



March 2010



## STAGE 2 ARCHAEOLOGICAL ASSESSMENT

### NextEra Adelaide Wind Farm Various Lots, Concession 1 to 5 N.E.R. and 1 to 4 S.E.R., Geo. Township of Adelaide Middlesex County, Ontario

**Submitted to:**  
Mr. Thomas Bird  
NextEra Energy Canada, ULC  
205-5500 North Service Road  
Burlington, ON L7L 6W6  
Tel: (905) 335-4904 Fax: (905) 335-5731

REPORT

PIF Number P001-452-2008, P001-526-2009, and P084-197-2010

**Report Number:** 07-1112-0151-1800-R03

**Distribution:**

- 4 Copies - NextEra Energy Canada, ULC
- 3 Copies - Ontario Ministry of Tourism and Culture
- 2 Copies - Golder Associates Ltd.





## Executive Summary

A Stage 1 archaeological background study was previously conducted on behalf of Air Energy TCI Inc. by Golder Associates Ltd. for a parcel of approximately 8275 hectares in the Township of Adelaide-Metcalfe, Middlesex County, Ontario). The parcel consists of Lots 7 to 19, Concession 1 North of Egremont Road; part of Lot 6 and Lots 7 to 19, Concession 2 North of Egremont Road; Lots 7 to 12, Concessions 3 to 4 North of Egremont Road; part of Lot 7 and Lots 8 to 10, Concession 5 North of Egremont Road; Lots 1 to 19, Concessions 1 to 2 South of Egremont Road; Lots 1 to 18, Concession 3 South of Egremont Road; and Lots 13 to 17, Concession 4 South of Egremont Road. This area will eventually be the site of 40 wind turbines comprising the Adelaide Wind Farm.

The Stage 1 archaeological assessment resulted in the determination that the potential for pre-contact Aboriginal and Euro-Canadian sites was deemed to be moderate to high on these properties. As a result, Stage 2 archaeological assessment was recommended for all areas to be impacted during the construction, operation, and decommissioning phases of the proposed wind farm.

The Stage 2 assessment was undertaken in order to meet the requirements of an environmental assessment conducted under the Renewable Energy Approval (REA) process, as outlined in Ontario Regulation 359/09 section 22(3), on behalf of Air Energy TCI Inc. and NextEra Energy Canada, ULC. The Stage 2 assessment focused upon the proposed wind turbine layout, including turbine sites, collector cable routes, access roads, and the substation. The Stage 2 assessment of ploughed fields was conducted by the standard pedestrian survey method at an interval of five metres.

The Stage 2 assessment resulted in the documentation of 13 archaeological locations. Nine of these locations consist of pre-contact Aboriginal sites and four locations are historic Euro-Canadian sites. Given that Locations 2, 3, and 7 are spatially discrete areas producing pre-contact Aboriginal artifacts; Locations 5 and 11 are spatially discrete areas producing mid-to-late 19<sup>th</sup> century historic Euro-Canadian cultural material; and Location 9 is a spatially discrete area producing early-to-late 19<sup>th</sup> century historic Euro-Canadian cultural material, it is recommended that these sites be subject to a Stage 3 archaeological investigation to further evaluate their cultural heritage value or interest.

The Ontario Ministry of Tourism and Culture is asked to review the results presented and to accept this report into the Provincial Register of archaeological reports. Additional archaeological assessment is still required; hence the archaeological sites recommended for further archaeological fieldwork remain subject to Section 48(1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed, except by a person holding an archaeological licence.

*The Executive Summary highlights key points from the report only; for complete information and findings, as well as the limitations, the reader should examine the complete report.*



## Table of Contents

<b>1.0 INTRODUCTION</b>	<b>1</b>
<b>2.0 SUMMARY OF STAGE 1 ARCHAEOLOGICAL INVESTIGATIONS</b>	<b>4</b>
2.1 Natural Environment	4
2.2 Previously Known Archaeological Resources and Surveys	4
2.3 Historic Research	4
2.4 Archaeological Potential	5
2.5 Stage 1 Recommendations	5
<b>3.0 STAGE 2 STUDY METHODS AND RESULTS</b>	<b>7</b>
3.1 Stage 2 Field Assessment Methods	7
3.2 Stage 2 Field Assessment Results	16
3.2.1 Location 1	16
3.2.1.1 Domestic Artifacts	17
3.2.1.2 Recent Material	18
3.2.1.3 Miscellaneous Metal	18
3.2.1.4 Summary	18
3.2.2 Location 2 (AfHk-29)	19
3.2.3 Location 3 (AgHk-66)	19
3.2.4 Location 4	20
3.2.5 Location 5 (AgHk-67)	21
3.2.5.1 Ceramic Artifacts	21
3.2.5.2 Glass Artifacts	24
3.2.5.3 Summary	24
3.2.6 Location 6	24
3.2.7 Location 7 (AgHj-5)	25
3.2.8 Location 8	25
3.2.9 Location 9 (AfHk-30)	25
3.2.9.1 Ceramic Artifacts	25
3.2.9.2 Glass Artifacts	27



