 22
3.6.1.1 Description of Resource 22
3.6.1.2 Evaluation of Resource 24
3.7 Description and Evaluation of Cultural Heritage Resources Located within the Abutting Properties 26
4.0 LOCATION MAPPING OF CULTURAL HERITAGE RESOURCES 28
5.0 IMPACT ASSESSMENT 29
5.1 Project Location 30
5.2 Abutting Properties 30
6.0 CONCLUSIONS 30
7.0 RECOMMENDATIONS 32
8.0 REFERENCES 33
APPENDIX A: GLOSSARY FOR RENEWABLE ENERGY (SOLAR) PROJECTS 35
APPENDIX B: PROPOSED PROJECT LAYOUT 38

LIST OF FIGURES

Figure 1: Location of the SunE Newboro 1 Solar Farm study area. 2
Figure 2: Approximate location of the project location and abutting properties in the Townships of South Crosby, North Crosby, and Bastard, 1861-62 14
Figure 3: Project location and abutting properties in the Townships of South Crosby, North Crosby, and Bastard, 1927. 14

Figure 4: Newboro 1 – Cultural heritage resource location mapping. 28
Figure 5: Preliminary Newboro 1 study area made up of Project Location (red outline) and 120 metre setback (green outline) 39
Figure 6: Newboro 1 - Project Location with overlaid proposed project site plan 40

LIST OF TABLES

Table 1: Screening Questions for Cultural Heritage Resource Assessments Subject to Ontario Regulation 359/09 Renewable Energy Approvals 4
Table 2: Newboro 1 – Summary of Consideration of Heritage Resources 15
Table 3: Summary of Resources and Results of Desktop Data Collection 16
Table 4: Newboro 1– Identified Cultural Heritage Landscapes (CHL) within the Study Area 18
Table 5: Evaluation of 393 Narrows Lock Road, *Ontario Heritage Act* Regulation 9/06 21
Table 6: Evaluation of 503 Narrows Lock Road, *Ontario Heritage Act* Regulation 9/06 24
Table 7: Newboro 1 – Identified Cultural Heritage Landscapes (CHL) within the Abutting Properties 26
Table 8: Potential Impacts to Identified Cultural Heritage Resources within the Project Location 30
Table 9: Potential Impacts to Identified Cultural Heritage Resources within Abutting Properties 30

1.0 INTRODUCTION

Archaeological Services Inc. (ASI) was contacted by GENIVAR, Markham on behalf of SunEdison Canada, LLC (SunEdison) to conduct a cultural heritage resource assessment for the proposed SunE Newboro 1 Solar Farm in the Township of Rideau Lakes (Figure 1). SunEdison is proposing a single Class 3 Solar Facility with a nameplate capacity of 10 MW (AC) in the area of Crosby, Ontario. If approved, this facility will convert solar energy into electricity to be fed into the Hydro One distribution grid. The major components of the proposed project are as follows:

- Approximately 40,000 x MEMC solar modules (280-watt generation capacity)
- 320 disconnect combiners
- 44 kV Substation including pole-top motor-operated disconnect; 44kV switchgear; 10 MVA oil filled pad-mount transformer; interrupter switches, communication equipment, etc.
- 20 x 500-kW inverters and 10 corresponding 1000 kVA transformers
- Internal access driveways
- Temporary staging areas for the installation of the solar panels
- A 30-m tall communications tower (if required by Hydro One)

The defined study area covers approximately 142 hectares (ha) and is comprised of both the project location and a 120m setback which includes abutting properties. In accordance with Ministry of Tourism and Culture (now the Ministry of Tourism, Culture and Sport) Renewable Energy Assessment guidelines (2011), the following heritage assessment addresses both the project location and abutting properties. For the purposes of this report, the term 'study area' refers to both of these defined areas. The project location is bounded to the west by Narrows Lock Road (Highway 14) just south of McCann Road.[1]

The purpose of the current report is to identify cultural heritage resources potentially impacted by the undertaking and to identify appropriate mitigation and/or conservation measures. This report has been completed to partially fulfill the requirements of O. Reg. 359/09, specifically s. 19, 20(1) and s.23. This research was conducted under the project direction of Rebecca A. Sciarra, Cultural Heritage Specialist.

2.0 CONTEXT AND METHODOLOGY

2.1 Provincial Policy Framework

Ontario Reg. 359/09 of the *Environmental Protection Act*, s. 19, 20(1) and 23 require that applicable projects must determine if there will be an impact to any heritage resources or protected properties as described in s. 19, and then carry out a heritage assessment under s. 23. Heritage resources are defined under O. Reg 359/09 as "real property that is of cultural heritage value or interest and may include a building, structure, landscape or other feature of real property" (Part 1, Section 1).

[1] For ease of description, McCann Road is described as having an east-west orientation and Narrows Lock Road as having a north-south orientation for the sake of this report. In reality, McCann Road runs in a more southwest-northeast direction and Narrows Lock Road in a northwest-southeast direction.

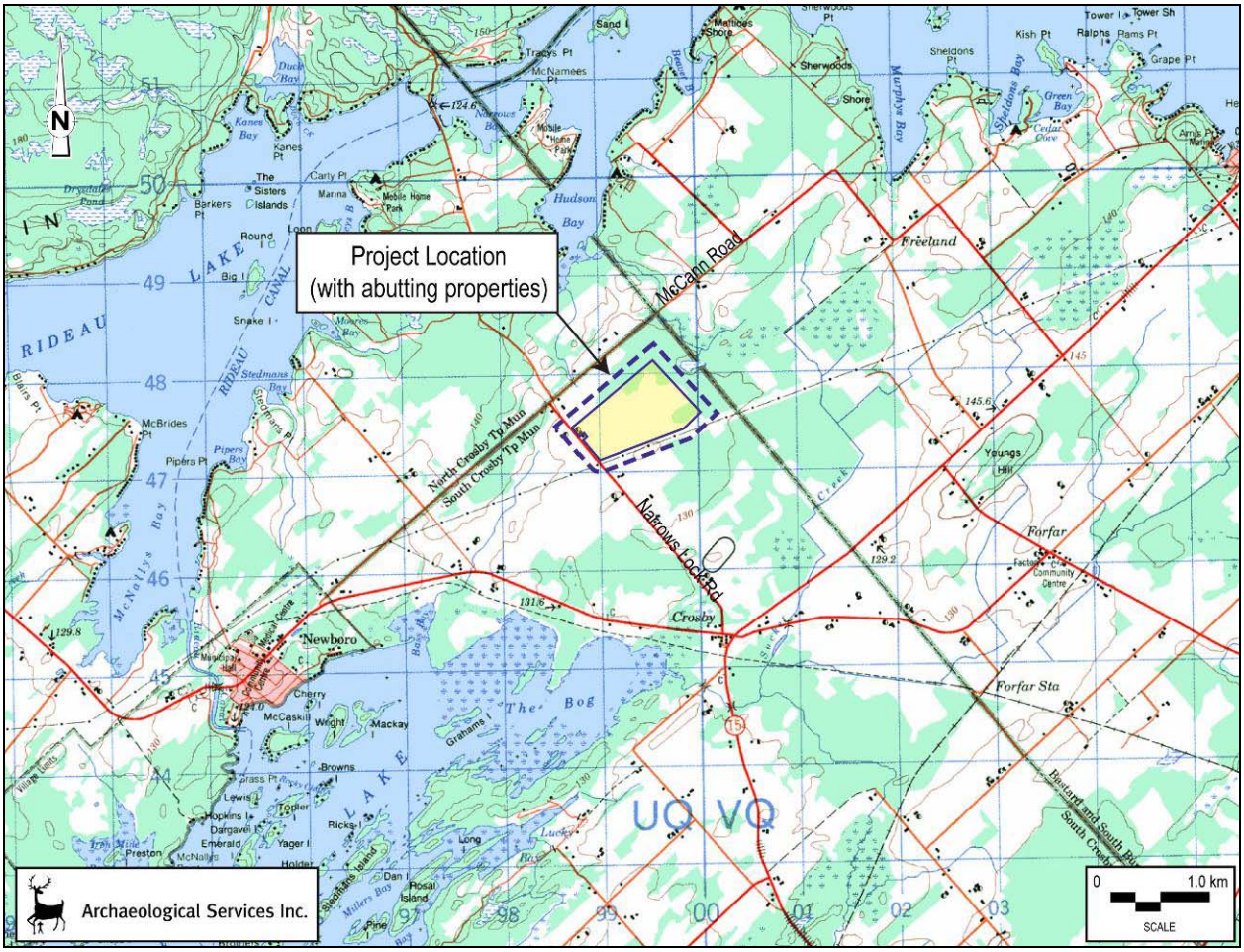


Figure 1: Location of the SunE Newboro 1 Solar Farm study area.

Base map: NTS Sheet Westport, 31 C/09

This assessment addresses above ground cultural heritage resources over 40 years old. Use of a 40 year old threshold is a guiding principle when conducting a preliminary identification of cultural heritage resources (Ministry of Transportation 2006; Ministry of Transportation 2007; Ontario Realty Corporation 2007). While identification of a resource that is 40 years old or older does not confer outright heritage significance, this threshold provides a means to collect information about resources that may retain heritage value. Similarly, if a resource is slightly younger than 40 years old, this does not preclude the resource from retaining heritage value.

The proposed solar project has the potential to affect cultural heritage resources in a variety of ways. These include the loss or displacement of resources through removal or demolition and the disruption of resources by introducing physical, visual, audible or atmospheric elements that are not in keeping with the resources and/or their setting.

For the purposes of this assessment, the term cultural heritage resources was used to describe both cultural landscapes and built heritage features. A cultural landscape is perceived as a collection of individual built heritage features and other related features that together form farm complexes, roadscapes and nucleated settlements. Built heritage features are typically individual buildings or structures that may

be associated with a variety of human activities, such as historical settlement and patterns of architectural development.

The *Planning Act* (1990) and related *Provincial Policy Statement* (PPS) make a number of provisions relating to heritage conservation. One of the general purposes of the *Planning Act* is to integrate matters of provincial interest in provincial and municipal planning decisions. In order to inform all those involved in planning activities of the scope of these matters of provincial interest, Section 2 of the *Planning Act* provides an extensive listing. These matters of provincial interest shall be regarded when certain authorities, including the council of a municipality, carry out their responsibilities under the *Act*. One of these provincial interests is directly concerned with:

> 2.0 …protecting cultural heritage and archaeological resources for their economic, environmental, and social benefits.

Part 4.5 of the *PPS* states that:

> Comprehensive, integrated and long-term planning is best achieved through municipal official plans. Municipal official plans shall identify provincial interests and set out appropriate land use designations and policies. Municipal official plans should also coordinate cross-boundary matters to complement the actions of other planning authorities and promote mutually beneficial solutions.
>
> Municipal official plans shall provide clear, reasonable and attainable policies to protect provincial interests and direct development to suitable areas.
>
> In order to protect provincial interests, planning authorities shall keep their official plans up-to-date with this Provincial Policy Statement. The policies of this Provincial Policy Statement continue to apply after adoption and approval of a municipal official plan.

Those policies of particular relevance for the conservation of heritage features are contained in Section 2-Wise Use and Management of Resources, wherein Subsection 2.6 - Cultural Heritage and Archaeological Resources, makes the following provisions:

> 2.6.1 Significant built heritage resources and cultural heritage landscapes shall be conserved.

A number of definitions that have specific meanings for use in a policy context accompany the policy statement. These definitions include built heritage resources and cultural heritage landscapes.

Built heritage resources mean one or more buildings, structures, monuments, installations or remains associated with architectural, cultural, social, political, economic, or military history, and identified as being important to a community.

Cultural heritage landscapes mean a defined geographical area of heritage significance which has been modified by human activities and is valued by a community. It involves a grouping(s) of individual heritage features such as structures, spaces, archaeological sites and natural elements, which together form a significant type of heritage form, distinctive from that of its constituent elements or parts. Examples may include, but are not limited to, heritage conservation districts designated under the Ontario Heritage Act; and villages, parks, gardens, battlefields, mainstreets and neighbourhoods, cemeteries, trailways and industrial complexes of cultural heritage value (*PPS* 2005).

In addition, significance is also more generally defined. It is assigned a specific meaning according to the subject matter or policy context, such as wetlands or ecologically important areas. With regard to cultural heritage and archaeology resources, resources of significance are those that are valued for the important contribution they make to our understanding of the history of a place, an event, or a people (*PPS* 2005).

Criteria for determining significance for the resources are recommended by the Province, but municipal approaches that achieve or exceed the same objective may also be used. While some significant resources may already be identified and inventoried by official sources, the significance of others can only be determined after evaluation (*PPS* 2005).

