ROARING BROOK WIND FARM: PHASE 1B ARCHEOLOGICAL SURVEY INTERIM REPORT – SUMMARY OF RESULTS

TOWN OF MARTINSBURG LEWIS COUNTY, NEW YORK

PREPARED FOR



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 $\mathbf{B}\mathbf{Y}$



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MANAGEMENT SUMMARY

SHPO Project Review Number:

Involved State and Federal Agencies:

Phase of Survey:

Location Information: Location: Municipality:

Survey Area: Project Area: Archeological APE:

USGS 7.5 Minute Quadrangle Map:

Archeological Survey Overview: Number & interval of shovel tests: Number and size of units: Pedestrian surface survey acreage: Surface Survey Transect Interval:

Results of Archeological Survey:

Number of pre-contact sites identified:

Number of historic sites identified:

Sites recommended for avoidance:

Report Author:

Date of Report:

08PR00731

NYS Department of Environmental Conservation US Army Corps of Engineers

Phase 1B Archeological Survey

multiple private properties Town of Martinsburg, Lewis County

~3,980 acres 190.4 acres (39 proposed wind turbines, related infrastructure)

Sears Pond, NY and Page, NY

3,080 shovel tests at 5-meter intervals 0 14.1 acres 5 meters

0

15(4 sites recommended for avoidance,11 sites no impact from Project)

Flat Rock Road MDS 7 Site Flat Rock Road MDS 9 Site French Road MDS 4 Site Orchard Historic Site

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MANAGEMENT ABSTRACT

JMA (John Milner Associates, Inc.) conducted a Phase 1B archeological survey for the proposed Roaring Brook Wind Farm located in the Town of Martinsburg, Lewis County, New York. The Phase 1B investigation was conducted on behalf of Roaring Brook Wind Power, LLC, a subsidiary of Iberdrola Renewables. The purpose of the Phase 1B investigation is to identify archaeological sites that may be affected by the construction or operation of the proposed Project. All archeological survey fieldwork and report preparation were conducted in accordance with the *New York State Historic Preservation Office Guidelines for Wind Farm Development Cultural Resources Survey Work* (the SHPO *Guidelines*) and in accordance with the research design which was previously submitted to and approved by the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP). This report is intended as an interim report that summarizes the results of the Phase 1B survey for the purpose of including these results in the SDEIS for the Project. A complete, illustrated Phase 1B survey report is currently in preparation and will be issued subsequent to the completion of the SDEIS.

In total JMA personnel excavated 3,080 shovel tests for the Phase 1B survey for the Roaring Brook Wind Farm Project. No prehistoric (Native American) artifacts were recovered during the Phase 1B survey. JMA identified 15 historic-period archeological sites during the Phase 1B survey. Most of these are foundations of structures depicted on historic maps of the region. The Project will not result in any impact to eleven of these sites because the sites are located far enough from any proposed Project facility that no disturbance to the site will occur. JMA identified four historic-period archeological sites that could be affected by construction of the proposed Project (the French Road MDS 4 Site, Flat Rock Road MDS 7 Site, Flat Rock Road MDS 9 Site, and Orchard Site). In the opinion of JMA, Project facilities or construction (e.g., road improvements) in the vicinity of these four sites should be relocated or constrained to avoid impacts to these four sites.

* * *

OPRHP's review of the *Historic Architectural Resources Survey* for the Project (included in the DEIS) concluded that "the proposed wind farm development will not have an adverse impact on the five identified historic resources. Our decision is based on the sparse nature of resource distribution, proximity of the 5 identified resources to turbine locations, and the existing topographic conditions" (J. Bonafide 4/9/2008). Subsequent to the publication of the DEIS, wind measurement data retrieved from the four on-site temporary meteorological towers supports the requirement to relocate certain turbines in the layout. Data revealed that the spacing of turbines within the layout presented in the DEIS were too tightly arranged and the resulting wake effects would have a depressive effect on power generation and may also result in increased turbine component wear. JMA reviewed the revised Project layout and associated viewshed model to determine if conclusions presented in the *Historic Architectural Resources*. *Survey* needed to be reexamined. The revised layout does not result in any changes in the visibility of the Project from any of the 5 identified historic resources, nor does the viewshed model for the revised Project layout does not result in any different conclusions than what were presented in the *Historic Architectural Resources* Survey. The revised Project layout will not result in any adverse visual impacts to historic resources.

TABLE OF CONTENTS

Management Summary Management Abstract

List of Tables List of Figures

1.0	INTR	ODUCTION	1
	1.1	Purpose and Goals of the Investigation	1
	1.2	Project Location and Description	1
2.0	PROJI	ECT BACKGROUND	3
	2.1	Previous Cultural Resources Work	3
	2.2	Revised Phase 1B Archeological Survey Research Design	4
3.0.	PHAS	E 1B ARCHEOLOGICAL SURVEY	5
	3.1	Phase 1B Archeological Survey Methods	5
	3.2	Phase 1B Archeological Survey Results	6
	3.3	Archeological Sites	11
4.0.	CONC	CLUSIONS	15
	4.1	Phase 1B Summary and Recommendations	15
	4.2	Evaluation of Potential Visual Effects on Historic-Architectural Resources	
		Due to the Revised Project Layout	16
5.0	REFE	RENCES CITED	17

Figures

Appendix I: Correspondence

LIST OF TABLES

Table 1.	Revised Phase 1B archeological survey research design: archeological APE (acres) and level of effort (shovel tests) within GIS-Based landscape classification zones.	4
Table 2.	Phase 1B archeological survey shovel test summary	7
Table 3.	Summary of archeological sites identified during the Phase 1B survey	.11
Table 4.	Summary of potential impacts to archeological sites and avoidance recommendations	.15

LIST OF FIGURES

- Figure 1. Project Area location and proposed wind-turbine generator layout.
- Figure 2. Proposed interconnection route.
- Figure 3. GIS-landscape classification model for the Project Area.
- Figure 4. GIS-landscape classification model for the proposed interconnection route.
- Figure 5. Flat Rock Road MDS 7 Site and Flat Rock Road MDS 9 Site.
- Figure 6. French Road MDS 4 Site.
- Figure 7. Orchard Site.
- Figure 8. Hough's Cave.

1.0 INTRODUCTION

1.1 PURPOSE AND GOALS OF THE INVESTIGATION

JMA (John Milner Associates, Inc.) conducted a Phase 1B archeological survey for the proposed Roaring Brook Wind Farm located in the Town of Martinsburg, Lewis County, New York. The Phase 1B survey was conducted on behalf of Iberdrola Renewables. The information and recommendations contained in this report are intended to assist the Town of Martinsburg in evaluating the potential effects of the project in accordance with its obligations under the New York State Environmental Quality Review Act (SEQRA).

The purpose of the Phase 1B survey is to identify archeological sites that may be affected by the construction or operation of the proposed project. All research and report preparation were conducted in accordance with the New York Archaeological Council's *Standards for Cultural Resources Investigations and the Curation of Archaeological Collections* (NYAC 1994) and the *New York State Historic Preservation Office Guidelines for Wind Farm Development Cultural Resources Survey Work* (the SHPO *Guidelines*) issued by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP 2006).

This report is intended as an interim report that summarizes the results of the Phase 1B survey for the purpose of including these results in the SDEIS for the Project. A complete Phase 1B survey report (illustrated with maps of all tested areas and more detailed records of shovel testing, etc...) is currently in preparation and will be issued subsequent to the completion of the SDEIS. All archeological sites documented during the Phase 1B survey which may be affected by the Project are described in this interim report.

