Ministry of Tourism Culture and Sport

Confirmation Letter

April 12, 2013

Ministry of Tourism, Culture and Sport

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Ministère du Tourisme, de la Culture et du Sport

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April 12, 2013 (by email only)

Paige Glenen
Stantec Consulting Ltd.
2791 Lancaster Road, Suite 200
Ottawa, ON K1B 1A7

Project:	**Niagara Region Wind Farm**
Feed-in Tariff Number:	**FIT-FLKZ509**
Report Title:	**Heritage Assessment**
Applicant:	**Niagara Region Wind Corporation**
Location:	**Townships of West Lincoln and Wainfleet and Town of Lincoln in the Regional Municipality of Niagara, and portions of Haldimand Country.**
MTCS File No.:	**00EA080**

Dear Paige Glenen:

This office has reviewed the above-mentioned report (the "Report"), which has been submitted to this ministry as required under O. Reg. 359/09, as amended (Renewable Energy Approvals under the *Environmental Protection Act*) (the "REA regulation"). This letter constitutes the Ministry of Tourism, Culture and Sport (the "Ministry") comments for the purposes of section 23(3)(a) of the REA regulation regarding the heritage assessment undertaken for the above project.

The Report recommends the following:

> **8.0 Recommendations**
>
> Potential negative impacts identified for the 52 cultural heritage resources (listed in Table 19) are generally of three types:
>
> - Indirect impacts resulting from construction vibrations of the potential installation of new infrastructure (*i.e.,* access roads, collector lines) in close proximity to structures;
> - Direct impacts related to the damage or removal of heritage attributes (*i.e.,* built components such as fencing, or cultivated plants or trees) resulting from the construction of new Project infrastructure; and
> - Visual impacts with respect to views from public spaces.
>
> In order to lessen or avoid potential indirect negative impacts from construction vibrations, the following recommendations have been made:

- In the event that new Project infrastructure is constructed in the vicinity of identified CHRs, it is recommended that construction be avoided within 50 m of any structures associated with these cultural heritage resources.

- If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with previous experience with built heritage in similar circumstances. Construction within the 50 m bufferzone should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.

- It is further recommended that the final Project Description Report document which option was chosen to mitigate the potential impact of construction vibrations, a description of how the recommendation will be implemented, and a discussion of the Project factors that determined that decision.

As a general recommendation, roads travelling through cultural heritage landscapes in the communities of Smithville, St. Ann's, Bismark, Elcho, Wellandport, and Stromness should be avoided to the greatest extent practicable when transporting heavy machinery and turbine components to the Project location in order to minimize the potential for accidental or indirect damage to the high concentration of narrowly setback cultural heritage resources and landscapes within those communities.

In order to lessen or avoid potential direct negative impacts resulting from the removal or alteration of the heritage attributes of identified cultural heritage landscapes, the following recommendations have been made:

- removal of or damage to identified heritage attributes (*i.e.,* root systems and above ground vegetation of cultivated plant, canal infrastructure, landscape features and built components of rail landscapes) should be avoided to the greatest extent practicable.

- Where damage or removal is unavoidable, plantings and built features should be restored to their pre-construction state immediately following the completion of Project activities.

In order to minimise the potential visual impact of the Project on views from the Elcho United Church Cemetery (CHR-49), it is recommended that the proponent work with the Elcho Cemetery Board to design and install an appropriate visual barrier around the cemetery to protect views from within the cemetery (*e.g.,* fencing, shrubbery or trees).

In order to avoid direct impacts on views of the West Lincoln McCaffrey Cemetery (CHR-14), it is recommended that any overhead transmission infrastructure installed along Port Davidson Road in the vicinity of the cemetery be installed along the eastern side of the road.

Based on the information contained in the Report, the Ministry is satisfied that the heritage assessment process and reporting are consistent with the applicable heritage assessment requirements established in s. 23 of O. Reg. 359/09. Please note that the Ministry makes no representation or warranty as to the completeness, accuracy or quality of the heritage assessment report (please see Note 1).

This letter does not waive any requirements under the *Ontario Heritage Act*.

This letter does not constitute approval of the renewable energy project. Approvals or licences for the project may be required under other statutes and regulations. Please ensure that you obtain all required approvals and/or licences.

Please ensure that the proponent is aware that, if new information or substantive project changes arise after issuance of this letter, the applicant should discuss them with you to determine if any additional assessment or reporting is required. If additional reporting or revisions are required, they should be submitted to the Ministry for review. Upon completion of that review, the Ministry will determine if any revisions to the content of this letter are required.

Should you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Joseph Muller
Heritage Planner
416-314-7145
Joseph.Muller@Ontario.ca

cc. Darren Croghan, Project Manager
Niagara Region Wind Corporation

Doris Dumais, Director
Environmental Approvals Access & Service Integration Branch, Ministry of the Environment

Ian Parrott, Director (A)
Environmental Approvals Branch, Ministry of the Environment

Chris Schiller, Manager
Culture Services Unit, Ministry of Tourism, Culture and Sport

Note 1: In no way will the Ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional heritage resources are identified or the Report is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

Heritage Assessment

FINAL REPORT
Heritage Assessment, Niagara Region Wind Farm

Prepared for:
Niagara Region Wind Corporation
277 Lakeshore Road East, Suite 211
Oakville, ON L6J 6J3

Prepared by:
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2781 Lancaster Rd., Suite 200
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November 29 2012
Revised March 4, 2013
Revision 2 April 5, 2013
Revision 3 April 12, 2013

FIT-FLKZ509

Project No.: 160950269

EXECUTIVE SUMMARY

Niagara Region Wind Corporation (NRWC) is proposing to develop, construct, and operate the 230 megawatt (MW) Niagara Region Wind Farm (the Project) in response to the Government of Ontario's initiative to promote the development of renewable electricity in the province. The Farm is located in Southern Ontario within the Townships of West Lincoln, and Wainfleet and the Towns of Grimsby and Lincoln within the Regional Municipality of Niagara and within Haldimand County.

Stantec Consulting Ltd. (Stantec) was retained by Niagara Region Wind Corporation (NRWC). to prepare a Renewable Energy Approval (REA) Application, as required under Ontario Regulation 359/09 – Renewable Energy Approvals under Part V.0.1 of the Environmental Protection Act (O.Reg. 359/09). Specific sections of O.Reg. 359/09 pertain to Heritage Resources, specifically heritage resources and cultural heritage landscapes. In order to meet the conditions of the Regulation, a Heritage Assessment was conducted for the location of the proposed Project.

The Heritage Assessment included a review of historic period maps, aerial imagery and Census data as well as records and inventories held by: Niagara Region; Haldimand County; the Town of Grimsby; the Townships of Wainfleet, West Lincoln, and Lincoln; the Ontario Ministry of Tourism, Culture and Sport; and the Ontario Heritage Trust.

A visual survey of the Study Area was completed in June and July, 2012 to determine the existence of any built heritage resources within and adjacent to the Study Area. During the site visit the Study Area was also assessed for any groupings of resources that might constitute a cultural heritage landscape.

Resources recorded during the survey and desktop research were cross-referenced with existing inventories and evaluated against the criteria outlined under *O.Reg 9/06 Criteria for Determining Cultural Heritage Value or Interest.* A total of 111 cultural heritage resources have been identified by this study as meeting the criteria for determining heritage value.

For each resource and landscape of heritage value, a heritage impact assessment (HIA) was undertaken in order to identify potential Project-related negative impacts. Impacts evaluated include: destruction; alteration; shadows; isolation; direct or indirect obstruction of significant views; and changes in land use.

Potential negative impacts have been identified for 52 cultural heritage resources.

In order to lessen or avoid potential indirect negative impacts from construction vibrations, the following recommendations have been made:

- In the event that construction activities are undertaken in the vicinity of identified CHRs (*i.e.,* access roads, below-grade transmission lines), it is recommended that construction

be avoided within 50 m of any structures associated with these cultural heritage resources.

- If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with previous experience with built heritage in similar circumstances. Construction within the 50 m bufferzone should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.

As a general recommendation, roads travelling through cultural heritage landscapes in the communities of Smithville, St. Ann's, Bismark, Elcho, Wellandport, and Stromness should be avoided to the greatest extent practicable when transporting heavy machinery and turbine components to the Project location in order to minimize the potential for accidental or indirect damage to the high concentration of narrowly setback cultural heritage resources and landscapes within those communities.

In order to lessen or avoid potential direct negative impacts resulting from the removal or alteration of the heritage attributes of identified cultural heritage landscapes, the following recommendations have been made:

- removal of or damage to identified heritage attributes (*i.e.,* root systems and above ground vegetation of cultivated plants, canal infrastructure, landscape features and built components of rail landscapes) should be avoided to the greatest extent practicable.

- Where damage or removal is unavoidable, plantings and built features should be restored to their pre-construction state immediately following the completion of Project activities.

In order to minimise the potential visual impact of the Project on views from the Elcho United Church Cemetery (CHR49), it is recommended that the proponent work with the Elcho Cemetery Board to design and install an appropriate visual barrier around the cemetery to protect views from the cemetery (*e.g.,* fencing, shrubbery or trees).

In order to avoid direct impacts on views of the West Lincoln McCaffrey Cemetery (CHR-14), it is recommended that any overhead transmission infrastructure installed along Port Davidson Road in the vicinity of the cemetery be installed along the eastern side of the road.

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PROJECT PERSONNEL

Project Director	Colin Varley, M.A., R.P.A.
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	Stephen Jarrett, M.A.
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	Nancy Oakley, M.A.
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	Nancy Oakley, M.A.
	Derek Lough, BLA
	Colin Varley, M.A., R.P.A.

1 INTRODUCTION

Stantec Consulting Ltd. (Stantec) was retained by Niagara Region Wind Corporation (NRWC) to prepare a Renewable Energy Approval (REA) Application for the Niagara Region Wind Farm (the Project), as required under *Ontario Regulation 359/09 – Renewable Energy Approvals under Part V.0.1 of the Environmental Protection Act* (O.Reg. 359/09). According to subsection 6.(3) of O.Reg. 359/09, the Project is classified as a Class 4 Wind Facility and will follow the requirements identified in O.Reg.359/09 for such a facility.

This Heritage Assessment Report is one component of the REA Application for the Project, and has been prepared in accordance with O.Reg. 359/09. The study was conducted by Christienne Uchiyama, M.A., and Nancy Oakley, M.A., Heritage Planning Consultants with Stantec. A visual survey was conducted in June and July, 2012 by Christienne Uchiyama, Nancy Oakley, and Paige Glenen, M.Sc.. Colin Varley, M.A., R.P.A., Senior Archaeologist and Heritage Planning Consultant, acted as Senior Reviewer.

1.1 O.Reg. 359/09 Requirements, Heritage Assessment

This Heritage Assessment Report has been conducted in accordance with O.Reg. 359/09, s.23 (1) and (3). O. Reg.359/09 s.23 (1) states that:

23. (1) Subject to subsections (2) and (5), a person who proposes to engage in a renewable energy project shall ensure that a heritage assessment is conducted, consisting of the following steps:

(1) Conduct an investigation, including historical research and visual inspection, to determine whether,

(i) there is potential for the presence of a heritage resource at the project location on any part of the project location that is not on a property described in Column 1 of the Table in section 19, and

(ii) any properties described in Column 1 of the Table to section 19 abut the parcel of land on which the project location is situated.

(2) If the determination under subparagraph 1 i is that there is potential for the presence of a heritage resource, confirm the presence or absence of a heritage resource by applying the criteria set out in Ontario Regulation 9/06 (Criteria for Determining Cultural Heritage Value or Interest) mude under the Ontario Heritage Act.

Sections 4 and 5 of this report satisfies the requirements of O.Reg.359/09, s.23(1)(a)(i).

The Regulation further directs the proponent to:

(3) Evaluate the impact of engaging in the renewable energy project on the heritage attributes of any heritage resources at the project location and on any abutting properties described in subparagraph 1 ii and provide recommendations for measures to avoid, eliminate or mitigate the impact if,

(i) the determination under subparagraph 1 ii is that there are abutting properties as described in that subparagraph, or

(ii) the presence of a heritage resource at the project location is confirmed under paragraph 2. O.Reg. 195/12, s.15(1).

In order to satisfy O.Reg.359/09, s.23 (3), an assessment of potential Project-related negative impacts was carried out for each significant built heritage resource within the Study Area. This assessment, conducted as per InfoSheet #5 in *Heritage Resources in the Land Use Planning Process, Cultural Heritage and Archaeology Policies of the Ontario Provincial Policy Statement, 2005* (MTCS, 2006a), is presented in Section 6.

1.2 Project Description

Niagara Region Wind Corporation (NRWC) is proposing to develop, construct, and operate the 230 Megawatt (MW) Niagara Region Wind Farm (the Project) within the Townships of West Lincoln and Wainfleet and the Town of Lincoln within the Niagara Region and within Haldimand County in Southern Ontario, in response to the Government of Ontario's initiative to promote the development of renewable electricity in the province.

The basic components of the Project include 77 wind turbine generators (80 potential locations identified) each with a rated capacity of approximately 3.0 MW for a maximum installed nameplate capacity of 230 MW. An overhead and/or underground collection system connects each turbine to one of two transformer substations along a series of 34.5 kilovolt (kV) lines. Turbines are grouped into eight collector circuits that bring power (and data via fibre optic lines) to one of the transformer substations. Voltage is stepped up from 34.5kV to 115kV at each transformer substation by means of a 100 MVA base rated transformer with two stages of cooling (via fans). A 115kV transmission line transports power from each of the two transformer substations north to the tap-in location where the Project is connected to the Hydro One Networks Inc. (HONI) owned transmission line, south of the Queen Elizabeth Way (QEW) in the Town of Lincoln. Power generated from this Project will be conveyed along the existing HONI transmission line to the Beach Transformer Station in Hamilton.

Alternate transmission and collector lines routes have been identified and assessed to provide options during detailed design, the final selection of which route to follow will be confirmed following the consultation process with local distribution companies, agency review and detailed design.

Other Project components include access roads, junction boxes (or pad-mounted disconnect switches) and associated culverts at swales and waterbody crossings. Temporary components during construction may include temporary laydown areas (for storage and staging areas at each turbine location), crane pads or mats, staging areas along access roads, delivery truck turnaround areas, central construction laydown areas and crane paths. All Project components are illustrated on Figures 11 through 19.

1.2.1 Project Location

In accordance with O. Reg. 359/09, the "Project Location" includes all land and buildings/structures associated with the Project and any air space in which the Project will occupy. This includes structures such as turbines, access roads and power lines as well as any temporary work areas (the 'constructible area' for the Project) which are required to be utilized during the construction of the Project.

The "Project Study Area" was established to scope the siting of the proposed wind turbines, collector lines, access roads and temporary work areas. Similarly, the "Interconnector Study Area" was established to scope the location of the proposed 115kV transmission line, transformer substations and tap-in location. These two terms are intended to assist with background data collection and consultation, however have no formal definition or application under O.Reg. 359/09.

The Project will be entirely located within the Townships of West Lincoln, and Wainfleet and the Town of Grimsby within the Niagara Region and within Haldimand County in Southern Ontario. The Project Study Area covers approximately 33,747.5 ha and is generally bounded by Castor Gainsborough Road to the West; the Queen Elizabeth Way to the North; the north shore of Lake Erie to the South; and Balfour Street to the East (Figure 1).

Project infrastructure such as collector lines and transmission lines will be sited along the boundaries of the Township of Pelham and Town of Grimsby, but will be sited outside of these municipalities on the opposite side of the road.

The Project will be located on privately owned lands and within municipal rights of way. The legal description of the parcels of land that will be used for the Project will be provided as part of the REA Application.

1.2.2 Transmission Lines

To facilitate the Project's connection to the provincial grid, a new 115 kV transmission line approximately 44 km in length will be constructed as part of the Project. A preferred transmission line route has been identified in the REA, as well as some alternate transmission line routes where further consultation with municipalities and local distribution companies will help to select the most

ideal route. The configuration and routes for the preferred and alternate transmission lines are shown in Appendix A.

The poles of the transmission line will be up to 23 m in height and vary in spacing from approximately 60m to 150m as required. Smaller spans or taller poles may be required for some areas where narrow rights of way, angles or unforeseen problems make construction difficult. Wood monopoles will be used where practical and steel or concrete monopoles may be used in some cases depending on site conditions.

Transmission lines will be installed overhead along municipal road right of ways, as well as where it is proposed to cross the Welland River and associated wetland. Through the approval of a Development Permit from the Niagara Escarpment Commission to be obtained prior to submission of the REA application, the transmission line will be buried within the municipal right of way along Mountainview Road where it crosses the Niagara Escarpment Plan Area. It will also continue underground to the tap-in location, and may be buried along other sections of the transmission line route. Both underground and overhead options have been considered in the Natural Heritage Assessment and Environmental Impact Study. Details on the method of installation are provided in the Construction Plan Report.

The transmission line will connect to the existing Hydro One Networks Inc. 115 kV transmission line which runs parallel to the south side of the QEW and intersects Mountainview Road in Lincoln. At this tap-in location there will be either a pole-mounted Mid Span Opener (MSO) or a pad-mounted disconnect switch to allow for manual disconnect of the Project from the HONI line. A short access road will be required to allow for access to the tap-in location, which will also be enclosed with fencing and warning signage to alert the public.

1.2.3 Collector Lines

From the turbine switchgear, underground 34.5 kV collector lines carry the electricity to the municipal road allowances along the turbine access roads or other defined routes. Along the municipal road allowances, underground and/or overhead collector lines on new poles organized into several circuits will transport the electricity to one of the transformer substations.

Overhead lines will be installed on poles that will be designed to meet the requirements of the local distribution companies, and in some cases, the assets of the local distribution companies may share the poles with the project assets. Wood monopoles will be used where feasible, but some concrete or steel monopoles may be required to avoid guy wires spanning outside of municipal road allowances (to be confirmed during detailed design).

The monopoles carrying the collector lines will vary in height depending on the number of circuits installed. A minimum pole height of 19 m and maximum pole height of 30 m is expected with varied pole spacing up to 60 m.

Collector lines are proposed to be installed overhead at two of the wetland crossings, specifically over the Welland River and over the Welland Feeder Canal. However, all other collector lines on private properties will be installed underground, including where they are proposed to cross wetland or woodland areas. Details on the method of installation are provided in the Construction Plan Report.

Where two or more collector lines connect and continue as one collector line, a junction box or pad-mounted disconnect switch will be installed. The unit is an enclosed metal box approximately 2m high, 3m long and 2m wide. The unit is safe to touch and locked to prevent unauthorized entry. The units are brought to site by truck and lowered onto cast-in place concrete pads. Collector lines are fed into the box from underground.

1.3 Study Methodology

The Heritage Assessment study was composed of a program of archival research and visual assessment of potential built heritage resources and potential components of cultural heritage landscapes within the vicinity of the Study Area. As part of the desktop research undertaken municipalities within the Study Area were contacted for information pertaining to Heritage Registers and inventories. Public consultation for the project was undertaken concurrently with this study and is outlined in the Consultation Report (Stantec, 2013a). Local non-governmental organizations were not contacted as part of the desktop survey due to the size of the Study Area, information received from municipalities, and the ongoing consultation process which allowed for the opportunity for local non-governmental organizations and individuals to provide input related to Project concerns, including those related to cultural heritage.

To familiarise the study team with the Study Area, municipalities were contacted for heritage inventories, archival documents were reviewed and a summary historical background of the local area was prepared. Listings of provincially and locally designated built heritage sites, districts and easements and buildings of architectural or historical interest for each municipality were reviewed in order to compile a catalogue of existing identified heritage resources.

The Aboriginal Engagement Strategy for the Project, as outlined in the Consultation Report, “is to engage interested and local Aboriginal communities in a way that is meaningful and respectful of their aboriginal and treaty rights and interests in the Project area” (Stantec, 2013a). The following aboriginal communities have been identified by the MOE as having a potential interest in the Project:

- Six Nations of the Grand River First Nation
- Six Nations of the Grand River Haudenosaunee Confederacy Council
- Mississaugas of the New Credit First Nation

Others that have or may have constitutional or treaty rights, or that may have an interest in any negative environmental effects, included:

- Niagara Region Metis Council
- Métis Nation of Ontario

The Project team is involved with ongoing consultation with interested aboriginal communities which has included participation in archaeological field studies for the project and forums for discussion of land use in and around the Study Area including, but not limited to topics such as: traditional gathering places; burial sites; sacred sites or special sites; berry picking; medicinal plants; birds and fowl for hunting; larger animals, migration patterns, collection areas; fishing spots; original names; and historical stories (Stantec, 2013a).

A visual survey was conducted in June and July, 2012. The visual survey was undertaken along public roads within the Project Study Area. In cases where the identified resources were located on public property (*i.e.,* public parks, cemeteries) the property was accessed in order to record views from the resource. The Study Area was surveyed for extant buildings, outbuildings and/or other built heritage remains. During the site visit built heritage resources which might satisfy criteria outlined under O.Reg. 9/06 and components of potential cultural heritage landscapes were photographed and their locations recorded. Where municipal addresses were not available locations were recorded using a handheld Global Positioning System (GPS).

In general, buildings and structures of more than forty years of age were evaluated during the survey for their potential to satisfy O.Reg. 9/06 criteria. The use of the forty year threshold is generally accepted by both the federal and provincial authorities as a preliminary screening measure for heritage interest or values. This practice does not imply that all buildings and structures more than forty years of age are inherently of cultural heritage value, nor does it exclude exceptional examples constructed within the past forty years of being of cultural heritage value.

The Study Area was assessed for groupings of resources and environs that might potentially constitute cultural heritage landscapes as defined by the Ministry of Culture's *InfoSheet #2 Cultural Heritage Landscapes* in *Heritage Resources in the Land Use Planning Process: Cultural Heritage and Archaeology Policies of the Ontario Provincial Policy Statement, 2005* (MTCS, 2006b).

Evaluation of potential cultural heritage resources was performed using criteria set out under O.Reg.9/06 of the *Ontario Heritage Act* (*OHA*). Resources meeting one or more of the criteria under O.Reg.9/06 are considered by this study to be of cultural heritage value.

Identification of potential impacts on cultural heritage resources and landscapes considered the proposed site plan for the layout of turbines and other Project infrastructure (Figure 1). Layout of Project components was undertaken separately from this study with the understanding that

negative impacts on cultural heritage resources identified by this study might require mitigative measures, up to and including the relocation of Project infrastructure.

1.3.1 Resource Evaluation Methodology

As per O.Reg. 359/09, evaluation of potentially significant built heritage resources in the Study Area was performed using criteria set out under O.Reg 9/06 of the *OHA*. A property or resource meeting one or more of the following criteria is considered significant under the *OHA*. Information used in the evaluation of cultural heritage resources was based on desktop research, historic mapping, available inventories and local histories and visual surveys.

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

i. is a rare, unique, representative or early example of a style, type, expression, material or construction method,

ii. displays a high degree of craftsmanship or artistic merit, or

iii. demonstrates a high degree of technical or scientific achievement.