# STAGE 2 ARCHAEOLOGICAL ASSESSMENT NEXTERA ADELAIDE WIND FARM

3.2.9.3	Summary .....	28
3.2.10	Location 10 .....	28
3.2.11	Location 11 (AgHk-68) .....	28
3.2.11.1	Domestic Artifacts .....	29
3.2.11.2	Structural Artifacts .....	31
3.2.11.3	Summary .....	32
3.2.12	Location 12 .....	32
3.2.13	Location 13 .....	32
<b>4.0</b>	<b>RECOMMENDATIONS AND ADVICE ON COMPLIANCE WITH LEGISLATION .....</b>	<b>33</b>
<b>5.0</b>	<b>REFERENCES CITED .....</b>	<b>35</b>
<b>6.0</b>	<b>IMPORTANT INFORMATION AND LIMITATIONS OF THIS REPORT .....</b>	<b>38</b>

## TABLES

Table 1: Stage 2 Artifact Summary for Location 1 .....	16
Table 2: Summary of Ceramic Collection According to Ware Type, Location 5 (AgHk-67) .....	21
Table 3: Summary of Ceramic Collection According to Decorative Style, Location 5 (AgHk-67) .....	21
Table 4: Summary of Ceramic Collection According to Decorative Style, Location 9 (AfHk-30) .....	26
Table 5: Stage 2 Artifact Summary for Location 11 (AgHk-68) .....	28
Table 6: Summary of Ceramic Collection According to Ware Type, Location 11 (AgHk-68) .....	29
Table 7: Summary of Ceramic Collection According to Decorative Style, Location 11 (AgHk-68) .....	29
Table 8: Pre-contact Aboriginal Sites Requiring Stage 3 Archaeological Assessment .....	33
Table 9: Historic Euro-Canadian Sites Requiring Stage 3 Archaeological Assessment .....	33
Table 10: Sites Not Requiring Stage 3 Archaeological Assessment .....	34

## FIGURES

Figure 1: Location of Study Area .....	2
Figure 2: Turbine and Related Infrastructure Layout .....	3
Figure 3: A Portion of the Historic Map of the Township of Adelaide in the 1878 Illustrated Historical Atlas of the County of Middlesex .....	6

## PLATES

Plate 1: Stage 2 Pedestrian Survey, Field Conditions, Walked at 5 Metre Intervals, Turbine Pad 4A, Facing West .....	8
--	---



## STAGE 2 ARCHAEOLOGICAL ASSESSMENT NEXTERA ADELAIDE WIND FARM

Plate 2: Stage 2 Pedestrian Survey, Field Conditions, Walked at 5 Metre Intervals, Collector Cable to Turbine 5, Facing North.....	8
Plate 3: Stage 2 Pedestrian Survey, Field Conditions, Walked at 5 Metre Intervals, Collector Cable Between Turbines 6 and 8, Facing South .....	9
Plate 4: Stage 2 Pedestrian Survey, Field Conditions, Walked at 5 Metre Intervals, Collector Cable Between Turbines 9 and 11, Facing South .....	9
Plate 5: Stage 2 Pedestrian Survey, Field Conditions, Walked at 5 Metre Intervals, Turbine Pad 33A, Facing South.....	10
Plate 6: Stage 2 Pedestrian Survey, Field Conditions, Walked at 5 Metre Intervals, Substation, Facing South.....	10
Plate 7: Stage 2 Pedestrian Survey, Field Conditions, Walked at 5 Metre Intervals, Turbine Pad 25, Facing East .....	11
Plate 8: Stage 2 Pedestrian Survey, Field Conditions, Walked at 5 Metre Intervals, Collector Cable to Turbine 32, Facing South .....	11
Plate 9: Stage 2 Pedestrian Survey, Field Conditions, Walked at 5 Metre Intervals, Turbine Pad 34, Facing North.....	12
Plate 10: West Side of Seed Road, North of Highway 402, Showing Typical Disturbed Road Right-of-Way, Facing North .....	12
Plate 11: East Side of School Road, North of Highway 402, Showing Typical Disturbed Road Right-of-Way, Facing South.....	13
Plate 12: Intersection of Mullifarry Drive and Brown Road Showing Typical Disturbed Road Right-of-Way, Facing North .....	13
Plate 13: South Side of Mullifarry Drive, East of Brown Road, Showing Typical Disturbed Road Right-of-Way, Facing East.....	14
Plate 14: West Side of School Road, South of Highway 402, Showing Typical Disturbed Road Right-of-Way, Facing North .....	14
Plate 15: North Side of Mullifarry Drive, West of School Road, Showing Typical Disturbed Road Right-of-Way, Facing West.....	15
Plate 16: Precautionary Test Pit Showing Mottled Soil and Disturbance in Field Adjacent to Highway 402 .....	15
Plate 17: Sample of Location 1 Artifacts (actual size) .....	17
Plate 18: Sample of Pre-contact Aboriginal Artifacts from the Adelaide Wind Farm Lands (actual size) .....	20
Plate 19: Sample of Location 5 (AgHk-67) Artifacts (actual size).....	23
Plate 20: Sample of Location 9 (AfHk-30) Artifacts (actual size).....	26
Plate 21: Sample of Location 11 (AgHk-68) Artifacts (actual size).....	30