1.2 PROJECT LOCATION AND DESCRIPTION

Roaring Brook Wind Power, LLC, a subsidiary of Iberdrola Renewables, is proposing to develop a wind-powered generating facility (the Project) in the Town of Martinsburg, Lewis County. Project facilities will be located on 40 parcels of leased privately owned land (eight landowners) totaling approximately 4.926 acres (the Project Area), located off of Carey Road in the southwestern part of Martinsburg (**Figure 1**). The landscape within the Project Area is actively logged forest in various stages of re-growth, but also includes significant wetland acreage. There are no public roads located within the Project Area.

Wind Turbines. The Project includes 39 proposed wind turbines, each with a maximum (or nameplate) capacity of 2.0 megawatts (MW), resulting in a generating capacity of approximately 78 MW. As presently envisioned, the Project will use the Gamesa G90 Turbine (or equivalent), which will include a three-bladed rotor, with a diameter of 90-meters (295-foot), mounted on an 100-meter (328-foot) tubular steel tower. Clearing, grading, excavation and installation of each wind turbine will require ground disturbance of up to approximately two (2) acres.

Access Roads. The Project will include the construction of a network of access roads, which will include new roads (7.5 miles) and improvement of an existing road network (9.2 miles) within the Project Area. Each wind turbine will require a permanent 16-foot-wide access road to be constructed of crushed stone. During construction operations and installation of the wind turbines, portions of these roads could require a wider clearance (approximately 10 feet on either side of the permanent road) to accommodate the crane and/or turbine components. The maximum assumed width of the APE for these roads is 40 feet. Approximately 4 miles of new roads are proposed for the Project.

The existing network of unpaved logging/access roads within the Project Area were built by and for the use of the property owner and were not constructed for the benefit of the Project. The existing road network includes many areas where no Project facilities are proposed. The existing roads vary from approximately 30 to 70 feet in width and have been cleared, stripped, in some cases are already paved with crushed stone, and in most areas include stripped and graded road shoulders. Approximately 9.2 miles of this existing road network may be improved for use as access roads for the Project. To the extent that these roads require improvement for the Project they will be paved and leveled with crushed stone. These existing road areas are entirely previously disturbed and no archeological survey effort was assigned to these areas. Photographs depicting the existing conditions (and documenting the extent of existing disturbance) of this road network will be included in the complete Phase 1B report.

Interconnects. The Project will include approximately 12.7 miles of underground electrical interconnects within the generation site. The approximate width of the necessary right-of-way (ROW) for operation of the machinery used to install these interconnects will not exceed 15 feet. The electrical interconnect network within the Project generating site will be subsumed within the ROWs for proposed access road and/or the existing logging/access roads.

To deliver power to the New York State power grid, the Project will also include construction of an 8.5-mile-long 34.5 kV electrical interconnection line (**Figure 2**) and substation/point of interconnection facility located adjacent to the National Grid Taylor-Boonville 115 kilovolt (kV) transmission line near Lee Road in the Town of Martinsburg. The interconnection route will be comprised of approximately 5.2 miles of underground electrical (UGE) line and 3.3 miles of overhead electrical (OHE) line.

The buried (UGE) portion of this line will involve placing buried circuits to a depth of 36-48 inches, with seven foot spacing between each circuit, resulting in a width of circuit bank of 25 feet, including trenches. Approximately 3.1 miles of the UGE line will be constructed within existing public roads (portions of Centerville Road, French Road, Leonard's Lane, and Graves Road). For the purposes of determining the archeological APE for these portions of the UGE interconnect, the Project informed JMA that the maximum width of any needed improvements (clearing or widening) would not exceed 15 feet.

The overhead (OHE) portion of the line will be built on 61 single-wooden-pole structures. The western 1.5-milelong portion of the OHE line traverses wooded areas that will require a cleared right-of-way (ROW) with a width up to 75 feet. The eastern 1.8-mile-long portion of the line traverses open agricultural fields where ground disturbance will only occur at pole locations (JMA has assumed a 0.2-acre of disturbance for each pole site).

Flat Rock Road Improvements. The Project may need to conduct occasional improvements along a 1.5-mile-long portion of Flat Rock Road (a public road) located west of Carey Road. The improvements may include widening, curve straightening, and/or vegetation clearing; in no cases will road improvements extend more than a few feet from the edge of the existing road. For the purposes of determining the archeological APE in this area, the Project informed JMA that the maximum width of improvements would not exceed 15 feet.

Staging/Laydown Area and Operations & Maintenance (O&M) Facility. The Project will include clearing and site preparation for an approximately 10-acre staging/laydown area to be located within the Project generating site. The Project will also include construction of an O&M facility. The maximum assumed area of disturbance for this facility is 5 acres. The O&M facility is proposed to be constructed off of Flat Rock Road (outside the generating site) within the Town of Martinsburg.

Meteorological Tower. The Project will include one permanent meteorological tower. The maximum area of disturbance for this tower will be 1.0 acre.

2.0 PROJECT BACKGROUND

2.1 PREVIOUS CULTURAL RESOURCES WORK

JMA previously prepared a *Phase 1A Cultural Resources Survey, GIS Landscape Analysis, & Phase 1B Archeological Survey Research Design* (JMA 2007a) and *Historic Architectural Resources Survey* (JMA 2007b) for the Project. Transmittal and agency review correspondence associated with these reports are included as Appendix I of this interim report. The *Phase 1A* report included background research for the Project Area (JMA 2007a:3-9) which included a discussion of the environment and soils, previously identified cultural resources in the vicinity, and the history of the Project Area. This background research is incorporated by reference and is not repeated herein.

The *Phase* 1A report also included an archeological sensitivity assessment for the Project Area (JMA 2007a:10-11). In general, the rocky landscape within the Project Area is relatively inhospitable. Any possible Native American activity in the vicinity would have been limited to short term hunting or foraging, resulting in small and ephemeral archeological sites. Throughout the nineteenth and twentieth centuries, the Project Area was actively logged but otherwise remained undeveloped, and for the most part does not appear to have ever been cultivated (with the exception perhaps of a few tracts along Flat Rock Road within or adjacent to the northern part of the Project Area). The map of Lewis County in the 1829 Burr *Atlas of New York State* indicates that there were no mills, roads, or other documented settlement in southwest Martinsburg in the early-nineteenth century. The Project Area remained essentially undeveloped through the mid-nineteenth century. The 1857 Ligowski *Topographic Map of Lewis County* depicts that Flat Rock Road (along the northern part of the Project Area) had been established by this time with a few (presumed) farmsteads and other unidentified structures along this road.

The 1875 Beers *Atlas of Lewis County* identifies the southwestern part of Martinsburg (including the Project Area) as the 5034-acre "Holden & Owens Tract"; the "Holden & Owens SM" (saw mill) is depicted within Lot 90, within the southern portion of the Project Area along the headwaters of the north branch of Fish Creek. The Hamilton Child *Gazetteer and Directory of Lewis County, New York, for 1872-1873* identifies E.B. Holden as the owner of the tract that included the Project Area. The description of Holden's tract in Martinsburg as "wild land" in the 1872 directory indicates that the Project Area remained undeveloped and unsettled at that time. The 1875 atlas also depicts a road through the Project Area that provided access to the Holden & Owens saw mill, the eastern portion of which is still in use as French Road. The 1906 USGS *Highmarket, N.Y.* topographic quadrangle also depicts an unimproved road along the current route of French Road.

The Phase 1B survey included an inspection of the approximate location of the "Holden & Owens" saw mill depicted on the 1875 Beers atlas. A logging road currently crosses the north branch of Fish Creek over a culvert at this location. The Project may make use of this existing logging road but otherwise no proposed Project facilities are located in this vicinity. Immediately north of the logging road, the creek is impounded within a roughly rectangular-area which appears artificial or constructed (see JMA 2007a:Photograph 6); this impounded section of the creek may represent a former millpond. The current property stated that it was his understanding that an actual mill may not have been located on the property, but that the creek was dammed at this location to store logs, and the dam breached in the spring to float logs downstream to a mill located elsewhere. The "saw mill" depicted at this location in 1875 may therefore indicate that a logging-related facility (the dam) was at this location, but no actual millworks. JMA's field crew conducted a pedestrian reconnaissance of the wooded areas immediately adjacent to this possible millpond feature to determine if other features associated with the mill were present; however, no foundation remains or other obvious features were observed. The site will not be affected by the Project.