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

i. has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community,

ii. yields, or has the potential to yield, information that contributes to an understanding of a community or culture, or

iii. demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.

3. The property has contextual value because it,

i. is important in defining, maintaining or supporting the character of an area,

ii. is physically, functionally, visually or historically linked to its surroundings, or

iii. is a landmark. O. Reg. 9/06, s. 1 (2).

1.3.2 Impact Assessment Methodology

Assessment of potential direct or indirect impacts of the Project on identified built heritage resources in the Study Area considered Ministry of Tourism and Culture guidelines concerning *Heritage Impact Assessments and Conservation Plans* (MTCS, 2006a).

The Ministry of Tourism, Culture and Sport outlines seven potential negative impacts on heritage resources:

- **Destruction** of any, or part of any, *significant heritage attributes* or features;
- **Alteration** that is not sympathetic, or is incompatible, with the historic fabric and appearance;
- **Shadows** created that alter the appearance of a *heritage attribute* or change the viability of a natural feature or plantings, such as a garden;
- **Isolation** of a *heritage attribute* from its surrounding environment, context or a *significant* relationship;
- **Direct or indirect obstruction** of *significant* views or vistas within, from, or of built and natural features;
- **A change in land use** such as rezoning a battlefield from open space to residential use, allowing new *development* or *site alteration* to fill in the formerly open spaces; and
- **Land disturbances** such as a change in grade that alters soils, and drainage patterns that adversely affect an *archaeological resource*.

Land disturbances are being assessed in a separate Stage 1 Archaeological Assessment and have not been included in the current evaluation.

Identification of potential impacts considered the proposed site plan in relation to identified cultural heritage resources (Figures 11 through 20).

The hub height of the proposed wind turbines will be either 124 m or 135 m with a blade length of 48.5 m. In order to evaluate the potential visual impact of turbines, general topographical conditions and land-use recorded during the site visit, aerial imagery, and comparative examples from similar projects were reviewed. Visual modelling was also used to inform the evaluation with respect to assessing the scale of new turbines relative to existing built features. Visual Aid 1 presents the scale of a turbine with a 124 m hub height at a distance of 550 m and 1000 m from a typical two storey residential building. Visual Aid 2 presents that same model with trees at various locations and distances in order to evaluate the effectiveness of tree-cover as an effective mitigative measure. Visual Aids 3 and 4 present similar models with a hub height of 135 m.

A Visual Assessment Study, including visual simulations, was prepared for the Niagara Escarpment Commission to assess the impact of transmission infrastructure on the scenic values of the Niagara Escarpment Plan Area (Stantec, 2012). The Visual Assessment Study and the visual simulations prepared for the study were reviewed to inform the assessment of impact of Project collector and transmission infrastructure on cultural heritage values.

In addition to direct impacts related to destruction, this assessment also evaluated the potential for indirect impacts resulting from the vibrations of construction and the transportation of Project components and personnel. Although the effect of traffic and construction vibrations on historic

period structures is not fully understood, negative effects have been demonstrated on buildings with a setback of less than 40 m from the curbside (Crispino and D'Apuzzo, 2001; Ellis, 1987; Rainer, 1982; Wiss, 1981). The proximity of Project components to resources of cultural heritage value was considered in this assessment, particularly those within 50 m.

One consideration of interventions on resources and landscapes of heritage value is the **reversibility** of any new features. English Heritage (officially known as the Historic Buildings and Monuments Commission for England), a governmental statutory adviser on the historic environment in the United Kingdom, has prepared guidance on the assessment of impacts of renewable energy projects on the Historic Environment which addresses reversibility. English Heritage states that, as a best practice, "consideration should always be given to the reversibility of wind energy projects" (English Heritage, 2005). Their 2005 guidance document further states that,

> *Planning authorities should therefore make provision, as part of any planning permission, for the long-term protection of the landscape by requiring legal agreements for the remediation and restoration of wind farm sites and their infrastructure when they are decommissioned.*

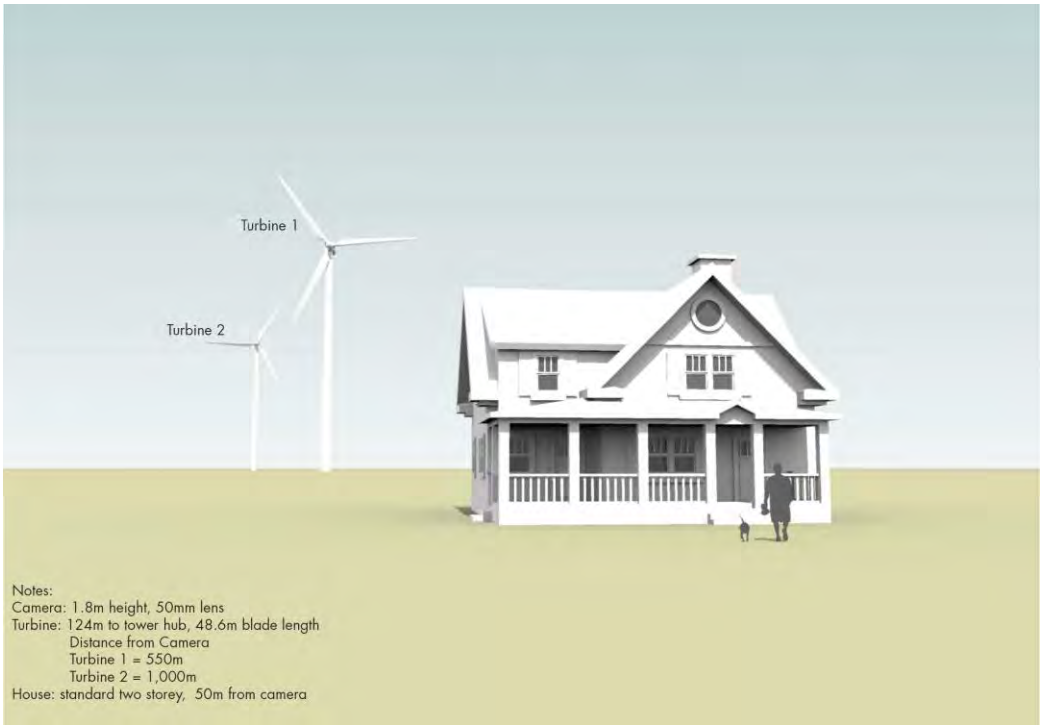
A Decommissioning Plan Report has been prepared for the Project, in accordance with O.Reg. 359/09, which sets out specific content requirements for the Decommission Plan Report in Table 1, Item 3 of the Ministry of Environment's (MOE's) draft guidance document "*Technical Guide to Renewable Energy Approvals*" (MOE, March 2012). The Decommission Plan Report provides the following information with respect to plans for site rehabilitation or restoration following the lifespan of the Project.

The operator of the Project will develop a Rehabilitation Plan that is designed to restore habitat in areas affected by Project-related equipment. This plan will be developed in consultation with the appropriate agencies prior to the decommissioning of the Project.

It is envisioned that the Rehabilitation Plan will include, but not be limited to the following;

- *Agricultural areas, which comprise most of the pre-developed Project Location, will be restored such that normal farming practices may resume. Any damaged tile drains will be fixed.*
- *Cultural areas will be revegetated using native plant material and seeds appropriate for the Project site or allowed to revegetate naturally.*
- *Areas such as turbine staging areas, crane pads and access roads which may become compacted during decommissioning will be decompacted and restored to pre-existing conditions.*

The Rehabilitation Plan may also involve a monitoring period which allows for the Project site to experience seasonal changes and help determine if additional restoration is required (Stantec, 2013b).



Visual Aid 1: Wind Turbine Scale Schematic (124m hub height)

Visual Aid 2: Wind Turbine Scale Schematic, with trees (124m hub height)

Visual Aid 3: Wind Turbine Scale Schematic (135m hub height)

Visual Aid 4: Wind Turbine Scale Schematic, with trees (135m hub height)

2 CULTURAL LANDSCAPE

The Study Area is located in the Haldimand Clay Plain physiographic region, a large region that occupies the majority of the Niagara Peninsula south of the Niagara Escarpment down to Lake Erie. It is a region of approximately 1,350 square miles characterized by recessional moraines in the northern part, deep river valley in the middle, and flat and low lying ground in the south (Chapman and Putnam, 1984).

The vast majority of the surficial geology of the Study Area is silty heavy clay loam till and alluvial deposits in flood plains spanning the length of region's waterways. In the historic Lincoln County the dominate soil series is Haldimand clay loam with small pockets of Lincoln clay till, predominately along waterways (Wicklund and Mathews, 1963). The surficial geology in the historic Welland County is similar, although Berrien and Wauseon series sandy loam soils are also found within the Study Area (Presant and Kingston, 1989).

The Niagara Peninsula, more generally, provides a transportation link between Canada and the United States via modern border crossings at Niagara Falls, Fort Erie and Queenston. This proximity to the United States resulted in the strategic importance of the area as the first seat of government for Upper Canada and, consequently, one of the first areas surveyed and settled by the British Government towards the end of the 18th century. The area continued to be one of great importance from a defensive standpoint and was the location of numerous pivotal battles during the War of 1812. The Welland Canal, built between 1824 and 1830, provided a gateway between Lake Ontario and Lake Erie and established the Niagara Peninsula as not only a transportation and communication hub for Upper Canada, but also as an economic and commercial centre, particularly given the superior agricultural conditions in the area.

Settlements in the general vicinity of the Project include Saint Ann's, Silverdale, Rosendene, Bismark, Boyle, Fenwick, Vaughn, Elcho, Perry, Becketts Bridge, Wellandport, Mount Carmel, Forks Road, Lowbanks, Willow Bay, Beamsville, Smithville and Grimsby. Study Area land use is primarily rural agricultural with small settlements scattered throughout the landscape, with more urban land uses located in the north along the south shore of Lake Ontario. Many woodlands and wetlands occur throughout the Study Area, which includes portions of the Niagara Escarpment and Greenbelt Areas. Short Hills Provincial Park is located to the east of the Project Study Area and Rock Point Provincial Park is located to the south.

The majority of the cultural landscape throughout the Project area can be characterized as rural; being comprised of relatively straight, gravel and paved roads lined by widely setback farm complexes (Plates 1 and 2). Existing transmission infrastructure is visible throughout the Study Area and consists of wooden monopoles along alternating sides of road rights of way (Plates 1 – 4, 6 and 7). At major crossroads, along major transportation routes and in within settlements,

residential and commercial buildings tend to be narrowly setback (Plate 3). At several of these same crossroads schoolhouses and religious buildings are still extant. Farm complexes within the Study Area range in size from small to very large and tend to be widely setback (Plates 4 and 5) although narrowly setback agricultural buildings are also found throughout the Study Area (Plate 6). Cultivated fields tend to be extensive and are interrupted by woodlots and tree lines (Plate 7).

Plate 1: Typical rural roadscape within the Study Area (South Grimsby Road 3, 3149 South Grimsby Road 3 on the right)

Plate 2: Example of paved rural road (River Road near 75229 River Road)

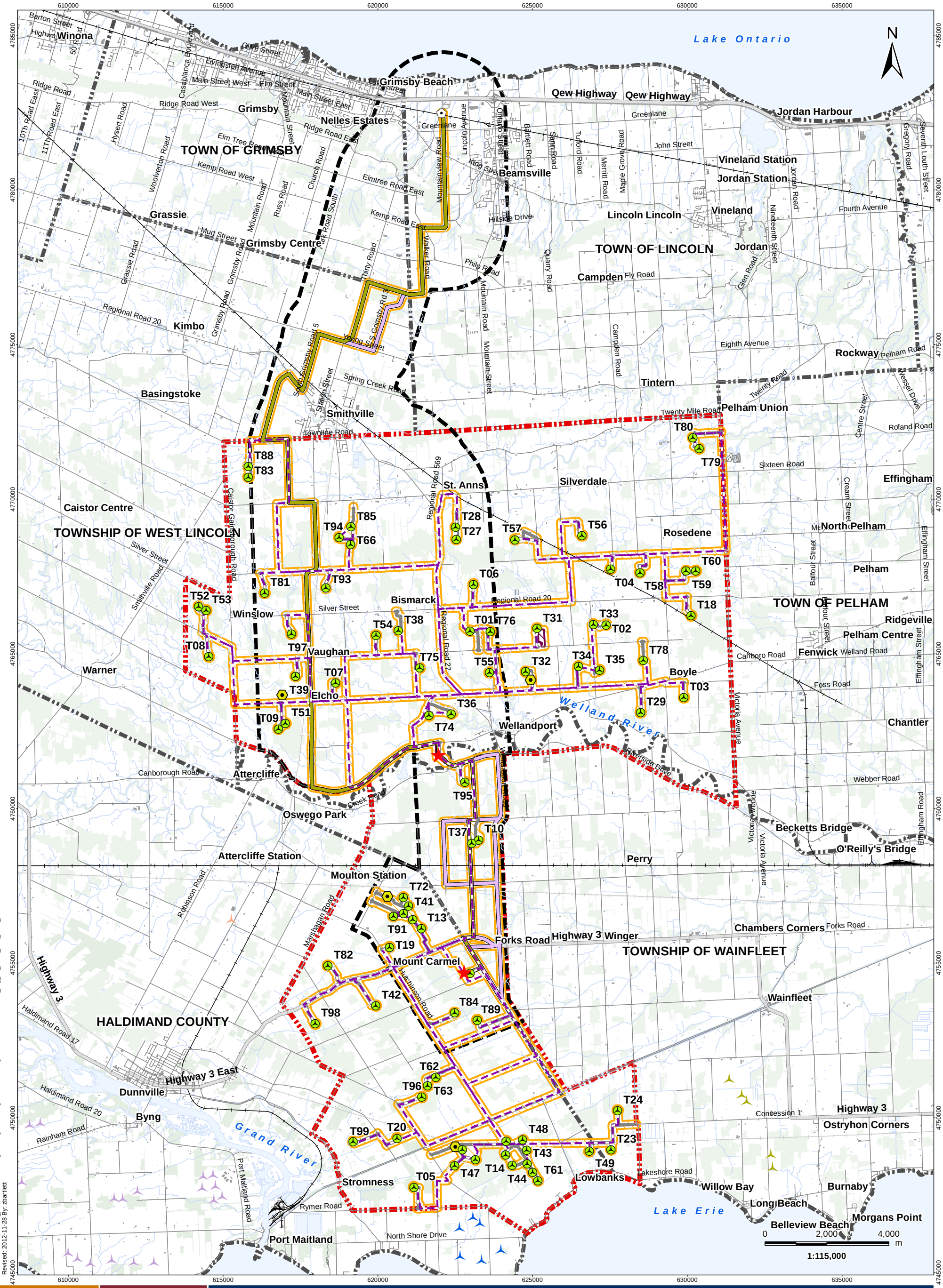
Plate 3: Example of narrowly setback residential building along major roads and near crossroads (Bismark)

Plate 4: Example of farm complex components and configuration (5482 Elcho Road)

Plate 5: Example of widely setback farm complex (73358 River Road)

Plate 6: Example of narrowly setback agricultural outbuildings (73752 River Road)

Plate 7: Rural landscape, as viewed from St. Ann's Community Cemetery



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Legend

- Project Study Area
- Interconnector Study Area
- 120m Zone of Investigation
- Transformer Substation
- Proposed Turbine Location
- Tap-in Location
- Existing Met Tower
- Potential Acesss Road
- Collector Lines – Underground or Overhead
- Preferred Transmission Route
- Alternate Tranmission Route
- Potential Construction Laydown Area

- Road
- Expressway / Highway
- Active Railway
- Abandoned Railway
- Existing Structures
- Watercourse
- Existing Transmission Line
- Waterbody
- Wooded Area
- Municipality Lower Tier

Other Wind Turbines

- Mohawk Wind Farm (Existing)
- Rosa Flora Turbine (Existing)
- Wainfleet Wind Energy Project (Proposed)
- HAF Wind Energy Project (Proposed)
- Grand Renewable Energy Park (Proposed)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.

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Niagara Region Wind Corporation
Niagara Region Wind Farm

Figure No.
1

Title
Project Location

3 HISTORICAL BACKGROUND

3.1 Pre-Contact Period Land-Use

The cultural heritage of the Niagara Region and Haldimand County pre-dates the arrival of French explorers in the area by thousands of years. The following summary of the prehistoric occupation of Southern Ontario is based on syntheses in Archaeologix (2008), Ellis and Ferris (1990) and Jacques Whitford (2008) and is focused on settlement patterns and cultural activities that can be documented as part of the Heritage Assessment study process. For the most part, pre-contact period cultural resources will be studied as part of the Archaeological Assessment process for the Project.

The first identified human occupation of Ontario can be traced back 11,000 years, folowing the end of the Wisconsin Glacial period. This initial occupation is referred to as the "Palaeo-Indian" archaeological culture (11,000-10,000 Before Present (BP)). Settlement patterns suggest that small groups followed a pattern of seasonal mobility extending over large territories in order to exploit a variety of resources. Many (although by no means all) of the Early Palaeo-Indian sites were located on former beach ridges associated with Lake Algonquin, the post-glacial lake occupying the Lake Huron/Georgian Bay basin.

The transition from the Palaeo-Indian period to the Archaic archaeological culture of Ontario prehistory is evidenced in the archaeological record by the development of new tool technologies developed to more intensively exploit resources. Although there may have been some reduction in the degree of seasonal movement during the Early Archaic period (10,000-8,000 BP), it is still likely that population density during the Early Archaic was low, and band territories large.

The development of a more diversified tool technology continued into the Middle Archaic period (8,000-4,500 BP). An increased reliance on local chert resources for chipped stone tools suggests that in the Middle Archaic groups inhabited smaller territories that often did not encompass a source of high quality raw material. This reduction in territory size appears to have been the result of gradual region-wide population growth, which forced a reorganization of subsistence practices, as more people had to be supported from the resources of a smaller area.

The trend towards decreased territory size and a broadening subsistence base continued during the Late Archaic (4,500-2,900 BP) and Late Archaic sites are far more numerous than either Early or Middle Archaic sites. Although the increase in numbers of sites may represent an increase in population, the relative paucity of earlier Archaic sites may, at least in part, be due to their being inundated under rising lake levels.

The appearance of the first true cemeteries occurs during the Late Archaic. Prior to this period, individuals were interred close to the location where they died. However, with the advent of the Late Archaic and local cemeteries individuals who died at a distance from the cemetery would be

returned for final burial at the group cemetery, often resulting in disarticulated skeletons, occasionally missing minor bone elements (e.g. finger bones). The emergence of local group cemeteries has been interpreted as being a response to both increased population densities and competition between local groups for access to resources as cemeteries would have provided symbolic claims over a local territory and its resources.

The Early Woodland period (2,900-2,200 BP) is distinguished from the Late Archaic period primarily by the addition of ceramic technology. Other than the introduction of limited ceramic technology, the life-ways of Early Woodland peoples show a great deal of continuity with the preceding Late Archaic period. The trade networks which were established in the Middle and Late Archaic continued to function and trade items were included in increasingly sophisticated burial ceremonies, some of which involved construction of burial mounds.

At the beginning of the Middle Woodland period (2,200 B.C.-1,100 BP) rich, densely occupied sites appear along the margins of major rivers and lakes. Unlike earlier seasonally utilized locations, these Middle Woodland sites appear to have functioned as base camps, occupied off and on over the course of the year. There are also numerous small upland Middle Woodland sites, many of which can be interpreted as special purpose camps from which local resources were exploited. This shift towards a greater degree of sedentism continues the trend witnessed from at least Middle Archaic times, and provides a prelude to the developments that follow during the Late Woodland period.

The relatively brief period of the Transitional Woodland period is marked by the acquisition of cultivar plants species, such as maize and squash, from communities living south of the Great Lakes. The appearance of these plants began a transition to food production. Sites were occupied for longer periods and by larger numbers of people. Transitional Woodland sites in the Hamilton area and Niagara Peninsula are part of the Princess Point Complex, named after the Princess Point site in Cootes Paradise, at the west end of Burlington Bay on Lake Ontario.

The Late Woodland period in southern Ontario is associated with societies referred to as the Ontario Iroquois Tradition. This period is often divided into three temporal components; Early, Middle and Late Iroquoian. Early Iroquoian peoples continued to practice similar subsistence and settlement patterns as the Transitional Woodland. Villages tended to be small, with small longhouse dwellings that housed either nuclear or, with increasingly, extended families. Smaller camps and hamlets associated with villages served as temporary bases from which wild plant and game resources were acquired. Horticulture appears to have been for the most part a supplement to wild foods, rather than a staple.

The Middle Iroquoian period marks the point at which a fully developed horticultural system (based on maize, beans, and squash) emerged, and at which point cultivars became the staple food source. In this period villages become much larger than in the Early Iroquoian period, and

longhouses also become much larger, housing multiple, though related, nuclear families. For the most part Iroquoian people inhabited large, sometimes fortified villages throughout Southern Ontario.

The Late Iroquoian period in the Niagara Peninsula, along the north shore of Lake Erie and at the western end of Lake Ontario is marked by the emergence of the Neutral Iroquoians, one of several discrete groups that emerge from the Middle Iroquoian period. Neutral settlements include large villages of several longhouses and a number of associated smaller satellite villages (hamlets), seasonally occupied sites with only one or two small "cabins" (usually associated with working horticultural fields), and camps for specialized extractive activities such as hunting and fishing.

Discrete clusters of politically allied Neutral villages have been identified from the late prehistoric and early historic period, and in the case of the Study Area the nearest cluster is the Lower Grand River cluster, located on both sides of the Grand River.

3.2 Euro-Canadian Period Land-Use

3.2.1 Niagara Region

The earliest written record of the Niagara Peninsula dates to an account of Niagara Falls published in 1604. The account had been written by Samuel de Champlain and was based on the stories of First Nations populations he encountered during his first trip to what is now Canada in 1603 (de Volpi, 1966). Etienne BrûIé may have visited the Niagara Region as early as 1611, but it was not until 1615 that Champlain, personally, explored Lake Ontario. Niagara River, between Lake Ontario and Lake Erie, was outlined in the 1632 *Les Voyages de la Nouvelle France Occidentale, Dicte Canada, Faits par le Sr. De Champlain* (de Volpi, 1966). In 1678 Father Jean Louis Hennepin sketched the Falls (de Volpi, 1966). The sketch was reproduced in 1697 in Father Hennepin's *Nouvelle découverte d'un très grand pays situé dans l'Amerique, entre le Nouveau Mexique et la mer glaciale* (Plate 1). An illustration, showing a ladder ascending the Falls, accompanied a story in a 1751 edition of The Gentleman's Magazine (Plate 2). Although French explorers, missionaries and traders would continue to pass through the area during the 17th and 18th centuries, no concerted effort was made by the French to settle the region, although a series of forts, blockhouses and fortified trading posts were constructed near present-day Youngstown, New York at the mouth of Niagara River, including: Fort Conti, 1678-1679 (destroyed by fire); Fort De Nonville, 1687-1688 (abandoned); and Fort Niagara, 1726 (captured by British forces in 1759) (Porter, 1896).