Accordingly, the foregoing guidelines and relevant policy statement were used to guide the scope and methodology of the cultural heritage assessment.

2.2 Data Collection and Methodology

Data collection for cultural heritage resource assessments undertaken as part of the Renewable Energy Approvals process is informed by guidance material issued by the Ministry of Tourism and Culture, now the Ministry of Tourism, Culture, and Sport (MTCS). The document entitled *Protected Properties, Archaeological and Heritage Resources: An Information Bulletin for Applicants Addressing the Cultural Heritage Component of Projects Subject to Ontario Regulation 359/09 Renewable Energy Approvals* (2011) provides a series of relevant definitions and identifies specific data sources that require consideration as part of the process of identifying potentially impacted cultural heritage resources. Appendix B (*Identifying Protected Properties at the Project Location*), Appendix D (*Consideration of Heritage Resources at the Project Location-Self*); and Appendix E (*Checklist for Identifying Protected Properties Abutting A Project Location*) of the 2011 MTCS guidance document provide a series of data collection and screening questions which have been considered in the course of this assessment. Appendix A provides a glossary of terms presented in the MTCS document while the following table provides a list of identified data sources and considerations:

Table 1: Screening Questions for Cultural Heritage Resource Assessments Subject to Ontario Regulation 359/09 Renewable Energy Approvals
Screening Question
PART A: Recognized Cultural Heritage Value
1. Is the property or abutting property within a protected heritage property as described in the table in section 19 of O. Reg. 359/09?
(a) Is the property or an abutting property subject to an Ontario Heritage Trust easement agreement?
(b) Is the property or an abutting property subject to a notice of intention to designate has been issued by a municipality?
(c) Is the property or an abutting property municipally designated?
(d) Is the property or an abutting property provincially designated?
(e) Is the property or an abutting property subject to a notice of intention to designate issued by the Minister of Tourism and Culture?
(f) Is the property or an abutting property subject to a municipal easement agreement?
(g) Is the property or an abutting property part of a designated Heritage Conservation District?
(h) Is the property or an abutting property designated as a historic site under Regulation 880?
2(a). Is the subject property listed on the municipal heritage register/list?
2(b). Is the subject property listed on a provincial register/list?

Table 1: Screening Questions for Cultural Heritage Resource Assessments Subject to Ontario Regulation 359/09 Renewable Energy Approvals
Screening Question
3(a). Is there a municipal plaque on or related to the subject property?
3(b). Is there a provincial plaque on or related to the subject property?
3(c). Is there a federal plaque on or related to the subject property?
4(a). Is the subject property a National Historic Site?
4(b). Is the subject property a UNESCO World Heritage Site?
PART B: Potential Cultural Heritage Value
BUILT HERITAGE RESOURCES
5. Can it be confirmed that buildings at the project location are less than 40 years old?
(a) Residential structures (e.g., house, apt. shanty or trap line shelter)
(b) Farm buildings (e.g. barns. Silos outbuildings, windmills)
(c) Industrial, commercial or institutional operations (e.g., a factory, school, quarries, mining etc)
(d)Engineering works (e.g.) bridge water or communication towers, sewers, dams canals etc
(e) Monuments or landmark features (e.g., cairns, statues, obelisks retaining walls, claim markers, reflecting pools etc)
6. Is there a known burial site and/or cemetery located at or abutting the project location?
7. Is the project location within a Canadian Heritage River watershed?
PART C: Other Considerations
8. Is the property or an abutting property associated with a known architect, landscape architect, planner or builder?
9. Is the property or an abutting property associated with a historic road or rail corridor?
10. Is the property or an abutting property a park or planned/designed recreational or community space?
11. Is there accessible documentation to indicate built heritage or cultural heritage landscape potential?
12. Is the subject property or an abutting property associated with a person or event of historic interest?

Generally, when conducting a cultural heritage resource assessment, three stages of research and data collection are undertaken to appropriately establish the potential for and existence of cultural heritage resources in a particular geographic area.

Background historic research, which includes consultation of primary and secondary source research and historic mapping, is undertaken to identify early settlement patterns and broad agents or themes of change in a study area. This stage in the data collection process enables the researcher to determine the presence of sensitive heritage areas that correspond to nineteenth and twentieth century settlement and development patterns. To augment data collected during this stage of the research process, federal, provincial, and municipal databases and/or agencies are consulted to obtain information about specific properties that have been previously identified and/or designated as retaining cultural heritage value and as described in Table 1. Typically, resources identified during these stages of the research process are reflective of particular architectural styles, associated with an important person, place, or event, and contribute to the contextual facets of a particular place, neighbourhood, or intersection.

A field review, in the form of a windshield survey, is then undertaken to confirm the location and condition of previously identified cultural heritage resources. The field review is also utilized to identify

cultural heritage resources that have not been previously identified on federal, provincial, or municipal databases and which have the potential to be impacted by the undertaking.

Several investigative criteria are utilized during the field review to appropriately identify new cultural heritage resources. These investigative criteria are derived from provincial guidelines, definitions, and past experience. A built structure or landscape is identified as a cultural heritage resource that should be considered during the course of the assessment. A resource will be considered if it is 40 years or older[2], and if the resource satisfies at least one criterion in one of the following three categories:

Design/Physical Value:

- It is a rare, unique, representative or early example of a style, type, expression, material or construction method
- It displays a high degree of craftsmanship or artistic merit
- It demonstrates a high degree of technical or scientific achievement
- The site and/or structure retains original stylistic features and has not been irreversibly altered so as to destroy its integrity

Historical/Associative Value:

- It has a direct association with a theme, event, belief, person, activity, organization, or institution that is significant to: the former Township of North Crosby and the Township of Rideau Lakes; the Province of Ontario; Canada; or the world heritage list
- It yields, or has the potential to yield, information that contributes to an understanding of: the former Township of North Crosby and the Township of Rideau Lakes; the Province of Ontario, Canada; or the world heritage list
- It demonstrates or reflects the work or ideas of an architect, artist builder, designer, or theorist who is significant to: the former Township of North Crosby and the Township of Rideau Lakes; the Province of Ontario; Canada; or the world heritage list

Contextual Value:

- It is important in defining, maintaining, or supporting the character of an area
- It is physically, functionally, visually, or historically linked to its surroundings
- It is a landmark
- It illustrates a significant phase in the development of the community or a major change or turning point in the community's history
- The landscape contains a structure other than a building (fencing, culvert, public art, statue, etc.) that is associated with the history or daily life of that area or region
- There is evidence of previous historic and/or existing agricultural practices (e.g. terracing, deforestation, complex water canalization, apple orchards, vineyards, etc.)

When identifying cultural heritage landscapes, the following categories are typically utilized for the purposes of the classification during the field review:

Farm complexes: comprise two or more buildings, one of which must be a farmhouse or barn, and may include a tree-lined drive, tree windbreaks, fences, domestic

[2] Use of a 40 year old threshold is a guiding principle when conducting a preliminary identification of cultural heritage resources (Ministry of Transportation 2006; Ministry of Transportation 2007; Ontario Realty Corporation 2007). While identification of a resource that is 40 years old or older does not confer outright heritage significance, this threshold provides a means to collect information about resources that may retain heritage value. Similarly, if a resource is slightly younger than 40 years old, this does not preclude the resource from retaining heritage value.

	gardens and small orchards.
Roadscapes:	generally two-lanes in width with absence of shoulders or narrow shoulders only, ditches, tree lines, bridges, culverts and other associated features.
Waterscapes:	waterway features that contribute to the overall character of the cultural heritage landscape, usually in relation to their influence on historic development and settlement patterns.
Railscapes:	active or inactive railway lines or railway rights of way and associated features.
Historical settlements:	groupings of two or more structures with a commonly applied name.
Streetscapes:	generally consists of a paved road found in a more urban setting, and may include a series of houses that would have been built in the same time period.
Historical agricultural landscapes:	generally comprises a historically rooted settlement and farming pattern that reflects a recognizable arrangement of fields within a lot and may have associated agricultural outbuildings and structures.
Cemeteries:	land used for the burial of human remains.

Results of data collection are contained in Section 3.0 and 4.0; while Sections 6.0 to 7.0 contain conclusions and recommendations with respect to the undertaking.

3.0 BUILT HERITAGE AND CULTURAL HERITAGE LANDSCAPE ASSESSMENT

3.1 Introduction

The following sections provide the results of historic research, desktop data collection, and a description of above ground cultural heritage resources that may be affected by the proposed SunEdison Newboro 1 Solar Farm. Historically, the project location is found within part of Lots 25 and 26, Concession 1 in the former Township of South Crosby, County of Leeds. Abutting properties are located within part of Lots 25 and 26, Concession 1 and 2.

The project location occupies part of the north half of Lot 25 and a large part of Lot 26, Concession 1 in the former Township of South Crosby. As such, a full review of the land use history of these lots was undertaken. A more general level of historical research was prepared for abutting properties. Background historical research included: a review of historic documents including census returns, maps, and both primary and secondary sources; a visit to the Land Registry in Brockville, Ontario where a review of the Lots were undertaken; a review of available local history holdings at the Elgin branch of the Township of Rideau Lakes library system. Some of these holdings are available at the library as well as online (Lakes & Islands Times Past: The Shared Digital Histories of Rideau Lakes & Leeds and the Thousand Islands).[3] In addition, the Clerk at the Township of Rideau Lakes was contacted in November 2011.

[3] http://www.lakesandislands.ca

3.2 Township Survey and Settlement

The project location is found within the former Township of South Crosby, County of Leeds, presently in the Township of Rideau Lakes, United Counties of Leeds and Grenville. Historical research reveals that land which encompasses the study area has a long history extending to the late eighteenth and early nineteenth centuries.

The establishment of the Township of South Crosby is associated with the arrival of United Empire Loyalists in Eastern Ontario in the 1780s. A survey of both North and South Crosby was started in 1795 by Reuben Sherwood. Settlement began shortly after the first concession was laid and the first land owner was Walter Davis in 1800 who settled on the second concession. Other early settlers included Joseph Merriman, Jonathan Henderson, George Delong, and Abraham Coon. The fist sawmill in the township was built sometime before 1806 by Lemuel Haskin on Morton Creek (present-day village of Morton). In the next few years other settlers moved onto the fertile land found in the first three concessions. Settlement, however, proceeded slowly, discouraged by the rugged topography of the area. By 1815, there were 162 people living in South Crosby and only 460 acres were cultivated (Warren 1997; Mika & Mika 1983: 416-418).

The construction of the Rideau Canal provided a focus for development and a corridor for commerce throughout the nineteenth century. Now the many beautiful lakes, islands, and forested hills of South Crosby provide a mecca for tourists and cottagers.

3.2.1 Crosby

One of the early areas settled in South Crosby at the beginning of the nineteenth century, Crosby was first called Singleton's Corners after the Singleton family, prominent settlers in the area. The Singleton family, who settled in around 1800, was the first to build a log cabin in the area. In 1898, it was renamed Crosby to avoid confusion with a western community of the same name. In 1825, Crosby boasted a blacksmith shop, and by 1850 it had approximately 100 settlers. The first church, a Methodist and New Connection Church, was constructed in 1839. Evidence still remains of a bustling community. The brick school house built in 1907 and the large brick general store built by W.A. Singleton (ca. 1900) are still standing. Several early homes can also be found in the area. The Brockville, Westport & Sault Ste Marie railway was constructed in the late 1880s and service between Westport and Brockville began in 1888, with a station in Crosby. Eventually part of Canadian National Railways, the line was abandoned in 1952 (Warren 1997; Township of Rideau Lakes 2012).

3.2.2 Newboro

The village of Newboro is located on the Rideau Canal along County Road 42 southeast of the study area. It developed at "The Isthmus," an ancient portage point between the Rideau Waterway and the Gananoque and Cataraqui Rivers. Settlement at Newboro began around 1829 when the 7th Company of the Royal Sappers and Miners, construction corps of the British Army, arrived to build the Isthmus section of the Rideau Canal. Prior to their arrival, the Newboro area was relatively empty compared to the surrounding area due to a lack of waterpower (Mika and Mika 1983: 24-25).

A log hotel was built to accommodate the canal workers, along with blacksmithies and a blockhouse. Following the completion of the canal, steamboats carried freight and passengers to and from the settlement. There was also a stagecoach service and a railway line by 1888. Early enterprises in the village included tanneries, shoemakers and harness makers, tinsmiths, carriage shops, wagon makers, and a cheesebox factory. There was also two iron mines in the area. The first church and school were established in 1839 (Mika and Mika 1983: 24-25).

In 1874, a disastrous fire dubbed the "Kennedy Fire" destroyed twenty-six buildings within the community. Newboro, however, built itself up again and in 1876 was incorporated as a village. Today, the focal point of Newboro is the canal and lock (Mika and Mika 1983: 24-25).