2.2 REVISED PHASE 1B RESEARCH DESIGN

The area of potential effect (APE) for archeological resources includes all areas that may be physically disturbed or affected by Project-related construction or operation. The SHPO *Guidelines* detail a specialized methodology for archeological surveys for wind projects in New York. The SHPO methodology consists of identifying environmental zones within the Project Area following the approach detailed in Robert Funk's 1993 study entitled *Archeological Investigations in the Upper Susquehanna Valley, New York State.* JMA conducted a landscape classification analysis for the Project Area (JMA 2006a:12-16) to define the locations and limits of local habitat zones and determine their distribution relative to the proposed Project layout. JMA's landscape analysis is based on explicit landform definitions and the precision of digital raster data within a GIS. After identifying and defining these environmental zones within the Project Area, the SHPO *Guidelines* request that the cultural resources consultant devise a program of archeological sampling that provides for intensive sampling of each type of environmental zone represented within the Project Area.

The *Phase 1A* report included a detailed GIS landscape analysis and archeological survey research design (JMA 2007a:12-16) prepared in accordance with the *SHPO Guidelines* (OPRHP 2006) which was reviewed and approved by OPRHP in correspondence dated April 16, 2008 (see Appendix I). Subsequent to the completion of the *Phase 1A* report, the Project layout has been modified. Table 1 presents a revised archeological area of potential effect and research design based on the revised Project layout (see Figures 3 and 4). The revised APE and research design were prepared with the same methods and assumptions detailed in the *Phase 1A* report (JMA 2007a:12-16).

Map Key:	1	2	3a	3b	4a	4b	5	2a	2b	Total	Total
GIS-based	knoll	saddle	saddle	knoll	saddle	knoll	slopes	valley	v. wall	APE	# of
Landscape			near	near	near	near	>12%	wall	near	(acres)	Shovel
Classification:			stream	stream	wetland	wetland			stream		Tests
WTGs (200' radius)	22.6	41.9	2.4	0.4	32.2	10.9	1.8			112.2	1795
access roads (40' wide)	4.7	11.3	0.1	0.2	5.8	1.7				23.8	382
laydown (10 acres)	2.5	0.1			6.0	2.2				10.8	173
O&M facility (5 acres)		5.0								5.0	80
met. tower (1 acre)		1.0								1.0	16
Flat Rock Road		0.1			0.7					2.0	45
underground electrical		2.1			0.7					2.8	45
(UGE) interconnect:											
UGE-wooded (40' wide)	0.8	2.1	1.1		3.3	0.5				7.9	126
UGE-roads (15' wide)	0.1	4.1	0.3		1.1					5.6	90
overhead electrical											
(OHE) interconnect:											
ROW wooded (75' wide)	2.5	8.7	2.4				0.2			13.7	220
poles in fields (0.2 acres)	0.6	0.8	0.4				0.2	0.6	2.6	5.2	85
poles - plowed (0.2 acres/)									1.0 acres	1.0	0
POI/substation (1.4 acres)								1.4		1.4	23
Total APE (acres)	33.8	77.1	6.7	0.6	49.1	15.3	2.2	2.0	3.6	190.4	
Total # of Shovel Tests	542	1234	109	10	787	243	35	33	42		3035

 Table 1. Revised Phase 1B archeological survey research design: archeological APE (acres) and level of effort (shovel tests) within GIS-based landscape classification zones.

3.0 PHASE 1B ARCHEOLOGICAL SURVEY

3.1 PHASE 1B ARCHEOLOGICAL SURVEY METHODS

The fieldwork for the Phase 1B Archeological Survey was conducted between August 28 and October 17, 2008. All archeological survey work was conducted under the direction of a Registered Professional Archeologist (RPA). The archeological survey approach for wind projects detailed in the SHPO *Guidelines* (OPRHP 2006) requests intensive testing (i.e., the excavation of shovel tests at a 5-meter interval) within limited sample areas distributed among various portions of the Project's area or potential effect (APE). The assumption underlying this approach is that upland areas suitable for wind power development are likely to include small and ephemeral prehistoric (Native American) archeological sites (such as lithic scatters and camp sites) that are unlikely to be identified using standard (i.e., shovel testing at a 15-meter interval) archeological survey techniques.

JMA's Principal Archeologist selected areas for intensive archeological survey based on the distribution of the archeological APE within the various environmental zones within the Project Area as determined by the research design (see Table 1); the locations of map-documented structures identified in the *Phase 1A* report and (JMA 2007a); and, judgmental field evaluations of archeological sensitivity by the Principal Archeologist during the Phase 1B survey work.

In wooded, idle, and hayfield areas, JMA personnel excavated shovel tests in a pattern of close-interval testing (5-meter spacing) to provide for intensive survey of selected sample areas within the APE:

- At proposed wind turbine generator (WTG) locations where subsurface testing was conducted, JMA field personnel excavated 49 shovel tests in a grid pattern of seven parallel transects (oriented east-to-west) each with seven shovel tests, all spaced at a 5-meter interval, usually centered on the proposed WTG location (the center of the grid was in some instances offset to avoid sloped areas, wet areas, etc...). These survey areas were designated "T" (turbine) followed by the Project WTG Number (e.g., WTG 1 is JMA Survey Area T1). Shovel tests at each location were designated T1.01-T1.49.
- Along proposed access road/interconnect routes where subsurface testing was conducted, JMA field personnel excavated three parallel transects (5 meters apart) of shovel tests spaced at 5-meter intervals. Tested portions of access roads were designated with an "R" (road) followed by the WTG Number that the road will access (e.g., R2 is the access road to WTG 2). Shovel tests along these transects were labeled R2.01, R2.02, R2.03, and so on.

The location of all subsurface tests were recorded with a GPS point and sketched on field maps. The locations of all archeological survey areas and shovel test units will be depicted on detailed Archeological Survey Maps included in the final Phase 1B report. Throughout the archeological testing, field activities were photographed, and field notes recorded the methods and result of all testing. Representative photographs were taken to document the environmental setting, context, and existing conditions at each archeological survey area (photographs of the archeological survey areas will be included in the final Phase 1B report).

Notes and a soil profile for each shovel test were recorded on pre-printed standardized forms (these will be included in tabular format in the final Phase 1B report). Soil excavated from shovel tests was passed through one-quarter inch

hardware cloth to ensure uniform recovery of cultural materials. Recovered artifacts were placed in bags marked with standard provenience information and returned to JMA's laboratory for processing. A complete listing of all recovered artifacts will be included in the final Phase 1B report. The following field procedures were followed when possible cultural materials were identified in shovel tests:

- If prehistoric (Native American) artifacts were found in any shovel tests, then JMA field personnel would have excavated 8 radial shovel tests (at 3-meter and 1-meter intervals) to determine if other artifacts were present in the immediate vicinity.
- If historic-period artifacts were recovered in a shovel test, then JMA field personnel examined the surrounding vicinity for foundation remains or other evidence of a structure (e.g., landscape alterations or common perennial yard plantings) to determine if the artifacts were associated with a nearby site. Radial shovel tests were only excavated if JMA's Principal Archeologist determined that the original shovel test was in area of possible historic-archeological sensitivity (e.g., proximity to an observed foundation or map-documented structure).