### APPENDICES

#### APPENDIX A

Stage 2 Methods and Results

#### APPENDIX B

Stage 2 Artifact Catalogue

#### APPENDIX C

MGRS Co-ordinates for Stage 2 Archaeological Locations

#### APPENDIX D

Aboriginal Engagement



---

## STAGE 2 ARCHAEOLOGICAL ASSESSMENT NEXTERA ADELAIDE WIND FARM

---

### APPENDIX E

Archaeological Site Record Forms



## Acknowledgments

<b>REA Project Manager</b>	Jeff Wright, R.P. Bio., CCEP, Dip.T.
<b>Project Manager</b>	Jim Wilson, M.A.
<b>Licensed Project Director(s)</b>	Jamie Davidson, B.A., Arthur Figura, M.A., Adam Hossack, B.A., Christopher Lemon, B.Sc., Shane McCartney, B.A.
<b>Report Production</b>	Jeffrey Muir, B.A.
<b>Field/Office Assistants</b>	Courtney Adams, B.A., Brad Anderson, B.A., , Tracie Carmichael, B.A., B.Ed., Stacey Carson, Aaron Clemens, B.A., Jessica Figura, Angela Finney, Chris Gervais, Kevin Gohm, Kiersten Green, B.A., Alexandra Hernould, Cara Hernould, Tatiana Istomina, Ph.D., Bear John, Irena Jurakic, M.A., Kurt Kostuk, Amanda Laprise, B.A., Andrew Livingston, Alex McKinstry, Courtney Merner, B.A., Shannon Neill-Sword, B.A., David Riddell, M.A., Aaron Robb, Scott van Raay, B.A., Jeff Schuster, B.A., Oleksiy Vasylenko, M.A.
<b>First Nations Contact</b>	Dean Jacobs, Executive Director of the Walpole Island Heritage Centre (Nin.da.waab.jig)
<b>First Nations Observers</b>	Leroy Altman, Josh White
<b>Senior Review</b>	Jim Wilson, M.A., Rebecca Balcom, M.A., Principal
<b>Proponent Contact</b>	Thomas Bird, NextEra Energy Canada, ULC, Burlington, Mark Gallagher, Air Energy TCI Inc., Montreal
<b>Ministry of Tourism and Culture</b>	Robert von Bitter, Shari Prowse, M.A.



## **1.0 INTRODUCTION**

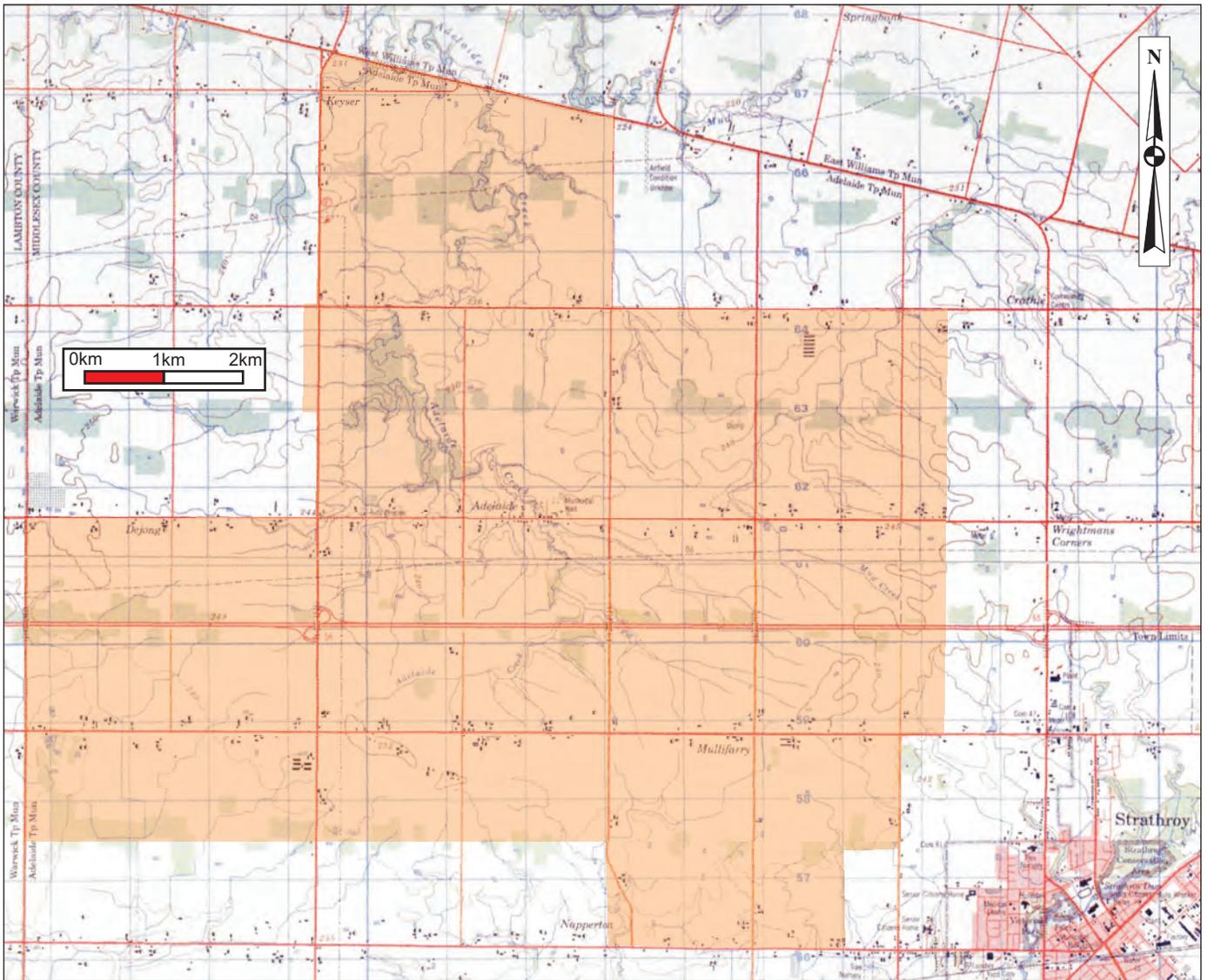
A Stage 1 archaeological background study was previously conducted on behalf of Air Energy TCI Inc. by Golder Associates Ltd. (Golder) for a parcel of approximately 8275 hectares in the Township of Adelaide-Metcalf, Middlesex County, Ontario (Figure 1). The parcel consists of Lots 7 to 19, Concession 1 North of Egremont Road; part of Lot 6 and Lots 7 to 19, Concession 2 North of Egremont Road; Lots 7 to 12, Concessions 3 to 4 North of Egremont Road; part of Lot 7 and Lots 8 to 10, Concession 5 North of Egremont Road; Lots 1 to 19, Concessions 1 to 2 South of Egremont Road; Lots 1 to 18, Concession 3 South of Egremont Road; and Lots 13 to 17, Concession 4 South of Egremont Road. This area will eventually be the site of 40 wind turbines comprising the Adelaide Wind Farm.