3.3 Land use History

The following land use history is based on a combination of land registry records, historic mapping, census records, and local history resources where available. For ease of description, this section has been divided into lots, as well as time periods, which correspond to property ownership. The project location occupies part of the north half of Lot 25 and a large area in the southern part of Lot 26, in the former Township of South Crosby, County of Leeds.

3.3.1 Lot 26, Concession 1

3.3.1.1 South Half – 1806 to 1862

The Crown Patent for Lot 26, Concession 1 (200 acres) was granted to Charles French in 1806. In 1830, Charles French sold the south half of the lot to Lavina Knoulton,[4] a widow. By the 1850s Lavina was remarried to Eli Kilborn.[5] The 1851 Census (District 1, p.33, line 24) indicates that Lovena was 65 years-old and Eli was a 74-year-old shoemaker. The couple was potentially living with Samuel Knolton, a 28-year-old farmer, and his wife Graceann (24) and children Henry and Davie, both four. The six individuals were living in a single-storey log home.

Richard Singleton purchased the 100-acre parcel in the south half of Lot 26 in 1854 for around £112. The 1861 Census (District 1, p.13, line 26) indicates that Richard Singleton, a 40-year-old farmer born in Upper Canada, lived with his wife Betsy Anne, 39 years old and also born in Upper Canada, and their children M. Henry (19), Charles (15), John (8), Richard (4), Elizabeth (17), and Adled (1). The family lived in a single-storey log house. The Singletons owned the property until 1862 when it was purchased by David Proud for £500. Richard and his family moved to Southern Ontario around 1865 (Warren 1997: 312).

The 1861-62 Henry F. Walling map of the Counties of Leeds and Grenville places R. Singleton with a farmhouse in the southern part of Lot 26 (Figure 2).

[4] Various spellings of this name appear in archival documents, including: Lavina, Lovena; Knoulton, Knowlton, Knolton
[5] Various spellings of this name appear in archival documents, including: Kilborn, Kilburn

3.3.1.2 Southern 50 acre of North Half – 1806 to 1879

The north half of Lot 26 changed hands a number of times in the first half of the nineteenth century: Charles French (1806 to 1827); Eli White (1827 to 1829); Lodourick H. Ferre (1829 to 1837); and John Baldwin (1837 to 1851). John Baldwin was an Irish Catholic farmer. He was married to Alice Finley and had at least four children, Ann, Mary, Ellen, and Catherine. John Baldwin died in 1880 (Warren 1997: 278).

In 1851, John Baldwin sold a c. 50 acre plot along the southern edge of the north half of the lot to Patrick Baldwin. The 1851 Census (District 1, p.33, line 39) indicates that Patrick Baldwin lived with his family in a single-storey log home. Patrick was a 24-year-old farmer from Ireland and was married to Margaret, 28 years old and also from Ireland. Together they had two sons who were both born in Canada: James (3), and Robert (2).

In 1861, Patrick Baldwin sold his c. 50-acre parcel to Jesse D. Knowlton for £500. The 1861 Census (District 1, p.13, line 10) indicates that Jessey Knowlton was a 27-year-old farmer born in Ireland. He was married to Serah, 26 years old and also from Ireland, with whom he had a daughter, one-year-old Leticia. Eleven-year-old William Eves also lived with them. Interestingly, the census returns indicate that the Knowlton family lived in a one-and-a-half storey stone house. The 1861-62 Henry F. Walling map of the Counties of Leeds and Grenville places J.D. Knowlton with a farmhouse in the northern part of the lot (Figure 2).

The 1871 Census returns (District 67, p.3, line), however, places Jessey Knowlton and his family on Lot 25, Concession 1. The Knowltons owned 150 acres; probably 100 acres in Lot 25 and 50 acres which they rented out in Lot 26. In addition, the Knowltons owned a house, a warehouse/factory/store, three barns, and a variety of agricultural implements. They also owned over 70 sheep and 20 bee hives, in addition to a variety of other livestock. In 1871, the Knowltons sold over 200 lbs of honey, 300 lbs of wool, and 100 sheep.

The 1871 returns (District 67, p.2, line 11) suggest that Jessey Knowlton rented his property on Lot 26 to Edward Rice and his family. Edward Rice was a 63-year-old Irish labourer and his large family consisted of his wife Bridget (41), and his children John (22), Mary Ann (20), Catharine (18), Honora (16), Ellen (13), Alice (11), Margaret (8), Elizabeth (5), and Sarah (2). While the Rice family did not own a house or barn, they did own two wagons, a plough, a horse, a colt, a cow, six sheep, and two pigs. They rented ten acres, all of which were improved with crops of corn, potatoes, and hay. It is possible that the Rice family was renting this property as early as 1861. The census records for that year indicate that they were living in a single-storey log house, which is consistent with the real property found within this parcel when it was owned by Patrick Baldwin. Historical records indicate that Edward Rice had moved to South Crosby around 1850 (Warren 1997: 308).

In 1879, Jesse D. Knowlton and his wife sold the southern c. 50 acres of the northern half of Lot 26 to Isaac H. Proud.

3.3.1.3 Southern 150 acre of Lot– 1862 to 1966

The south half of Lot 26 appears to remain in the Proud family for over a century, beginning with the purchase of the 100-acre parcel by David Proud in 1862. In addition, the southern c.50 acres of the northern half of the lot was purchased by Isaac Proud in 1879 for $1000.

The 1871 census returns (District 67, p.3, line 11) indicate that David Proud was a 53-year-old farmer who was born in England. David was married to Ellen who was 52 years old and had been born in Ontario. They lived with their children Amy Ann (23), Mary Amelia (20), and Isaac (12). The Proud family owned 100 acres of land, one house, one shop, two barns, and a number of transportation and agricultural implements. Seventy five acres of their land was improved, 12 of which were in pasture. They grew a variety of crops and collected maple syrup. They also had a variety of livestock, including 28 sheep. Historical records indicate that David Proud was a blacksmith (Warren 1997: 306).

In 1887 David Proud died, leaving the north part of his property to his daughter Amy Ann Dunn "from and after the death of her mother," and the south part of his property to May Ann A. Stedman. The 1891 Census returns (p. 1, line 24) identify Ellena (Ellen) Proud as the head of the household. The widow shared a single-storey frame house of four rooms with Dennis Welsh, a forty-year-old hired hand, as well as her daughter Amelia (now 38 years old), and Amelia's husband (33-year-old Israel) and children (two-year-old Euphemai and Minerva).

For the first half of the twentieth century, ownership of the south part of Lot 26 is difficult to follow as a number of grants and releases are registered on title. It seems, however, that the property remained in the Proud family. In 1953 Johnson M. Proud, his wife Lorraine, and Mary A. Proud took out a mortgage of $1200 for the southern 150 acres of the lot (Inst. #12-6478). In 1961, a small residential lot containing the residence at 503 Narrows Lock Road was legally severed from the rest of the property (Inst. #7321). The smaller property was still owned by Johnston M. and Lorraine Proud. The Prouds sold their larger land holdings within Lot 26 in 1966.

3.3.1.4 Southern 150 acre of Lot– 1966 to present

In 1966, Johnston and Lorraine Proud sold their agricultural property on Lot 26 to William J. Barker and Marion E. Barker for $6,000 but seem to have held on to the smaller residential lot. A number of grants, liens, leases, and discharges are registered over the next few decades, making it difficult to determine chain of ownership. In 2001, the agricultural property on Lot 26, along with part of Lot 25, was transferred from Harry and Linda Barker to David Rijstenbil and Neleward Rijstenbil (c.o.b. as David and Edward Farms as partnership property) for $310,000.00 (Inst. #309785). They are the current owners of the subject property which holds the project location.

3.3.1.5 Residential Lot at 503 Narrows Lock Road

A small residential lot located at 503 Narrows Lock Road seems to have been severed from the larger agricultural property in 1961 by Johnson M. Proud (Inst. #7321). Johnson M. Proud and Lorraine Proud appear to have remained the owners of the residential property until 1994 when Lorraine Proud transfers it to Elsie Lorraine Proud and William Neil Proud. In 1999, the property is transferred to Maryellen Pattingson and Steven Truelove who subsequently sold it to Scott Davie Smith and Dayna Suzanne Smith in 2004. It is not known if the Smiths still own the property.

In sum, there is little information concerning the extant structures located at 503 Narrows Lock Road which corresponds with CHL 2 (see Section 3.6.1). Historical research revealed that there were at least two single-storey log homes within the southern 150 acres of Lot 26 by the 1850s. The single-storey frame house associated with Ellen Proud in the 1891 census returns potentially corresponds to an earlier iteration of the existing farmhouse despite it now having a one-and-a-half storey scale. What is clear, however, is that sections of the property were associated in some form or other with various members of

the Proud family for over 135 years. Archival and local history research did not reveal detailed information about the Proud family. While mortgages registered in abstract indexes can often provide clues as to the construction of new structures or the expansion of existing ones, no mortgages are registered from this particular property until the 1950s. Apart from this, no further historical conclusions can be made about the structures at 503 Narrows Lock Road based solely on the archival record.

3.3.2 Lot 25, Concession 1

3.3.2.1 Lot 25 – 1806 to 1855

The Crown Patent for Lot 25, Concession 1 was granted to Alexander Morris in 1806. Morris sold the 200-acre lot to Alexander Henry in 1811. At some point between 1811 and 1855, the lot was acquired by Stephen Knowlton as he is registered as the Grantor in the sale of part of the lot in 1855. It should be noted that in 1886, a grant was registered on title indicating that William Henry, as sole heir and representative of his father Alexander Henry, granted the 200-acre lot to Stephen Knowlton for £150. It seems that by this time, however, Stephen Knowlton was deceased.

Stephen Knowlton (c.1812 to 1859) was born in Elizabethtown, Leeds County and came to South Crosby with his family as a child. A Wesleyan Methodist farmer, he settled with his wife Melissa Delong (c.1815 to 1859) on Lot 24-25, Concession 1 and had at least five children: Jesse, George, Mary, Carolyn, and Jane (Warren 1997:297).

3.3.2.2 North Half – 1855 to 1886

Ownership of the north half of Lot 25 changed at least three times over the next thirty years. Stephen Knowlton and his wife sold the north half and the southeast quarter of Lot 25 to James M. Scott in 1855 for £575. The Scotts owned the property for only a few years.

James M. Scott and his wife sold the north half of Lot 25 (100 acres) to George Donohoe[6] for $2,000 in 1860. In 1861, George Donohoe and his wife acquired a mortgage for $1440 suggesting the construction of a new structure(s) or the expansion of an existing one(s). There was no information on George Donohoe (and various spellings) in the 1861 census returns. The 1861-62 Henry F. Walling map of the Counties of Leeds and Grenville places a G. Donahue with a farmhouse on Lot 25 (Figure 2).

George Donohue and his wife sold the north half of Lot 25 (100 acres) to Thomas C. Singleton in 1862 for $2,000. The 1871 Census (District 67, p.3, line 7) indicates that Thomas Singleton was a 30-year-old farmer of Irish descent who was born in Ontario. He was married to Sarah Singleton (27) with whom he had four children: Lucy Ann (9), Ermina (6), Sarah (3), and Ambrews (1). The Singletons owned a total of 150 acres, 80 of which were improved with 30 acres of pasture and 3 acres of garden/orchard. They grew a variety of crops, collected maple syrup, and owned a number of livestock, including four horses, two colts, nine cows, five cattle, 14 sheep, and three pigs. They also owned one house, two stables/barns, and a number of transportation and agricultural implements.

The 1881 Census (District 110, p.74, line 20) reveals that Thomas (39) and Sarah (36) lived with their children Armina (16), Sarah E. (14), Ambrose B. (11), Maud May (7), as well as Alferd Salter, an 18-year-old labourer from England.

[6] Various spellings of this name appear in archival documents, including: Donohoe, Donahue, and Donohue

The Singletons owned the property until 1886.

3.3.2.3 North Half – 1886 to 1907

Thomas C. Singleton and his wife sold the north half of Lot 25 (100 acres) to John Mustard in 1886 for $6,000. The 1891 Census (District 86, p.2, line 5) identifies John Mustard as a 56-year-old Irish farmer married to Anna, who at 45 years old was born in Ontario. They lived with their children Frederick (18), Arche (14) and Anna (10) in a two-storey frame house with seven rooms.

In 1901, John was widowed and lived with his children John (28), Archebold (23), Anna (20), Nella (9), as well as Keavi A. Mustard, a twenty-year old farm labourer.

John Mustard owned the property until 1907.

