

**Stage 2 Archaeological Assessment
Switchyard Property**

Timmins Martelle Heritage Consultants Inc.

Dated: October 2007

**Stage 2 Archaeological Assessment
Kingsbridge Wind Power Project Phase II
Switchyard Property
Part of Lot 6, Concession 7 E.D.
Ashfield Township
Huron County**

Submitted to

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TMHC Personnel

TMHC would like to thank the following staff members who contributed to this project:

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| <i>Michael Smith</i> | <i>Manager, Environmental Policy and Programs</i> EPCOR Power Development Corporation |
| <i>Steve Pyke</i> | <i>Director of Projects - Eastern Region</i> EPCOR Power Development Corporation |

Project Summary

A Stage 1 archaeological assessment was previously conducted for a large study area associated with a proposed second phase of the Kingsbridge Wind Power Project in Huron County, Ontario (TMHC 2006). The project will see the construction of between 60 and 70 new wind turbines in Ashfield Township, east of Highway 21. The Stage 1 work indicated that the study area had potential for the discovery of archaeological sites. As such, a Stage 2 field assessment of leasehold properties and impact areas was initiated in 2005 and is still ongoing. This work is intended to identify significant archaeological resources that need to be mitigated or protected from construction impacts. This report describes the results of a Stage 2 survey of a proposed switchyard property. The proponent may wish to begin construction on the property prior to finalizing the turbine layout and finishing the required archaeological work within the project area. As such, this report is being submitted separately from the comprehensive Stage 2 report for the project. All of the archaeological activities carried out for the project are required under the *Environmental Assessment Act*.

The proposed switchyard property comprises part of Lot 6, Concession 7 (Eastern Division) in Ashfield Township. The switchyard proper consists of active agricultural land that was ploughed for our assessment. It will be accessed by a laneway extending to Glenn's Hill Road through what is currently pasture land. The agricultural lands were assessed through a pedestrian survey. The pasture area was shovel tested. Both techniques employed five metre transect intervals.

Nothing of archaeological significance was identified during the Stage 2 assessment. As such, the proposed switchyard and its access road should be considered free of archaeological concern and construction should be allowed to proceed. However, if construction plans change to incorporate lands not subject to assessment, additional survey will be requirement prior to the commencement of construction on the property.

The Ministry of Culture is asked to review the information presented in this report and issue a letter of clearance for the surveyed lands. This correspondence should be directed to Susan Shaw (fax: 519-435-0220) and Michael Smith of EPCOR (fax: 780-412-3243) and copied to both Ian Callum of Stantec Consulting, Guelph (fax: 519-836-2493) and Holly Martelle of Timmins Martelle Heritage Consultants Inc.

**Stage 1 Archaeological Assessment
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Switchyard Property
Part of Lot 6, Concession 7 E.D.
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1.0 PURPOSE

A Stage 1 archaeological assessment was previously conducted for a large study area associated with a proposed second phase of the Kingsbridge Wind Power Project in Huron County, Ontario (TMHC 2006). The project will see the construction of between 60 and 70 new wind turbines in Ashfield Township, east of Highway 21. The Stage 1 work indicated that the study area had potential for the discovery of archaeological sites. As such, a Stage 2 field assessment of leasehold properties and impact areas was initiated in 2005 and is still ongoing. This work is intended to identify significant archaeological resources that need to be mitigated or protected from construction impacts. This report describes the results of a Stage 2 survey of a proposed switchyard property. The proponent may wish to begin construction on the property prior to finalizing the turbine layout and finishing the required archaeological work within the project area. As such, this report is being submitted separately from the comprehensive Stage 2 report for the project. All of the archaeological activities carried out for the project are required under the *Environmental Assessment Act*.

The Stage 2 fieldwork on the property was conducted on December 18 and 20, 2006 in cool, overcast conditions. Apart from those described in the body of this report, there were no conditions that prohibited the recognition and collection of archaeological material. All archaeological consulting activities were performed under the Professional Archaeological License of Dr. Holly Martelle (P064) and in accordance with the *Archaeological Assessment Technical Guidelines* of the Ministry of Culture (MCTR 1993). Permission to enter the property was provided by Steve Pyke and Michael Smith of EPCOR. It was anticipated that any artifacts recovered as a result of this work would be stored at the office of Timmins Martelle Heritage Consultants Inc. until such time as their transfer to the Ministry of Culture (London) or another appropriate curatorial facility could be arranged.