The Stage 1 assessment was conducted on September 4<sup>th</sup>, 2008 under archaeological consulting licence P001, issued to Jim Wilson, M.A., by the Ontario Ministry of Tourism and Culture (Golder 2009). The Stage 1 archaeological assessment resulted in the determination that the potential for pre-contact Aboriginal and Euro-Canadian sites was deemed to be moderate to high on these properties. As a result, Stage 2 archaeological assessment was recommended for all areas to be impacted during the construction, operation, and decommissioning phases of the proposed wind farm.

The Stage 2 assessment was conducted from September 5<sup>th</sup>, 2008 to December 19<sup>th</sup>, 2009 under archaeological consulting licence P001, issued to Jim Wilson, M.A., by the Ontario Ministry of Tourism and Culture and from March 24<sup>th</sup>, 2010 to March 29<sup>th</sup>, 2010 under archaeological consulting licence P084, issued to Adam Hossack by the Ontario Ministry of Tourism and Culture. This assessment was undertaken in order to meet the requirements of an environmental assessment conducted under the Renewable Energy Approval (REA) process, as outlined in Ontario Regulation 359/09 section 22(3). The Stage 2 assessment focused upon the proposed wind turbine layout, including turbine sites, collector cable routes, access roads, and the substation (Figure 2). The Stage 2 assessment of ploughed fields was conducted by the standard pedestrian survey method at an interval of five metres.

The Stage 2 assessment has been completed and has resulted in the documentation of 13 archaeological locations. Nine locations are pre-contact Aboriginal sites of which three require further Stage 3 assessment and four locations are historic Euro-Canadian sites of which three require further Stage 3 assessment. Given that Locations 2, 3, and 7 are spatially discrete areas producing pre-contact Aboriginal artifacts; Locations 5 and 11 are spatially discrete areas producing mid-to-late 19<sup>th</sup> century historic Euro-Canadian cultural material; and Location 9 is a spatially discrete area producing early-to-late 19<sup>th</sup> century historic Euro-Canadian cultural material, it is recommended that these sites be subject to a Stage 3 archaeological investigation to further evaluate their cultural heritage value or interest.

The Ontario Ministry of Tourism and Culture is asked to review the results presented and to accept this report into the Provincial Register of archaeological reports. Additional archaeological assessment is still required; hence the archaeological sites recommended for further archaeological fieldwork remain subject to Section 48(1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed, except by a person holding an archaeological licence.