As a component of the Phase 1B survey, JMA field personnel also investigated the locations of map-documented structures (MDS) that are depicted on historic maps and atlases within the Project Area. Historic cartographic sources reviewed for the survey included the 1857 Ligowski *Map of Lewis County*, the 1875 Beers *Atlas of Lewis County*, and the 1906 *Highmarket*, *N.Y.* and 1907 *Port Leyden*, *NY* 15-minute USGS topographic surveys. Details of these maps were included in the *Phase 1A* report for the Project (JMA 2007a).

JMA field personnel conducted pedestrian surface survey in agricultural fields where there was suitable surface visibility. In these areas, JMA field personnel closely examined the ground surface while walking parallel transects spaced at approximately 5-meter intervals. The locations of all artifacts identified in surface survey areas were recorded with a GPS point.

3.2 PHASE 1B ARCHEOLOGICAL SURVEY RESULTS

Archeological survey areas included the selected areas within the proposed wind turbine generator (WTG) locations, proposed access road routes, laydown area, operations and maintenance (O&M) facility, and selected areas along the proposed electrical interconnection route. Each area selected for archeological survey (either shovel testing or pedestrian surface survey) was designated with an archeological survey area identifier consisting of a letter(s) and number; for instance: T1 (WTG 1), R2 (access road to WTG 2), LD1 (the laydown area), OH1 (overhead electrical line area 1, UG1 (underground electrical line area 1), OM1 (the O&M facility), and SS1 (the substation). Shovel tests within areas selected for subsurface testing were designated with the archeological survey area identifier followed by a sequential number (e.g. shovel tests T1.01, T1.02, and T1.03).

In total JMA personnel excavated 3,080 shovel tests during the course of the Phase 1B survey for the Roaring Brook Wind Farm project. Shovel tests were allocated among intensively tested areas within the Project Area in proportion to the amount of proposed disturbance within the various environmental zones identified in JMA's landscape classification model. The location and level of effort conducted within landscape classification local habitats for each shovel tested area is summarized in Table 2. No prehistoric (Native American) artifacts were recovered during the Phase 1B survey. Summary descriptions of the historic archeological sites identified during the survey are provided in Section 3.3.

		Archeological APE by Landscape Classification (shovel tests completed)										
		1	2	3a	3b	4a	4b	5	2a	2b		Artifacts,
JMA	Proposed	knoll	saddle	Saddle	knoll	Saddle	knoll	slopes	valley	v. wall	Total	Sites Identified,
Survey	Project			Near	near	Near	near	>12%	wall	near	Shovel	or
Area	Facility			Stream	stream	Wetland	wetland			stream	Tests	Comments
T1	WTG 1		49								49	
T2	WTG 2	22	27								49	
R2	Access road to WTG 2	65	2								67	1 cut nail from R2.20
T3	WTG 3		49								49	
R3	Access road to WTG 3		30								30	
T4	WTG 4					49					49	
R4	Access road to WTG 4		51								51	
T5	WTG 5		49								49	Stone Piles-Mounds Site
R5	Access road to WTG 5					51					51	
T6	WTG 6					49					49	
R6	Access road to WTG 6		30								30	
T7	WTG 7	46									46	
Т8	WTG 8		49								49	
Т9	WTG 9	6					43				49	
T10	WTG 10					49					49	
T11	WTG 11		35			14					49	
R11	Access road to WTG 11		18								18	
T12	WTG 12		49								49	
T13	WTG 13					49					49	
R13	Access road to WTG 13					66					66	
T14	WTG 14	49									49	
T15	WTG 15		49								49	
T16	WTG 16					49					49	
R16	Access road to WTG 16		33			15					48	
T18	WTG 18	8	41								49	
R18	Access road to WTG 18		18								18	
T19	WTG 19	36					13				49	
T20	WTG 20	49									49	

 Table 2. Phase 1B archeological survey shovel test summary.

ROARING BROOK WIND FARM

PHASE 1B ARCHEOLOGICAL SURVEY – INTERIM SUMMARY REPORT

7

			Arche	ological AP	E by Lands	cape Classifi	ication (show	vel tests con	mpleted)			
		1	2	3a	3b	4a	4b	5	2a	2b		Artifacts,
JMA	Proposed	knoll	saddle	Saddle	knoll	Saddle	knoll	slopes	valley	v. wall	Total	Sites Identified,
Survey	Project			Near	near	Near	near	>12%	wall	near	Shovel	or
Area	Facility			Stream	stream	Wetland	wetland			stream	Tests	Comments
T21	WTG 21		49								49	
T22	WTG 22		18			31					49	
R21/22	French Road (access)		58			12					70	French Road Sites 1 & 2
T23	WTG 23					49					49	
T24	WTG 24		49								49	
T25	WTG 25		49								49	
T26	WTG 26	1	48								49	
T27	WTG 27		49								49	
T28	WTG 28					49					49	
T29	WTG 29	17					32				49	
T30	WTG 30	38					11				49	
T31	WTG 31	49									49	
T32	WTG 32		25								25	
T33	WTG 33			49							49	
R33	Access road to WTG 33			9	21						30	
T34	WTG 34						49				49	
R34	Access road to WTG 34					24	18				42	
T35	WTG 35					14	35				49	
T36	WTG 36					21	27				48	
T37	WTG 37	41						8			49	
T38	WTG 38	21						28			49	
T39	WTG 39	32				7	10				49	
F3	French Road (access)	1	8								9	French Road Site 3
F4	UGE French Road			7							7	French Road MDS 4 Site
F5	UGE French Road			7							7	
F6	UGE French Road		7								7	French Road MDS 6 Site
FR1	Flat Rock Road		7								7	Flat Rock Road MDS 1 Site
FR2	Flat Rock Road		15								15	
												8

Table 2. Phase 1B archeological survey shovel test summary, continued.

ROARING BROOK WIND FARM

PHASE 1B ARCHEOLOGICAL SURVEY – INTERIM SUMMARY REPORT

			Arche	ological AP	E by Lands	cape Classifi	cation (show	vel tests con	mpleted)			
		1	2	3 a	3b	4a	4 b	5	2a	2b		Artifacts,
JMA	Proposed	knoll	saddle	Saddle	knoll	Saddle	knoll	slopes	valley	v. wall	Total	Sites Identified,
Survey	Project			Near	near	Near	near	>12%	wall	near	Shovel	Or
Area	Facility			Stream	stream	Wetland	wetland			stream	Tests	Comments
FR3	Flat Rock Road					7					7	pile of timbers
FR4	Flat Rock Road					7					7	Flat Rock Road MDS 4 Site
FR5	Flat Rock Road					7					7	push-piles
FR6	Flat Rock Road		15								15	
FR7	Flat Rock Road		13								13	Flat Rock Road MDS 7 Site
FR8	Flat Rock Road		15								15	Flat Rock Road MDS 8 Site
FR9	Flat Rock Road		11								11	Flat Rock Road MDS 9 Site
G1	UGE Graves Road		7								7	
CV1	UGE Centerville Road		7								7	Centerville Road MDS 1 Site
CV2	UGE Centerville Road		7								7	
CV3	UGE Centerville Road		7								7	push-piles
CV4	UGE Centerville Road		7								7	push-piles
UG1	UGE wooded ROW			24							24	
UG2	UGE wooded ROW		8	3		13					24	
UG3	UGE wooded ROW		32								32	
UG4	UGE wooded ROW			20		5					25	
UG5	UGE wooded ROW					15					15	
UG6	UGE wooded ROW					30					30	
UG7	UGE wooded ROW	16	4								20	
UG8	UGE wooded ROW		11			3					14	
LD1	Laydown area					49					49	
LD2	Laydown area	49									49	
LD3	Laydown area					49					49	
OM1	O&M facility		49								49	also Surface Survey 7.2 acres
OH1	OHE wooded ROW			12							12	
OH2	OHE wooded ROW		15								15	
OH3	OHE wooded ROW		12								12	
OH4	OHE wooded ROW		6								6	
												9

 Table 2. Phase 1B archeological survey shovel test summary, continued.