The stone fort at Niagara was enlarged to its present-day size around 1755 in response to increased tension in the region between the French and British. The fort was captured by the British following a 19-day siege led by Sir William Johnson (Porter, 1896). When writing about Fort Niagara and the Niagara Pennisula in his 1770 *A General History of the British Empire in America*, John Huddlestone wrote that, "Niagara is without exception the most important post in America and

secures a greater number of communications, through a more extensive country, than perhaps any other pass in the world" (Wynne, 1770). When the Province of Quebec was divided into Upper and Lower Canada in 1791, Lieutenant-Governor John Graves Simcoe chose Niagara as the first seat of government for Upper Canada (1792 until 1794) and began surveying the region to accommodate settlement (de Volpi, 1966).

During the War of 1812, the Niagara Peninsula was the setting for a number of pivotal battles, including those at Queenston Heights, Fort George, Chippewa, Fort Niagara, and Lundy's Lane. Owing to its close proximity to the United States, the region was one of the first settled as a result of the war by United Empire Loyalists (UELs), German mercenaries, Pennsylvania German settlers, First Nations, and those wishing to take advantage of generous land grants and low tax rates aimed at stimulating settlement along the Canadian-United States border.

The Welland Canal, built between 1824 and 1830, provided a gateway between Lake Ontario and Lake Erie and established the Niagara Peninsula as an economic and commercial centre, particularly given the superior agricultural conditions in the area.

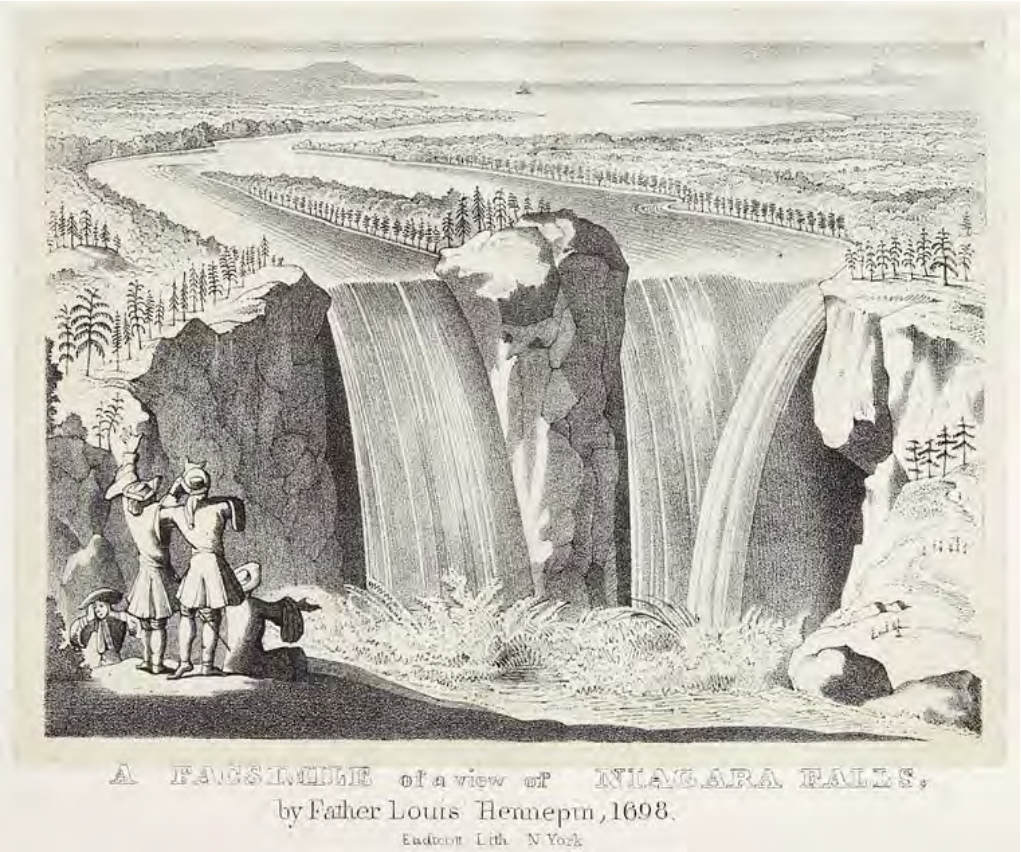


Plate 8: Father Jean Louis Hennepin's View of Niagara Falls, 1698

Plate 9: View of Niagara Falls from The Gentleman's Magazine, 1751

3.2.2 Caistor Township, Lincoln County

Lieutenant Governor John Graves Simcoe issued a proclamation in 1792 dividing Upper Canada into nineteen counties. Lincoln County was one of these original nineteen (Lincoln County Council, 1956). Each of the townships in Lincoln County were given the names of British towns in Lincoln County, England. Lincoln County was established through a Provincial Act in 1798 which stated that, “the township of Clinton, Grimsby, Saltfleet, Barton, Ancaster, Glanford, Binbrook, Gainsborough and Caistor, do form and constitute the first riding of the County of Lincoln…” (Lincoln County Council, 1956).

The topography in Caistor Township is generally characterised by gently rolling hills, primary watercourses such as Twenty Mile Creek, the Chippewa River (now Welland River), and a network of smaller watercourses with fertile floodplains. Prior to European survey and settlement, Caistor was crossed by numerous trails and portage routes, some of which have evolved into modern roadways (Lincoln County Council, 1956). The first settler in Caistor Township was, by many accounts, an escaped slave by the name of Diamond who had travelled up the Chippewa River to settle along its shore in Concession 1 in 1778 (Lincoln County Council, 1956). In 1782, Henry Dochstader, a UEL from New York, was granted Lots 2, 3, and 4, Concession 1 and “bought out the improvements” attributed to Diamond. A number of UELs settled in Caistor in the 1790s, including members of the Lymburner, Merritt, Dean, and Killins families. By 1817 24 families, totaling 156 residents, had settled in Caistor (Lincoln County Council, 1956).

Early settlers in Caistor Township made use of the established trails and portage routes to carry provisions. The first saw mill was constructed in Lot 6, Concession 2 along the Chippewa River by John Lymburner in 1799 and the first log schoolhouse was constructed in Lot 2, Concession 1 in 1816 (Lincoln County Council, 1956). Small communities such as Caistorville slowly developed over the 19th and 20th centuries; however, swaths of forest and undeveloped land can still be found throughout the township.

The historical Township of Caistor was amalgamated with the Townships of South Grimsby and Gainsborough on January 1, 1970 to become the Township of West Lincoln (Township of West Lincoln, 2012).

3.2.3 Clinton Township, Lincoln County

Clinton Township grew quickly as a result of incentives to settle in Upper Canada at the end of the 18th century. By 1800, at least 66 families were living in Clinton Township (Lincoln County Council, 1956). Among the earliest settlers in the area was Jacob Beam, a UEL and member of Butler’s Rangers. It was after Jacob Beam that Beamsville, established as a police village only three years after the founding of Lincoln County, was named. As a UEL, Jacob Beam was originally granted 400 acres of land in Clinton Township and an additional 500 acres in Grimsby Township (Lincoln

County Council, 1956). The homesteads of two early settlers, the Book and Teeter families may be located in optioned parcels based on information provided in Page & Co.'s 1876 Illustrated Atlas of the Counties of Lincoln and Welland (Table 1).

Agricultural land in Clinton Township is fertile, being comprised on nutrient rich sandy loam soils. Excellent agricultural conditions, coupled with the township's advantageous location along the Niagara Escarpment, along the south shore of Lake Ontario made the area attractive to early settlement. By 1876 there were 600 residents, a court, Free Mason's lodge, Orange Hall, wine factory and a bell factory as well as numerous specialists including a tinsmith, druggist and doctor in the Village of Beamsville alone (Page, 1876).

Table 1: Early Settlers in Clinton Township

Settler Name	Date of Settlement	Matching Names from Page (1876) within Proposed locations	Township	Lot(s)	Conc.
Book	1788-89	Clark, John, and William Book	Clinton	14-16	9, 10
Teeter	1788-89	Albert I. Teeter	Clinton	20, 21	9

3.2.4 Gainsborough Township, Lincoln County

The historic Township of Gainsborough, now part of amalgamated West Lincoln Township, was historically the largest township in the County of Lincoln. The township is characterised by rolling topography and is watered by two primary watercourses, the Chippewa River and Twenty Mile Creek.

John Dochstader was the first European settler to arrive in Gainsborough in 1783. Dochstader settled on Lots 1 and 2, along Concessions 1 and 2. The surrounding land was settled in the following years by members of the Heaslip, Henry, Hodges, Reese, Comfort, Gee, and Hutt families, among others (Lincoln County Council, 1956). Schoolhouses were constructed near Gee bridge and in St. Ann's prior to 1800 and the first log church was constructed on Lot 13, Concession 6 in 1799. Although settlement of Gainsborough Township was slower than others in the region due to its "inland" location, several small communities developed in the 18th and 19th century which still survive today, including: St. Ann's, Wellandport, and Bismark.

The community of St. Ann's was originally founded as Snyder's Mills in the 1790s. The settlement was named after Adam Snyder, who arrived from New Jersey in 1793 and within a year had erected a grist mill and a saw mill along the Twenty Mile Creek. An inn and trading post were constructed at St. Ann's by Adam Mingle in 1816. The name St. Ann's is said to derive from the reputation of Ann Freas, Snyder's wife, as a benevolent and welcoming woman (Lincoln County Council, 1956).

Bismark developed at the crossroads of Highway 20 and Highway 57 during the 19th century. It was once a busy market centre and the location of the township hall (Lincoln County Council, 1956).

Wellandport was settled around 1795 along a narrow strip of land between Beaver Creek and Chippewa River. The settlement is located at the present-day intersection of Highway 57 and Canborough Road. By 1820, several hotels, mills and distilleries had been constructed at Wellandport to support the community which was developing there as a result of the increasing use of the two rivers for the transportation of lumber and other goods (Lincoln County Council, 1956). Page & Co.'s 1876 map of Gainsborough Township illustrates the level of development within and around optioned properties by the second half of the 19th century (Figures 2 through 5).

In general, land-use in Gainsborough Township remains largely agricultural. The homesteads of 17 early settlers may be located with optioned parcels of land based on information provided in Page & Co.'s 1876 *Illustrated Atlas of the Counties of Lincoln and Welland* (Table 2). Among these early settlers were the Heaslip, Snyder, Lane, Gee, Johnson, Kennedy, and Dils families.

3.2.5 Grimsby Township, Lincoln County

The first European settlers arrived in Grimsby Township around 1787-1788. By 1833, the township was sufficiently settled and developed to justify its division into South Grimsby and North Grimsby Townships along the Niagara escarpment, which cuts through the middle of the township from the east to the west. The settlements of Smithville and Grimsby, in South Grismby and North Grimsby Townships, respectively, were established in the 1780s. Grimbsy Township was in the home of John Green, in Grimsby Township, that the first municipal council meeting in Upper Canada was held on April 5, 1790 (Lincoln County Council, 1956).

Prior to the War of 1812 the Village of Grimsby was known as The Forty. The Forty was originally established around 1790 as settlers such as Robert Nelles, John Green and John Beamer began constructing mills along the Forty Mile Creek. By 1812, Grismby was the site of two schools, one church, several stores and two distilleries.

After the War of 1812 both Grimsby and Smithville became continued to develop. By 1876 Grimsby had a population of over six hundred inhabitants, with four churches, three schools, a fruit canning factory, a brewery and numerous mills and stores. Smithville had a population of over seven hundred inhabitants, with five churches, two pump factories, a shingle factory, and several stores (Lincoln County Council, 1956).

Table 2: Early Settlers in Gainsborough Township

Settler Name	Date of Settlement	Matching Names from 1876 within Proposed locations	Township	Lot(s)	Conc.
Heaslip	1782	Leonard Heaslip	Gainsborough	11,12	1
Heaslip	1782	J.L. Heaslip, M. Heaslip	Gainsborough	13,14	4
Synder	1793-4	Jason Synder	Gainsborough	17	5
Synder	1793-4	George Synder	Gainsborough	23	6
Synder	1793-4	Rob. Synder	Gainsborough	8	2
Synder	1793-4	John Synder	Gainsborough	12	1
Lane	1793-4	N.N. Lane	Gainsborough	11	6
Lane	1793-4	Mrs. R. Lane	Gainsborough	15	3
Gee	1793-4	Abraham Gee Estate	Gainsborough	16	3
Gee	1793-4	Jacob Gee	Gainsborough	21,22	4
Gee	1793-4	C. Gee	Gainsborough	6	3
Gee	1793-4	Ezra Gee (on present-day Gee Road)	Gainsborough	20	3
Johnson	1793-4	Nathan Johnson	Gainsborough	3	5
Kenned y	1793-4	Samuel Kennedy	Gainsborough	22	5
Kenned y	1793-4	John Kennedy	Gainsborough	21	5
Kenned y	1793-4	Jacob Kennedy	Gainsborough	25,26	1
Peter Dils	1796	J.C. Dils	Gainsborough	8	1

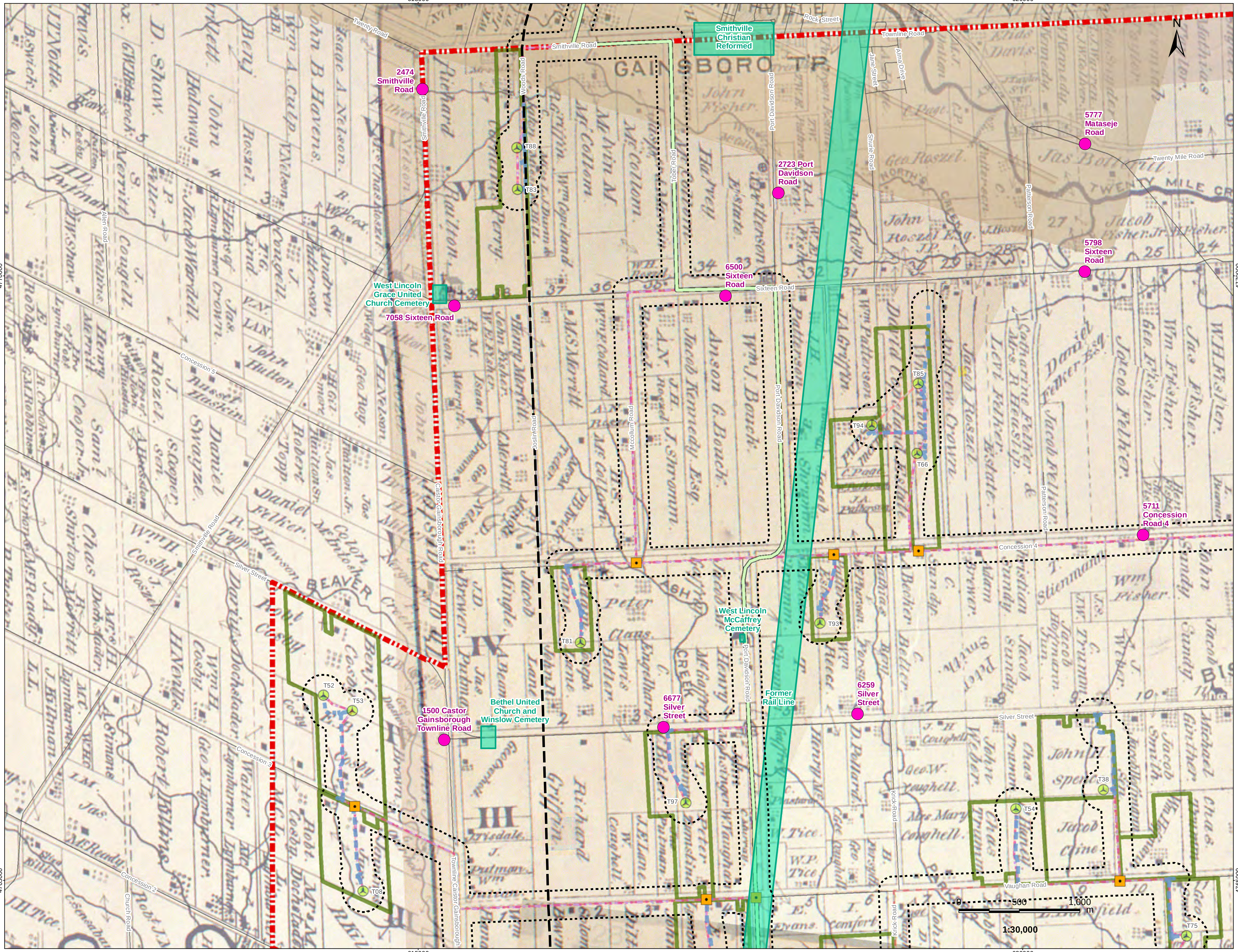
3.2.6 Wainfleet Township, Lincoln County

Wainfleet Township is characterised by poorly drained, often marshy land and, as a result, was one of the slowest in Lincoln County to be settled (Wainfleet Historical Society, 1992). Among the first settlers in Wainfleet Township was David Morgan, who arrived from Pennsylvania during the American Revolution. Other early settlers included William Fares, Jacob Minor, Henry Zavitz, Abram Kinnaird, and Lawrence Furry, the founder of the community of Lowbanks (Sidey *et.al.,* 1887). The construction of the Feeder Canal between 1824 and 1829 further connected Wainfleet Township with neighbouring communities, but more importantly contributed to the drainage of the surrounding area (Wainfleet Historical Society, 1992). Page's 1876 map of Wainfleet Township illustrates the level of development within and around optioned properties by the second half of the 19th century (Figures 4 through 7).

3.2.7 Haldimand County

Haldimand County is located within the Haldimand Tract, an area six miles on either side of the Grand River, from its headwaters to Lake Erie which was granted to the Six Nations in 1784. In 1792, Norfolk County was established from lands within the Haldimand Tract. Haldimand County, named after Sir Frederick Haldimand, was established as its own county in 1800 (Brueton, 1967). One of the oldest settlements in Moulton Township is Lowbanks which was founded in 1772 by Lawrence Furry, originally from Pennsylavania (Paisley, 1967).

The County was officially opened for settlement by the Crown in 1832 but settlement was slow due to heavily forested and often swampy lands. The Feeder Canal, built between 1824 and 1829, is one of the most notable man-made features in Moulton Township. It connects the Grand River at Dunnville in the west to the Welland Canal in Welland in the east. During the 19th century, regular freights along the Feeder Canal made it an important route for the transportation of timber and cordwood (Paisley, 1967). Page's 1876 map of Moulton Township illustrates the level of development within and around optioned properties by the second half of the 19th century (Figures 4 through 7).



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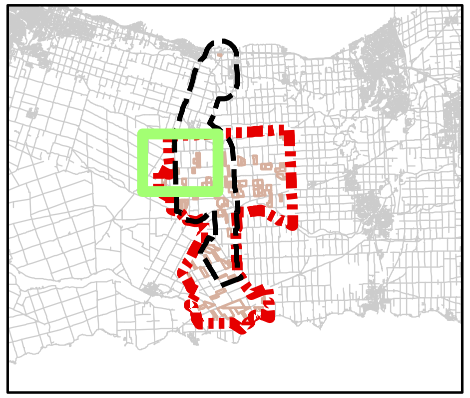
Legend

- Built Heritage Resource
- Cultural Heritage Landscape
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
- Potential Access Road
- Proposed Fibre Optic Line
- Transformer Substation
- Potential Construction Laydown Area
- Participating Property
- Interconnector Study Area
- Project Study Area
- 120m Zone of Investigation



Notes

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November, 2012
160950269

Client/Project
Niagara Region Wind Corporation
Niagara Region Wind Farm

Figure No.
2 (Gainsborough Township)

Title
1876 Page & Co. Historical Mapping Overlaid by Project Components

Legend

- ● Built Heritage Resource
- 🟩 Cultural Heritage Landscape
- Proposed Turbine Location
- ■ Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
- Potential Access Road
- Proposed Fibre Optic Line
- ▨ Transformer Substation
- ▨ Potential Construction Laydown Area
- ☐ Participating Property
- ☐ Interconnector Study Area
- ☐ Project Study Area
- ☐ 120m Zone of Investigation

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Niagara Region Wind Farm

Figure No.
3 (Gainsborough Township)

Title
1876 Page & Co. Historical Mapping
Overlaid by Project Components

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Revised: 2012-11-29 By: zbartlett

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Legend

- Built Heritage Resource
- Cultural Heritage Landscape
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Preferred Transmission Line Route
- Alternate Transmission Line Route
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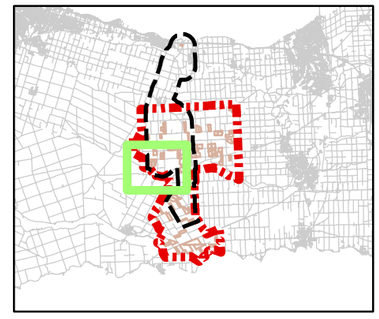

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Figure No.