3.3.2.4 North Half – 1907 to 1963

John Mustard sold the north half of Lot 25 (100 acres) to William Ready for $5,000 in 1907 who subsequently sold it to Earle Oscar Ready in 1913 for the same price. Earle O. and his wife Helen owned the property until 1950 when they sold it to Milton Shook for $4,500. The Shooks owned the property until 1963

3.3.2.5 North Half – 1963 to present

Violet M. Shook, as widow and executor of Milton W. Shook, sold the north half of the lot (100 acres) to William J. Barker for $4,650 in 1963. It appears that the residential lot located at 393 Narrows Lock Road was severed from the rest of the property in 1963.

William J. Barker and Marion E. Barker leased the property to Peter C. Coltas in 1970 (for a 10 year lease). By 2001 the property was owned by Harry and Linda Barker who sold it, along with part of Lot 26, to David Rijstenbil and Neleward Rijstenbil (c.o.b. as David and Edward Farms as partnership property) for $310,000.00 (Inst. #309785). They are the current owners of the subject property which holds the project location.

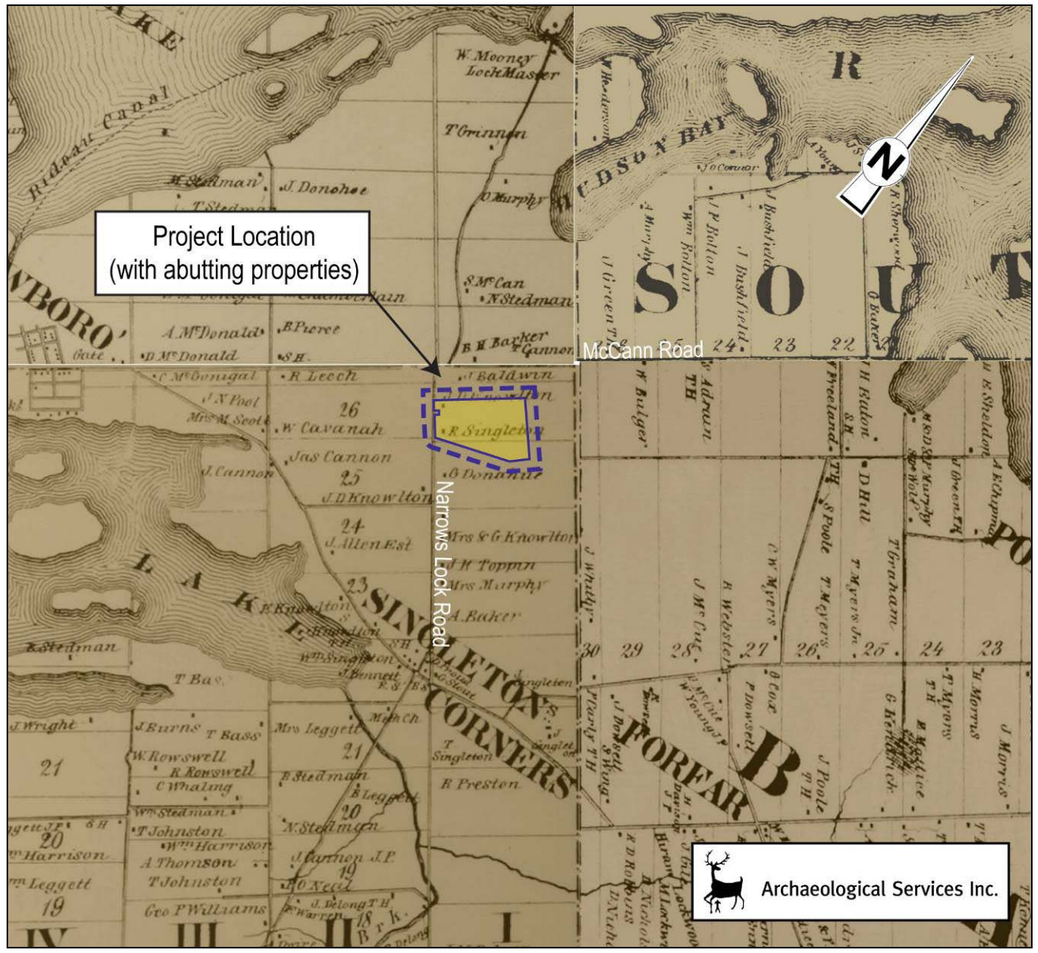


Figure 2: Approximate location of the project location and abutting properties in the Townships of South Crosby, North Crosby, and Bastard, 1861-62.
Base Map: *Map of the Counties of Leeds and Grenville*, 1861-62

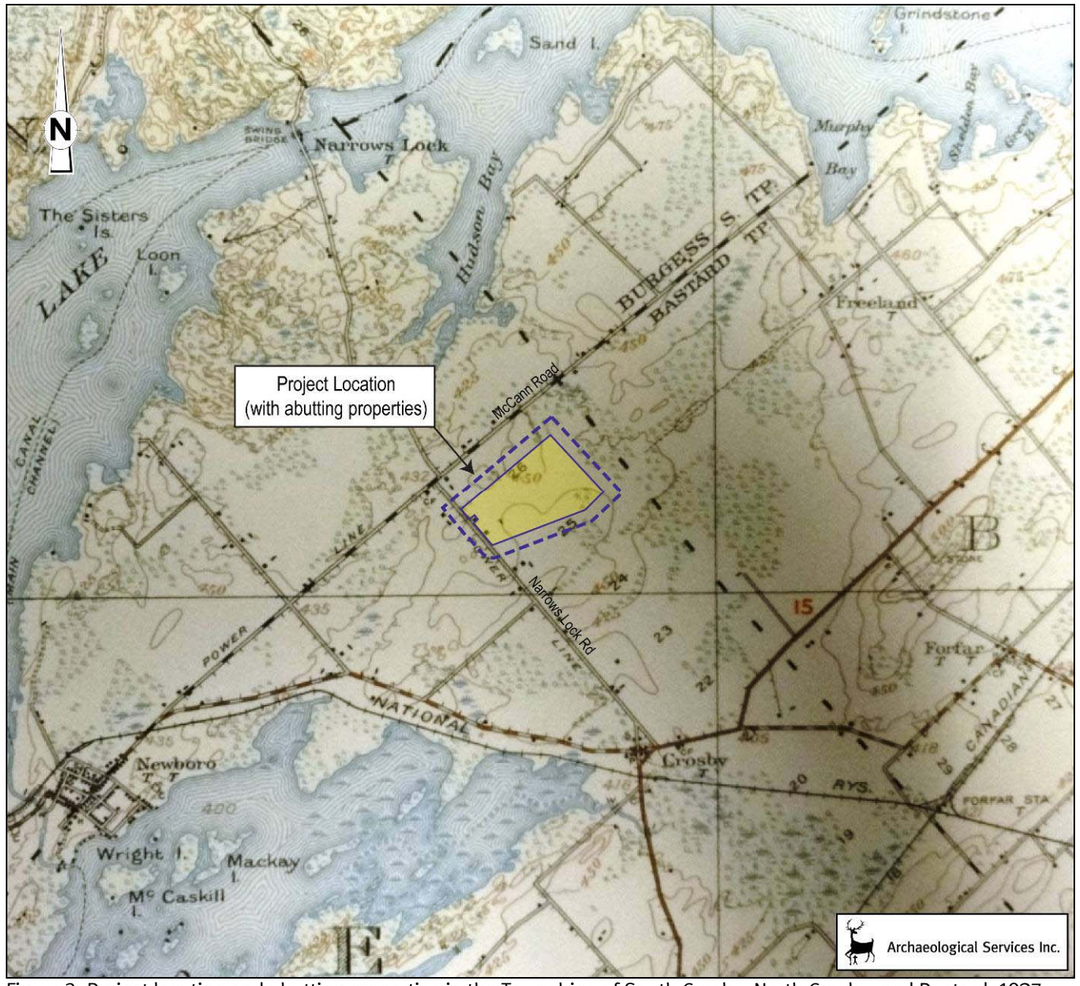


Figure 3: Project location and abutting properties in the Townships of South Crosby, North Crosby, and Bastard, 1927.
Base Map: Westport 31 C/9 West Half, 1927

3.4 Desktop Data Collection Results

A number of data sources need to be considered when determining the presence or absence of existing built heritage resources and cultural heritage landscapes within and abutting a project location. These are outlined in a document set out by the Ministry of Tourism and Culture (now the Ministry of Tourism, Culture, and Sport) entitled *Protected Properties, Archaeological and Heritage Resources: An Information Bulletin for Applicants Addressing the Cultural Heritage Component of Projects Subject to Ontario Regulation 359/09 Renewable Energy Approvals* (2011). Various resources were consulted in order to address these considerations. Table 2 provides a summary of the heritage considerations set forth by the Ministry while Table 3 provides a summary of the resources and results of the desktop data collection.

Table 2: Newboro 1 – Summary of Consideration of Heritage Resources		
Screening Question	**Yes**	**No**
PART A: Recognized Cultural Heritage Value		
1. Is the project area or an abutting property a protected heritage property as described in the table in section 19 of O. Reg. 359/09?		
(a) Is the property or an abutting property subject to an Ontario Heritage Trust easement agreement?		X
(b) Is the property or an abutting property subject to a notice of intention to designate that has been issued by a municipality?		X
(c) Is the property or an abutting property municipally designated?		X
(d) Is the property or an abutting property provincially designated?		X
(e) Is the property or an abutting property subject to a notice of intention to designate that has been issued by the Minister of Tourism and Culture?		X
(f) Is the property or an abutting property subject to a municipal easement agreement?		X
(g) Is the property or an abutting property part of a designated Heritage Conservation District?		X
(h) Is the property or an abutting property designated as a historic site under Regulation 880?		X
2(a). Is the subject property listed on the municipal heritage register/list?		X
2(b). Is the subject property listed on a provincial register/list?		X
3(a). Is there a municipal plaque on or related to the subject property?		X
3(b). Is there a provincial plaque on or related to the subject property?		X
3(c). Is there a federal plaque on or related to the subject property?		X
4(a). Is the subject property a National Historic Site?		X
4(b). Is the subject property a UNESCO World Heritage Site?		X
PART B: Potential Cultural Heritage Value		
5. Can it be confirmed that buildings at the project location are less than 40 years old?		X
5.(a) Residential structures (e.g., house, apartment building, shanty, trap line shelter, etc.)		X
5.(b) Farm buildings (e.g., barns, outbuildings, silos, windmills, etc.)		X
5.(c) Industrial, commercial or institutional operations (e.g., factory, school, quarries, mining, etc.)		X
5.(d) Engineering works (e.g., bridges, water or communications towers, roads, water/sewer systems, dams, canals, locks, earthworks, etc.)		X

Table 2: Newboro 1 – Summary of Consideration of Heritage Resources		
Screening Question	**Yes**	**No**
5.(e) Monuments or Landmark Features (e.g., cairns, statues, obelisks, fountains, reflecting pools, retaining walls, boundary or claim markers, etc)		X
6. Is there a known burial site and/or cemetery located at or abutting the project location?		X
7. Is the project location within a Canadian Heritage River watershed?	X	
PART C: Other Considerations		
8. Is the property or an abutting property associated with a known architect, landscape architect, planner or builder?		X
9. Is the property or an abutting property associated with a historic road or rail corridor?	X	
10. Is the property or an abutting property a park or planned/designed recreational or community space?		X
11. Is there accessible documentation to indicate built heritage or cultural heritage landscape potential?	X	
12. Is the subject property or an abutting property associated with a person or event of historic interest?		X

Table 3: Summary of Resources and Results of Desktop Data Collection			
Source of Info	**Considerations (see Table 3)**	**Date(s) and method(s) of contact and/or search**	**Results/Comments**
Ontario Heritage Trust	1(a); 1(b); 1(c); 1(g) 3	Website accessed Nov 17, 2011[7]	No easement, buildings, or plaques
Municipality	1(b); 1(c); 1(f); 1(g) 2 3(a); 3(b); 3(c)	·Email sent to Clerk, Township of Rideau Lakes, Nov 21, 2011 ·Email sent to Manager of Development Services, Twp of Rideau Lakes, Nov 23, 2011	Email from Manager of Development Services confirmed that there are no properties of municipal heritage interest (Nov 23, 2011)
Land Registry (Title Search)	1(a); 1(c); 1(f);	Land Registry research conducted November 30, 2011	See Section 3.3
MTC bulletin for REAs (Appendix G)	1(d); 1(e); 1(h)	Reviewed Nov 17	No protected properties for which MTC has authority
MTC Provincial Heritage Properties list	2	Email Registrar at MTC, Nov 28, 2011	No Provincial Heritage Properties (the inventory, however, is not complete)
National Historic Sites and Monuments Board	3(c) 4(a)	Website accessed Nov 17, 2011	The Narrows Lock 35 between Upper Rideau Lake and Big Rideau Lake, which is part of the Rideau Canal National Historic Site, is located approximately 3 km north of the project location. The canal connector between Upper Rideau Lake and Newboro Lake, which is also part of the Rideau Canal Historic Site, is located approximately 4.5 km southwest

[7] A list of all visited websites is found in Section 4.0 below.