**LEGEND**

Study Area

**REFERENCE**

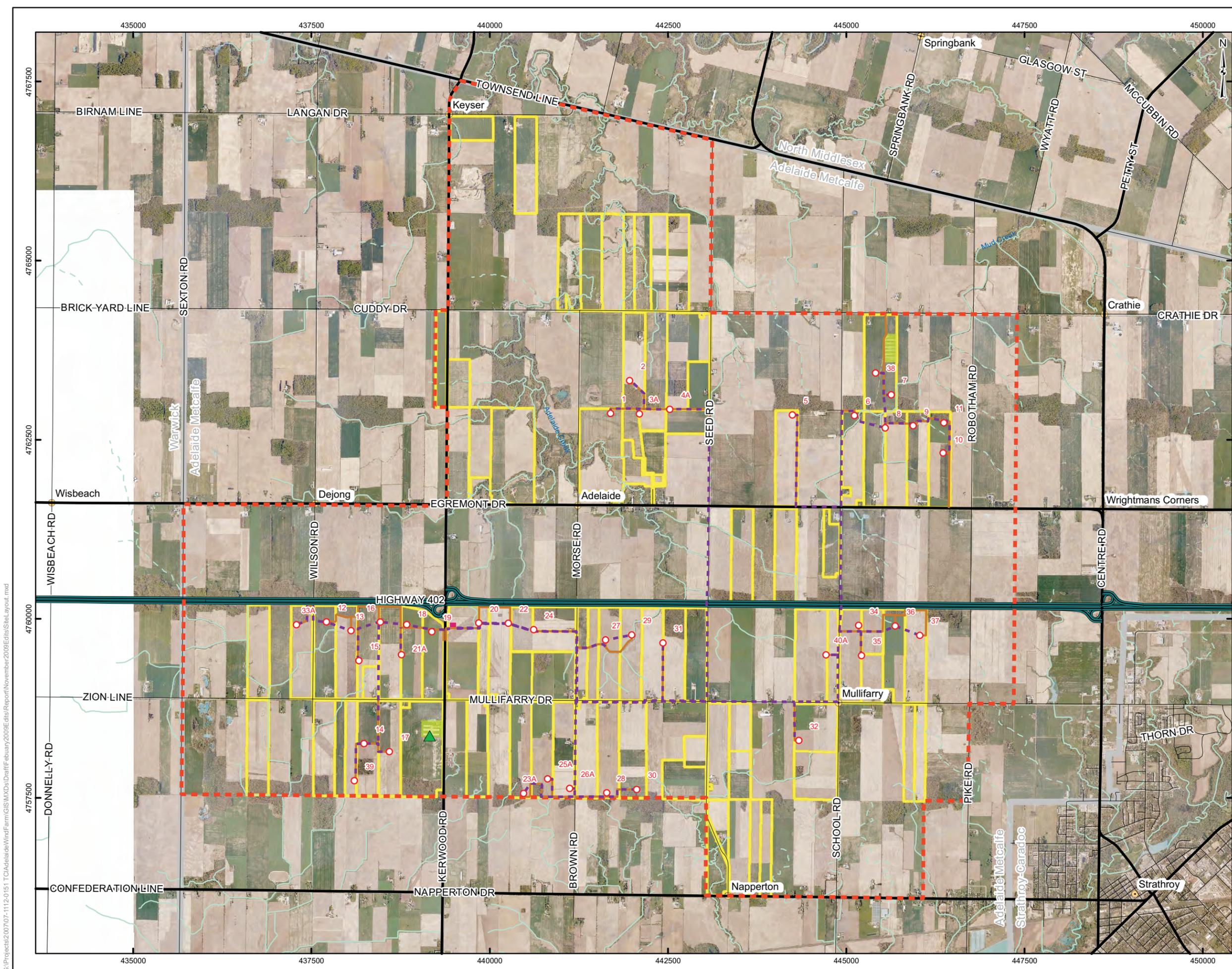
- DRAWING BASED ON  
 Government of Canada  
 1994a *Topographic Map Sheet 40 I/13: Strathroy* (Edition 6).  
 Centre for Topographic Information, Natural Resources  
 Canada, Ottawa.  
 1994b *Topographic Map Sheet 40 P/4: Parkhill* (Edition 7).  
 Centre for Topographic Information, Natural Resources  
 Canada, Ottawa.

**NOTES**

THIS DRAWING IS SCHEMATIC ONLY AND IS TO BE READ  
 IN CONJUNCTION WITH ACCOMPANYING TEXT.

ALL LOCATIONS ARE APPROXIMATE.

PROJECT	<b>Stage 2 Archaeological Assessment NextEra Adelaide Wind Farm Geo. Twp. of Adelaide, Middlesex County, Ontario</b>		
TITLE	<b>Location of the Study Area</b>		
	PROJECT No. 07-1112-0151-1800	FILE No. 0711120151-1800-R03001	SCALE AS SHOWN REV.
CADD JM Dec 15/09	CHECK	<b>FIGURE 1</b>	



**LEGEND**

- Turbine Layout 38
- ▲ Permanent MET Mast
- - - Collector Cable
- Access Road
- Substation
- ▭ Site Study Area
- Expressway
- Major Road
- Local Road
- Watercourse, Permanent
- - - Watercourse, Intermittent
- Proposed Laydown / Staging Area
- ▭ Optioned Lots
- ▭ Municipal Boundary
- Waterbody, Permanent
- Wetland, Permanent



**REFERENCE**

Base Data - MNR NRVIS, obtained 2004, CANMAP v2006.4  
 Produced by Golder Associates Ltd under licence from Ontario Ministry of Natural Resources, © Queens Printer 2009  
 Air Photo - Spring 2006 First Base Solutions.  
 Datum: NAD 83 Projection: UTM Zone 17N