4 (Gainsborough, Wainfleet & Moulton)

Title

1879 & 1876 Page & Co. Historical Mapping Overlaid by Project Components

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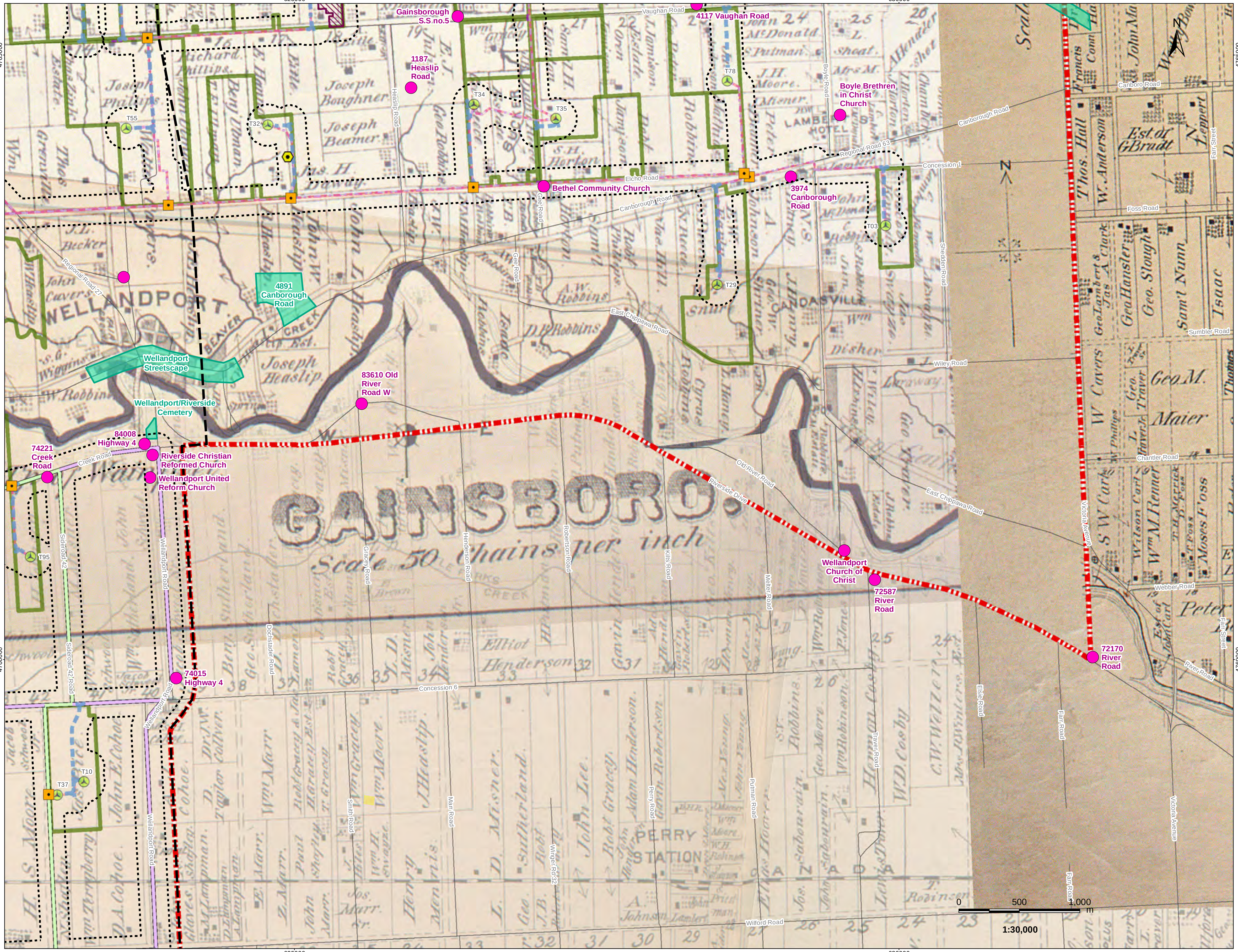

Legend

- Built Heritage Resource
- Cultural Heritage Landscape
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
- Potential Access Road
- Proposed Fibre Optic Line
- Transformer Substation
- Potential Construction Laydown Area
- Participating Property
- Interconnector Study Area
- Project Study Area
- 120m Zone of Investigation

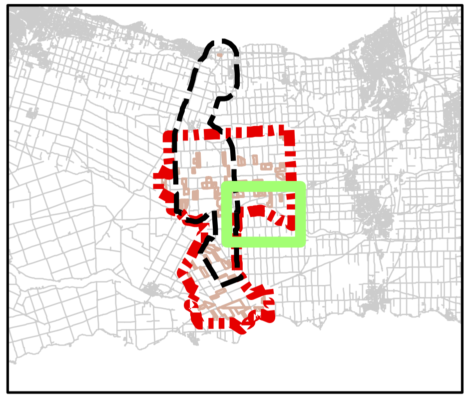

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Figure No.

5 (Gainsborough & Wainfleet Townships)

Title

1876 Page & Co. Historical Mapping
Overlaid by Project Components

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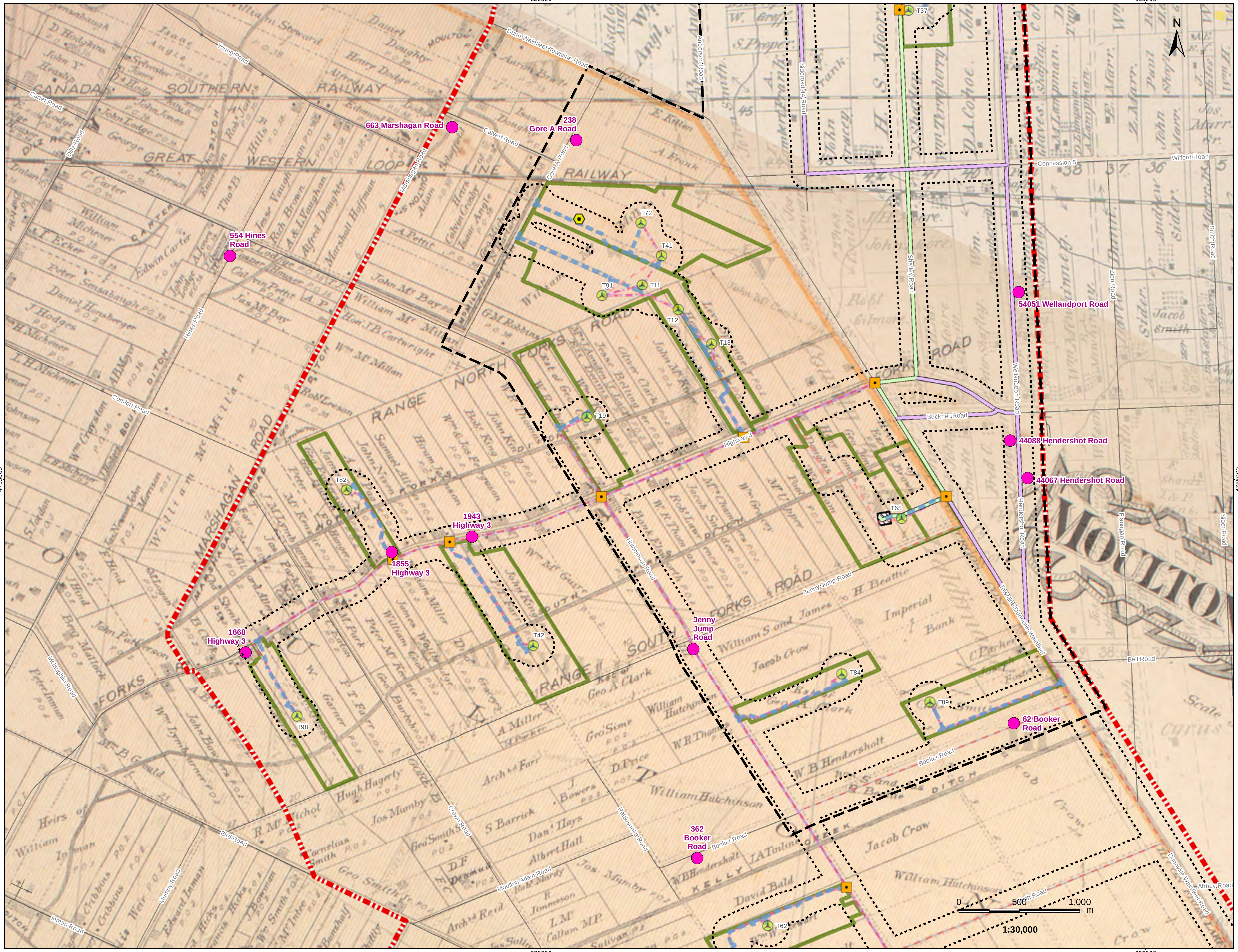

Legend

- Built Heritage Resource
- Cultural Heritage Landscape
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
- Potential Access Road
- Proposed Fibre Optic Line
- Transformer Substation
- Potential Construction Laydown Area
- Participating Property
- Interconnector Study Area
- Project Study Area
- 120m Zone of Investigation

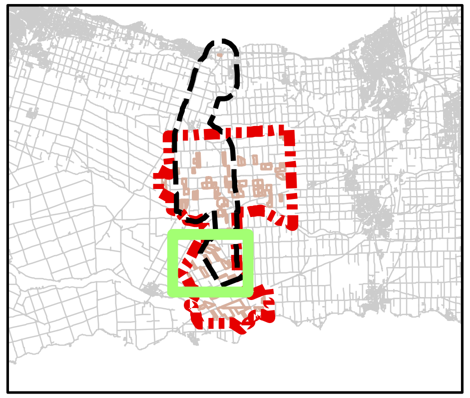

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Figure No.
6 (Wainfleet & Moulton Townships)

Title
1876 Page & Co. Historical Mapping Overlaid by Project Components

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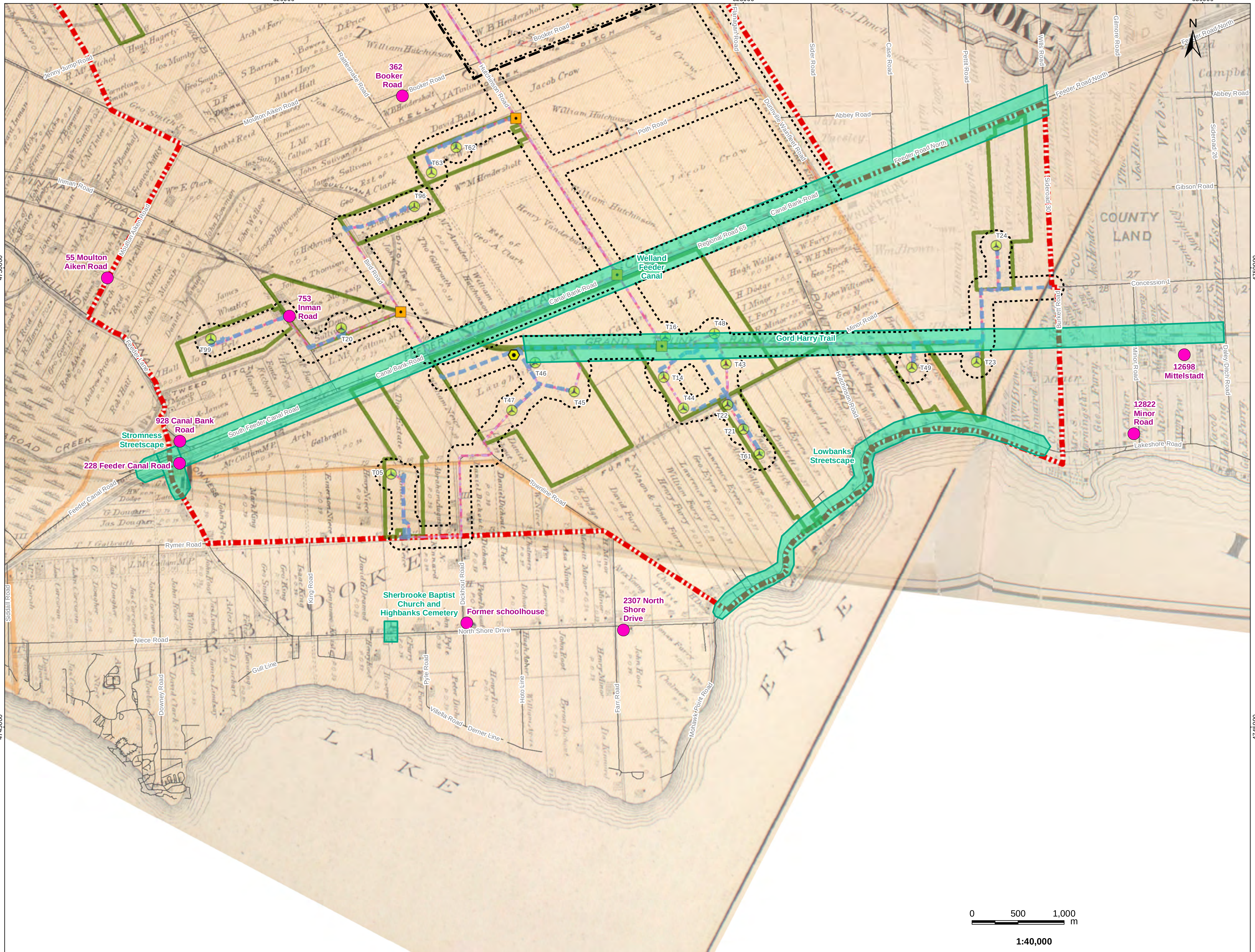

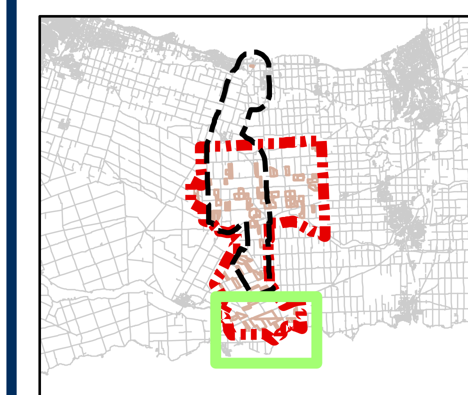

Legend

- Built Heritage Resource
- Cultural Heritage Landscape
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
- Potential Access Road
- Proposed Fibre Optic Line
- Transformer Substation
- Potential Construction Laydown Area
- Participating Property
- Interconnector Study Area
- Project Study Area
- 120m Zone of Investigation

0 500 1,000 m

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Notes

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Figure No.
7 (Moulton, Sherbrooke & Wainfleet)

Title
1879 & 1876 Page & Co. Historical Mapping Overlaid by Project Components

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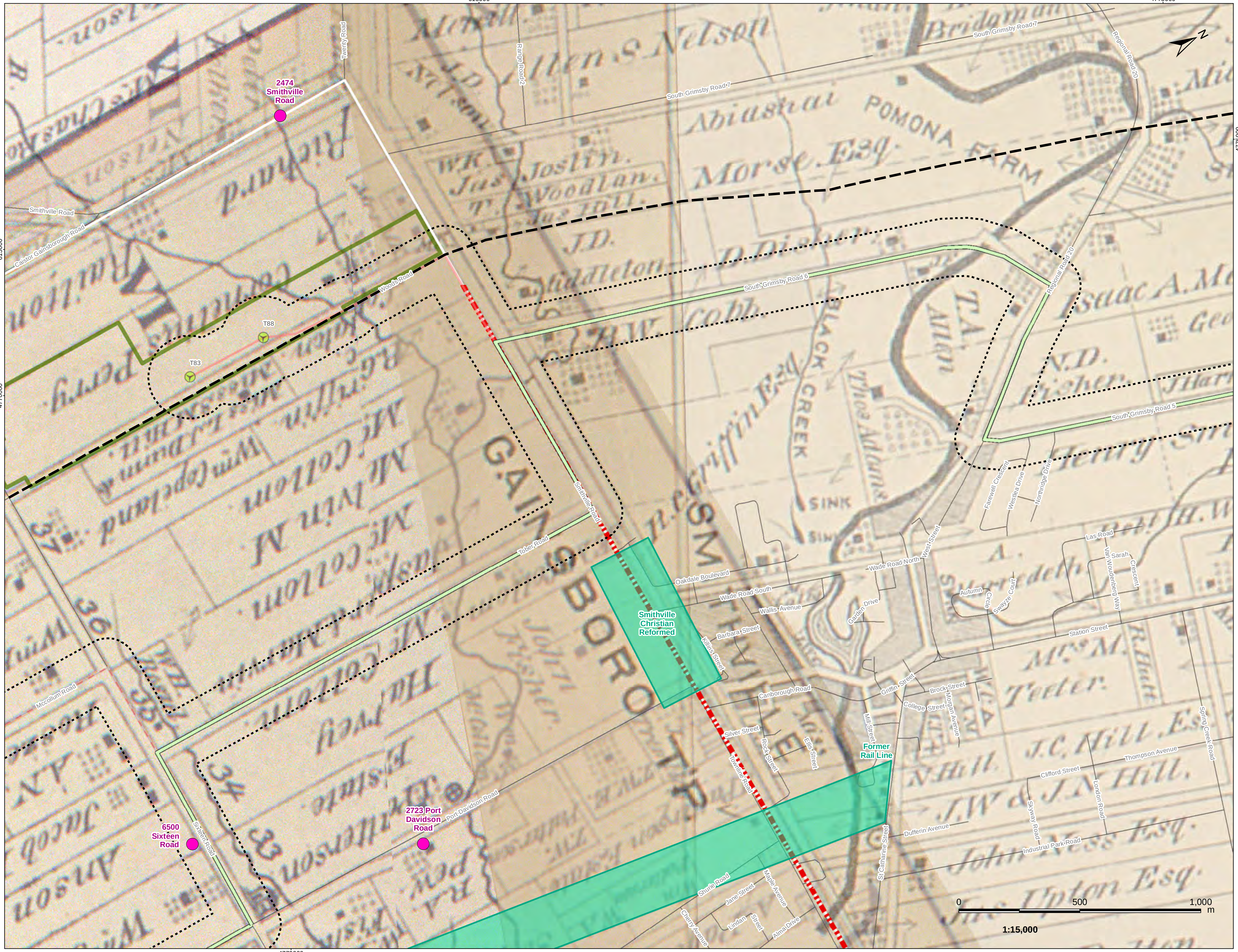
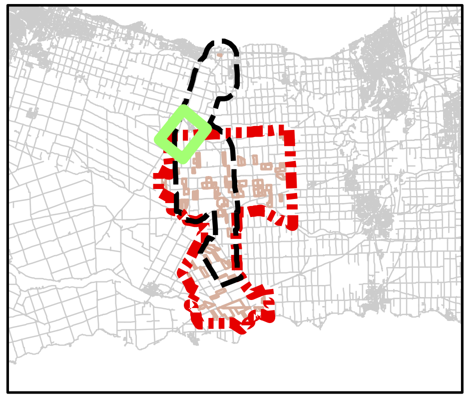


Legend

- Built Heritage Resource
- Cultural Heritage Landscape
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
- Potential Access Road
- Proposed Fibre Optic Line
- Transformer Substation
- Potential Construction Laydown Area
- Participating Property
- Interconnector Study Area
- Project Study Area
- 120m Zone of Investigation



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0 500 1,000 m

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Figure No.
8 (Grimsby & Clinton Townships)

Title
1876 Page & Co. Historical Mapping Overlaid by Project Components

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Revised: 2012-11-29 By: zbartlett

Legend

- Built Heritage Resource
- Cultural Heritage Landscape
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
- Potential Access Road
- Proposed Fibre Optic Line
- Transformer Substation
- Potential Construction Laydown Area
- Participating Property
- Interconnector Study Area
- Project Study Area
- 120m Zone of Investigation

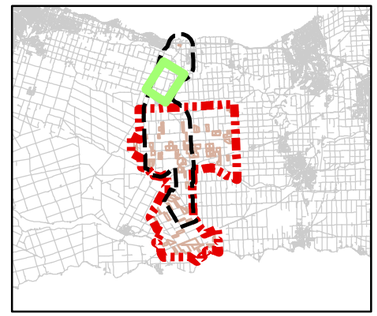

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Figure No.

9 (Grimsby & Clinton Townships)

Title

1876 Page & Co. Historical Mapping Overlaid by Project Components

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1:15,000

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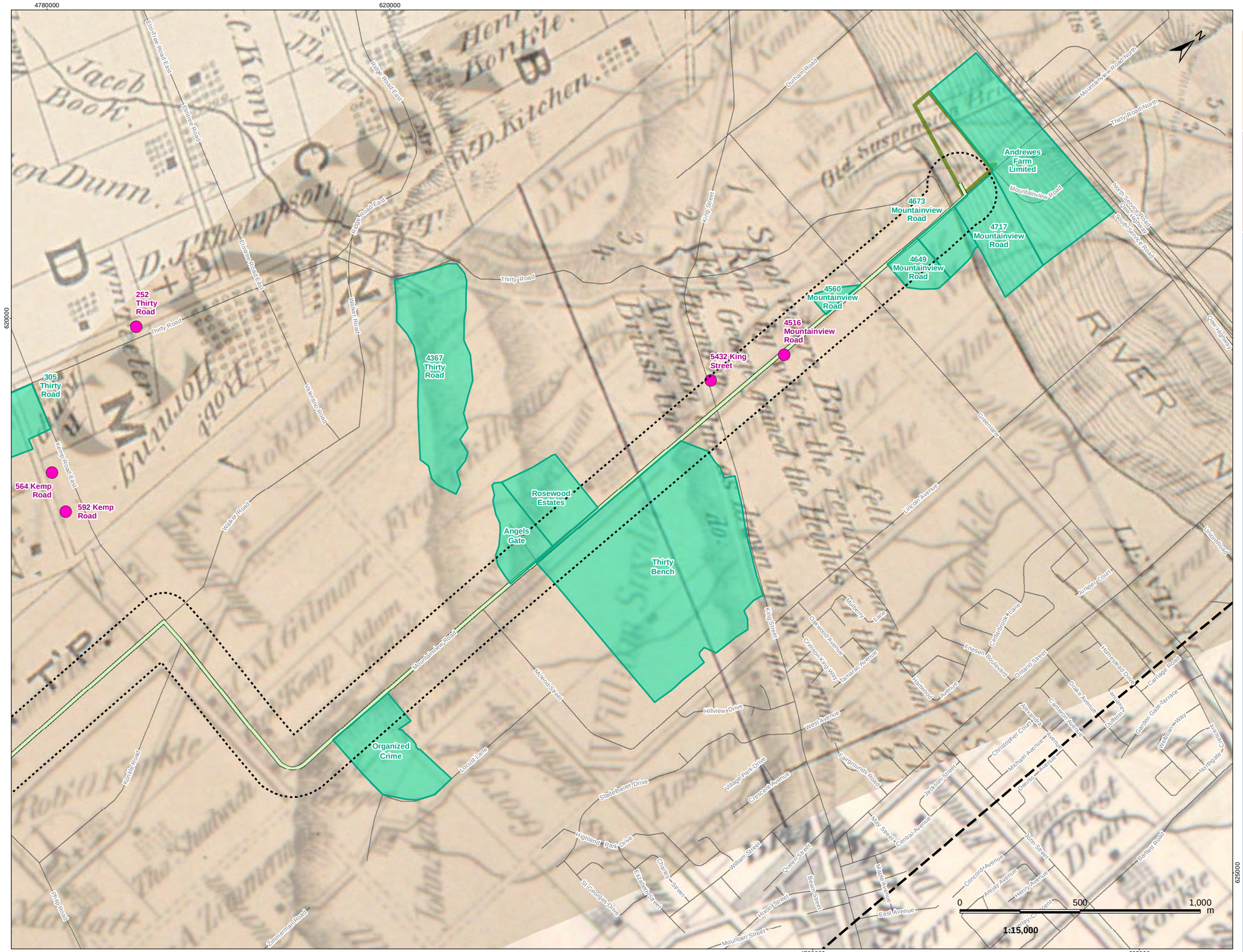
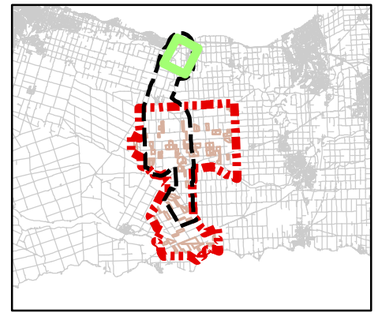
Revised: 2012-11-29 By: zbartlett



Legend

- Built Heritage Resource
- Cultural Heritage Landscape
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
- Potential Access Road
- Proposed Fibre Optic Line
- Transformer Substation
- Potential Construction Laydown Area
- Participating Property
- Interconnector Study Area
- Project Study Area
- 120m Zone of Investigation



Notes

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Niagara Region Wind Corporation
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Figure No.