Table 3: Summary of Resources and Results of Desktop Data Collection			
Source of Info	**Considerations (see Table 3)**	**Date(s) and method(s) of contact and/or search**	**Results/Comments**
			of the project location.
Canadian World Heritage Sites database	4(b)	Website accessed Nov 17, 2011	The Rideau Canal is the only World Heritage Site in Ontario. The Narrows Lock 35 between Upper Rideau Lake and Big Rideau Lake is located approximately 3km north of the project location. As part of the UNESCO designation, a 30m buffer zone has been applied to the limits of lands owned by Parks Canada for the purposes of ensuring controlled development surrounding the site. The management plan for the Rideau Canal World Heritage Site also recognizes that long-term protection of the site is incumbent upon considered planning processes of municipal governments in relation to management of lands beyond the 30m buffer zone, particularly where development has the potential to degrade the heritage values of the nominated property. Parks Canada is in the process of defining visual buffers beyond the 30m buffer zone as part of their Rideau Corridor Landscape Strategy for the purposes of harmonizing municipal planning processes.
Database of Registered Cemeteries	6	Database reviewed Nov 17, 2011	No registered cemeteries
Canadian Heritage Rivers System database	7	Database reviewed Nov 17, 2011	Project location is found within the Rideau River watershed (Central Rideau) which is Designated a Cultural Heritage River
Archival/Local history research	8-12	Research conducted Dec. 2011 to Feb. 2012	See Section 3.3

3.5 Existing Conditions of Study Area

A field review was undertaken by Annie Veilleux and Mary-Cate Garden, Cultural Heritage Specialists at ASI, on November 30, 2011 to document the existing conditions of the study area, confirm the integrity of previously identified heritage properties, and to identify cultural heritage resources not previously identified on federal, provincial, or municipal databases. This initial assessment consisted of a 'wind shield' field survey from accessible and public rights-of-way (e.g., Narrows Lock Road and McCann Road). The results of this survey, along with the results of preliminary background research and desk-top data collection were presented in a memorandum dated December 22, 2011 (ASI 2011). It should be noted that the limits of the project location during this phase of the project extended further north, east, and south (Site Plan dated August 8, 2011 – see Appendix B). The project location was generally bounded to the north by McCann Road, to the east by the township line between the former Townships of South Crosby and Bastard, and to the south by the southern limit of the north half of Lot 25.

The present project location is found on the east side of Narrows Lock Road (Highway 14), north of Crosby. The project location has an irregular shape (Site Plan dated February 8, 2012). It is bounded to the west by Narrows Lock Road with a small jog near the northwest corner cut around a small residential parcel that has been severed from the rest of the lot. The southwest corner of the project location follows the right-of-way of the hydro corridor. A combination of agricultural fields and woodlots surround the project location on all sides.

Based on the results of the background research and field review a total of ten cultural heritage resources were initially identified within the preliminary study area (project location and abutting properties) (Table 4). A review of most up-to-date project mapping confirmed that five of the identified cultural heritage resources were located within the current study area. Of these, two cultural heritage landscapes (CHL) were identified within the project location (see Section 3.6) while three CHLs were identified within the abutting properties (see Setion 3.7).

Results of the field review and archival research were utilized to describe the existing conditions and complete a heritage evaluation of the identified cultural heritage resources. All cultural heritage resources identified within the project location and abutting properties were evaluated against criteria as set out in *Ontario Heritage Act* Regulation 9/06. Section 4.0 provides feature mapping of all identified resources.

Table 4: Newboro 1– Identified Cultural Heritage Landscapes (CHL) within the Study Area

Feature #	Feature Type	Address	Location
CHL 1	Farmscape	393 Narrows Lock Road	Project Location
CHL 2	Farmscape	503 Narrows Lock Road	Project Location
CHL 3	Farmscape	617 McCann Road	Outside current study area
CHL 4	Farmscape	544 Narrows Lock Road	Abutting Property
CHL 5	Farmscape	360 Narrows Lock Road	Abutting Property
CHL 6	Farmscape	758 McCann Road	Outside current study area
CHL 7	Farmscape	784 McCann Road	Outside current study area
CHL 8	Roadscape	McCann Road	Outside current study area
CHL 9	Roadscape	Narrows Lock Road	Abutting Property
BHR 1	Former Cheese Factory	533 Townline Road	Outside current study area

3.6 Description and Evaluation of Cultural Heritage Resources Located within the Project Location

The following sections provide a general description of the cultural heritage resource identified within the project location. The resource consists of a farmscapes located at, and historically linked with, 393 Narrows Lock Road (CHL 1) and 503 Narrows Lock Road (CHL 2). The following descriptions and associated evaluations are based on the results of archival research and field review which was conducted from the publicly accessible right-of-way.

3.6.1 CHL 1: Farmscape at 393 Narrows Lock Road

3.6.1.1 Description of Resource

The subject property is comprised of the north half of Lot 25, Concession, on the east side of Narrows Lock Road, a historic thoroughfare. The abstract index for Lot 25, Concession 1 indicates that the residential lot associated with 393 Narrows Lock Road was legally severed from the rest of the larger parcel in the north half of the lot in 1963 (Inst. #7607; 28R-3578). The field assessment, however, revealed that the residential lot was still very much physically, visually, as well as historically, connected to the larger agricultural property. As such, the entire half lot is treated as one distinct property for the purposes of the resource description and evaluation.

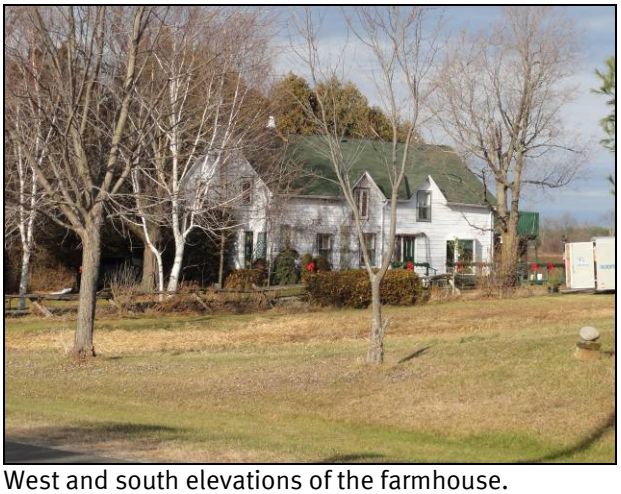
This farmscape features a one-and-a-half storey farmhouse, a gable barn/garage, and a number of landscape features evocative of early settlement and land use activities. The vernacular farmhouse is characterised by: frame construction; a gable roof with two gable dormers on the south elevation; an asymmetrical five-bay façade; an internal chimney; and a number of two-over-two pane sash windows. The type of foundation is unknown and from a distance, the cladding appears to be aluminium. A number of other features appear to have been updated, including windows and doors. A small gable barn/garage is located behind the house and features metal roof sheeting and vertical board siding.

Historical records indicate that a farmhouse was located on this property by 1861. Without access to the existing dwelling, however, it was impossible to confirm this potential date of construction.

The built structures are located relatively close to the right-of-way in the southwest corner of the half lot. Mature and established trees, a wind break, a post-and-rail fence line, and a gravel drive are found near the farmhouse. Landscape features within the larger property include tree lines, fence lines, and historic field boundaries. Aerial photography (as available online) of the project location demonstrates that the west half of Lot 25 was historically subdivided into a number of smaller fields which are marked with tree lines. The subject property retains much of its natural topography which is characterized by a fairly flat terrain. The flat terrain and open agricultural fields ensures unbroken lines of sight to and from some of the neighbouring farm complexes and surrounding agricultural fields. The rear of the property is comprised of a sugar maple deciduous forest, a natural feature that is historically documented to have been utilised by earlier occupants of this property. A hydro corridor, land for which was acquired in the mid-twentieth century, intersects the southwest corner of the property.

It should be noted that the project location within the north half of Lot 25 is found on the north side of the hydro corridor. The residential property at 393 Narrows Lock Road is located outside the project location as well as its 120 m setback.

Looking south along Narrows Lock Road. CHL 1 is located to the left.


West and south elevations of the farmhouse.

View of windbreak and outbuilding from Narrows Lock Road.

View of the residential lot associated with CHL 1 from Narrows Lock Road.

View of agricultural fields associated with CHL 1 intersected by the hydro corridor.

View of the historic field boundary between the north and south halves of Lot 25. CHL 1 is to the left.

3.6.1.2 Evaluation of Resource

Table 5 contains the evaluation of cultural heritage resources located at, and historically associated with, 393 Narrows Lock Road against criteria as set out in *Ontario Heritage Act* Regulation 9/06.

Table 5: Evaluation of 393 Narrows Lock Road, *Ontario Heritage Act* Regulation 9/06

1. The property has design value or physical value because it :

Ontario Heritage Act Criteria	Analysis
i. is a rare, unique, representative or early example of a style, type, expression, material or construction method;	The residence is an example of a mid- to late-nineteenth century vernacular frame farmhouse featuring frame construction, rectangular footprint, one-and-a-half storey scale, gable roof with gable dormers, and asymmetrical five-bay façade. The exterior of the farmhouse appears to have undergone a number of alterations in terms of updating of material fabric and features, including the replacement of some windows and doors.
ii. displays a high degree of craftsmanship or artistic merit, or;	This cultural heritage resource is not known to display a high degree of craftsmanship or artistic merit.
iii. demonstrates a high degree of technical or scientific achievement.	This cultural heritage resource is not known to display a high degree of technical or scientific achievement.

2. The property has historical value or associative value because it:

Ontario Heritage Act Criteria	Analysis
i. has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community;	The subject property retains direct associations with nineteenth and twentieth-century agricultural land use activities. Archival research has revealed that the north half of Lot 25 was owned by a number of individuals over the course of the nineteenth and early twentieth centuries for periods ranging from two to 37 years. Minimal information, however, was gathered from the local history records on these owners. Their contributions to the community are not known.
ii. yields, or has the potential to yield, information that contributes to an understanding of a community or culture, or;	Local history research has not indicated that the property retains a strong association with local historical milestones and it is not known to have contributed to the phases of community development in the Township of South Crosby.
iii. demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.	The cultural heritage resource is not known to meet this criterion.

3. The property has contextual value because it:

Ontario Heritage Act Criteria	Analysis
i. is important in defining, maintaining or supporting	The subject property is an evolved agricultural landscape that contributes to the rural, agricultural character of the Township of Rideau Lakes. While a

Table 5: Evaluation of 393 Narrows Lock Road, *Ontario Heritage Act* Regulation 9/06

the character of an area;	contributory element, it is not essential to the definition of the region's agricultural character.
ii. is physically, functionally, visually or historically linked to its surroundings, or;	The subject property is still active as an agricultural landscape and retains a number of features that help retain physical, visual, and historical links to its agricultural roots. Of note include the historic field boundaries which are remnants of the mixed-farming era of small fields and the sugar maple deciduous forest, which is part of a historically-documented, and continuing, tradition of maple syrup production in this part of the province.
iii. is a landmark.	This cultural heritage resource is not known to serve as a physical landmark. From a community point of view, the subject property is not recognized by the Township of Rideau Lakes as a property of cultural heritage interest.

3.6.2 CHL 2: Farmscape at 503 Narrows Lock Road

3.6.1.1 Description of Resource

The subject property is comprised of the southern portion of Lot 26, Concession 1, on the east side of Narrows Lock Road, a historic thoroughfare. The abstract index for Lot 26 indicates that the residential lot associated with 503 Narrows Lock Road was legally severed from the rest of the larger property in 1961 (Inst. #7321; 28R-3578). The field assessment, however, revealed that the residential lot remains very much physically, visually, as well as historically, linked to the larger agricultural property. As such, the residential lot is considered as part of the larger property for the purposes of the resource description and evaluation.

This farmscape features a one-and-a-half storey farmhouse and a number of landscape features evocative of early settlement and agricultural land use. The nineteenth-century vernacular farmhouse features: frame construction with red brick cladding; a T-shaped footprint created by a one-and-a-half-storey side accretion; a gable roof; semi-elliptical window and door openings topped with arched brick voussoirs; and an enclosed porch on the front façade. From a distance, the foundations appear to be either stone parged in concrete, or poured concrete. Windows and doors appear to have been updated. A small frame garage with a hipped roof is located at the end of the gravel drive on the south side of the house.