<b>PROJECT</b>			
Stage 2 Archaeological Assessment NextEra Adelaide Wind Farm Geo. Twp. of Adelaide, Middlesex County, Ontario			
<b>TITLE</b>			
Turbine and Related Infrastructure Layout			
	PROJECT NO.	07-1112-0151	SCALE AS SHOWN
	DESIGN	PP 5 Mar 2009	REV. 0
	GIS	PP 16 Nov 2009	
	CHECK		
	REVIEW		

**FIGURE 2**

G:\Projects\200707-1112-0151 TC\Adelaide\WindFarm\GIS\WXD\Site\Draft\Fabruary2009\Edits\SiteLayout.mxd



## **2.0 SUMMARY OF STAGE 1 ARCHAEOLOGICAL INVESTIGATIONS**

A Stage 1 archaeological assessment of the study area was conducted by Archaeologix Inc., now merged with Golder, in early September 2008 (Golder 2009). The following is a summary of the Stage 1 results.

### **2.1 Natural Environment**

The study area is part of the southwestern end of the Horseshoe Moraines (Chapman and Putnam 1984: 127-129), specifically the tail end of the Seaforth Moraine (Hagerty and Kingston 1992: 11). The study area has two major soil types present: the Huron series and the Brantford series. Both soil series are silty clay loams and range from moderately well drained to imperfectly drained in the study area. Six other minor concentrations of identifiable soil series include the well to imperfectly drained Bennington silt loam, the well to imperfectly drained Brant silty loam, the rapid to imperfectly drained Caledon sand loam, the moderately well to imperfectly drained Melbourne silty clay loam, the poorly drained Waterin loamy fine sand, and the well to imperfectly drained Watford fine sandy loam. The area's topography is nearly level with only some areas of gentle sloping which can contribute to the soils' drainage characteristics as noted here. Most of these soil classes would have been suitable for pre-contact Aboriginal agriculture given their modern agricultural capability ratings (Hagerty and Kingston 1992: 74-96) although they would not be the highest yielding soil types available in Middlesex County. There are potable water sources within the study area, including numerous small streams, especially Adelaide Creek in the western portion and Mud Creek in the eastern portion. The original survey of Egremont Road (Carroll 1831a) also noted areas of swamp along its route.

### **2.2 Previously Known Archaeological Resources and Surveys**

Previous archaeological assessments and research surveys in Middlesex County have demonstrated that the area was intensively utilized by pre-contact Aboriginal peoples. However, only one site has been discovered within the study area, in the southeast corner (Government of Ontario n.d.). The Armbr site (AfHj-107) was a 10 by 15 metre lithic scatter found by Jacqueline Fisher in 2000. It contained a drill and a lithic debitage scatter but no diagnostic artifacts and therefore can only be interpreted as an undateable pre-contact Aboriginal site.

### **2.3 Historic Research**

The potential wind turbine tower sites are situated within the Geographic Township of Adelaide in Middlesex County, on properties that have been occupied by settlers since the late eighteenth century. The area first enters the Euro-Canadian historic record as part of Treaty Numbers 21 and 27½ made between the First Nation inhabitants of the area and the British (Morris 1943: 25-27).



The first Euro-Canadian settlement of the area began in the 1830's after Egremont Road was laid through the study area in 1831 by the Deputy Surveyor Peter Carroll (Carroll 1831a, Carroll 1831b). This survey lay in the route of Egremont Road along with "three tiers of lots on either side" (Nielsen 1993: 6). He then finished the remainder of the survey of the township in 1832 (Nielsen 1993: 8).

Close examination of the study area as depicted on the original township map, made by Peter Carroll in Oxford County on December 29, 1831, does not reveal any squatters recorded from before 1831 or any notable First Nations activity in the area.