10(Grimsby & Gainsborough Townships)

Title

1876 Page & Co. Historical Mapping Overlaid by Project Components

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Revised: 2012-11-29 By: zbartlett

4 EXISTING PROTECTED PROPERTIES

There are a total of twelve (12) protected properties as outlined in the table in Section 19, O.Reg.359/09 located within or adjacent to the Study Area (Table 3).

In addition to those properties protected as outlined Section 19, a total of eight (8) properties within or abutting the Study Area are included on municipal registers which have been approved by their respective municipal council (Table 4). The inclusion of these properties on a council-approved Heritage Register provides some protection against the demolition or removal under Section 27 of the *Ontario Heritage Act*.

There are no properties located within or adjacent to the Study Area which are subject to an agreement, covenant, or easement with the Ontario Heritage Trust under clause 10(1)(b) of the *Ontario Heritage Act* (Fraser, 2011).

The assessment of impacts on Protected Properties is outlined in a separate Protected Properties Report.

Table 3: List of Protected Properties, as outlined in Section 19, O.Reg.359/09

Address/Property Name	Municipality or Approval Authority	Type of Designation under the *Ontario Heritage Act*	Figure #
2511 North Shore Drive - *Furry Tavern*	Haldimand County	Part IV, Section 29	16
1639 Rosedene Road - *Comfort Barn*	Township of West Lincoln	Part IV, Section 29	12
2663 Moote Road - *Former Moot House*	Township of West Lincoln	Part IV, Section 29	12
139 St. Catherines Street, Smithville	Township of West Lincoln	Part IV, Section 29	17
205 Canborough Street, Smithville	Township of West Lincoln	Part IV, Section 29	17
288 Station Street, Smithville - *Smithville Train Station*	Township of West Lincoln	Part IV, Section 29	17
4966 Beam Street - *Clinton Town Hall and Lincoln Public Library*	Town of Lincoln	Part IV, Section 29	19
5499 Philp Road - *Marlatt Farmstead*	Town of Lincoln	Part IV, Section 29	18
5567 Fly Road - *Durham-Devries House*	Town of Lincoln	Part IV, Section 29	18
5053 King Street - *Beam-Barnes House*	Town of Lincoln	Part IV, Section 29	19
4271 Queen Street - *The Howard House*	Town of Lincoln	Part IV, Section 29	19
5600 King Street - *The William D. Kitchen House*	Town of Lincoln	Part IV, Section 29	19

Table 4: List of Properties included in council-approved Heritage Registers

Address/Property Name	Municipality	Figure #
Mount Carmel United Church (2083 Highway 3)	Haldimand County	15
Mount Carmel Cemetery (1300 Hutchinson Road)	Haldimand County	15
214 Gore A Road	Haldimand County	15
664 Marshagan/Regional Road 7	Haldimand County	15
498 Elm Tree Road East	Town of Grimsby	19
276 Main Street East	Town of Grimsby	20
321 Main Street East	Town of Grimsby	20
326 Main Street East	Town of Grimsby	20

5 EVALUATION OF CULTURAL HERITAGE RESOURCES

A total of 111 cultural heritage resources (CHRs) have been identified which meet the criteria for cultural heritage value or interest as per O.Reg.9/06. A number of these CHRs are comprised of a collection of properties or individual resources which derive cultural heritage value or interest from their inter-relatedness or interaction with the surrounding natural landscape as outlined in the definition of cultural heritage landscape (Section 5.1). Due to the large scale of the Study Area, discussion of cultural heritage resources evaluations has been divided into six geographical areas presented in Sections 5.3 through 5.8. The Interconnector Study Area has been divided into three geographical areas: south, central and north and is presented in Section 5.9.

5.1 Policy Framework

Built Heritage Resources (BHRs) are defined as "one or more significant buildings, structures, monuments, installations or remains associated with architectural, cultural, social, political, economic or military history and identified as being important to a community. These resources may be identified through designation or heritage conservation easement under the *Ontario Heritage Act* (*OHA*), or listed by local, provincial or federal jurisdictions" (MTCS, 2006c).

Cultural Heritage Landscapes (CHL) for the purposes of this study are: "a defined geographical area of heritage significance which has been modified by human activities and is valued by a community. A landscape involves a grouping(s) of individual heritage features such as structures, spaces, archaeological sites and natural elements, which together form a significant type of heritage form, distinctive from that of its constituent elements or parts" (MTCS, 2006b).

There are three widely accepted types of cultural heritage landscapes (better known internationally as cultural landscapes). This typology was adopted by the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Committee in the 1992 revisions to their Operational Guidelines which defines cultural landscapes as the "combined works of nature and of man" (UNESCO, 2008). The Operation Guidelines identify the three types as:

- **Designed Landscapes**: those which have been intentionally designed and created by man. (*e.g.,* historic gardens and parks);
- **Evolved Landscapes**: this type includes both *relict* and *continuing* landscapes resulting from social, economic, administrative, and/or religious imperative and has developed into its present form as a result of its natural environmental context; and
- **Associative Landscapes**: those with powerful religious, artistic or cultural associations of the natural element rather than material or built cultural evidence.

All BHRs and CHLs identified during the course of this assessment have been assigned **Cultural Heritage Resource** (CHR) numbers (*e.g.,* CHR-1).

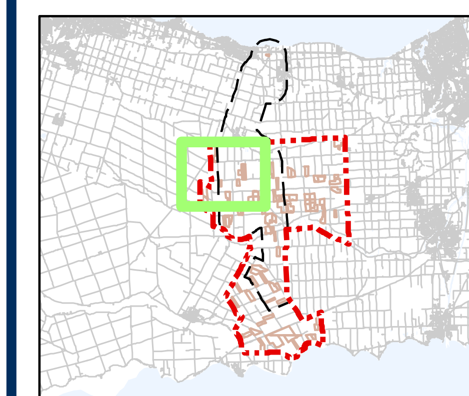
5.2 Area 1

Area 1 is roughly bounded by Smithville Road to the north, Vaughan Road to the south, Highway 30 and St. Ann's Road to the east, and Caistor-Gainsborough Townline to the west (Figure 11). Table 5 summarizes the evaluations of properties in Area 1 which satisfy the criteria for determining cultural heritage value or interest as outlined under O.Reg.9/06. Area 1 includes the following properties:

- 2474 Smithville Road, CHR-1;
- 2723 Port Davidson Road, CHR-2;
- 5777 Mataseje Road, CHR-3;
- 7058 Sixteen Road, CHR-4;
- 6500 Sixteen Road, CHR-5;
- 5798 Sixteen Road, CHR-6;
- 5711 Concession Road 4, CHR-7;
- 1500 Caistor-Gainsborough Townline Road, CHR-8;
- 6677 Silver Street, CHR-9;
- 6259 Silver Street, CHR-10;
- Smithville Christian Reformed Cultural Heritage Landscape, CHR-11;
- West Lincoln Grace United Church Cemetery, CHR-12;
- Bethel United Church and Winslow Cemetery, CHR-13;
- West Lincoln McCaffrey Cemetery, CHR-14; and
- Former Rail Line, CHR-15.

Legend

- Protected Property
- Cultural Heritage Resource
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Proposed Culvert
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
- Temporary Laydown Area
- Potential Access Road
- Proposed Fibre Optic Line
- Transformer Substation
- Potential Construction Laydown Area
- Participating Property
- Interconnector Study Area
- Project Study Area



Notes

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3. Orthoimagery source: First Base Solutions, Date: Spring 2010

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Figure No.
11

Title
Heritage Resources & Project Components Area 1

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Revised: 2013-04-02 By: sarogers

Table 5: Evaluation of Cultural Heritage Resources and Landscapes, Area 1

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-1	2474 Smithville Road	Design or Physical	One and a half storey, ell-shaped Gothic Revival farmhouse with associated contemporary agricultural outbuildings. Unique example of board and batten Gothic Revival style. Features: board and batten siding; enclosed front porch; and shaped window trim.	meets criteria	 Photo 1
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with character of the surrounding area.		
CHR-2	2723 Port Davidson Road	Design or Physical	One and a half storey red brick farmhouse with bellcast curved roof extending over porch along front façade. Porch roof supported by four Doric columns, and features a cedar-shingled multiple-windowed dormer. Unique example in area of a bellcast roofline to create a substantial front porch.	meets criteria	 Photo 2
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with character of the surrounding area.		
CHR-3	5777 Mataseje Road	Design or Physical	One and a half storey Gothic Revival cottage with front pillared porch and large lancet window. Original features significantly modified. Not a rare, unique, early or representative example of a particular style, use of materials or method of construction. Does not demonstrate an unusually high degree of craftsmanship, artistic merit or scientific achievement.	meets criteria	 Photo 3
		Historical or Associative	Associated with Dr. J.W. Collver, a prominent local doctor in the mid- to late-19th century, who owned the property.		
		Contextual	Consistent with character of the surrounding area.		

Table 5: Evaluation of Cultural Heritage Resources and Landscapes, Area 1

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-4	7058 Sixteen Road	Design or Physical	Two storey Gothic Revival farmhouse with associated barns and concrete block silo. Design features include shaped trim around 3-over-3 hung windows, scalloped frieze around bay window and gable bargeboard. Representative example of Gothic Revival farmhouse style in area.	meets criteria	 Photo 4
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with character of the surrounding area.		
CHR-5	6500 Sixteen Road	Design or Physical	One and a half storey Dutch Colonial Revival-inspired vernacular dwelling. Design features include: gambrel roof with projecting verges; modest front door and covered porch; and half-round attic ventilator. Relatively rare example of Dutch Colonial Revival in area.	meets criteria	 Photo 5
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with character of the surrounding area.		
CHR-6	5798 Sixteen Road	Design or Physical	Two storey farmhouse. Design features include: hipped roof; prominent, central front door with sidelights; two bow windows on front façade; small balcony over front door; and bracketed eaves. A representative example of vernacular Edwardian Classicism.	meets criteria	 Photo 6
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with character of the surrounding area.		

Table 5: Evaluation of Cultural Heritage Resources and Landscapes, Area 1

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-7	5711 Concession Road 4	Design or Physical	One and a half storey gable-roofed cottage with one-storey rear addition. Unique use of plaster exterior cladding in the region.	meets criteria	 Photo 7
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with character of the surrounding area.		
CHR-8	1500 Caistor Gainsborough Townline Road	Design or Physical	Two storey brick farmhouse on a square plan. Design features include: stone lintels; pyramidal roof; windows with shaped trim and brick voussoirs; bracketed eaves; and highly decorated wooden porch with second floor balcony. Representative example of Edwardian Classicism-inspired vernacular.	meets criteria	 Photo 8
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with character of the surrounding area.		
CHR-9	6677 Silver Street	Design or Physical	One and a half storey gable-roofed vernacular cottage with enclosed front porch. Central doorway and hipped dormer with two window bays reminiscent of Italiante design. Rare use of plaster siding for this area.	meets criteria	 Photo 9
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with character of the surrounding area.		

Table 5: Evaluation of Cultural Heritage Resources and Landscapes, Area 1

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-10	6259 Silver Street	Design or Physical	Two storey red brick farmhouse on square plan with associated agricultural outbuildings. Design features include pyramidal roof, stone lintels, and central open decorated porch. Boarded entrance indicates previous separate entrances for men and women, an element of Orthodox Mennonite design. Example of Pennsylvania Mennonite architecture.	meets criteria	 Photo 10
		Historical or Associative	Associated with the settlement of Pennsylvania Mennonite families in the area.		
		Contextual	Consistent with character of the surrounding area.		
CHR-11	Smithville Christian Reformed Cultural Heritage Landscape	Design or Physical	A contemporary cultural heritage landscape which includes several institutions related to the Christian Reformed and Lutheran congregations. Although structures lack individual design value, they demonstrate a variety of modern design principles, including: use of precast concrete with facing blocks and metal flashing (Smithville District Christian High School, established 1980); monochromatic red brick with vertical-banded window bays (Smithville Christian Reformed Church, established 1975); reflections of traditional decorative brickwork with contrasting brick banding and quoins (Covenant Christian School, established 1988); and polychromatic brickwork (St. Matthew's Lutheran Church).	meets criteria	  Photos 11-13
		Historical or Associative	Associated with the late 20th century expansion of the local Christian community and the provision of its spiritual and educational needs.		
		Contextual	Comprises an evolved, continuing landscape which represents a contemporary religious community. Adjacent residential buildings are associated with the growth of nearby Smithville and do not contribute to the religious activity of the CHL.		

Table 5: Evaluation of Cultural Heritage Resources and Landscapes, Area 1

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-12	West Lincoln Grace United Church Cemetery Cultural Heritage Landscape	Design or Physical	Clearly defined cultural landscape is an active cemetery that features legible gravestones dating back to 1879. Character-defining elements include: rock cairn memorial to the Great War; an assemblage of grave markers and gravestones on a flat terrain; and a mature willow. The cemetery boundary is delineated by a chainlink fence and a few large trees and bushes. There is a thickly forested area to the north and northeast of the cemetery.	meets criteria	  Photos 14-16
		Historical or Associative	Associated with late 19th century development in the community. Extant grave markers have the potential to yield information about the community. The memorial rock cairn includes a plaque stating, "In proud and grateful memory of the men of this township who gave their lives for us in the Great War of 1914-1919. Erected by the Caistor Township Council of 1921. Erskine Lounsbury, Clark Swayze, William Saunders, Lloyd Adams, William Grant, Earl Packham, Fred Allan, James Orgar, Stanley Merritt. Greater Love hath no man than this that a man lay down his life for his friends."		
		Contextual	Is functionally and historically linked to its surroundings through the interrment of the local community. Also functions as a landmark.		

Table 5: Evaluation of Cultural Heritage Resources and Landscapes, Area 1

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-13	Bethel United Church and Winslow Cemetery Cultural Heritage Landscape	Design or Physical	CHR-13 straddles Silver Street, with church on north side and cemetery on south side of street. One storey gabled church with attached garage addition at rear. Design features of the church include: a few trees around the exterior of the church; rare use of plaster cladding in the area; three bay front facade featuring central wooden door with pointed, stained glass transom; flanking 2-over-4 stained glass windows; three bay side facade with 2-over 2 hung stained glass windows; and missing label stone. The cemetery is delineated by a chainlink fence and a few trees and bushes, and features: several grave markers; and relatively flat terrain.	meets criteria	 Photos 17-18
		Historical or Associative	Associated with late 19th century development in the community. Extant grave markers have the potential to yield information about the community.		
		Contextual	Is functionally and historically linked to its surroundings through the interrment of the local community. Also functions as a landmark.		
CHR-14	West Lincoln McCaffrey Cemetery	Design or Physical	A clearly defined cultural landscape, cemetery features legible gravestones dating back to 1832. Cemetery is bordered by large, deciduous trees on three sides.	meets criteria	 Photo 19
		Historical or Associative	Associated with late 19th century development in the community. Extant grave markers have the potential to yield information about the community.		
		Contextual	Is functionally and historically linked to its surroundings through the interrment of the local community. Also functions as a landmark.		

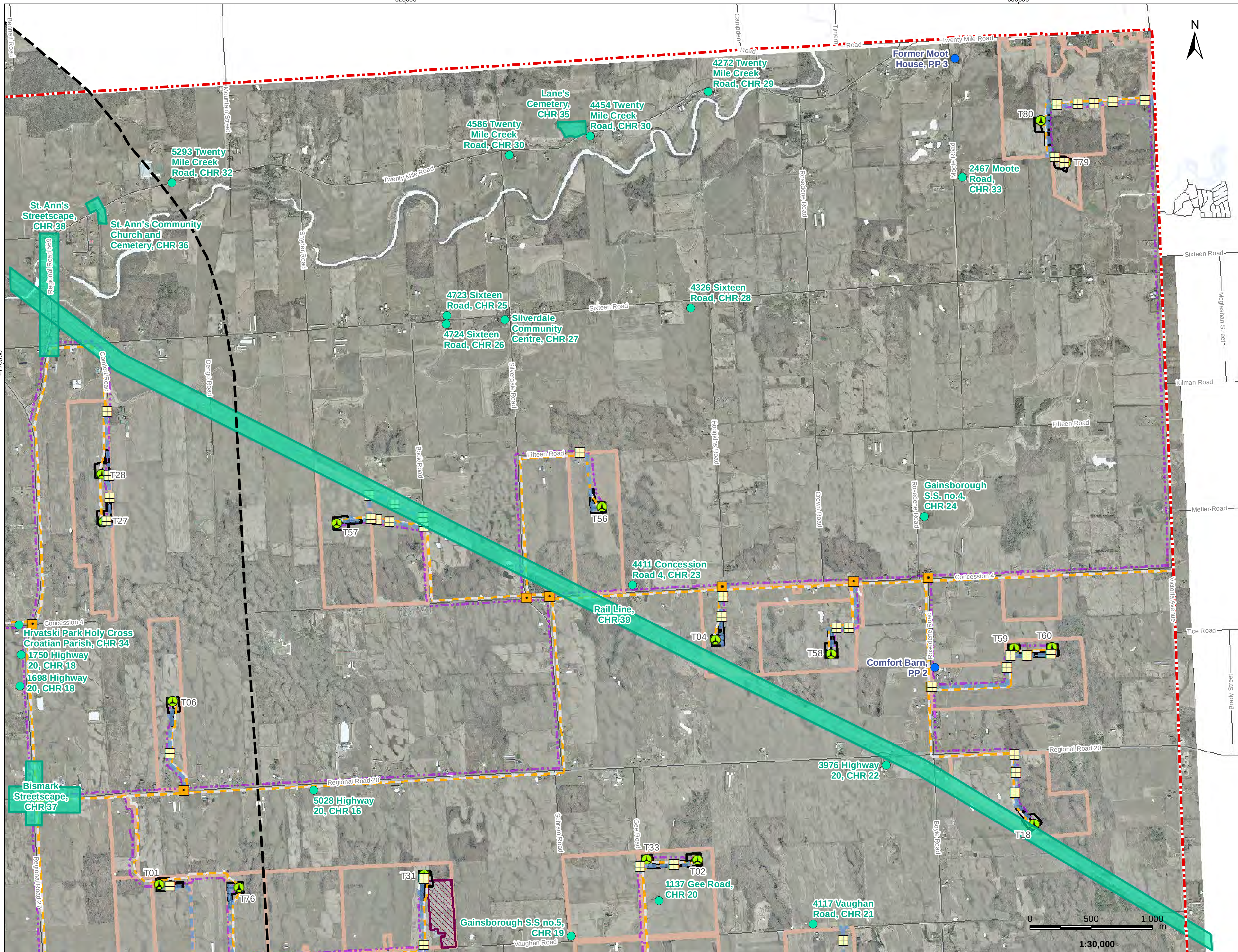
Table 5: Evaluation of Cultural Heritage Resources and Landscapes, Area 1

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-15	Former Rail Line	Design or Physical	Former rail line converted into trail system. Attributes include a flat, narrow gravel path set in a generally open terrain. Not a rare, unique, early or representative example of a particular style, use of materials or method of construction. Does not demonstrate an unusually high degree of craftsmanship, artistic merit or scientific achievement.	meets criteria	 Photo 20
		Historical or Associative	A linear cultural landscape associated with the establishment of the Dunnville extension of the Toronto, Hamilton & Buffalo Railway, completed in 1914.		
		Contextual	As a transportation corridor, the Former Rail Line is historically linked to its surroundings.		

5.3 Area 2

Area 2 is roughly bounded by Twenty Mile Creek Road to the north, Vaughan Road to the south, Victoria Avenue to the east, and Highway 30/Regional Road 27 to the west (Figure 12). Table 6 summarizes the evaluations of properties in Area 2 which satisfy the criteria for determining cultural heritage value or interest as outlined under O.Reg.9/06. Area 2 includes the following properties:

- 5028 Highway 20, CHR-16;
- 1698 Highway 20, CHR-17;
- 1750 Highway 20, CHR-18;
- Gainsborough S.S. No. 5, CHR-19;
- 1137 Gee Road, CHR-20;
- 4117 Vaughan Road, CHR-21;
- 3976 Highway 20, CHR-22;
- 4411 Concession Road 4, CHR-23;
- Gainsborough S.S. No. 4, CHR-24;
- 4723 Sixteen Road, CHR-25;
- 4724 Sixteen Road, CHR-26;
- Silverdale Community Centre, CHR-27;
- 4326 Sixteen Road, CHR-28;
- 4272 Twenty Mile Creek Road, CHR-29;
- 4454 Twenty Mile Creek Road, CHR-30;
- 4586 Twenty Mile Creek Road, CHR-31;
- 5293 Twenty Mile Creek Road, CHR-32;
- 2467 Moote Road, CHR-33;
- Hrvatski Park, CHR-34;
- Lane's Cemetery, CHR-35;
- St. Ann's Community Church and Cemetery, CHR-36;
- Bismark Streetscape, CHR-37;
- St. Ann's Streetscape, CHR-38; and
- Rail Line, CHR-39.



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Former Moot House, PP 3
4272 Twenty Mile Creek Road, CHR 29
Lane's Cemetery, CHR 35
4454 Twenty Mile Creek Road, CHR 30
4586 Twenty Mile Creek Road, CHR 30
5293 Twenty Mile Creek Road, CHR 32
St. Ann's Streetscape, CHR 38
St. Ann's Community Church and Cemetery, CHR 36
2467 Moote Road, CHR 33
4723 Sixteen Road, CHR 25
4724 Sixteen Road, CHR 26
Silverdale Community Centre, CHR 27
4326 Sixteen Road, CHR 28
Gainsborough S.S. no.4, CHR 24
4411 Concession Road 4, CHR 23
Rail Line, CHR 39
Comfort Barn, PP 2
Hrvatski Park Holy Cross Croatian Parish, CHR 34
1750 Highway 20, CHR 18
1698 Highway 20, CHR 18
Bismark Streetscape, CHR 37
5028 Highway 20, CHR 16
3976 Highway 20, CHR 22
1137 Gee Road, CHR 20
4117 Vaughan Road, CHR 21
Gainsborough S.S no.5, CHR 19
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Twenty Mile Road
Sixteen Road
Fifteen Road
Concession 4
Regional Road 20
Vaughan Road
Kilman Road
Metler Road
Tice Road
Bennett Road
Mountain Street
Snyder Road
Campden Road
Tintern Road
Rosedene Road
Moote Road
Regional Road 669
Comfort Road
Dengo Road
Silverdale Road
Bock Road
Hopkins Road
Crown Road
Victoria Avenue
Mcglashan Street
Brady Street
Regional Road 20
Regional Road 27
Schram Road
Gee Road
Boyle Road
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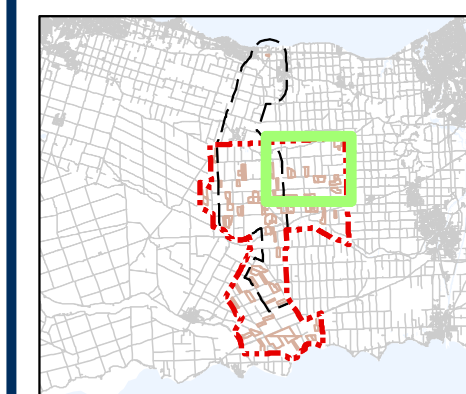
Legend

- Protected Property
- Cultural Heritage Resource
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Proposed Culvert
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
- Temporary Laydown Area
- Potential Access Road
- Proposed Fibre Optic Line
- Transformer Substation
- Potential Construction Laydown Area
- Participating Property
- Interconnector Study Area
- Project Study Area



Notes

1. Coordinate System: NAD 1983 UTM Zone 17N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.
3. Orthoimagery source: First Base Solutions, Date: Spring 2010

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April, 2013
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Client/Project

Niagara Region Wind Corporation
Niagara Region Wind Farm

Figure No.