ROARING BROOK WIND FARM

PHASE 1B ARCHEOLOGICAL SURVEY – INTERIM SUMMARY REPORT

			Arche	ological AP								
		1	2	3a	3b	4a	4b	5	2a	2b		Artifacts,
JMA	Proposed	knoll	saddle	Saddle	knoll	Saddle	knoll	slopes	valley	v. wall	Total	Sites Identified,
Survey	Project			Near	near	Near	near	>12%	wall	near	Shovel	or
Area	Facility			Stream	stream	Wetland	wetland			stream	Tests	Comments
OH5	OHE wooded ROW		32								32	Orchard Historic Site
OH6	OHE pole		5								5	
OH7	OHE pole		5								5	
OH8	OHE pole		5								5	
OH9	OHE pole									5	5	
OH10	OHE pole									5	5	
OH11	OHE pole									5	5	
OH12	OHE pole									5	5	
OH13	OHE pole									5	5	
OH14	OHE pole									5	5	
OHHC	Hough's Cave									6	6	Hough's Cave Site
OH15	OHE pole									5	5	historic field scatter
OH16	OHE pole									5	5	
OH17	OHE pole									5	5	
OH18	OHE pole								5		5	
OH19	OHE pole								5		5	
OH20	OHE pole								5		5	
SS1	Substation								25		25	also Surface Survey 6.9 acres
	Total Shovel Tests	546	1234	131	21	783	238	36	40	51	3080	
	Research Design											
	(see Table 1):	542	1234	109	10	787	243	35	33	42	3035	
	% Complete	101%	100%	120%	210%	99%	98%	103%	121%	121%	101%	

 Table 2. Phase 1B archeological survey shovel test summary, continued.

3.3 ARCHEOLOGICAL SITES

Archeological sites investigated during the Phase 1B survey are described in brief summary fashion below (Table 3). More detailed information, mapping, and OPRHP Archeological Site Inventory Forms for all of the sites listed in Table 3 will be included in the complete Phase 1B survey report (currently in preparation). For four of these sites, JMA has recommended that Project components be relocated or Project plans be constrained to avoid impacts to the sites (Table 3). Brief descriptions are included below for these four sites.

Site Name	Location	Description	Potential Impacts	JMA Recommendation
Holden & Owens	w/in Project Area	dam in location of mill	none; inside Project Area	none/avoid
Saw Mill	-	depicted on 1875 atlas	but outside Project APE	
Stone Piles/Mounds	~425'/130m east of	2 circular mounds of fieldstone,	none; inside Project Area	none/avoid
Site	access road to WTG 4	~25' diameter, 3' high, 100' apart	but outside Project APE	
French Road	240'/73m west of	~12' x 8' depression w/ window	none; inside Project Area	none/avoid
Site 1	access road to WTG 21	glass fragments & iron stove	but outside Project APE	
French Road	270'/82m west of	~12' x 8' depression	none; inside Project Area	none/avoid
Site 2	access road to WTG 21		but outside Project APE	
French Road	south of French Rd	~10' x 16' cellar hole 30'/10m	none; inside Project Area	none/avoid
Site 3		from road; 9 shovel tests	but outside Project APE	
French Road	north of French Rd	~35'x70' barn foundation	potential impacts to site	limit clearing/trenching
MDS 4		located 62'/19m from road;	if clearing/trenching for	in this area to w/in
		7 shovel tests: nails from 3	UGE interconnect extends	3m/10' of road
		shovel tests 20'/6m from road	more than 3m north of road	(avoid impacts to site)
French Road	south of French Rd	~21' x 21' cellar ~60'/18m	none; site located too far from	none/avoid
MDS 6		from road; 7 shovel tests	road to be affected	
Flat Rock Road	south of	~20'x35' cellar ~65'/20m from	none; site located too far from	none/avoid
MDS 1	Flat Rock Road	road, barn foundation 165'/20m	road to be affected	
		from road; 7 shovel tests		
Flat Rock Road	north of	~16'x16' depression ~125'/38m	none; site located too far from	none/avoid
MDS 4	Flat Rock Road	from road, stone-lined well;	road to be affected	
		7 shovel tests		
Flat Rock Road	north of	\sim 12x15' cellar hole 79'/24m	possible foundation & dense	restrict clearing
MDS 7	Flat Rock Road	from road; barn foundation	deposit of artifacts located	in this area to south
		10 ² /3m from road;13 shovel	10 [°] /3m north of road	side of Flat Rock Rd
		tests, 1 w/ dense19 th -c. artifacts		(avoid impacts to site)
Flat Rock Road	north of	$\sim 24^{\circ} \times 19^{\circ}$ cellar 100 ^{-//30m}	none; site located too far from	none/avoid
MDS 8	Flat Rock Road	from road; 15 shovel tests	road to be affected	
	(opposite MDS 9)			
Flat Rock Road	south of	$\sim 26 \times 15^{\circ}$ foundation/cellar	possible foundation located	restrict clearing
MDS 9	Flat Rock Road	$46^{\circ}/14m$ from road,	w/in 10 ^{-/} 3m of road	in this area to north
	(opposite MDS 8)	from road: 11 shovel tests		side of Flat Rock Rd
Contouvillo Dood	north of	20'x20' and 50'x100'	nones site located too for from	(avoid impacts to site)
MDS 1 Site	Conterville Road	~20 X20 and 50 X100	road to be affected	none/avoid
MDS I Sile	Center ville Koau	$15m/50^{\circ}$ and $27m/120^{\circ}$	Toad to be affected	
		from road: 7 shovel tests		
Orchard Site	w/in proposed		foundation located within	relocate OHE line in
Orenard Site	overhead electrical	dug-out into east-facing	proposed overhead electrical	this area to avoid site
	interconnection	hillside/slope:	(OHF) line ROW	or conduct Phase II
	ROW	32 shovel tests at 10'/3m.	(OTIL) line ROW	investigation to evaluate
	1.0 11	early-mid-19 th -c, artifacts		significance of site
Hough's Cave	west side of NYS 26	rift in limestone bedrock	none: cave site is located 60'	none/avoid
Site	$70^{\circ}/21$ m north	with NYSED roadside	north of proposed	none/uvoid
	of OHE	historic marker:	overhead electrical (OHE)	
	interconnection line	previous property owner	interconnection route	
		filled with boulders		

Table 3. Summary of archeological sites identified during the Phase 1B archeological survey.

Flat Rock Road – Map Documented Structures (MDS)

The Project includes proposed improvements along a 1.5-mile-long portion of Flat Rock Road located west of Carey Road in the Town of Martinsburg. The improvements may include widening, curve straightening, and/or vegetation clearing; in no cases will road improvements extend more than a few feet from the edge of the existing road. For the purposes of determining the archeological APE in this area, the Project informed JMA that the maximum width of improvements would not exceed 15 feet. Phase 1B archeological survey work included pedestrian reconnaissance and shovel testing along the roadside in the vicinity of map-documented structures (MDS) located along this portion of Flat Rock Road. In total, nine (9) MDS locations (designated FR1-FR9) were investigated in this area. Foundations or other structural remains were identified at five of these locations (FR1, FR4, FR7, FR8, and FR9); at three of these locations (FR1, FR4, FR5, and FR8), the identified foundation remains were located greater than 50 feet from the road (and therefore well outside the Project APE). All of these sites will be described and documented with OPRHP Archeological Site Inventory Forms in the complete Phase 1B report. The two remaining sites, located closer to Flat Rock Road, are summarized in brief below.