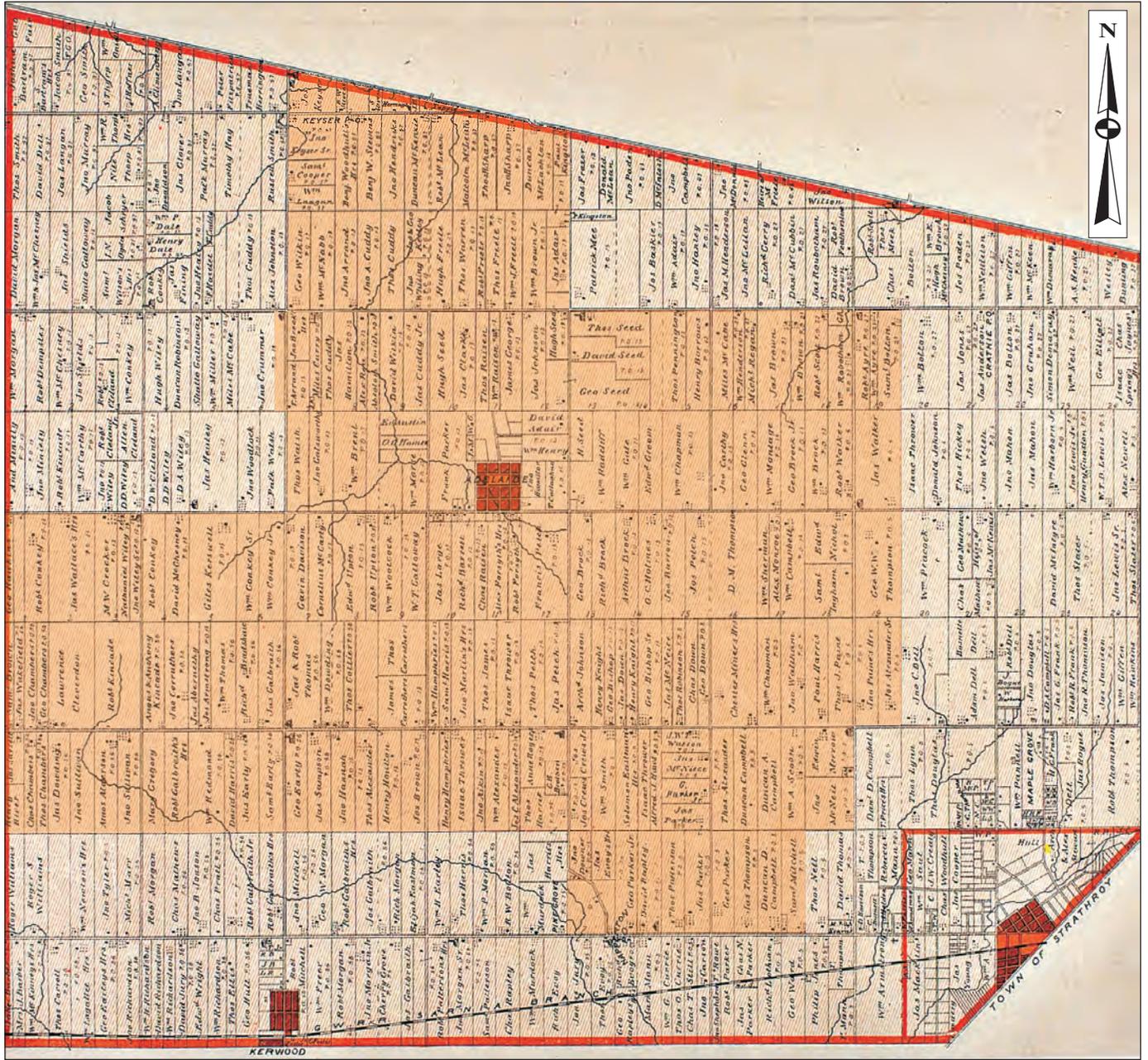
Two later maps from the 19<sup>th</sup> century record the Euro-Canadian settlers and illustrate the growth in the study area: the 1862 Tremaine Map (Tremaine 1862) and the 1878 H.R. Page and Company Historical Atlas Map (H.R. Page 1878). The Tremaine Map provides the names of all of the landowners but only illustrates a select number of structures on the properties. However, the later Historical Atlas Map (Figure 3) not only provides the names of the landowners but also the structures on the majority of the properties. Besides houses, the structures noted include brickyards, cemeteries, churches, hotels, manufactories, mills, and schools. Even though locations are only approximate on these maps, they do give an idea of potential for significant archaeological historic remains that could be impacted within the study area. Typically these locations no longer exhibit any visible evidence of their former structure and if they are to be impacted by a wind turbine placement the location would need to be archaeologically assessed to see if there are any archaeological remains. A number of potentially archaeologically significant locations were identified within the study area, as discussed in detail in the Stage 1 archaeological assessment (Golder 2009). In addition, four other communities with potential archaeological resources were identified in the Stage 1 archaeological assessment: Adelaide, Keyser, Mullifarry, and Napperton.

## **2.4 Archaeological Potential**

As reviewed in detail in the Stage 1 archaeological assessment (Golder 2009), the archaeological potential for pre-contact Aboriginal sites within the study area was deemed to be moderate to high. This judgement is due to the presence of water sources, the level land without areas of steep slope, the moderately drained silty clay loam soils, and the known archaeological site within the study area. Similarly, the archaeological potential for historic Euro-Canadian sites was judged to be moderate to high. The area has been the location of generalized farming in the past and is still used in that fashion today. There is evidence of Euro-Canadian settlement extending back to the early 19<sup>th</sup> century during the initial settlement of Adelaide Township. The 19<sup>th</sup> century road grid is still in use which includes the major transportation route of Egremont Road. In addition, four small communities that have decreased in size since the 19<sup>th</sup> century might have left behind significant archaeological remains.

## **2.5 Stage 1 Recommendations**

The Stage 1 archaeological assessment resulted in the determination that the potential for pre-contact Aboriginal and Euro-Canadian sites was deemed to be moderate to high on these properties. As a result, Stage 2 archaeological assessment was recommended for all areas to be impacted during the construction, operation, and decommissioning phases of the proposed wind farm.



**LEGEND**

 Study Area

**REFERENCE**

DRAWING BASED ON  
H.R. Page and Company  
1878 *Illustrated Historical Atlas of the County of Middlesex*.  
1972 reprint. Edward Phelps, Sarnia.

**NOTES**

THIS DRAWING IS SCHEMATIC ONLY AND IS TO BE READ  
IN CONJUNCTION WITH ACCOMPANYING TEXT.