2.0 PROJECT BACKGROUND

In the spring of 2004, Timmins Martelle Heritage Consultants Inc. (TMHC) was hired by B.M. Ross and Associates to conduct a Stage 1 and 2 assessment of a series of properties in Ashfield and Colborne Townships. The lands were the focus of the proposed Port Albert Wind Farm project designed and owned by Northern Cross Energy. In the summer of 2004, Northern Cross negotiated the sale of the project and lease agreements to EPCOR Power Development Corporation. TMHC was subsequently retained to

complete the archaeological component of the project. In the spring of 2005, the archaeological assessment was completed for the first phase of EPCOR's Kingsbridge Wind Power Project. This saw the construction of over twenty turbines concentrated in both Ashfield and Colborne Townships. The construction of Phase I turbines is completed.

In the summer of 2005, EPCOR began planning for Phase II of the project. This will see the construction of over 60 additional turbines. Several preliminary turbine layouts have been devised but changes are still anticipated pending environmental and municipal review as well as landowner consultation. In 2005, a Stage 2 archaeological assessment was initiated for leasehold properties and potential turbine and access road sites. It is still ongoing.

Next year, the proponent may wish to begin construction on a switchyard, along the eastern edge of the project area. As such, TMHC commenced a Stage 2 survey of the switchyard property. It has now been fully assessed and the results of our work are outlined below.

3.0 STAGE 2 ASSESSMENT: SWITCHYARD PROPERTY

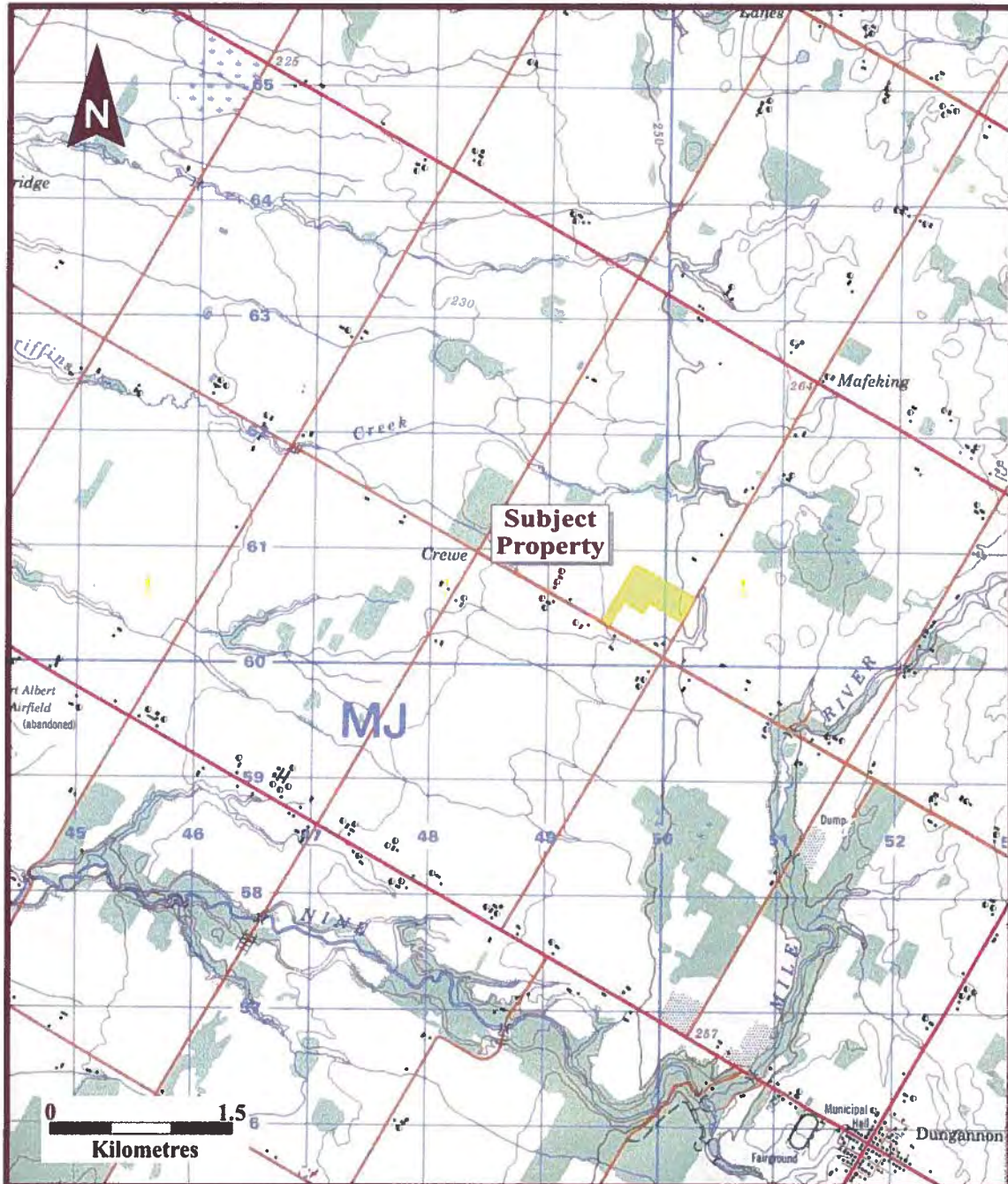
3.1 Subject Property: Overview, Physical Setting and Archaeological Potential