Flat Rock Road MDS 7 (FR7) is located on the north side of Flat Rock Road approximately 3,750 feet west of Carey Road (see Figure 5). The site includes a 12'x15' dry-laid fieldstone cellar hole located 79'/24m from the road, as well as an area of heavily overgrown and possibly disarticulated fieldstone walls or wall segments located 10'/3m north of the road which may represent the former location of a barn or outbuilding. JMA personnel excavated 13 shovel tests (FR7.01-FR7.13) at 5-meter intervals along the north side of Flat Rock Road, approximately 3 meters north of the road, in the vicinity of MDS 7. A very dense concentration of mid-to-late-nineteenth-century ceramics, glass, hardware, and other artifacts was discovered in shovel test FR7.13, immediately adjacent to (or possibly within) the disarticulated barn foundation described above. In the opinion of JMA, any proposed road widening or vegetation clearing in this area should be restricted to the south side of Flat Rock Road to avoid any impacts to the site.

Flat Rock Road MDS 9 (FR9) is located on the south side of Flat Rock Road approximately 3,060 west of Carey Road (see Figure 5). The site is heavily overgrown with chest-high weeds, grasses and shrubs. Identified features include a 26'x15' fieldstone foundation (indeterminable whether the foundation was a cellar or part of barn) located 46'/14m from Flat Rock Road and a second area of piled stone that may represent another foundation (or part of a larger barn foundation) located 10'/3m south of the road. JMA personnel also excavated 11 shovel tests at 5-meter intervals along a single transect located approximately 3 meters south of the road. Nineteenth-century artifacts were found in three of these shovel tests (FR9.02, FR9.03, and FR9.08). Another foundation (JMA Site FR8) is located opposite Flat Rock Road MDS 8, approximately 100'/30m north the road; JMA also excavated 15 shovel tests on the north side of the road and did not identify any features located near (within 15 feet of) the existing road on the north side. In the opinion of JMA, any proposed road widening or vegetation clearing in this area should be restricted to the north side of Flat Rock Road to avoid any impacts to Flat Rock Road MDS 9.

Underground Electrical (UGE) Interconnect - Centerville, French, Leonard's Lane and Graves Road

The buried (UGE) portion of the interconnection line will involve placing buried circuits to a depth of 36-48 inches, with seven foot spacing between each circuit, resulting in a width of circuit bank of 25 feet, including trenches. Approximately 3.1 miles of the UGE line will be constructed within existing public roads (portions of Centerville Road, French Road, Leonard's Lane, and Graves Road). For the purposes of determining the archeological APE for these portions of the UGE interconnect, the Project informed JMA that the maximum width of any needed improvements (clearing or widening) along these roads would not exceed 15 feet.

JMA investigated the locations of map-documented structures (MDS) along these roads to determine whether archeological remains were present which could be affected by the Project. In total, eight (8) MDS locations were investigated in this area: four on Centerville Road (CV1-CV4), three on French Road (F4-F6), and one on Graves Road (G1). Foundations or other structural remains were identified at three of these locations (CV1, F4, and F6); at two of these locations (CV1 and F4), the identified foundation remains were located greater than 50 feet from the road (and therefore well outside the Project APE). These sites will be described and documented with OPRHP Archeological Site Inventory Forms in the complete Phase 1B report.

French Road MDS 4 (F4) is located on the north side of French Road approximately 750 feet east of Leonard's Lane (see Figure 6). Identified features at the site include a 35'x70' poured-cement of concrete barn foundation located 62'/19m north of the road. JMA personnel also excavated seven shovel tests (F4.01-F4.07) in this area located along two parallel transects one-meter and six meters north of the edge of the road. A single nail was recovered from each of the three shovel tests (three nails total) located six meters north of the road, suggesting that a structure may have once stood in the vicinity of these shovel tests. In the opinion of JMA, any proposed road widening or vegetation clearing in this area should either be restricted to the south side of French Road, or limited to the areas within 10'/3m of the existing road on the north side of French Road, to avoid impacts to any features which may be located at the site.

Overhead Electrical (OHE) Interconnection Line

The overhead (OHE) portion of the line will be built on 61 single-wooden-pole structures. The 1.5-mile-long western portion of the OHE line traverses wooded areas that will require a cleared right-of-way (ROW) with a width up to 75 feet. The eastern portion of the line traverses open agricultural fields where ground disturbance will only occur at pole locations (JMA has assumed a 0.2-acre of disturbance for each pole site). Within the wooded (75'-wide ROW) part of the OHE line, JMA excavated blocks of shovel tests consisting of three parallel transects of shovel tests at five-meter intervals at selected locations (see Table 2: OH1-OH5) consistent with the approach used for the rest of the Project. At selected pole locations in open-field areas, JMA excavated five shovel tests in a cruciform pattern to sample areas (Table 2: OH6-OH20) within that portion of the OHE line.

The Orchard Site is located within the 75-foot ROW associated with the wooded portion of the OHE line (see Figure 7). The site consists of a 23'x23' foundation excavated into the east-facing hillside, with three of the four sides (north, south, and west) defined by dry-laid fieldstone walls. In the manner of its construction (i.e., dug-out into the hillside), the foundation is reminiscent of a banked barn; however, the foundation is rather small to be a barn. JMA excavated 32 shovel tests at 10'/3m intervals around the foundation. Nineteenth-century artifacts were recovered from 14 of these shovel tests. These artifacts included cut nails and whiteware sherds with a variety of decorative motifs (including annular, flow-blue, and hand-painted). The assemblage suggests an early-to-mid-nineteenth-century domestic site. No household or structure is depicted at this location on any of the historic maps of the area. JMA conducted pedestrian reconnaissance of the surrounding are but no other foundations or structural remains were identified. The vegetation in the immediate vicinity of the site is an overgrown apple orchard. The site is also a curious location for a house in that the site is located approximately 2,000 feet from the nearest public road. JMA recommends that the OHE line in this area be relocated at least 75 feet east or west to avoid impacting the site.

JMA also investigated the location of *Hough's Cave* during the Phase 1B survey (see Figure 8). The cave is a wellknown local historic site with a New York State Education Department roadside marker identifying the importance of the cave as a hiding place for escaped slaves during the Underground Railroad. The Martinsburg Historical Society has expressed concern regarding the proximity of the Project's OHE line to the cave (see Appendix I). The location of the cave is currently a subsidence depression or rift that is overgrown with tall shrub grasses, adjacent to an active cornfield on the west side of NYS Route 26. The depressed area measures approximately 35-feet north-to-south and 50-feet east to west, oriented along a northwest-to-southeast axis that defines the deepest part of the depression (approximately 2-3 feet below the adjacent grade, with occasional large voids visible in spaces between boulders). The probable former mouth of the cave lies at the northwestern end of the axis, approximately 50-feet west of the shoulder of NYS Route 26. The depression is filled with large boulders – the current property owner stated that the cave/rift had been filled with the stone by the previous property owner. JMA personnel excavated six shovel tests (OHHC.01-OHHC.06) around the perimeter of the depression is located 60 feet north of the cave. The southern perimeter of the cave site/filled-in depression is located 175 feet west-southwest of the cave. The Hough's Cave site will not be disturbed by the construction of the OHE interconnect line. It is the opinion of JMA that the cave will not be affected by the construction of the proposed Project.

4.0 CONCLUSIONS

4.1 PHASE 1B SUMMARY AND RECOMMENDATIONS

JMA conducted Phase 1B archeological survey fieldwork for the Roaring Brook Wind Farm Project between August 28 and October 17, 2008. All archeological survey work was conducted under the direction of a Registered Professional Archeologist (RPA) in accordance with the *New York State Historic Preservation Office Guidelines for Wind Farm Development Cultural Resources Survey Work* (the SHPO *Guidelines*) issued by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP 2006) and in accordance with the research design which was previously submitted to and approved by OPRHP (JMA 2007a; see Appendix I).