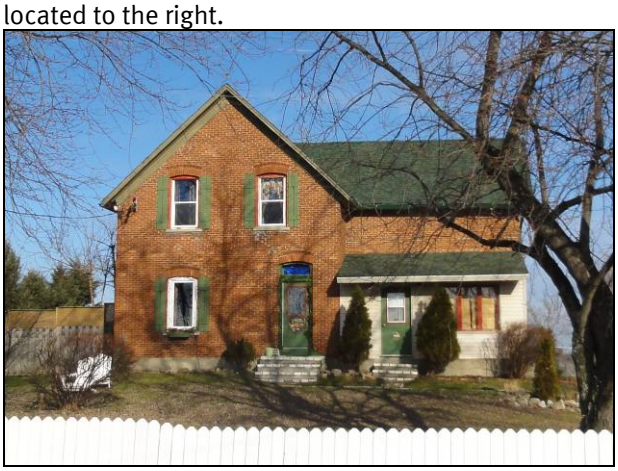
Historical records revealed little about the potential construction date of the farmhouse, although the exterior design of the structure suggests it was most probably constructed in the second half of the nineteenth century. Without access to the interior of the dwelling, however, it is impossible to confirm a potential construction date.

The built structures are located relatively close to the right-of-way near the northwest corner of the property. Mature and established trees, a wind break, various types of fence lines, and a gravel drive are found near the farmhouse. Landscape features within the larger property include tree lines, fence lines, historic field boundaries, circulation routes, and a modern barn. The subject property retains much of its natural topography which is characterized by a fairly flat terrain. The flat terrain and open agricultural fields ensures unbroken lines of sight to and from some of the neighbouring farm complexes and surrounding agricultural fields. The rear of the property is comprised of a sugar maple deciduous forest, a natural feature that is historically documented to have been utilised by earlier occupants of this property.

It should be noted that, while the majority of the lot associated with CHL 1 is located within the project location, the residential property at 503 Narrows Lock Road is located within the abutting properties.

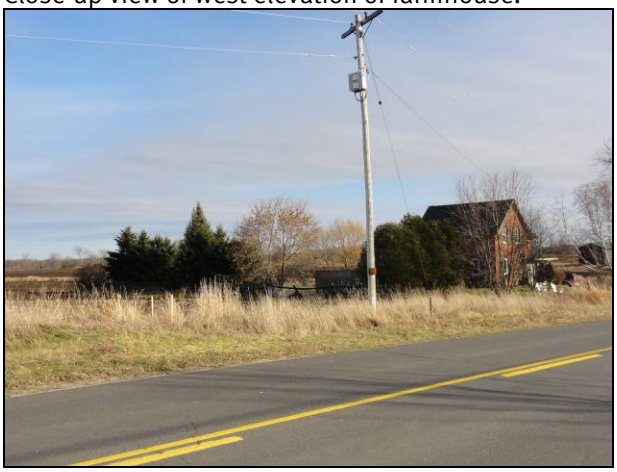
Looking north along Narrows Lock Road. CHL 2 is located to the right.

West elevations of the farmhouse and mature trees within residential lot.



Close-up view of west elevation of farmhouse.

South elevation of the farmhouse.



View of windbreak, fence lines, and farmhouse from Narrows Lock Road.

View of the modern storage barn and agricultural fields associated with CHL 1.

3.6.1.2 Evaluation of Resource

Table 6 contains the evaluation of cultural heritage resources located at, and historically associated with, 503 Narrows Lock Road against criteria as set out in *Ontario Heritage Act* Regulation 9/06.

Table 6: Evaluation of 503 Narrows Lock Road, *Ontario Heritage Act* Regulation 9/06

1. The property has design value or physical value because it :

Ontario Heritage Act Criteria	Analysis
i. is a rare, unique, representative or early example of a style, type, expression, material or construction method;	The residence is a typical example of a mid- to late-nineteenth century vernacular frame farmhouse featuring frame construction, brick veneer, T-shaped footprint, one-and-a-half storey scale, and cross-gable roof that is common throughout southern Ontario. The exterior of the farmhouse appears to have undergone a few alterations in terms of updating of material fabric and features, including the replacement of some windows and doors and the addition of an enclosed porch.
ii. displays a high degree of craftsmanship or artistic merit, or;	This cultural heritage resource does not display a high degree of craftsmanship or artistic merit.
iii. demonstrates a high degree of technical or scientific achievement.	This cultural heritage resource does not display a high degree of technical or scientific achievement.

2. The property has historical value or associative value because it:

Ontario Heritage Act Criteria	Analysis
i. has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community;	The subject property retains direct association with nineteenth and twentieth century-agricultural land use activities and was settled prior to the 1850s. Archival research has revealed associations of sections of this property with multiple generations of the Proud family for over 135 years, beginning with the purchase of the south half of Lot 26 by David Proud in 1862 and the purchase of the southern 50 acre of the northern half of the lot by Isaac Proud in 1879. It appears that the residential lot at 503 Narrows Lock Road remained linked to the Proud family until 1999. Historical research revealed that David Proud was a blacksmith. Minimal information, however, was gathered from the local history records on other members of the Proud family. Their contributions to the community are not known.
ii. yields, or has the potential to yield, information that contributes to an understanding of a community or culture, or;	Local history research has not indicated that the property retains a strong association with local historical milestones and it is not known to have contributed to the phases of community development in the Township of South Crosby.
iii. demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is	The cultural heritage resource is not known to meet this criterion.

Table 6: Evaluation of 503 Narrows Lock Road, *Ontario Heritage Act* Regulation 9/06

significant to a community.	

3. The property has contextual value because it:

Ontario Heritage Act Criteria	Analysis
i. is important in defining, maintaining or supporting the character of an area;	The subject property is an evolved agricultural landscape that contributes to the rural, agricultural character of the Township of Rideau Lakes. While a contributory element, it is not essential to the definition of the region's agricultural character.
ii. is physically, functionally, visually or historically linked to its surroundings, or;	The subject property is still active as an agricultural landscape and retains a number of features that help retain physical, visual, and historical links to its agricultural roots. Of note include the built heritage structure, mature trees, historic field boundaries, circulation routes, and the sugar maple deciduous forest, which is part of a historically-documented, and continuing, tradition of maple syrup production in this part of the province.
iii. is a landmark.	This cultural heritage resource is not known to serve as a physical landmark. From a community point of view, the subject property is not recognized by the Township of Rideau Lakes as a property of cultural heritage interest.

3.7 Description and Evaluation of Cultural Heritage Resources Located within the Abutting Properties

Table 7: Newboro 1 – Identified Cultural Heritage Landscapes (CHL) within the Abutting Properties

Feature	Inventory Description	Photographs
CHL 4	The farmscape features a one-and-a-half storey farmhouse, a large barn complex with silos and various outbuildings, as well as numerous landscape features evocative of early settlement and agricultural land use. The farmhouse features brick construction and/or cladding, a side gable roof with returned eaves, a number of accretions, a shed dormer on the front façade, and an external chimney with brick stack on the north gable end. The large barn complex features a gambrel barn attached to a gable barn with a number of additions, two silos, and various other outbuildings. The subject resource is characterized by mature trees, fence lines, circulation routes, historic field boundaries, and active agricultural fields. **Evaluation of resource:** *Design/physical value:* -example of a typical vernacular farmhouse *Historical/associative value:* -retains direct associations with nineteenth- and twentieth-century agricultural land use activities *Contextual value:* -an evolved agricultural landscape that contributes to the rural, agricultural character of the Township of Rideau Lakes Location: 544 Narrows Lock Road Feature Type: Farmscape Recognition: Identified; Field review and background research	 View of the subject resource from Narrows Lock Road. North and east elevations of the farmhouse
CHL 5	The farmscape features a two-storey farmhouse, agricultural outbuildings, as well as numerous landscape features evocative of early settlement and agricultural land use. The farmhouse features frame construction, a hipped roof, a single-storey rear accretion, and an internal chimney with brick stack. The farmscape also features a large gable barn, two silos, and other outbuildings. The subject resource is characterized by mature trees, a wind break, fence lines, circulation routes, historic field boundaries, and active agricultural fields. A farmhouse associated with J.D. Knowlton is illustrated at this location on the 1861-62 map. **Evaluation of resource:** *Design/physical value:* -example of a typical vernacular frame farmhouse *Historical/associative value:* -retains direct associations with nineteenth- and twentieth-century agricultural land use activities *Contextual value:* -an evolved agricultural landscape that contributes to the rural, agricultural character of the Township of Rideau Lakes Location: 360 Narrows Lock Road Feature Type: Farmscape Recognition: Identified; Field review and background research	 View of subject resource from Narrows Lock Road. North and east elevations of the farmhouse.

Table 7: Newboro 1 – Identified Cultural Heritage Landscapes (CHL) within the Abutting Properties

Feature	Inventory Description	Photographs
CHL 9	Historically, Narrows Lock Road forms the road allowance between Concession 1 and Concession 2 in the former Township of South Crosby, County of Leeds. It retains direct associations with early settlement and land use. The existing roadscape features a two lane paved roadway with wide gravel shoulders. It is bounded on each side by active agricultural fields. **Evaluation of resource:** *Design/physical value:* - is a representative example of a rural, scenic road *Historical/associative value:* -retains direct associations with early survey and settlement activities *Contextual value:* -contributes to the rural, agricultural character of the Township of Rideau Lakes Location: County Road 2 Feature Type: Roadscape Recognition: Identified; Field review and background research	 View along Narrows Lock Road. Narrows Lock Road on the 1862 atlas map.

4.0 LOCATION MAPPING OF CULTURAL HERITAGE RESOURCES

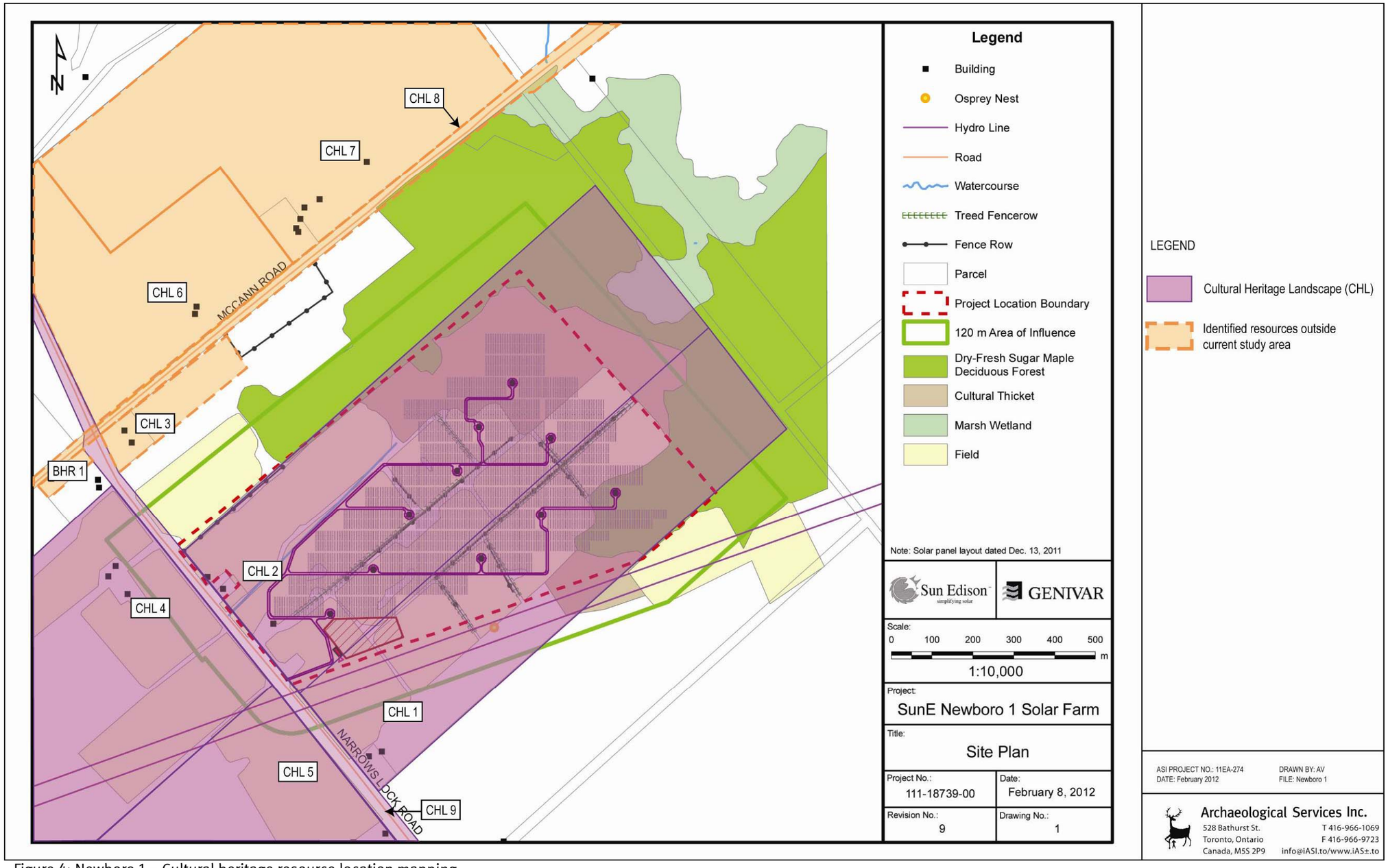


Figure 4: Newboro 1 – Cultural heritage resource location mapping.