The subject property comprises part of the south half of Lot 6, Concession 7 (Eastern Division) in the geographic Township of Ashfield in Huron County, Ontario. It is situated in the northwest corner of the intersection of Glen's Hill Road and Tower Line Road. The switchyard property is roughly L-shaped. It comprises most of a fenced agricultural field that was planted in corn prior to our assessment (Figures 2 and 3). The field is bounded on all sides by a post and wire fence line. Towerline Road rests to the east of the eastern field boundary. A high voltage hydro line runs adjacent to the fence on the western boundary (Figure 4). The switchyard area will also be accessed from Glen's Hill Road to the south of the ploughed field. An access road is to be constructed leading to the switchyard from the roadway and will travel through what is now active cow pasture (Figure 4). This portion of the property is relatively flat and rests at 243 metres above seal level (a.s.l.). There is a fairly elevated knoll in the eastern portion of the ploughed field, resting at more than 250 metres a.s.l. (Figure 5). This forms part of a remnant shoreline of glacial Lake Warren (ODMNA 1972) and is notably sandier than the remaining portion of the property. The beach ridge soils are well drained Burford loam whereas those away from it are predominantly imperfectly drained Perth clay loam (Hoffman et al. 1952). A small unnamed tributary passes to the south and east of the property.

The subject property shows high potential for the discovery of archaeological resources. This is due to the proximity of the small tributary and the presence of well



Figure 1: Location of the Proposed Switchyard in Ashfield Township, ON



Topographic Map Section 40 P/13 Edition 6 Lucknow, Ontario Scale 1:50,000
Natural Resources Canada 2001



Figure 2: Overview of the North Portion of the Property (looking west)



Figure 3: Overview of the Property (looking southeast)



Figure 4: Pasture Area and Western Boundary (looking north)



Figure 5: Beach Ridge in Northeastern Portion of Property (looking west)



drained soils and the remnant shoreline. There is also potential for the discovery of historic sites given the property was occupied by the publication date of the historic atlas in 1879 (H. Belden & Co. 1879). However, the structure shown on the lot in 1879 is in the same general area as an existing farmhouse on the property, to the south of the surveyed area. The historically documented structure does not appear to be within our area of concern.

3.2 Methods

The Stage 2 survey was carried out over the course of two days in December of 2006. The corn crop in the northern portion of the survey area had been harvested and the property was ploughed and rained on. Surface visibility was quite good (Figure 6) and, as a result, a pedestrian survey was carried out using a five metre interval. The ploughed field area was roughly L-shaped and was slightly over 30 acres in size. A 15 metre-wide access road area was surveyed for the access road leading to Glen's Hill Road. Because this area was pasture, it was assessed by shovel testing (Figures 7 and 8). The access road is just under 300 metres long. Figure 9 marks the areas surveyed, field conditions encountered and techniques employed on a 1:10,000 base map of the property.

3.3 Results

Despite conditions of good surface visibility, the pedestrian survey of the ploughed field did not result in the discovery of artifacts. The test pit excavations in the access road pasture area revealed the presence of sandy loam soils and light orange subsoil at a depth of between 25 and 30 cm. No artifacts were recognized during the screening of the topsoil fill from each test pit.

As no cultural material was identified during the course of our assessment, no further work is recommended.