ALL LOCATIONS ARE APPROXIMATE.

PROJECT **Stage 2 Archaeological Assessment  
NextEra Adelaide Wind Farm  
Geo. Twp. of Adelaide, Middlesex County, Ontario**

TITLE **A Portion of the Historic Map of the  
Township of Adelaide in the 1878 *Illustrated  
Historical Atlas of the County of Middlesex***



PROJECT No.	07-1112-0151-1800	FILE No.	0711120151-1800-R03003
CADD	JM	Dec 15/09	SCALE NOT TO SCALE. REV.
CHECK			<b>FIGURE 3</b>



## **3.0 STAGE 2 STUDY METHODS AND RESULTS**

### **3.1 Stage 2 Field Assessment Methods**

The study area encompasses the entire wind farm layout. Only those areas to be affected by the construction, operation, and decommissioning of the wind farm have been assessed archaeologically. Those areas include the turbine locations; the location of the substation; the underground or overhead collector cables running between turbines and the substation; and the access roads between the turbines, the substation, and the existing road grid. In the case of each turbine site, a one hectare block was assessed, centred on the turbine location. In the case of the location of the substation, an area of 200 metres by 200 metres was assessed, centred on the proposed substation location. In the case of the overhead or underground collector cable routes, a 20 metre wide corridor with the centre line of the corridor corresponding to the centre line of the collector cable route was assessed. Finally, in the case of the access roads, a 20 metre wide corridor with the centre line of the corridor corresponding to the centre line of the access road was assessed.

The Stage 2 assessment of these areas was conducted by pedestrian survey. The Stage 2 assessment of well weathered ploughed fields was conducted by the standard pedestrian survey method at an interval of five metres (Plates 1 through 9). Ground visibility was excellent; the differing weather conditions demonstrate the fact that the fields were surveyed between the fall of 2008 and spring of 2010. In the event that an artifact was encountered during the pedestrian survey, survey intervals were intensified to one metre within a twenty metre radius of the find.

The previously disturbed road right-of-ways where some of the underground and overhead collector cables will run were not assessed archaeologically due to the disturbance when the ditches and road shoulders were constructed (Plates 10 through 15). This includes portions of Egremont Drive (see Appendix A, Key Tile), Highway 402 (see Appendix A, Key Tile and Tile G), Mullifarry Drive (see Appendix A, Key Tile, Tile F and Tile G), Sullivan Road (see Appendix A, Tile C1), Kerwood Road (see Appendix A, Tile C2), Brown Road (see Appendix A, Tile E and Tile F), Seed Road (see Appendix A, Key Tile and Tile A) and School Road (see Appendix A, Key Tile, Tile B and Tile G). Also, a portion of proposed access road south of Highway 402 (see Appendix A, Tile C2) that had been previously impacted and capped with topsoil during the construction of Highway 402 was not assessed due to the recent disturbance (Plate 16). In order to confirm the disturbance in this portion, a number of precautionary test pits were strategically placed along the proposed access road corridor. Each test pit was approximately 30 centimetres in diameter, was dug to subsoil with all soil screened through six millimetre mesh hardware cloth, and was back filled. All test pit fill and profiles exhibited extensive disturbance. Otherwise, all areas that were not disturbed were subject to the Stage 2 archaeological field assessment. Appendix A provides detailed plans of the study area with the methods and results of the Stage 2 field assessment.

The weather during the Stage 2 assessment ranged from sunny and hot to overcast and cold. At no time were the conditions detrimental to the recovery of archaeological material. Field visibility was excellent. Permission to enter the property and remove artifacts was given by Mark Gallagher of Air Energy TCI Inc. and Thomas Bird of NextEra Energy Canada, ULC. All recovered artifacts will be housed at Golder's London office until their transfer to the Ontario Ministry of Tourism and Culture collections facility located at 900 Highbury Avenue, London.



---

## STAGE 2 ARCHAEOLOGICAL ASSESSMENT NEXTERA ADELAIDE WIND FARM

---

*Plate 1: Stage 2 Pedestrian Survey, Field Conditions, Walked at 5 Metre Intervals, Turbine Pad 4A, Facing West*



*Plate 2: Stage 2 Pedestrian Survey, Field Conditions, Walked at 5 Metre Intervals, Collector Cable to Turbine 5, Facing North*





## STAGE 2 ARCHAEOLOGICAL ASSESSMENT NEXTERA ADELAIDE WIND FARM

*Plate 3: Stage 2 Pedestrian Survey, Field Conditions, Walked at 5 Metre Intervals, Collector Cable Between Turbines 6 and 8, Facing South*



*Plate 4: Stage 2 Pedestrian Survey, Field Conditions, Walked at 5 Metre Intervals, Collector Cable Between Turbines 9 and 11, Facing South*





## STAGE 2 ARCHAEOLOGICAL ASSESSMENT NEXTERA ADELAIDE WIND FARM

*Plate 5: Stage 2 Pedestrian Survey, Field Conditions, Walked at 5 Metre Intervals, Turbine Pad 33A, Facing South*



*Plate 6: Stage 2 Pedestrian Survey, Field Conditions, Walked at 5 Metre Intervals, Substation, Facing South*