5.0 IMPACT ASSESSMENT

This section provides an assessment of the potential adverse effects associated with the proposed undertaking. Infrastructure construction has the potential to affect cultural heritage resources in a variety of ways: resources may experience displacement (i.e., removal), if they are located within the project footprint; they may also be indirectly impacted through disruption by the introduction of physical, visual, audible, or atmospheric elements that are not in keeping with their character and/or setting. As such, appropriate mitigation measures for the undertaking need to be considered. Where any identified, above ground, cultural heritage resources which may be affected by direct or indirect impacts, appropriate mitigation measures should be developed. This may include completing a heritage impact assessment or documentation report, or employing suitable measures such as landscaping, buffering or other forms of mitigation, where appropriate. In this regard, provincial guidelines should be consulted for advice and further heritage assessment work should be undertaken as necessary.

To assess the potential impacts of the undertaking, identified cultural heritage resources are considered against a range of possible impacts as outlined in the Ministry of Tourism and Culture document entitled *Screening for Impacts to Built Heritage and Cultural Heritage Landscapes* (November 2010), which include:

- Destruction of any, or part of any, significant heritage attribute or feature (III.1).
- Alteration which means a change in any manner and includes restoration, renovation, repair or disturbance (III.2).
- Shadows created that alter the appearance of a heritage attribute or change the visibility of a natural feature of plantings, such as a garden (III.3).
- Isolation of a heritage attribute from it surrounding environment, context, or a significant relationship (III.4).
- Direct or indirect obstruction of significant views or vistas from, within, or to a built and natural feature (III.5).
- A change in land use such as rezoning a battlefield from open space to residential use, allowing new development or site alteration to fill in the formerly open spaces (III.6).
- Soil Disturbance such as a change in grade, or an alteration of the drainage pattern or excavation (III.7)

A number of additional factors are also considered when evaluating potential impacts on identified cultural heritage resources. These are outlined in a document set out by the Ministry of Culture and Communications (now Ministry of Tourism, Culture, and Sport) and the Ministry of the Environment entitled *Guidelines for Preparing the Cultural Heritage Resource Component of Environmental Assessments* (October 1992) and include:

- Magnitude: the amount of physical alteration or destruction which can be expected;
- Severity: the irreversibility or reversibility of an impact;
- Duration: the length of time an adverse impact persists;
- Frequency: the number of times an impact can be expected;
- Range: the spatial distribution, widespread or site specific, of an adverse impact; and
- Diversity: the number of different kinds of activities to affect a heritage resource.

5.1 Project Location

A review of preliminary drawings (Appendix B – Site Plan dated February 8, 2012) for this proposed project reveal that solar modules will be installed in rows across the width of the project location on the north side of the hydro corridor. A laydown area will be constructed near the southwest corner of the project location. A number of access roads will also be constructed. The following impacts have been identified:

Table 8: Potential Impacts to Identified Cultural Heritage Resources within the Project Location

Feature	Impacts
CHL 1: Farmscape at 393 Narrows Lock Road	-The farmhouse will be subject to impacts through and isolation from its surrounding environment or context (III.4); -Cultural landscape features, such as fence lines, historic field boundaries, and circulation routes are all subject to impacts through destruction (III.1), alteration (III.2), and isolation from its surrounding environment or context (III.4); and -The proposed solar modules will 'fill' a formerly open landscape of fields (III.6). -The proposed solar modules will introduce visual elements that are not in keeping with the rural agricultural character of the area.
CHL 2: Farmscape at 503 Narrows Lock Road	-Cultural landscape features, such as fence lines, historic field boundaries, and part of the sugar maple forest are all subject to impacts through destruction (III.1), alteration (III.2), and isolation from it surrounding environment or context (III.4); -The proposed solar modules will 'fill' a formerly open landscape of fields (III.6); -The proposed solar modules will obstruct views across the existing agricultural fields east and northeast of the farmhouse (III.5) and introduce visual elements that are not in keeping with the rural agricultural character of the area.

5.2 Abutting Properties

The following impacts have been identified:

Table 9: Potential Impacts to Identified Cultural Heritage Resources within Abutting Properties

Feature	Impacts
CHL 4: Farmscape at 544 Narrows Lock Road	-The proposed undertaking has the potential to alter the visual experience from the core of the farmscape into and across the existing agricultural fields within the project location (III.5).
CHL 5:Farmscape at 360 Narrows Lock Road	-Based on available information, the subject resource is not expected to be negatively impacted by the proposed undertaking.
CHL 9: Roadscape (Narrows Lock Road)	-The proposed undertaking has the potential to alter the visual experience of passing motorists travelling across the rural, agricultural setting (III.5)

6.0 CONCLUSIONS

The results of background historic research and a review of secondary source material, including historic mapping, local history research and consideration of data sources recommended by the MTCS revealed that there are significant, identified cultural heritage resources located within the boundaries of the project

location and within the abutting properties. These features are generally associated with nineteenth-century settlement and agricultural land use activities and consist of individual farmscapes and historic transportation corridors. Based on the results of the background research and field review, a total of two cultural heritage landscapes (CHL) were identified within the project location and three CHLs were identified within the abutting properties. The following provides a summary of data collection findings and field review:

- The study area is located within the Rideau River watershed.
    - The Rideau Canal, the only World Heritage Site in Ontario, is located approximately 3 km north of the study area at the Narrows Lock 35, as well as approximately 4.5 km southwest in Newboro.

- Two cultural heritage landscapes (CHL 1 and CHL 2, both farmscapes) were identified within the project location;
    - CHL 1 and CHL 2 were identified in during the field review and through background research.

- Three cultural heritage landscapes (CHL 4 and CHL 5: Farmscapes; and CHL 9: Roadscape) were identified within the abutting properties;
    - CHL 4, CHL 5, and CHL 9 were identified in the course of the field review and through background research.

- Five cultural heritage resources (BHR 1: Former cheese factory; CHL 3, CHL 6, and CHL 7: Farmscapes; and CHL 8: Roadscapes) were identified based on preliminary project mapping dated to August 8, 2011.
    - These resources are now located outside of the project location and abutting properties as illustrated on more current project mapping dated to February 8, 2012.

From Land Registry records, it is known that both of Lots 25 and 26, Concession 1 were settled prior to the 1850s. Since then, the properties at, and associated with, 393 Narrows Lock Road (CHL 1) and 503 Narrows Lock Road (CHL 2) have evolved into rural, agricultural properties that are physically, visually, and historically linked to their surroundings. The field assessment revealed that extant structures on both properties included a farmhouse, outbuildings, as well as a number of landscape features evocative of its early agricultural roots. The following provides a summary of field review and data collection findings:

- CHL 1- Farmscape at 393 Narrows Lock Road:
    - Extant structures include a mid- to late-nineteenth century vernacular one-and-a-half frame farmhouse;
    - Documentary records indicate a dwelling on site in 1861-62; confirmation of a potential construction date was impossible due to lack of internal access;
    - Archival research revealed direct associations of the property with a number of property owners over the course of the nineteenth and early twentieth centuries; their contributions to the community are not known;
    - Notable landscape features, which retain direct associations with nineteenth and twentieth century agricultural land use activities, include early field boundaries, fence lines, the retention of early/original property boundaries, circulation routes, and sugar maple forest; many of these features will be directly impacted by the proposed undertaking;
    - The residential lot at 393 Narrows Lock Road is not expected to be directly impacted by the proposed undertaking.

- CHL 2 – Farmscape at 503 Narrows Lock Road
    - Extant structures include a mid- to late-nineteenth-century vernacular one-and-a-half frame farmhouse with brick veneer and T-shaped footprint;
    - Documentary records indicate two log dwellings within the property by 1850 and a single-storey frame dwelling by 1891; confirmation of a potential construction date for the existing structure was impossible due to lack of internal access;
    - Archival research revealed direct associations of the property with a the Proud family for over 135 years;
    - Notable landscape features which retain direct associations with nineteenth and twentieth century-agricultural land use activities, include mature trees, historic field boundaries, circulation routes, and sugar maple forest; many of these features will be directly impacted by the proposed undertaking;
    - The residential lot at 503 Narrows Lock Road is not expected to be directly impacted by the proposed undertaking.

7.0 RECOMMENDATIONS

The proposed SunEdison Newboro 1Solar Farm has the potential to directly or indirectly impact identified cultural heritage resources in a variety of ways. These resources retain significance on the basis of their exterior architectural styles, their historical associations with early settlers in the former Township of South Crosby, and the retention of physical and visual links to their nineteenth-century agricultural roots. All of the identified cultural heritage resources were screened against Ministry of Tourism and Culture criteria in order to assess potential impacts on these cultural heritage resources. Based on the results of the background data collection, the field review, and a cultural heritage evaluation of the identified features, and impact assessment, the following recommendations are provided:

1. Minimize visual impacts to CHL 1, CHL 2, CHL 4, and CHL 9 and alterations to the setting of CHL 1 and CHL 2 by maximizing the setback between solar facility infrastructure and the Narrows Lock Road right-of-way. Solar modules presently sited nearest to the right-of-way should be re-sited to take full advantage of the available field and cultural thicket bordered by the deciduous maple forest along the northwest and northeast section of the study area.

2. Wherever possible existing fence rows, woodlots, hedge rows, and tree lines should be preserved where extant. This includes any existing tree and fence lines that mark historic field boundaries and lot lines around the perimeter and/or within the project location. Not only are these features historically and physically linked to the surrounding landscape, but they will act as a visual screen around the proposed undertaking which will introduce new visual elements that are not in keeping with the rural agricultural character of the area.

3. As CHL 1 and CHL 2 are expected to be impacted through alteration to their settings, removal of character-defining landscape features, and physical and visual encroachment by the introduction of elements that are not in keeping with the rural agricultural setting of the area, cultural heritage landscape documentation reports should be prepared in advance of construction activities to serve as a final record of each of the resources and the project location in general.

4. Staging and construction activities should be planned and undertaken to avoid impacts to identified cultural heritage resources.

5. Post-construction landscaping and rehabilitation plans should be undertaken in a manner that is sympathetic to the character of the existing cultural heritage landscapes, including the use of historic plant materials to act as a visual buffer between the proposed solar farm and the surrounding rural, agricultural landscape.

8.0 REFERENCES

ASI (Archaeological Services Inc.)
2011 SunE Newboro 1 Solar Farm Cultural Heritage Assessment (Memorandum, December 22, 2011). Manuscript on file at ASI, Toronto.

Mika N and H,
1983 Places in Ontario. Their Name Origins and History Vol 3. Belleville: Mika Publishing Company

Ministry of Culture, Ontario
2005 *Ontario Heritage Act*

Ministry of Environment
2009 *Environmental Protection Act.*

Ministry of Municipal Affairs and Housing, Ontario
2005 *Ontario Planning Act*
2005 *Provincial Policy Statement*

Ministry of Tourism and Culture
2011 Protected Properties, Archaeological and Heritage Resources: An Information Bulletin for Applicants Addressing the Cultural Heritage Component of Projects Subject to Ontario Regulation 359/09 Renewable Energy Approvals.

Warren, Susan
1997 *Hub of the Rideau: A History of South Crosby Township*. Township of South Crosby.