4.0 SUMMARY AND RECOMMENDATIONS

A Stage 2 archaeological assessment was conducted for a proposed switchyard property comprising part of Lot 6, Concession 7 (E.D.) in the geographic Township of Ashfield. The switchyard will be constructed as part of the second phase of the Kingsbridge Wind Power Project. A combined pedestrian and test pit survey did not result in the discovery of archeological resources within the areas examined. As such, there appears to be no further concerns for this area and construction should be allowed to proceed. Because the proponent wishes to construct the facility some time in the next year or so and before the remaining archaeological work may be finalized, a letter of clearance for this property is requested.

The Ministry of Culture is asked to review the information presented in this report and issue a letter of clearance allowing the switchyard construction to proceed. This



Figure 6: Pedestrian Survey in Progress (looking east)



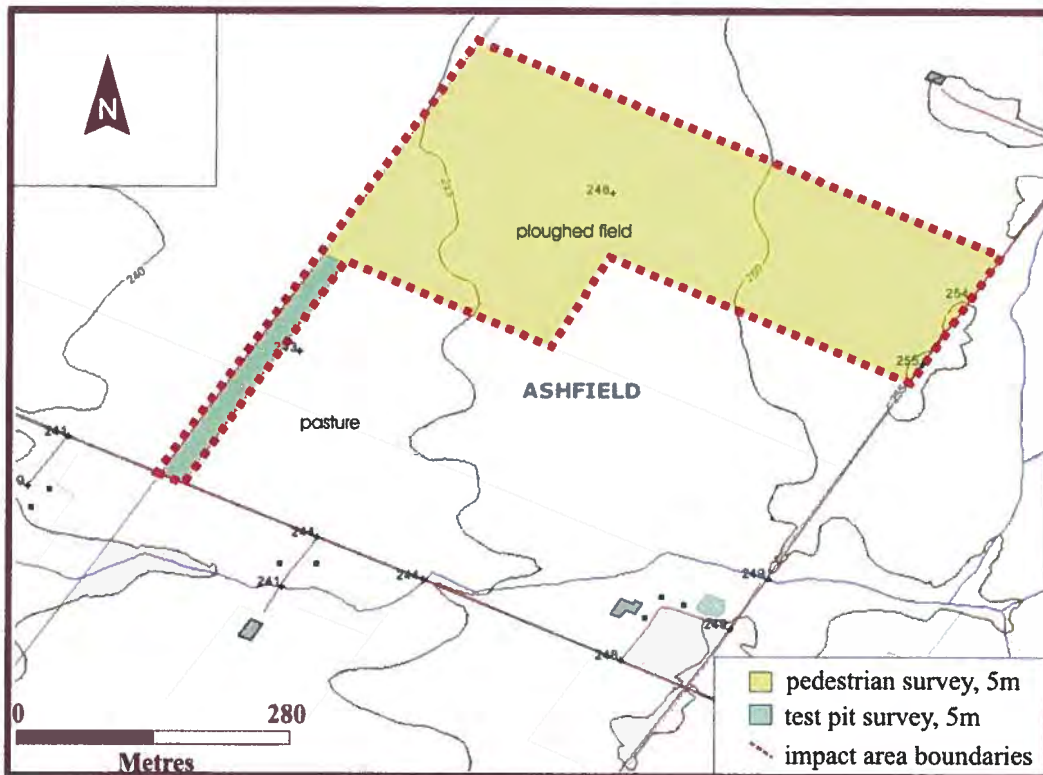
Figure 7: Test Pit Survey in Progress (looking north)



Figure 8: Stage 2 Test Pit



Figure 9: Stage 2 Survey Extent, Field Conditions and Methods



correspondence should be directed to Susan Shaw (fax: 519-435-0220) and Michael Smith of EPCOR (fax: 780-412-3243) and copied to both Ian Callum of Stantec Consulting, Guelph (fax: 519-836-2493) and Holly Martelle of Timmins Martelle Heritage Consultants Inc., London.

Since typical archaeological assessment methods cannot guarantee the detection of deeply buried archaeological deposits, if these are identified during construction the Ministry of Culture should be notified immediately at (519) 675-7742. Upon the discovery of human remains during construction, the proponent should immediately contact a representative of Timmins Martelle Heritage Consultants, the Ministry of Culture, as well as the Registrar of Cemeteries, Michael D'Mello, in the Cemeteries Regulation Unit of the Ministry of Consumer and Commercial Relations (416) 326-8392.

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