12

Title

Heritage Resources & Project Components Area 2

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Revised: 2013-04-02 By: sarogers

Table 6: Evaluation of Cultural Heritage Resources and Landscapes, Area 2

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-16	5028 Highway 20	Design or Physical	One and a half storey Gothic Revival cottage. Design features include: 2-over-2 hung gable window with semicircular glazing on head of upper sash; two interior chimneys at either end of the building; decorated bargeboard around central front porch and gables; faux brick cladding; and an offset front door. Representative example of the Gothic Revival vernacular style.	meets criteria	 Photo 21
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-17	1698 Highway 20	Design or Physical	Large, mid-19th century one and a half storey Gothic Revival farmhouse. Representative example of Gothic Revival-inspired design in area, which features: lancet window with sidelights; a half-round glassed attic window; highly decorative garden wall-style brickwork; and offset, enclosed porch with stone foundation and 3-over-1 windows.	meets criteria	 Photo 22
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-18	1750 Highway 20	Design or Physical	Small, one storey brick public utility building on a square footprint. Building features hipped roof, central door and minor brick detailing at corners.	cannot be excluded	 Photo 23
		Historical or Associative	Associated with the 20th century rural electrification or development of telecommunications infrastructure. There is sufficient potential for it to possess historical or associative value to warrant its exclusion as a built heritage resource.		
		Contextual	Does not contribute or maintain character of surrounding area in an integral way. Not physically, functionally, visually or historically linked to its surroundings in a demonstrable way. Not a landmark.		

Table 6: Evaluation of Cultural Heritage Resources and Landscapes, Area 2

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-19	Gainsborough S.S. No. 5	Design or Physical	One and a half storey gable-roofed red brick school house built 1883, now a residence. Design features include: cross-gabled belfry with bargeboard and finials; half-round label stone; round window with ornate mullion; and separate entrances for boys and girls.	meets criteria	 Photo 24
		Historical or Associative	Associated with the development and education of the local community.		
		Contextual	Important in defining the character of the intersection of Vaughn Road and Schram Road as a place of conversion and of the rural landscape. Schools and other public buildings were often located at crossroads, transforming intersections into gathering places. Is historically linked to these surroundings. Functions as a landmark.		
CHR-20	1137 Gee Road	Design or Physical	Ell-shaped farmhouse with associated agricultural outbuildings, including several wooden barns and early 20th century concrete silos, on a wide setback. Not a rare, unique, early or representative example of a particular style, use of materials or method of construction. Does not demonstrate an unusually high degree of craftsmanship, artistic merit or scientific achievement.	meets criteria	 Photo 25
		Historical or Associative	Directly associated with Ezra Gee, an early settler to the area, historical owner of the property, and for whom Gee Road is named after. Associated with the early settlement of the area.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 6: Evaluation of Cultural Heritage Resources and Landscapes, Area 2

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-21	4117 Vaughan Road	Design or Physical	One storey workshop with frontier-style façade, 3-over-2 hung windows, and a faux brick cladding over horizontal shiplap wooden siding. Rare example of early to mid-20th century workshop in area.	meets criteria	 Photo 26
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Does not contribute or maintain character of surrounding area in an integral way. Not physically, functionally, visually or historically linked to its surroundings in a demonstrable way. Not a landmark.		
CHR-22	3976 Highway 20	Design or Physical	Two storey, T-shaped, gable-roofed brick farmhouse and associated agricultural outbuildings form an ell-shaped complex set on gentle slope. House design features include five bay front façade with 3-over-3 hung windows and skirt roof. Large, gambrel-roofed barn includes: four shed dormers with double doors and several window bays along ground floor. Massing and proximity to farmhouse make it a unique construction for the area.	meets criteria	 Photos 27 and 28
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Given the massing and historical age of the buildings, as well as the prominent setting of the property, it could be considered a landmark.		

Table 6: Evaluation of Cultural Heritage Resources and Landscapes, Area 2

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-23	4411 Concession Road 4	Design or Physical	Two storey crescent-shaped Modernist residence, set back from road with a circular driveway. Central wing with wraparound balcony extends from second floor over carport. Full use of modern construction materials. A rare and representative example of Modernist architecture in area.	meets criteria	 Photo 29
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Does not contribute or maintain character of surrounding area in an integral way. Not physically, functionally, visually or historically linked to its surroundings in a demonstrable way. Not a landmark.		
CHR-24	Gainsborough S.S. No. 4	Design or Physical	One and a half storey gable-roofed red brick school house built 1893. Design features include half-round label stone, shingled roof and overhanging eaves. Front façade features separate entrances for boys and girls, pair of rounded lancet windows stacked on trio of rounded lancet windows on first floor with stone lintels, pale brick voussoirs, and shaped transoms with stained glass lights. Side elevations features three 3-over-3 hung window bays with pale brick detailing around window heads.	meets criteria	 Photos 30 and 31
		Historical or Associative	Associated with the development and education of the local community.		
		Contextual	Quintessential one room schoolhouse defines and is historically linked to the rural landscape. Landmark.		

Table 6: Evaluation of Cultural Heritage Resources and Landscapes, Area 2

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-25	4723 Sixteen Road	Design or Physical	Two storey multi-gabled house. Design features include minor gable ornamentation with returned eaves, and rare use in area of fish scale-banded shingles.	meets criteria	 Photo 32
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Does not contribute or maintain character of surrounding area in an integral way. Not physically, functionally, visually or historically linked to its surroundings in a demonstrable way. Not a landmark.		
CHR-26	4724 Sixteen Road	Design or Physical	Two storey house on square plan with hipped roof. Design features include: wraparound porch with Doric pillars and decorated pediment over doorway; shaped trim around hung wooden windows; gabled attic dormer with decorated trim; decorated frieze; and hipped roof. Representative example of Edwardian Classicism vernacular.	meets criteria	 Photo 33
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Does not contribute or maintain character of surrounding area in an integral way. Not physically, functionally, visually or historically linked to its surroundings in a demonstrable way. Not a landmark.		
CHR-27	Silverdale Community Centre	Design or Physical	One and a half storey gable-roofed building with extended front entrance, likely former schoolhouse or church. Building features cupola with finials, a stone foundation. Representative example of public institution building.	meets criteria	 Photo 34
		Historical or Associative	Community centre is directly associated with public gatherings and other activities of significance to the community.		
		Contextual	Is functionally linked to its surroundings as a place of congregation for the community. Landmark.		

Table 6: Evaluation of Cultural Heritage Resources and Landscapes, Area 2

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-28	4326 Sixteen Road	Design or Physical	Farm complex includes two storey Gothic Revival-inspired ell-shaped farmhouse and drive-up/bank barn and silo. Barn is monumental in scale and features a stone foundation, gambrel roof and horizontal wood siding. A rare and early example of large bank barn construction in area.	meets criteria	 Photo 35
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Farmscape is functionally and historically linked to its surroundings through rural, agricultural activities.		
CHR-29	4272 Twenty Mile Creek Road	Design or Physical	One and a half storey ell-shaped Gothic Revival cottage and associated agricultural outbuildings. Design features include: unique diamond shingled roof; central brick chimney; bargeboard at gable and front porch; and 4-over-3 windows. Representative example of Gothic Revival vernacular.	meets criteria	 Photo 36
		Historical or Associative	Associated with the Comfort family, historical owners of the property and early settlers to the area.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-30	4454 Twenty Mile Creek Road	Design or Physical	U-shaped two storey, multiple-gabled brick farmhouse, built 1874. Design features include covered central porch, and 2-over-2 windows with rounded heads.	meets criteria	 Photo 37
		Historical or Associative	Associated with N.N. Lane, an early settler to the area, historical owner of the property, and after whom Lane Cemetery is named.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 6: Evaluation of Cultural Heritage Resources and Landscapes, Area 2

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-31	4586 Twenty Mile Creek Road	Design or Physical	One and a half storey Dutch Revival-inspired cottage with associated wooden barns, split rail fence and paddock. House design features include: gambrel roof; central three window shedded dormer; plain pediment above central doorway supported by two sets of columns; and plaster cladding. Door features shaped transom and is flanked by set of double 3-over-3 hung windows on either side. Rare use of plaster cladding on a representative example of Dutch Revival.	meets criteria	 Photo 38
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Does not contribute or maintain character of surrounding area in an integral way. Not physically, functionally, visually or historically linked to its surroundings in a demonstrable way. Not a landmark.		
CHR-32	5293 Twenty Mile Creek Road	Design or Physical	Two storey hipped roof brick farmhouse with associated garage. Design features include: stone foundation; three bays across second floor above central door with large flanking bay windows on front facade; decorated frieze; and plain stone lintels. Early example of Edwardian Classicism-inspired vernacular.	meets criteria	 Photo 39
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-33	2467 Moote Road	Design or Physical	Large farm complex featuring a one and a half storey, multiple gable farmhouse with bellcast and skirt roof. Rare example of bellcast roof on vernacular farmhouse.	meets criteria	 Photo 40
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 6: Evaluation of Cultural Heritage Resources and Landscapes, Area 2

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-34	Hrvatski Park Holy Cross Croatian Parish	Design or Physical	Parish picnic ground for Holy Cross Roman Catholic Church in Hamilton. Fenced-in complex of contemporary buildings with wide setback. Front gate features a modest stone and concrete cross monument.	meets criteria	 Photo 41
		Historical or Associative	Directly associated with the Holy Cross Roman Catholic Church in Hamilton. Has the potential to yield information on the Croatian community and religious network based on use of the site.		
		Contextual	Does not contribute or maintain character of surrounding area in an integral way. Not physically, functionally, visually or historically linked to its surroundings in a demonstrable way. Not a landmark.		
CHR-35	Lane's Cemetery	Design or Physical	Cemetery set on rolling hillside, used 1791-1959. A line of young, deciduous trees demarcates cemetery boundary. Landscape elements include: a stone mausoleum set into hill; several deciduous trees of varying maturity; winding gravel roadways throughout the cemetery; and gravemarkers.	meets criteria	 Photos 42 and 43
		Historical or Associative	Historically associated with John Lane, historic owner of the property. Further associated with the late 18th and 19th century development of the local community. Extant grave markers have the potential to yield information about the community.		
		Contextual	Landmark.		

Table 6: Evaluation of Cultural Heritage Resources and Landscapes, Area 2

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-36	St. Ann's Community Church and Cemetery	Design or Physical	Large, multiple-gabled one and a half to two-storey church constructed in 1970s on or near site of former church on Twenty Mile Creek Road at St. Ann's. Design features include rectangular front elevation with large central peak and projecting square bell tower which originally housed an entrance. Cemetery located across the street from church on gently rolling terrain, delineated by a line of mature trees and bushes.	meets criteria	  Photos 44-47
		Historical or Associative	Associated with 19th century development of the local community, and in particular the St. Ann's Streetscape Cultural Heritage Landscape. Also associated with the Mennonite religious community.		
		Contextual	Landmark. Functionally and historically linked to the surrounding community as a religious and social gathering place.		

Table 6: Evaluation of Cultural Heritage Resources and Landscapes, Area 2

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-37	Bismark Streetscape Cultural Heritage Landscape	Design or Physical	A primarily residential cultural landscape centred on the intersection of Silver Street and Highway 27. The Settlement includes: a church and associated cemetery (Bismark United Church, founded 1841); several 19th century residential and agricultural buildings; contemporary infill that includes residential; and agricultural structures and a school (Gainsborough Public School, built 1965). Other character-defining elements include a road diversion constructed in 1933.	meets criteria	  Photos 48-51
		Historical or Associative	Associated with the settlement of German immigrants in the area in mid-19th century, including Christian Sunday who founded the settlement in 1830.		
		Contextual	A continuing evolved landscape which defines the character of Bismark as crossroads settlement and a social hub for the surrounding rural community, although its importance as a commercial centre has lapsed. The Bismark Streetscape is both functionally and historically linked to its surroundings.		

Table 6: Evaluation of Cultural Heritage Resources and Landscapes, Area 2

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-38	St. Ann's Streetscape Cultural Heritage Landscape	Design or Physical	A primarily residential streetscape located along St. Ann's Road south of Twenty Mile Creek Road. Topography is characterized by generally flat terrain which slopes down to Twenty Mile Creek. The former Toronto Hamilton & Buffalo Rail line intersects the streetscape at an angle south of the Creek. Character defining elements include several narrowly setback 19th century residential buildings located along St. Ann's Road on either side of Twenty Mile Creek, including a large barn associated with a 19th century inn. A contemporary subdivision has been constructed to the east of the streetscape along Twenty Mile Creek Road. Although not part of the streetscape, the St. Ann's Community Church and Cemetery located nearby on Twenty Mile Creek Road are associated with the settlement.	meets criteria	
		Historical or Associative	Associated with Ann Frease Snyder, wife of Adam Snyder, who first settled in the area, built a gristmill, and named the settlement after her. Also associated with late 18th century German immigration from the United States and local historical settlement and development. Has the potential to yield information about early settlement and development patterns in region through generally intact composition and character of streetscape.		
		Contextual	Streetscape comprises an evolved cultural landscape. Although historical industrial and commercial activity has ceased, the streetscape continues to reflect the residential character of a small village which contrasts with the rural, agricultural character of the neighbouring area.		Photos 52-54

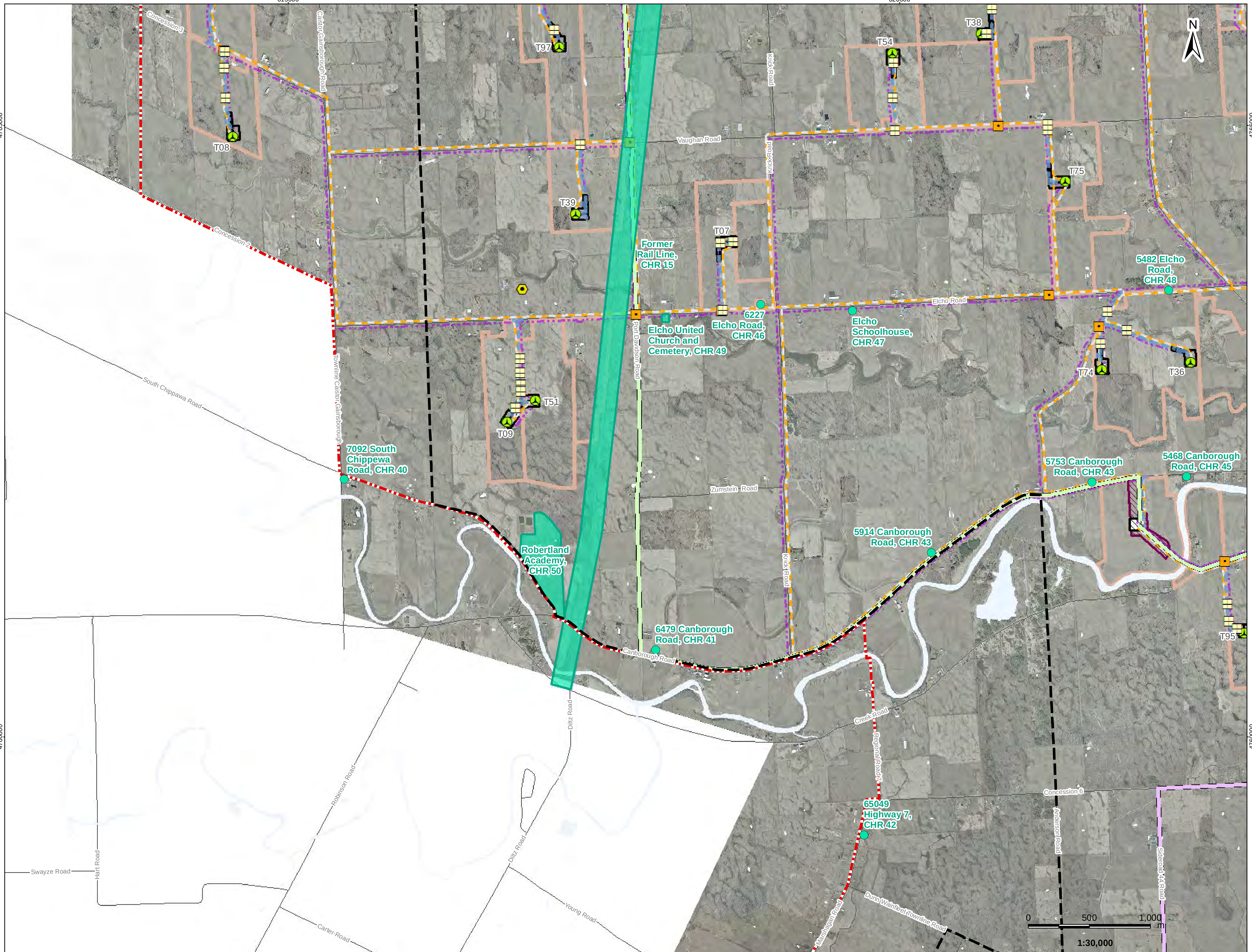
Table 6: Evaluation of Cultural Heritage Resources and Landscapes, Area 2

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-39	Rail line	Design or Physical	Active rail line, featuring a single set of tracks on a gravel bed. Not a rare, unique, early or representative example of a particular style, use of materials or method of construction. Does not demonstrate an unusually high degree of craftsmanship, artistic merit or scientific achievement.	meets criteria	 Photo 55
		Historical or Associative	A linear cultural landscape, the railway is historically associated with the former Toronto Hamilton & Buffalo Railroad and related themes of local economic development, nation-building, and transportation.		
		Contextual	As a transportation route, the rail line is historically linked to its surroundings.		

5.4 Area 3

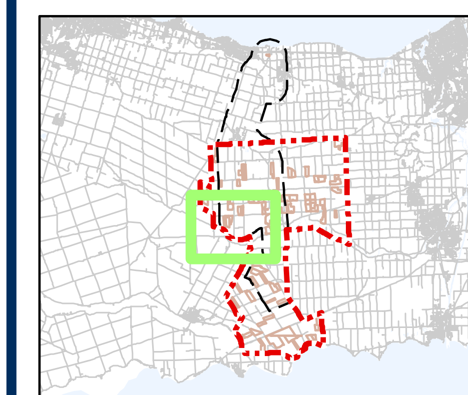
Area 3 is roughly bounded by Vaughan Road to the north, Canborough Road and Dunn-Wainfleet Townline Road to the south, Regional Road 27 and Sideroad 44 to the east, and Caistor-Gainsborough Townline and Marshagan Road to the west (Figure13). Table 7 summarizes the evaluations of properties in Area 3 which satisfy the criteria for determining cultural heritage value or interest as outlined under O.Reg.9/06. Area 3 includes the following properties:

- 7092 South Chippewa Road, CHR-40;
- 6479 Canborough Road, CHR-41;
- 65049 Highway 7, CHR-42;
- 5914 Canborough Road, CHR-43;
- 5753 Canborough Road, CHR-44;
- 5468 Canborough Road, CHR-45;
- 6227 Elcho Road, CHR-46;
- Elcho Schoolhouse, CHR-47;
- 5482 Elcho Road, CHR-48;
- Elcho United Church and Cemetery, CHR-49; and
- Robertland Academy, CHR-50.