List of Websites:

- Canadian Heritage Rivers System: http://www.chrs.ca/en/main.php
- National Historic Sites and Monuments Board: http://www.pc.gc.ca/apps/lhn-nhs/index_e.asp
- Ontario Heritage Trust: http://www.heritagetrust.on.ca/Home.aspx
- Lakes & Islands Times Past: The Shared Digital Histories of Rideau Lakes & Leeds and the Thousand Islands: http://www.lakesandislands.ca/
- Registered Cemeteries: http://www.consumerbeware.mgs.gov.on.ca/esearch/cemeterySearch.do?eformsId=0
- World Heritage Sites: http://www.pc.gc.ca/eng/progs/spm-whs/index.aspx

APPENDIX A: GLOSSARY FOR RENEWABLE ENERGY (SOLAR) PROJECTS

Abutting:	Abutting means there is no intervening land between two or more parcels of land. Parcels that share a common border or boundary, or overlap for some distance are considered abutting. For purposes of renewable energy projects, the term "abutting" also includes parcels of land that are separated by an intervening road allowance, trail etc
Archaeological Management Plan:	Municipal archaeological management plans are based on an archaeological potential model developed by a professional archaeologist. They provide an inventory of archaeological sites, develop a mechanisms for determining archaeological potential and map archaeological potential for the municipality. They also set out the municipality's policies and processes for the management of archaeological resources. Municipal archaeological management plans can be prepared at the lower-tier, upper-tier (county/region), or single tier municipal level
Archaeological Resource:	"archaeological resource" means, subject to subsection (2), an archaeological site or a marine archaeological site, both within the meaning of Ontario Regulation 170/04 (Definitions) made under the *Ontario Heritage Act*
Heritage Assessments:	Heritage assessments identify, evaluate and propose options for avoiding or mitigating impacts to built heritage resources and cultural heritage landscapes. Heritage assessments should be prepared by heritage consultants. A heritage assessment is a process through which a heritage consultant: • Identified potential heritage resources (built heritage resources and cultural heritage landscapes) that may be impacted by the propose renewable resource • Evaluates the potential heritage resources against Ontario Regulation 9/06 under the Ontario Heritage Act to determine if they are of cultural heritage value or interest • Evaluates any impacts from the renewable energy project to heritage resources identified in the heritage assessment and/or protected properties that abut the parcel of land upon which the project location is situated
Heritage Conservation Plan:	Heritage conservation plans set out how heritage resources may be conserved to maintain their cultural heritage value or interest and may include planned repair, stabilization and preservation activities as well as long-term conservation monitoring and maintenance measures. Conservation strategies apply conservation principles, describe the work and recommend methods to avoid or mitigate negative impacts to the heritage resource.
Heritage resource:	Real property that is of cultural heritage value or interest and may include a building, structure, landscape or other feature of real property
"municipal planning authority":	A municipal planning authority established under subsection 14.1 (1) of the *Planning Act*

<table>
<tr><td>name plate capacity:</td><td>Means, when used in relation to a renewable energy generation facility or a part of a renewable energy generation facility, the total of the design electricity generating capacities of all the generation units in or at the facility or the part of the facility;</td></tr>
<tr><td>Project Location:</td><td>O. Reg. 359/09 defines the project location, in relation to a renewable energy project, as part of land and all or part of any building or structure in, on or over which the REA applicant engages or proposes to engage in the project and any airspace in which a person engages or proposes to engage in the project</td></tr>
<tr><td>Protected Property:</td><td>A protected property is a property described in Column 1 of the Table in section 19 of O.Reg 359/09. This includes any property that is:
designated as individual property under Part IV of the Ontario Heritage Act (OHA)
designated as part of a Heritage Conservation District under Part V of the OHA
subject to an Ontario Heritage Trust or municipal conservation easement
subject to a notice to designate under Part IV of the OHA
designated as a historic site under Regulation 880 of the Revised Regulations of Ontario 1990 (Ontario) made under the OHA</td></tr>
<tr><td>Solar Facilities:</td><td>A renewable energy generation facility at which one or more solar photovoltaic collector panels or devices use light to generate electricity.

<table><tr><td>Item</td><td>Column 1</td><td>Column 2</td><td>Column 3</td></tr><tr><td></td><td>Class of solar facility</td><td>Location of solar photovoltaic collector panels or devices</td><td>Name plate capacity of solar facility (expressed in kW)</td></tr><tr><td>1.</td><td>Class 1</td><td>At any location.</td><td>≤ 12</td></tr><tr><td>2.</td><td>Class 2</td><td>Mounted on the roof or wall of a building.</td><td>› 12</td></tr><tr><td>3.</td><td>Class 3</td><td>At any location other than mounted on the roof or wall of a building.</td><td>› 12</td></tr></table>
1) A solar facility is a solar facility of a class set out in Column 1 of the Table to this section if,
a) the solar photovoltaic collector panels or devices that form part of the facility are at a location set out opposite the class in Column 2 of the Table; and
b) the facility has a name plate capacity that meets the criteria set out opposite the class in Column 3 of the Table.

2) In this Regulation, a reference to a Class 1, 2 or 3 solar facility is a reference to a solar facility of that class.

3) For the purposes of this Regulation, two or more solar facilities that each meet the criteria set out for the same class of solar facility in subsection (1) shall be deemed to be a single solar facility in accordance with the following rules if the facilities are to function together as an integrated or aggregated system for generating electricity:</td></tr>
</table>

	1. Two or more Class 1 solar facilities that have a combined name plate capacity of less that or equal to 10 kW are deemed to be a single Class 1 solar facility. 2. Two or more Class 1 solar facilities that have a combined name plate capacity of greater than 10 kW and whose solar photovoltaic collector panels or devices are not mounted on a roof or wall of a building are deemed to be a single Class 3 solar facility. 3. Two or more Class 3 solar facilities are deemed to be a single Class 3 solar facility.

APPENDIX B: PROPOSED PROJECT LAYOUT

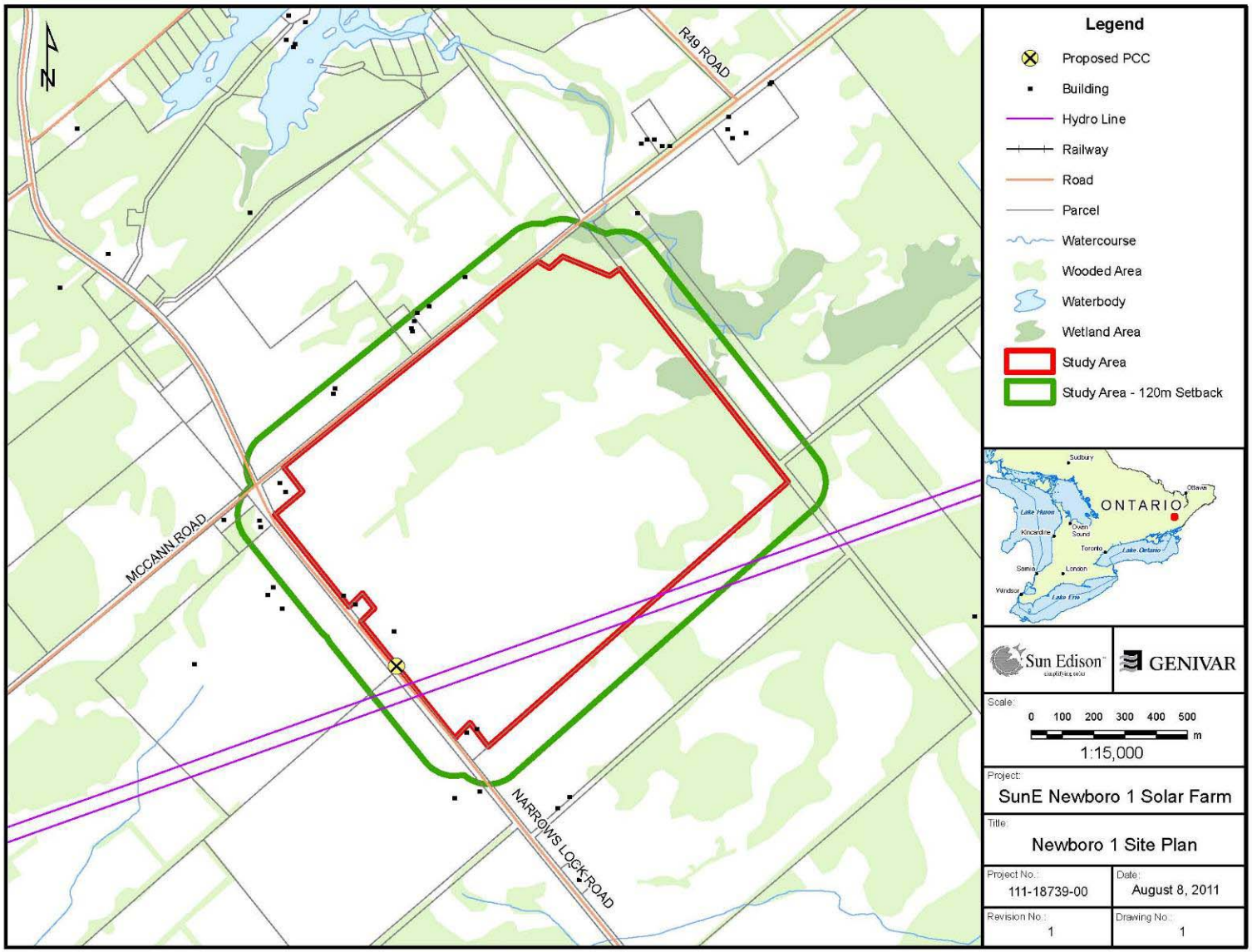


Figure 5: Preliminary Newboro 1 study area made up of Project Location (red outline) and 120 metre setback (green outline)

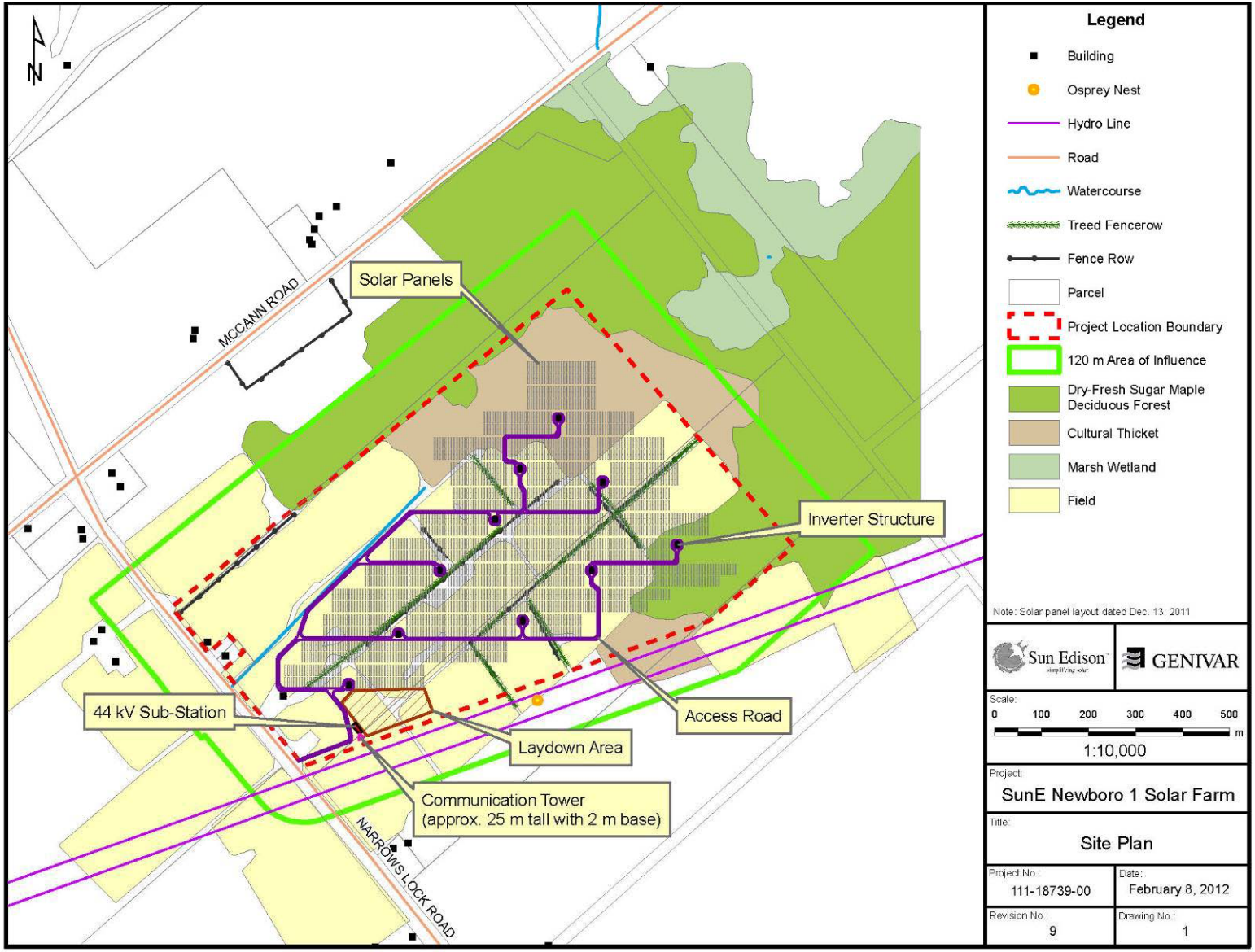


Figure 6: Newboro 1 - Project Location with overlaid proposed project site plan