In total JMA personnel excavated 3,080 shovel tests for the Phase 1B survey for the Roaring Brook Wind Farm Project. No prehistoric (Native American) artifacts were recovered during the Phase 1B survey. JMA identified 15 historic-period archeological sites during the Phase 1B survey. Most of these are foundations of structures depicted on historic maps of the region. The Project will not result in any impact to eleven of these sites because the sites are located far enough from any proposed Project facility that no disturbance to the site will occur. JMA identified four historic-period archeological sites that could be affected by construction of the proposed Project. In the opinion of JMA, Project facilities or construction (e.g., road improvements) in the vicinity of these four sites should be relocated or constrained to avoid impacts to the sites (Table 4).

Site Name	Location	Description	Potential Impacts	JMA Recommendation
French Road	north of French Rd	~35'x70' barn foundation	potential impacts to site	limit clearing/trenching
MDS 4		located 62'/19m from road;	if clearing/trenching for	in this area to w/in
		7 shovel tests: nails from 3	UGE interconnect extends	3m/10' of road
		shovel tests 20'/6m from road	more than 3m north of road	(avoid impacts to site)
Flat Rock Road	north of	~12x15' cellar hole 79'/24m	possible foundation & dense	restrict clearing
MDS 7	Flat Rock Road	from road; barn foundation	deposit of artifacts located	in this area to south
		10'/3m from road;13 shovel	10'/3m north of road	side of Flat Rock Rd
		tests, 1 w/ dense19th-c. artifacts		(avoid impacts to site)
Flat Rock Road	south of	~26x15' foundation/cellar	possible foundation located	restrict clearing
MDS 9	Flat Rock Road	46'/14m from road,	w/in 10'/3m of road	in this area to north
	(opposite MDS 8)	possible foundation 10'/3m		side of Flat Rock Rd
		from road; 11 shovel tests		(avoid impacts to site)
Orchard Site	w/in proposed	~23'x23' foundation	foundation located within	relocate OHE line in
	overhead electrical	dug-out into east-facing	proposed overhead electrical	this area to avoid site
	interconnection	hillside/slope;	(OHE) line ROW	or conduct Phase II
	ROW	32 shovel tests at 10'/3m:		investigation to evaluate
		early-mid-19th-c. artifacts		significance of site

Table 4. Summai	y of	potential im	pacts to	archeological	sites and	avoidance	recommendations.
	•/ -						

JMA is currently preparing a complete Phase 1B report in accordance with the *New York State Historic Preservation Office (SHPO) Phase 1 Archaeological Report Format Requirements* issued in April 2005. The report will include all information presented in this interim report as well as: maps depicting the locations of all shovel tested areas; a complete inventory of recovered artifacts; a record of the stratigraphic profiles of shovel tests excavated for the Project; and descriptions of all the archeological sites identified during the survey including OPRHP Archeological Site Inventory Forms. In accordance with the SHPO *Guidelines*, GPS points for any sites identified during the Phase 1B survey and GIS data locating the boundaries of all archeologically tested areas will also need to be provided to OPRHP.

4.2 EVALUATION OF POTENTIAL VISUAL EFFECTS ON HISTORIC-ARCHITECTURAL RESOURCES DUE TO THE REVISED PROJECT LAYOUT

The previously prepared *Historic Architectural Resources Survey* (JMA 2007b) for the Project evaluated an earlier layout (and corresponding viewshed analysis), which was current as of the publication of the DEIS for the Project. The *Historic Architectural Resources Survey* was submitted to OPRHP for review on February 8, 2008. In correspondence dated April 9, 2008, OPRHP provided their review of the *Historic Architectural Resources Survey* and concluded that "the proposed wind farm development will not have an adverse impact on the five identified historic resources. Our decision is based on the sparse nature of resource distribution, proximity of the 5 identified resources to turbine locations, and the existing topographic conditions" (J. Bonafide 4/9/2008; see Appendix I).

Subsequent to the publication of the DEIS, wind measurement data retrieved from the four on-site temporary meteorological towers supports the requirement to relocate certain turbines in the layout. Data revealed that the spacing of turbines within the layout presented in the DEIS were too tightly arranged and the resulting wake effects would have a depressive effect on power generation and may also result in increased turbine component wear. Therefore, the Project Sponsor approached surrounding landowners regarding interest in Project participation and this effort resulted in the presently defined wind turbine configuration (see Figure 1).

JMA reviewed the revised Project layout and associated viewshed model to determine if conclusions presented in the *Historic Architectural Resources Survey* needed to be reexamined. The revised layout does not result in any changes in the visibility of the Project from any of the 5 identified historic resources, nor does the viewshed model for the revised Project include any additional properties that were not evaluated in the earlier study. Evaluation of the revised Project layout does not result in any different conclusions than what were presented in the *Historic Architectural Resources Survey*. The revised Project layout will not result in any adverse visual impacts to historic resources.

5.0 REFERENCES CITED

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John Milner Associates, Inc. (JMA)

- 2007a Roaring Brook Wind Farm: Phase 1A Cultural Resources Survey, GIS Landscape Analysis, & Phase 1B Archeological Survey Research Design. Report prepared for Roaring Brook Wind Power, LLC. John Milner Associates, Inc., Croton-on-Hudson, New York.
- 2007b *Roaring Brook Wind Farm: Historic-Architectural Resources Survey.* Report prepared for Roaring Brook Wind Power, LLC. John Milner Associates, Inc., Croton-on-Hudson, New York.

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1994 Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State. New York State Office of Parks, Recreation, and Historic Preservation, Waterford.

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United States Geological Survey (USGS)

- 1906 *High Market, NY.* 15-minute Series Topographic Quadrangle. United States Geological Survey. Scale 1:62500. <u>http://docs.unh.edu/NY/high06ne.jpg</u>
- 1907 Port Leyden, NY. 15-minute Series Topographic Quadrangle. United States Geological Survey. Scale 1:62500. <u>http://docs.unh.edu/NY/prtl07nw.jpg</u>

FIGURES

















APPENDIX I: CORRESPONDENCE



Restoration & Rehabilitation - Preservation Planning - Archeological & Historical Research - Cultural Landscapes - Materials Conservation

PRINCIPALS Allan H. Steenhusen Daniel G. Roberts, RPA Charles D. Cheek, Ph.D. John K. Mott, FAIA Thomas L. Struthers Kathryn L. Bowers, SPHR Charles S. Raith, AIA Joel I. Klein, Ph.D., RPA Wade P. Catts, RPA

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ASSOCIATES Tod L. Benedict William Chadwick, Ph.D.,PG Juliette J. Gerhardt Patrick J. Heaton, RPA F. Carey Howlett Douglas C. McVarish Christopher Quirk, AIA Michael E. Roberts, RPA Sarah Jane Ruch February 8, 2008

Mr. John Bonafide Historic Preservation Services Coordinator New York State Office of Parks, Recreation, and Historic Preservation Peebles Island Resource Center, P.O. Box 189 Waterford, New York 12188-0189

RE: ROARING BROOK WIND FARM TOWN OF MARTINSBURG, LEWIS COUNTY, NEW YORK PHASE 1A CULTURAL RESOURCES SURVEY REPORT HISTORIC-ARCHITECTURAL RESOURCES SURVEY REPORT

Dear Mr. Bonafide:

On behalf of Roaring Brook Wind Power, LLC, enclosed please find one (1) copy each of the reports prepared by John Milner Associates, Inc. (JMA) for the Roaring Brook Wind Farm (Town of Martinsburg, Lewis County) entitled *Phase 1A Cultural Resources Survey, GIS Landscape Analysis, and Phase 1B Archeological Survey Research Design* and *Historic-Architectural Resources Survey.* The proposed Roaring Brook Wind project is being evaluated under the New York State Environmental Quality Review Act (SEQRA) and may also require permits from the NYS Department of Environmental Conservation (DEC).