Legend

- Protected Property
- Cultural Heritage Resource
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Proposed Culvert
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
- Temporary Laydown Area
- Potential Access Road
- Proposed Fibre Optic Line
- Transformer Substation
- Potential Construction Laydown Area
- Participating Property
- Interconnector Study Area
- Project Study Area



Notes

1. Coordinate System: NAD 1983 UTM Zone 17N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.
3. Orthoimagery source: First Base Solutions, Date: Spring 2010

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Client/Project

Niagara Region Wind Corporation
Niagara Region Wind Farm

Figure No.
13

Title

Heritage Resources & Project Components Area 3

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Revised: 2013-04-02 By: sarogers

Table 7: Evaluation of Cultural Heritage Resources and Landscapes, Area 3

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-40	7092 South Chippewa Road	Design or Physical	Two storey T-shaped farmhouse. Design features include: chimney in centre of roof; wraparound porch with minor bargeboard detailing; kneewall windows; and a cluster of three small attic windows in a closed gable. An early and representative example of Edwardian Classicism-inspired vernacular housing.	meets criteria	 Photo 56
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-41	6479 Canborough Road	Design or Physical	One and a half storey gabled Georgian with associated outbuilding. Design features include: two gable-end chimneys; returned eaves; five bays across front facade featuring central door with multiple transom lights; and two bays along side elevations. A rare example of Georgian-style architecture in the area.	meets criteria	 Photo 57
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-42	65049 Highway 7	Design or Physical	One storey, hipped roof barn and associated residential and agricultural buildings. Rare example of a one storey, hipped roof barn with vertical beam and plaster cladding and overhanging, bracketed eaves.	meets criteria	 Photo 58
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 7: Evaluation of Cultural Heritage Resources and Landscapes, Area 3

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-43	5914 Canborough Road	Design or Physical	One and a half storey Gothic Revival cottage. Design features include bargeboarding, and shaped trim around windows and doors. Dual front entrances are a design features associated with Pennsylvania Mennonites. Rare example of Pennsylvania Mennonite design.	meets criteria	 Photo 59
		Historical or Associative	Associated with local settlement of Pennsylvania Mennonites.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-44	5753 Canborough Road	Design or Physical	One and a half storey brick Gothic Revival cottage. Design features include: porch across front facade with bargeboard and wooden columns; and stone lintels and keystones on window. Presence of bricked up second front door is a design feature associated with Pennsylvania Mennonites. A rare example of Pennsylvania Mennonite design.	meets criteria	 Photo 60
		Historical or Associative	Associated with local settlement of Pennsylvania Mennonites.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-45	5468 Canborough Road	Design or Physical	Two storey multiple-gabled brick farmhouse on narrow lot along Chippewa Creek (Welland River), near Wellandport. Design features include white stone quoins, wraparound porch, and associated outbuilding. Rare use of stone quoin detailing in the area.	meets criteria	 Photo 61
		Historical or Associative	Associated with the Dils family, historic owners of the property and early settlers in the area.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 7: Evaluation of Cultural Heritage Resources and Landscapes, Area 3

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-46	6227 Elcho Road	Design or Physical	One and a half storey ell-shaped Gothic Revival farmhouse with associated agricultural outbuilding. Design features include: a bay window with bracketed eaves; gable bargeboarding; and shaped trim around windows and bay window. Representative example of Gothic Revival vernacular.	meets criteria	 Photo 62
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-47	Elcho Schoolhouse	Design or Physical	One storey gable-roofed schoolhouse with wooden belfry, brick chimney, and four bay side elevations. Front façade features a central window, and offset front door suggests there may have been two doors originally. Representative example of educational institution design.	meets criteria	 Photo 63
		Historical or Associative	Associated with the development and education of the local community.		
		Contextual	Landmark.		
CHR-48	5482 Elcho Road	Design or Physical	Two storey stone farmhouse on square plan with associated agricultural outbuildings. Rare use of stone in construction of residence.	meets criteria	 Photo 64
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		

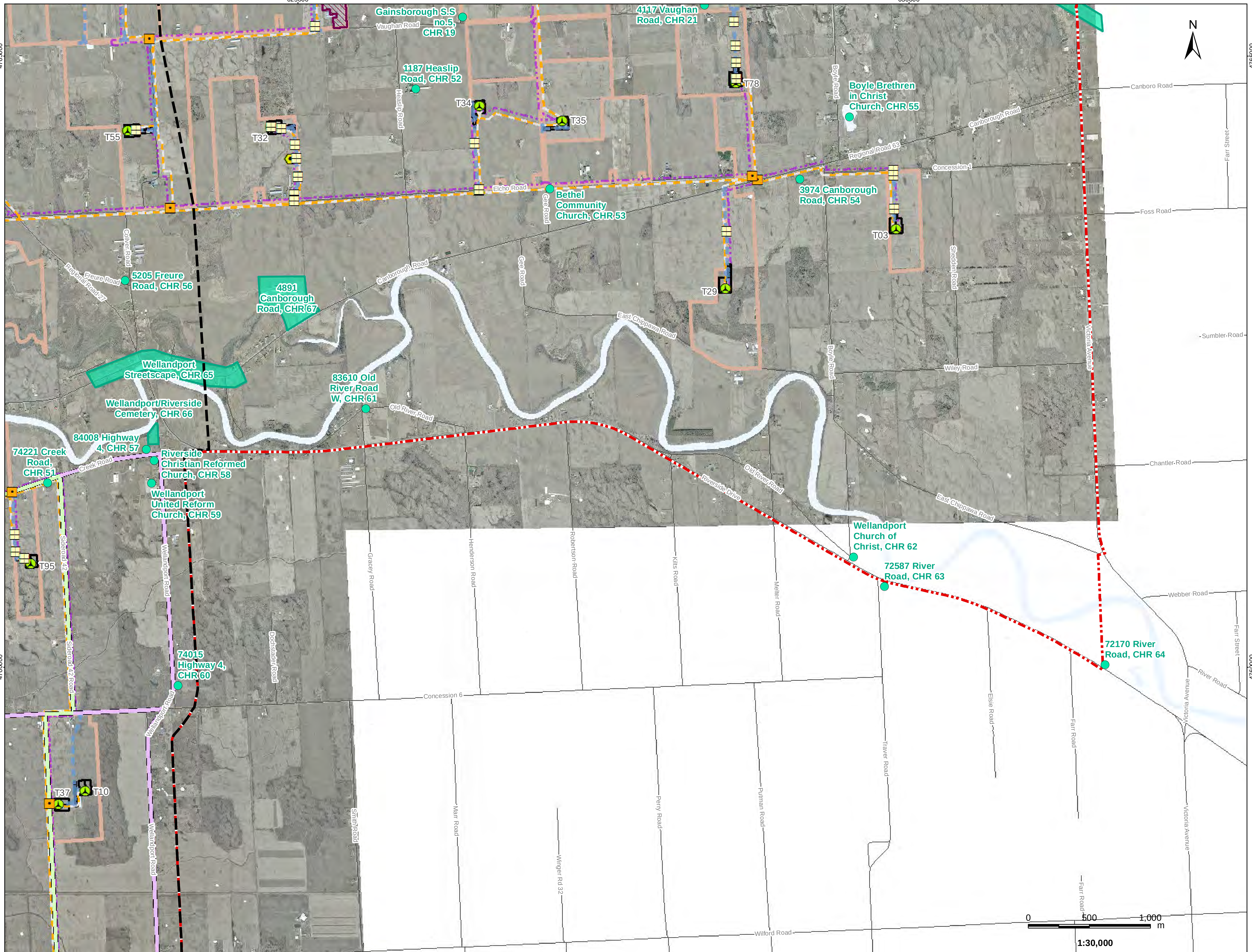
Table 7: Evaluation of Cultural Heritage Resources and Landscapes, Area 3

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-49	Elcho United Church and Cemetery	Design or Physical	One and a half storey brick church with one storey side addition to rear, and associated cemetery, situated on the banks of Beaver Creek. Features three bay front façade with rounded windows and set of wooden double doors with shaped transom. Representative and early example of religious architecture in area. Cemetery features headstones set in a terrain which gently slopes to creek, and is bounded by line of deciduous trees and bushes which provide moderate to heavy tree cover along the northern and eastern boundaries of the cemetery, moderate tree cover along the southern and southwest boundaries, and little to no tree cover along the northwestern boundary of the cemetery.	meets criteria	 Photos 65-67
		Historical or Associative	Associated with 19th century development of the local community. Extant grave markers have the potential to yield information about the community.		
		Contextual	Landmark.		
CHR-50	Robertland Academy	Design or Physical	Canada's only military-style private boarding school for boys, Robertland Academy was established in 1978. Site features complex of several low, long, barrack-style buildings set in generally flat, open, terrain with a few trees. A unique example of private boarding school modeled after a military complex. Site is bounded by agricultural fields, a large wooded lot, and the Chippewa Creek (Welland River).	meets criteria	 Photo 68
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	As a large educational complex located along a small rural road, the property functions as a landmark.		

5.5 Area 4

Area 4 is roughly bounded by Vaughan Road to the north, Riverside Drive and Concession 6 to the south, Victoria Avenue to the east, and Regional Road 27 to the west (Figure 14). Table 8 summarizes the evaluations of properties in Area 4 which satisfy the criteria for determining cultural heritage value or interest as outlined under O.Reg.9/06. Area 4 includes the following properties:

- 74221 Creek Road, CHR-51;
- 1187 Heaslip Road, CHR-52;
- Bethel Community Church, CHR-53;
- 3974 Canborough Road, CHR-54;
- Boyle Brethren in Christ Church, CHR-55;
- 5205 Freure Road, CHR-56;
- 84004 Highway 4, CHR-57;
- Riverside Christian Reformed Church, CHR-58;
- Wellandport United Reform Church, CHR-59;
- 74015 Highway 4, CHR-60;
- 83610 Old River Road West, CHR-61;
- Wellandport Church of Christ, CHR-62;
- 72587 River Road, CHR-63;
- 72170 River Road, CHR-64;
- Wellandport Streetscape, CHR-65;
- Wellandport/Riverside Cemetery, CHR-66; and
- 4891 Canborough Road, CHR-67.



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Gainsborough S.S no.5, CHR 19
4117 Vaughan Road, CHR 21
Vaughan Road
1187 Heaslip Road, CHR 52
Heaslip Road
Boyle Brethren in Christ Church, CHR 55
Boyle Road
Canboro Road
Canborough Road
Regional Road 63
Concession 1
T78
T34
T35
T55
T32
T03
T29
T95
T37
T10
Echo Road
Bethel Community Church, CHR 53
Gee Road
3974 Canborough Road, CHR 54
Foss Road
Colver Road
Freure Road
Regional Road 27
5205 Freure Road, CHR 56
4891 Canborough Road, CHR 67
East Chippawa Road
Shedden Road
Sumbler Road
Wiley Road
Victoria Avenue
Wellandport Streetscape, CHR 65
Wellandport/Riverside Cemetery, CHR 66
83610 Old River Road W, CHR 61
Old River Road
84008 Highway 4, CHR 57
74221 Creek Road, CHR 51
Creek Road
Riverside Christian Reformed Church, CHR 58
Wellandport United Reform Church, CHR 59
Riverside Drive
Chantler Road
Wellandport Church of Christ, CHR 62
72587 River Road, CHR 63
Webber Road
Sideroad 42
Sideroad 42 Road
Wellandport Road
Gracey Road
Henderson Road
Robertson Road
Kilts Road
Metler Road
Dochstader Road
74015 Highway 4, CHR 60
72170 River Road, CHR 64
River Road
Concession 6
Elsie Road
Farr Road
Farr Street
Traver Road
Smith Road
Marr Road
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Perry Road
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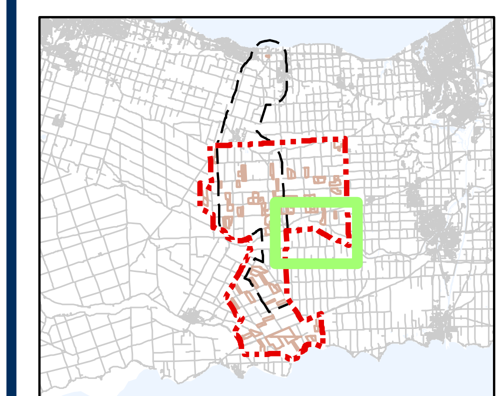
Legend

- Protected Property
- Cultural Heritage Resource
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Proposed Culvert
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
- Temporary Laydown Area
- Potential Access Road
- Proposed Fibre Optic Line
- Transformer Substation
- Potential Construction Laydown Area
- Participating Property
- Interconnector Study Area
- Project Study Area



Notes

1. Coordinate System: NAD 1983 UTM Zone 17N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.
3. Orthoimagery source: First Base Solutions, Date: Spring 2010

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April, 2013
160950269

Client/Project

Niagara Region Wind Corporation
Niagara Region Wind Farm

Figure No.
14

Title

Heritage Resources & Project Components Area 4

\\CD1190-F01\Work_Group\01225\active\other_pc\160950269 - Niagara Region Wind\gis\mxds\Heritage\20121003\160950269_Release_20_BHR_Map_Book.mxd
Revised: 2013-04-02 By: sarogers

Table 8: Evaluation of Cultural Heritage Resources and Landscapes, Area 4

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-51	74221 Creek Road	Design or Physical	One and a half storey Gothic Revival cottage, central front porch with pediment and gable bargeboarding. Rare use of 2-over-4 lancet window with dual sidelights in area.	meets criteria	 Photo 69
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-52	1187 Heaslip Road	Design or Physical	Two storey, irregular-shaped hipped roof brick farmhouse. Design features include: porches with bargeboard detailing; decorated frieze; bracketed eaves; and unique brickwork pattern detailing on front of house. Unique example of brickwork and bargeboard detailing on vernacular farmhouse in study area.	meets criteria	 Photo 70
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 8: Evaluation of Cultural Heritage Resources and Landscapes, Area 4

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-53	Bethel Community Church	Design or Physical	One storey gabled-roofed church located at the intersection of Gee and Elcho Roads, established 1885. Design features include: three bay front façade; central double front doors with shaped transom; and 2-over-2 hung rounded wooden windows with paneled trim. Representative example of rural religious institution design in the area.	meets criteria	 Photo 71
		Historical or Associative	Associated with the 19th century development and religious education of the local community. Potential to reveal information on the local religious community through exterior and interior architectural design.		
		Contextual	Defines the character of the intersection as a place of conversion and of the rural landscape: schools and other public buildings were often located at crossroads, transforming intersections into gathering places. Is historically linked to these surroundings by its location at the intersection of Gee and Elcho Roads. Functions as a landmark.		

Table 8: Evaluation of Cultural Heritage Resources and Landscapes, Area 4

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-54	3974 Canborough Road	Design or Physical	One and a half storey gable-roofed cottage featuring three bay shed dormer, 1-over-1 windows and plaster siding. Rare use of plaster cladding in the study area.	meets criteria	 Photo 72
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Does not contribute or maintain character of surrounding area in an integral way. Not physically, functionally, visually or historically linked to its surroundings in a demonstrable way. Not a landmark.		
CHR-55	Boyle Brethren in Christ Church	Design or Physical	Single storey gable-roofed church. Relocated to current position: originally the Zion Church, built 1899 in Pelham. Representative example of Pennsylvania Mennonite Meetinghouse architecture.	meets criteria	 Photo 73
		Historical or Associative	Associated with the local Mennonite community.		
		Contextual	Landmark.		
CHR-56	5205 Freure Road	Design or Physical	Two storey gabled-roofed farmhouse. Design features include two bay front façade, large wraparound porch and exterior plaster cladding. Rare use of plaster cladding in the area.	meets criteria	 Photo 74
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 8: Evaluation of Cultural Heritage Resources and Landscapes, Area 4

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-57	84004 Highway 4	Design or Physical	Former Wellandport Christian School, closed in 2009. Established in 1958, it was affiliated with nearby Riverside Christian Reformed Church. Central two storey gable-roofed hall with one storey flanking wings with modern windows and cladding. Playground and sports fields to rear of property.	meets criteria	 Photo 75
		Historical or Associative	Associated with the development and education of local Christian community.		
		Contextual	Functions as a landmark.		
CHR-58	Riverside Christian Reformed Church	Design or Physical	Established 1952, T-shaped church features belfry, five bay lancet windows along side elevation, and one storey rear extension. Church was affiliated with the former Wellandport Christian School, located nearby.	meets criteria	 Photo 76
		Historical or Associative	Associated with the settlement and development of Dutch Calvinists in the local community.		
		Contextual	Landmark		
CHR-59	Wellandport United Reform Church	Design or Physical	Modern brick church consisting of one storey hexagonal front hall with pyramidal roof, central spire and gabled front section, with one storey rear wing.	meets criteria	 Photo 77
		Historical or Associative	Associated with the development of a local religious community.		
		Contextual	Functions as a landmark.		

Table 8: Evaluation of Cultural Heritage Resources and Landscapes, Area 4

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-60	74015 Highway 4	Design or Physical	One storey gabled-roofed structure, board and batten construction with wood cladding. Appears to be two boarded up front doors which suggest former use by Pennsylvania Mennonites. There is sufficient potential for it to possess design value to warrant its exclusion as a built heritage resource.	cannot be excluded	 Photo 78
		Historical or Associative	There is sufficient potential for it to possess historical or associative value with regard to the Mennonite community to warrant its exclusion as a built heritage resource.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-61	83610 Old River Road West	Design or Physical	Two storey gable-roofed brick house in the style of Colonial Revival. Three bay front facade featuring central front door with modest portico and 3-over-2 hung windows. Relatively rare and representative example of Colonial Revival design.	meets criteria	 Photo 79
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-62	Wellandport Church of Christ	Design or Physical	Modest one storey gable-roof church with extended, covered front entrance. Features chimney to rear of building, 3-over-2 hung lancet windows, and three bay side facades. May date to 19th century.	meets criteria	 Photo 80
		Historical or Associative	Associated with the development and religious education of the local community.		
		Contextual	Landmark		

Table 8: Evaluation of Cultural Heritage Resources and Landscapes, Area 4

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-63	72587 River Road	Design or Physical	Two storey brick farmhouse. Design features include hipped roof with widow's walk, bracketed eaves, broken pediment surrounding round attic window, and central front porch with bargeboarding. Rare example of Italianate design in the area.	meets criteria	 Photo 81
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-64	72170 River Road	Design or Physical	One and a half storey Gothic Revival style duplex with two front gables. Features 2-over-2 hung windows, and porch across front façade with bargeboarding. Rare example of double length house in the area.	meets criteria	 Photo 82
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 8: Evaluation of Cultural Heritage Resources and Landscapes, Area 4

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-65	Wellandport Streetscape	Design or Physical	The streetscape includes a number of buildings of individual design value on the north shore of the Welland River at the intersection of Canborough Road and Highway 27. The streetscape includes examples of mid-19th century commercial architecture, a mid-20th century community centre (Wellandport Community Centre), and a range of residential architectural styles ranging from modest one storey cottages to two storey Georgian, Victorian, and Edwardian Classicism-inspired houses.	meets criteria	  Photos 83-87
		Historical or Associative	Associated with the early settlement of Welland Township, and commercial and industrial development of Wellandport community due to construction and operation of the Welland Canals.		
		Contextual	Comprises a designed landscape which represents a 19th century riverside community. Although residential buildings have been added throughout the history of the community, they are generally compatible with their surrounding landscape and represent the continuing evolution of the CHL.		

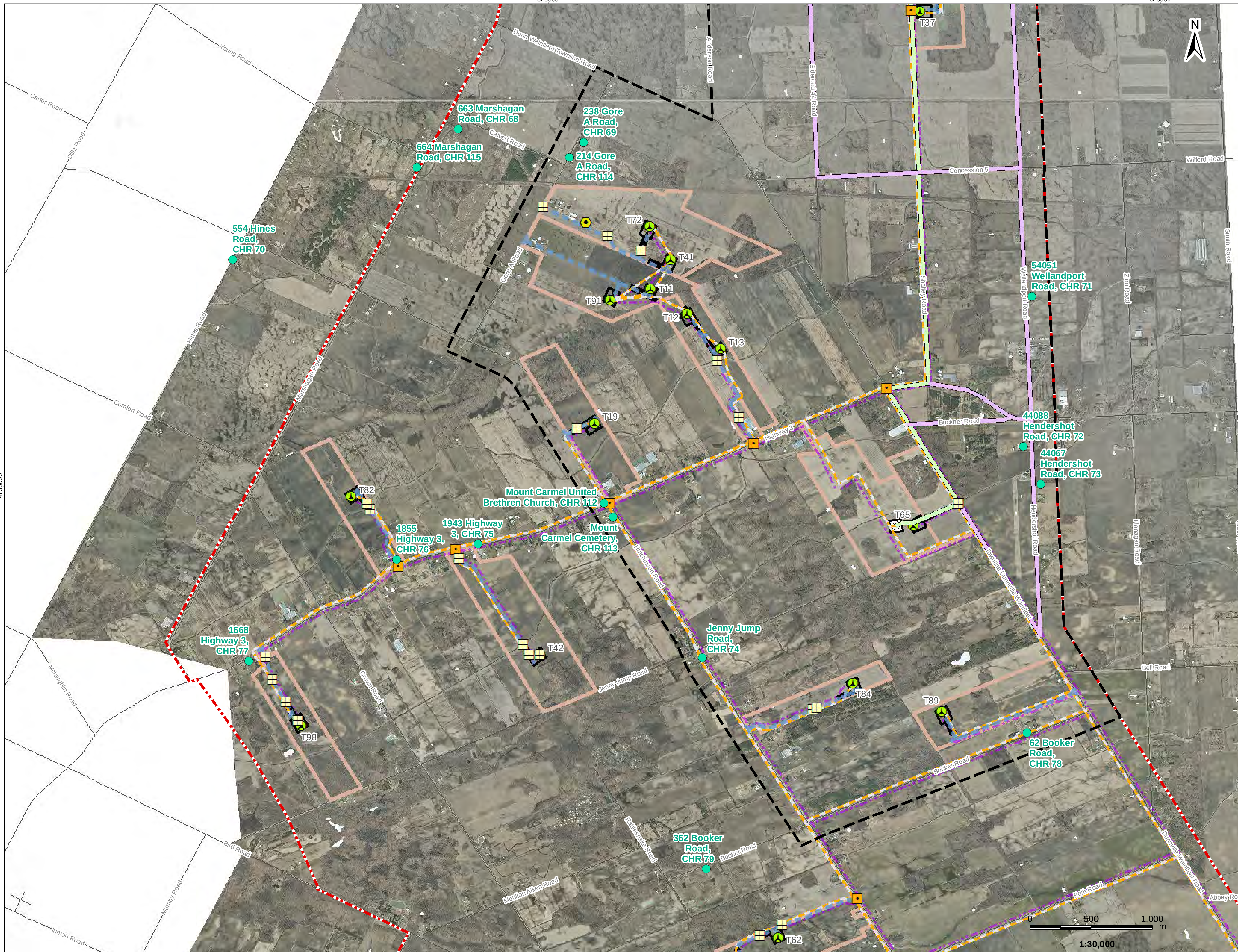
Table 8: Evaluation of Cultural Heritage Resources and Landscapes, Area 4

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-66	Wellandport (Riverside) Cemetery	Design or Physical	Active cemetery dating back to late 18th century. Set on bank of Chippewa Creek (Welland River), landscape is characterized by gravemarkers set on a gently rolling terrain and bordered by a fence and line of mature trees. The site may also include the location of one of the first, log-constructed schools in Wellandport (Welland History, 2012).	meets criteria	 Photos 88 and 89
		Historical or Associative	Associated with the historical development of the local community. Extant grave markers have the potential to yield information about the community.		
		Contextual	Functions as a landmark.		
CHR-67	4891 Canborough Road	Design or Physical	Clark Agricultural Services. A modern agricultural complex with several large steel silos constructed for the storage and distribution of grain, fertilizer and other agricultural products. Not a rare, unique, early or representative example of a particular style, use of materials or method of construction. Does not demonstrate an unusually high degree of craftsmanship, artistic merit or scientific achievement.	meets criteria	 Photo 90
		Historical or Associative	Represents the contemporary activity of feed and crop seed sales, a historic and continuing function associated with Wellandport as a centre of activity for the local agricultural community.		
		Contextual	As a large commercial agricultural complex located just outside Wellandport on an otherwise predominantly rural road, property functions as a landmark.		

5.6 Area 5

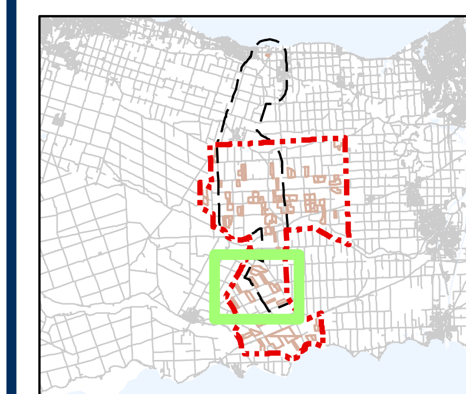
Area 5 is roughly bounded by Dunn Wainfleet Townline Road and Concession 5 to the north, Booker Road to the south, Hendershot Road to the east, and Marshagan Road to the west (Figure 15). Table 9 summarizes the evaluations of properties in Area 5 which satisfy the criteria for determining cultural heritage value or interest as outlined under O.Reg.9/06. Area 5 includes the following properties:

- 663 Marshagan Road, CHR-68;
- 238 Gore A Road, CHR-69;
- 554 Hines Road, CHR-70;
- 54051 Wellandport Road, CHR-71;
- 44088 Hendershot Road, CHR-72;
- 44067 Hendershot Road, CHR-73;
- 365 Jenny Jump Road, CHR-74;
- 1943 Highway 3, CHR-75;
- 1855 Highway 3, CHR-76;
- 1668 Highway 3, CHR-77;
- 62 Booker Road, CHR-78;
- 362 Booker Road, CHR-79;
- Mount Caramel United Brethren Church, CHR-112;
- Mount Caramel Cemetery, CHR-113;
- 214 Gore A Road, CHR-114; and
- 664 Marshagan Road, CHR-115.