We look forward to receiving the comments of the OPRHP on the enclosed reports. If you have any questions or require any additional information please contact me at (315) 637-3655 or <u>pheaton@johnmilnerassociates.com</u>.

Sincerely,

JOHN MILNER ASSOCIATES, INC.

Patrick J. Heaton, RPA Principal Archeologist/Associate

cc: J. Burke (PPM Energy) D. Enders (EDR) J. Klein (JMA)

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David A. Paterson Governor

Carol Ash Commissioner

New York State Office of Parks, Recreation and Historic Preservation

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518-237-8643 www.nysparks.com

April 9, 2008

Patrick J. Heaton John Milner Associates, Inc. One Croton Point Ave., Suite B Croton-on-Hudson, New York 10520-3028

Re:

SEQRA Roaring Brook Wind Farm/39 Turbines/78MW Multiple Locations/MARTINSBURG, Lewis County 08PR00731

Dear Mr. Heaton:

Thank you for requesting the comments of the Field Services bureau Office of Parks, Recreation and Historic Preservation (OPRHP) as part of your SEQRA process. These comments are those of the Field Services Bureau and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617). Please be advised that if state or federal agency involvement occurs the project will also be evaluated under New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law) or Section 106 of the National Historic Preservation Act of 1966.

At this time we have completed our review of the building resource information associated with the survey area for the project as defined in our generic wind farm survey guidance. As of this date we have not received a formal recommendation from potential state or federal agencies that may be involved in this undertaking as to the extent of the project they have determined (if any) to constitute the area of potential effect/impact. If such agency involvement occurs and they determine that their area of impact/effect differs (extends beyond) the area evaluated additional survey work may be required and supplemental comments will be issued by this office. The evaluated survey area, as defined by our generic survey guidance, was a five-mile ring drawn around each of the individual turbine sites. The outer edges of these circles are connected thus producing a five-mile survey area around the entire project. It was also recommended that for an analysis of potential visual impacts to historic resources that the next step was to determine sight lines based on topographic features and the locations and maximum heights of each turbine. It is expected that any survey of potential visual analysis would also include the guidance established by the New York State Department of Environmental Conservation under their program policy titled: *Assessing and Mitigating Visual Impacts*.

Based on the survey report titled "*Roaring Brook Wind Farm, Historic Architectural Resources Survey*" dated December 2007 a total of 5 historic properties were identified by the report as being within the defined project survey area. OPRHP has determined that all 5 resources meet the criteria for inclusion in the New York State and National Register of Historic Places. These resources include:

Report No.	Name	Location
R1	St. Patrick's Cemetery	Martinsburg
R2	6371 Poor Road	Martinsburg
R3	2176 Pitcher Road	Montague
R4	2705 Rector Road	Montague
R5	Gardner Corners Cemetery	Montague

After reviewing the information provided we have determined that the proposed wind farm development will not have an adverse impact on the five identified historic resources. Our decision is based on the sparse nature of resource distribution in the survey area, proximity of the 5 identified resources to the turbine locations, and the existing topographic conditions.

At this point in time we have concluded our evaluation of potential impacts to the *built environment* and are still in the process of evaluating the potential impacts to archaeological resources. Once our review of this information is completed we will issue a final comment on the potential impacts to archaeological resources as well as a final comment on the overall impacts that this project may have to historic/cultural resources.

If you should have questions regarding our evaluation process or the basis for our effect recommendation, please do not hesitate to contact me at 518-237-8643, ext.3263.

Sincerely,

John A. Bonafide Historic Preservation Services Coordinator

David A, Paterson

Governor

Carol Ash Commissioner



New York State Office of Parks, Recreation and Historic Preservation

Historic Preservation Field Services Bureau • Peebles Island, PO Box 189, Waterford, New York 12188-0189 518-237-8643 www.nysparks.com

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Patrick J. Heaton John Milner Associates, Inc. One Croton Point Ave., Suite B Croton-on-Hudson, New York 10520-3028

Re: SEQRA

April 16, 2008

Roaring Brook Wind Farm/39 Turbines/78MW Town of Martinsburg, Lewis County 08PR00731

Dear Mr. Heaton:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP) concerning your project's potential impact/effect upon historic properties. In cases where a state agency is involved in this undertaking, it is appropriate for that agency to determine whether consultation should take place with OPRHP under Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law. In addition, if there is any federal agency involvement, Advisory Council on Historic Preservation's regulations, "Protection of Historic and Cultural Properties" 36 CFR 800 requires that agency to initiate Section 106 consultation with the State Historic Preservation Officer (SHPO).

The OPRHP concurs with the Phase IB Scope of Work proposed for this project. Our office will need to have the Management Summary following the 2005 <u>NYSHPO Phase I</u> <u>Archaeological Report Format Requirements</u>. Further comments will be provided when the Phase IB has been completed.

If you have any questions, please call me at (518) 237-8643, extension 3288.

Sincerely,

yothia Blakemore

Cynthia Blakemore Historic Preservation Program Analyst

MARTINSBURG HISTORICAL SOCIETY 6660 STATE ROUTE 26 PO BOX 17 MARTINSBURG, NY 13404

September 15, 2008

Martinsburg Town Board Martinsburg, NY 13404

Dear Members of the Board:

During the past couple of years, the Martinsburg Historical Society has been pursuing the possibility of developing the Hough's Cave site south of the village. We have had the property line surveyed and discover that the cave site is right on the line between Loren Jantzi and John Demko. Loren has graciously given us permission to use his property and we have not yet approached Mr. Demko, but plan to do so soon.

The "cave" is not really a cave at all, but rather a crevice in the lime rock, which is common in this area. Ken Gaylord filled in the crevice years ago to prevent people from exploring the area. We would have the stones removed, probably fence the area and construct a kiosk or gazebo along with keeping the area mowed and landscaped.

I have recently learned that the transmission line for the wind farm that is proposed for Tug Hill south of the current wind farm will pass directly over the Hough's Cave site. The concern here is, of course, what impact construction of the transmission line will have on the "cave" site. Perhaps the board could address this issue with wind farm personnel to insure that this piece of property of such historic significance will not be further damaged.

Also, if there is going to be any "mitigation" monies available, what steps should the Historical Society take to apply for some of those funds to help with the costs of developing the site?

Thank you for your time and attention to this matter.

Sincerely yours,

MARTINSBURG HISTORICAL SOCIETY

Melen K Schwintmeter

Nelson K. Schwartzentraber President

TOWN OF MARTINSBURG

PO BOX 8 6682 ST RT 26 MARTINSBURG NY 13404 Phone:(315) 376-2299 Fax: (315) 376-8722 TDD 1-202-720-6382 Email: mburg@ridgeviewtel.us

Supervisor Terrence Thisse Town Clerk: Mary Kelley Highway Sup't: Carl Morrison (315) 376-2309

Date: September 23, 2008

To: Martinsburg Historical Society Attn: Nelson Schwartzentruber

Re: Hough's Cave

Dear Nelson,

The Board has reviewed your letter regarding Hough's Cave and the possibility of a transmission line running through the area directly over the cave location. A copy of your letter will be directed to the Planning Board and they will give careful consideration to this matter while reviewing permit applications.

In addition you asked if there would be any mitigation funds available from the wind power developer since the proposed wind power project is adjacent to a historical area. A copy of your letter will also be forwarded to the developer.

If you have further questions or concerns, please feel free to contact this office.

Sincerely,

Mary Kelley, Town Clerk

Cc: Martinsburg Planning Board Iberdrola Renewables