Legend

- Protected Property
- Cultural Heritage Resource
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Proposed Culvert
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
- Temporary Laydown Area
- Potential Access Road
- Proposed Fibre Optic Line
- Transformer Substation
- Potential Construction Laydown Area
- Participating Property
- Interconnector Study Area
- Project Study Area



Notes

1. Coordinate System: NAD 1983 UTM Zone 17N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.
3. Orthoimagery source: First Base Solutions, Date: Spring 2010

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April, 2013
160950269

Client/Project

Niagara Region Wind Corporation
Niagara Region Wind Farm

Figure No.
15

Title

Heritage Resources & Project Components Area 5

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Revised: 2013-04-02 By: sarogers

Table 9: Evaluation of Cultural Heritage Resources and Landscapes, Area 5

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-68	663 Marshagan Road	Design or Physical	One storey gable-roofed cottage with wooden siding and original windows. Property includes wooden vertical board barn at rear of property and modern one-storey bungalow. An early example of simple cottage-style construction in area.	meets criteria	 Photo 91
		Historical or Associative	Associated with the establishment and growth of Moulton Station, the Canada Southern Railway and the Great Western Loop Line Railway.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-69	238 Gore A Road	Design or Physical	One and a half storey ell-shaped farmhouse, features enclosed front porch with wood framing and wine bottles set in plaster. Unique employment of wine bottle and plaster detailing.	meets criteria	 Photo 92
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-70	554 Hines Road	Design or Physical	One and a half storey vernacular farmhouse. Design features include enclosed front porch with 3-over-1 windows and plaster cladding. Rare use of plaster cladding in area.	meets criteria	 Photo 93
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 9: Evaluation of Cultural Heritage Resources and Landscapes, Area 5

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-71	54051 Wellandport Road	Design or Physical	Two storey ell-shaped farmhouse. Design features include: wraparound porch; uniquely shingled gable pediment; and faux stone cladding. Unique use of gable and exterior cladding materials in area.	meets criteria	 Photo 94
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-72	44088 Hendershot Road	Design or Physical	Two storey multiple-gabled brick farmhouse. Design features include large wraparound porch with pediment over doorway and columns set on stone pillars. Unique example in area of large, dominant porch on farmhouse.	meets criteria	 Photo 95
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-73	44067 Hendershot Road	Design or Physical	One storey gable-roofed cottage with additions. Features rare use of plaster cladding.	meets criteria	 Photo 96
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 9: Evaluation of Cultural Heritage Resources and Landscapes, Area 5

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-74	365 Jenny Jump Road	Design or Physical	One and a half storey vernacular residence with rear wing. Design features include 2-over-5 windows, and plaster cladding with half timbering detail. Rare example of plaster cladding.	meets criteria	 Photo 97
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-75	1943 Highway 3	Design or Physical	Two storey, ell-shaped brick farmhouse with gabled roof. Design features include: dentils on bay windows and front porch, alternating pale and red brick voussoirs on windows, and bargeboard detailing on porch. Representative example of Edwardian Classicism-inspired vernacular, and rare example of dichromatic brickwork in general area.	meets criteria	 Photo 98
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-76	1855 Highway 3	Design or Physical	Two storey multiple-gabled farmhouse. Design features include: wraparound porch; 2-over-2 hung windows; and pair of small, narrow windows in attic gables. Rare example of small attic windows which may suggest a Pennsylvania German design.	meets criteria	 Photo 99
		Historical or Associative	Possibly associated with Pennsylvania German settlement in the area.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 9: Evaluation of Cultural Heritage Resources and Landscapes, Area 5

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-77	1668 Highway 3	Design or Physical	One storey cinder block commercial or industrial building, features large 4-over-3 picture window. Appears to be a rare example of early- or mid-20th century garage.	meets criteria	 Photo 100
		Historical or Associative	Set on Highway 3 (the former Talbot Trail route), a pioneer settlement road constructed in the mid-19th century. Property is associated with the widespread adoption of the automobile and evolution of the historic transportation route, most significantly after the 1927 construction of the Peace Bridge between Fort Erie and Buffalo which increased traffic along road to Dunnville.		
		Contextual	Supports the character and function of area as transportation route.		
CHR-78	62 Booker Road	Design or Physical	Two storey ell-shaped Gothic Revival farmhouse and associated agricultural outbuildings. Design features include: stucco or plaster siding; minor bargeboard detailing on porch; and shaped window trim. Rare use of plaster exterior cladding.	meets criteria	 Photo 101
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-79	362 Booker Road	Design or Physical	One and a half storey gabled roof vernacular cottage. Design features include: plaster siding; offset front door; small attic window with triangular attic vent above. Rare use of plaster exterior cladding in the area.	meets criteria	 Photo 102
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 9: Evaluation of Cultural Heritage Resources and Landscapes, Area 5

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-112	2083 Highway 3	Design or Physical	The one and a half storey brick building is constructed on a rectangular plan, with a gabled roof. Design features include: a labelstone; multiple-paned hung windows with round brick headers and stone sills; and a brick chimney	meets criteria	 Photos 103 - 107
		Historical or Associative	Haldimands County's Heritage Register, Approved by Coluncil on October 20, 2004.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-113	1300 Hutchinson Road	Design or Physical	The property consists of a small cemetery bordered by a wire fence with brick corner posts, gravemarkers dating to the late 19th century, and several large trees along Hutchinson Road	meets criteria	 Photos 108 - 114
		Historical or Associative	Haldimands County's Heritage Register, Approved by Council on October 20, 2004.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-114	214 Gore A Road	Design or Physical	The wooden vertical board barn is constucted on an "L" shape plan, with a gambrel roof.	meets criteria	 Photo 115 - 118
		Historical or Associative	Haldimands County's Heritage Register, Approved by Council on October 20, 2004.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 9: Evaluation of Cultural Heritage Resources and Landscapes, Area 5

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-115	664 Marshagan Road	Design or Physical	One and a half storey gable-roofed cottage with wooden siding and original windows. An early example of simple cottage-style construction in area. Modern addition added to rear of cottage.	meets criteria	  Photos 119 - 122
		Historical or Associative	Haldimands County's Heritage Register, Approved by Council on October 20, 2004.		
		Contextual	Consistent with the character of the surrounding landscape.		

5.7 Area 6

Area 6 is roughly bounded by Highway 3 and Bell Road to the north, Rymer Road and Lakeshore Road to the south, Burkett Road and Dunnville Wainfleet Townline to the east, and Moulton Aiken Road to the west (Figure 16). Table 10 summarizes the evaluations of properties in Area 6 which satisfy the criteria for determining cultural heritage value or interest as outlined under O.Reg.9/06. Area 6 includes the following properties:

- 55 Moulton Aiken Road, CHR-80;
- 753 Inman Road, CHR-81;
- 928 Canal Bank Road, CHR-82;
- 228 Feeder Bank Road, CHR-83;
- Former Schoolhouse, CHR-84;
- 2307 North Shore Drive, CHR-85;
- 12698 Mittelstadt Road, CHR-86;
- 12822 Minor Road, CHR-87;
- Stromness Streetscape, CHR-88;
- Sherbrook Baptist Church and Highbanks Cemetery, CHR-89;
- Welland Feeder Canal, CHR-90;
- Lowbanks Streetscape, CHR-91; and
- Gord Harry Trail CHL, CHR-92.

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Legend

- Protected Property
- Cultural Heritage Resource
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Proposed Culvert
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
- Temporary Laydown Area
- Potential Access Road
- Proposed Fibre Optic Line
- Transformer Substation
- Potential Construction Laydown Area
- Participating Property
- Interconnector Study Area
- Project Study Area

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N).
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3. Orthoimagery source: First Base Solutions, Date: Spring 2010

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Niagara Region Wind Corporation
Niagara Region Wind Farm

Figure No.

16

Title

Heritage Resources & Project Components Area 6

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Revised: 2013-04-02 By: saragers

Table 10: Evaluation of Cultural Heritage Resources and Landscapes, Area 6

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-80	55 Moulton Aiken Road	Design or Physical	Two storey farmhouse on square footprint. Design features include: hipped roof with unique asphalt shingling; three bay front façade with second floor central door and balcony; entabulature window trim; and stucco or plaster cladding. Rare use of plaster cladding in general area.	meets criteria	 Photo 103
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-81	753 Inman Road	Design or Physical	Two storey brick farmhouse on square footprint. Design features include: a three bay front façade with central door and balcony on second floor; shaped window trim; and bracketed eaves. Balcony features Classically-inspired pediment with carved tympanum, decorated eaves and ornate capitals. Representative example of Edwardian Classicism-inspired vernacular, featuring rare and unique use of ornate balcony pediment.	meets criteria	 Photo 104
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-82	928 Canal Bank Road	Design or Physical	Two storey ell-shaped brick farmhouse. Design features include: highly contrasting brick and mortarwork; decorated fascia; three bay front facade; offset front door with side and transom lights; and tall, narrow attic window. Rare and early example of Italianate-inspired design.	meets criteria	 Photo 105
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 10: Evaluation of Cultural Heritage Resources and Landscapes, Area 6

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-83	228 Feeder Canal Road	Design or Physical	Two storey gable roof building featuring hortizonal wood siding on gable end, with board and batten. Design features include a round wooden attic ventilator, and addition of enclosed front entrance and windows. Currently a residence, but appears to be former warehouse. Early example of commercial building construction for the area.	meets criteria	 Photo 106
		Historical or Associative	Associated with the 19th century commercial activities of Stromness and the historic development of the Welland Feeder Canal.		
		Contextual	Contributes to the character of the area around Stromness as a 19th century commercial hub.		
CHR-84	Former Schoolhouse	Design or Physical	One storey hipped roof brick building. Features central triangular dormer with projecting bellfry and spire. Original structure heavily modified with introduction of new entrances and windows. Representative example of rural school institution.	meets criteria	 Photo 107
		Historical or Associative	Associated with the development and education of the local community.		
		Contextual	Landmark.		
CHR-85	2307 North Shore Drive	Design or Physical	One and a half storey Gothic Revival cottage. Features three bay front façade, 3-over-2 hung windows with shaped trim, and tiled siding. Unique example of large, square, overlapping exterior shingle cladding.	meets criteria	 Photo 108
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 10: Evaluation of Cultural Heritage Resources and Landscapes, Area 6

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-86	12698 Mittelstadt Road	Design or Physical	Farm complex at end of a long driveway includes two storey multiple-gabled house and two storey gambrel roof barn. House design features include: pedimented front porch; set of three windows in front gable; shaped window trim; and board and batten siding. Associated barn appears to be adapted for residential use and features: extended covered front entryway with central door; large 2-over-2 windows with curved pediments; and board and batten siding. There is sufficient potential for it to possess design value to warrant its exclusion as a built heritage resource.	cannot be excluded	 Photo 109
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-87	12822 Minor Road	Design or Physical	Two storey farmhouse on square footprint with faux stone cladding. Design features include large, pedimented front porch with columns set on fieldstone base and supports. Rare example of faux stone cladding and dominant fieldstone and column porch on farmhouse in the area.	meets criteria	 Photo 110
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 10: Evaluation of Cultural Heritage Resources and Landscapes, Area 6

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-88	Stromness Streetscape Cultural Heritage Landscape	Design or Physical	CHL 17 is a streetscape on the south side of the Welland Feeder Canal at the intersection of North Shore Road and Feeder Canal Road, where the canals from Dunnville and Port Maitland converge. Characterized by a mix of building design and types with narrow setbacks along North Shore Road, and extends approximately halfway to Rymer Road. While most buildings are residential, CHL also includes a two storey gable-roofed 19th century commercial building with front porch across front facade, and a large, two storey brick building with hipped roof (Sherbrooke Community Centre).	meets criteria	   Photos 111-113
		Historical or Associative	Associated with the mid-19th century development of Stromness, originally known as Broad Creek, which was established during the construction of the Welland Feeder Canal. Streetscape is further associated with Lachlan McCallum, a Canadian MP and Senator, who settled in Stromness in 1855 and started several businesses there including a hotel, cheese factory and store, mills, and a shipbuilding business. Streetscape is also historically associated with a larger cultural heritage landscape, the Welland Feeder Canal, constructed 1832.		
		Contextual	Streetscape comprises an evolved cultural landscape. Although historical industrial and commercial activity has ceased, the streetscape continues to reflect the residential character of a small settlement.		

Table 10: Evaluation of Cultural Heritage Resources and Landscapes, Area 6

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-89	Sherbrooke Baptist Church and Highbanks Cemetery Cultural Heritage Landscape	Design or Physical	CHL 18 straddles North Shore Drive, with the church on the north side and cemetery on the south. Established in 1842, the one storey gable roof brick church features: one storey addition to rear; labelstone; four bay side elevation; three bay front façade; central door with pointed transom and tracery, and projecting front entryway. Cross hung windows feature pointed heads with Y tracery. Cemetery boundary is clearly delineated by line of trees and bushes, and features headstones set on a generally open, gently sloping terrain. Representative example of rural religious architecture.	meets criteria	  Photos 114 and 115
		Historical or Associative	Associated with 19th century development of the local community. Potential to yield information as a result of the extant grave markers.		
		Contextual	A defined landscape whose design and construction is a distinct reflection of religious practice. Landmark.		

Table 10: Evaluation of Cultural Heritage Resources and Landscapes, Area 6

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-90	Welland Feeder Canal Cultural Heritage Landscape	Design or Physical	Constructed in conjunction with the first Welland Canal beginning in 1829, the Welland Feeder Canal CHL is a 40 kilometer waterway built to convey water from the Grand River at Dunville to the Welland Canal. It was later enlarged to function as a shipping channel, and an additional terminus at Port Maitland was constructed, merging with the canal at Stromness. No longer in use, the Welland Feeder Canal features an excavated waterway with roads running along either side, now generally overgrown with vegetation. Parts of the canal have been filled in to allow for the construction of roads. The Feeder Canal extends beyond the boundaries of the Study Area to terminate at Dunnville and Port Maitland to the southwest, and at Welland to the northeast.	meets criteria	  Photos 116-118
		Historical or Associative	The Feeder Canal is associated with the construction of the Welland canal system as part of the 19th century development of the Great Lakes transportation system. The Feeder Canal is further associated with the establishment and growth of several settlements and heritage properties along the Feeder Canal, including the Stromness Streetscape CHL.		
		Contextual	As a manmade engineering work, the Feeder Canal constitutes a clearly defined linear landscape.		

Table 10: Evaluation of Cultural Heritage Resources and Landscapes, Area 6

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-91	Lowbanks Streetscape Cultural Heritage Landscape	Design or Physical	Lowbanks is one of the oldest settlements in Moulton Township, having been founded in 1772 by Lawrence Furry from Pennsylvania. Settlement was named Lowbanks with the establishment of a post office in 1865 and refers to the lowlying shoreline of the area, as compared to the higher banks in Sherbrooke Township. Streetscape is located on the shore of Lake Erie and extends along Lakeshore Road, from North Shore Drive to beyond the Study Area boundaries. Area has been increasingly used as a summer cottage and tourist destination, which is primarily reflected in the lowscale character and narrow lots of properties on both sides of the road. Cottages reflect a mix of design and construction dates (many appear to have been built in the early 20th century), and are generally of simple design, and one to two stories in height. Streetscape features beach stone retaining walls and significant vegetation along variating terrain. Institutions include: some tourist-related businesses; the contemporary Lowbanks Community Centre; several churches (Lowbanks Community of Christ and Bethel United Reform Church); and the Lowbanks Cemetery, located on the southern side of the road on the shoreline. the Lowbanks Streetscape also features more substantial buildings associated with the historic settlement and agricultural development of area, including the two storey wood Furry Tavern (a designated property, built 1821) and the two storey brick Moses Minor Century Farm.	meets criteria	   Photos 119-127
		Historical or Associative	Associated with the late 18th century settlement of United Empire Loyalists. Primarily associated with the growth of recreation, tourism and cottaging since the early 20th century.		
		Contextual	A continuing evolved landscape which reflects both historic and contemporary functions as a primarily cottaging community. Shoreline is generally rocky, with a few small, gravel beaches, and still reflects the low shorebanks for which the area is named.		

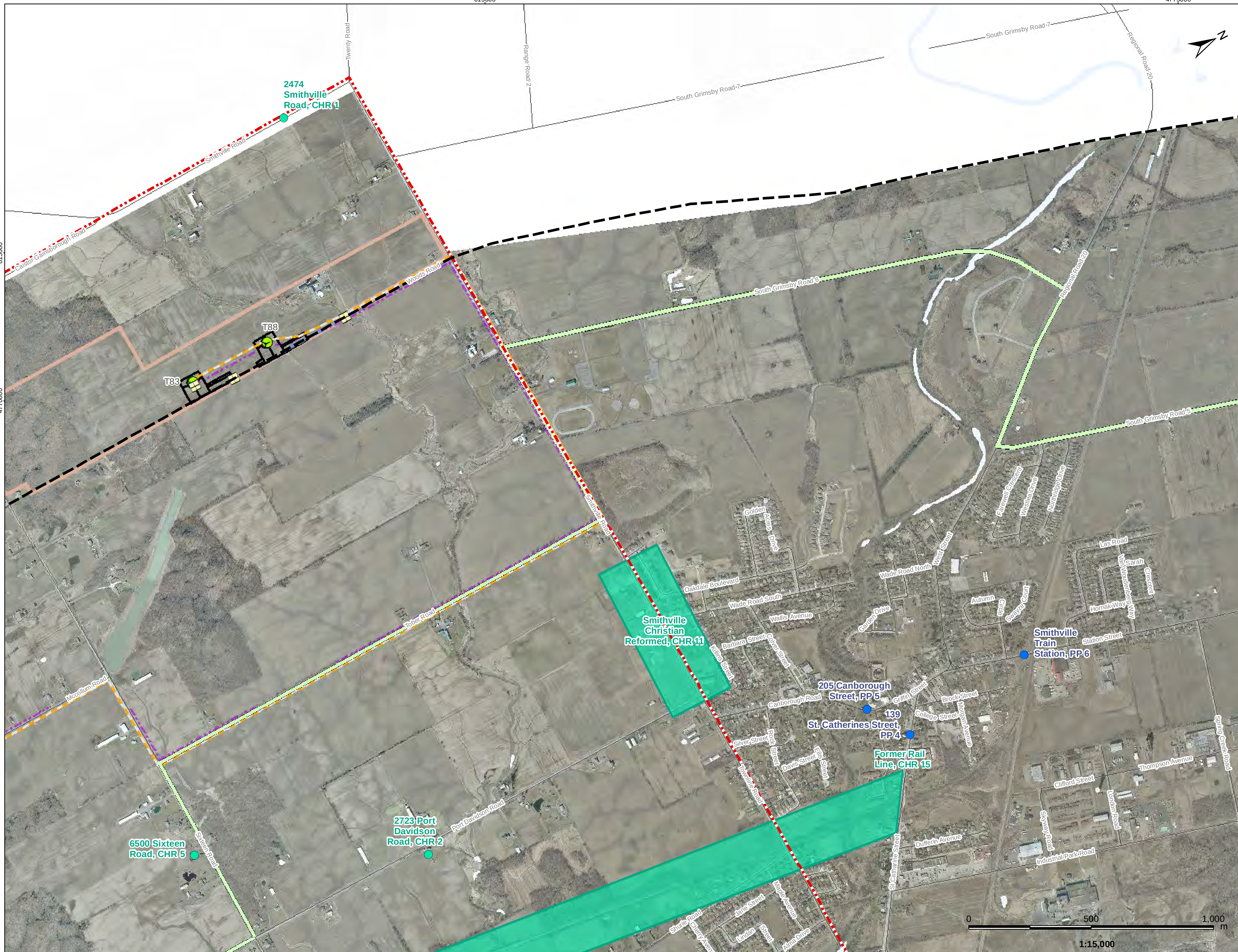
Table 10: Evaluation of Cultural Heritage Resources and Landscapes, Area 6

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-92	Gord Harry Trail Cultural Heritage Landscape	Design or Physical	Former rail line converted into trail system. Features include: flat, gravel or dirt pathway; gated entrances where trail crosses roadways; and thick vegetation cover from trees and bushes along each side of the trail. Not a rare, unique, early or representative example of a particular style, use of materials or method of construction. Does not demonstrate an unusually high degree of craftsmanship, artistic merit or scientific achievement.	meets criteria	 Photo 128
		Historical or Associative	A linear cultural landscape, the trail is associated with the former Buffalo and Lake Huron (Grand Trunk) Railroad and historical themes of local economic development, nation-building, and transportation.		
		Contextual	As a transportation corridor which has been in use since the mid-19th century, the Gord Harry Trail is functionally and historically linked to its surroundings.		

5.8 Area 7, Interconnector Study Area

Area 7 is roughly bounded by Lake Ontario to the north, Townline Road to the south, Sann Road to the east, and Park Road South to the west (Figures 17 through 20). Given that impacts from the proposed interconnector line are more localized than those of other Project components, such as the wind turbine generators, survey of the Interconnector Study Area was limited to potential transmission routes. Table 11 summarizes the evaluations of properties in Area 7 which satisfy the criteria for determining cultural heritage value or interest as outlined under O.Reg.9/06. Area 7, Interconnector Study includes the following properties:

- 564 Kemp Road, CHR-93;
- 592 Kemp Road, CHR-94;
- 4516 Mountainview Road, CHR-95;
- 252 Mountainview Road, CHR-96;
- 5432 King Road, CHR-97;
- 3263 South Grimsby Road 3, CHR-98;
- Organized Crime Winery, CHR-99;
- Angels Gate Winery, CHR-100;
- Thirty Bench Winemakers, CHR-101;
- Rosewood Estates, CHR-102;
- 4560 Mountainview Road, CHR-103;
- 4649 Mountainview Road, CHR-104;
- 4673 Mountainview Road, CHR-105;
- 4717 Mountainview Road, CHR-106;
- Andrewes Farm Limited, CHR-107;
- 324 Thirty Road, CHR-108;
- 305 Thirty Road, CHR-109;
- 4367 Thirty Road, CHR-110;
- Aure Wines (3749 Walker Road), CHR-111;
- 498 Elm Tree Road East, CHR-116;
- 276 Main Street East, CHR-117;
- 321 Main Street East, CHR-118; and
- 326 Main Street East, CHR-119.



Legend

- Protected Property
- Cultural Heritage Resource
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Proposed Culvert
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
- Temporary Laydown Area
- Potential Access Road
- Proposed Fibre Optic Line
- Transformer Substation
- Potential Construction Laydown Area
- Participating Property
- Interconnector Study Area
- Project Study Area

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N).
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3. Orthoimagery source: First Base Solutions, Date: Spring 2010

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Client/Project

Niagara Region Wind Corporation
Niagara Region Wind Farm

Figure No.
17

Title

Heritage Resources & Project Components
Interconnector Study Area, South

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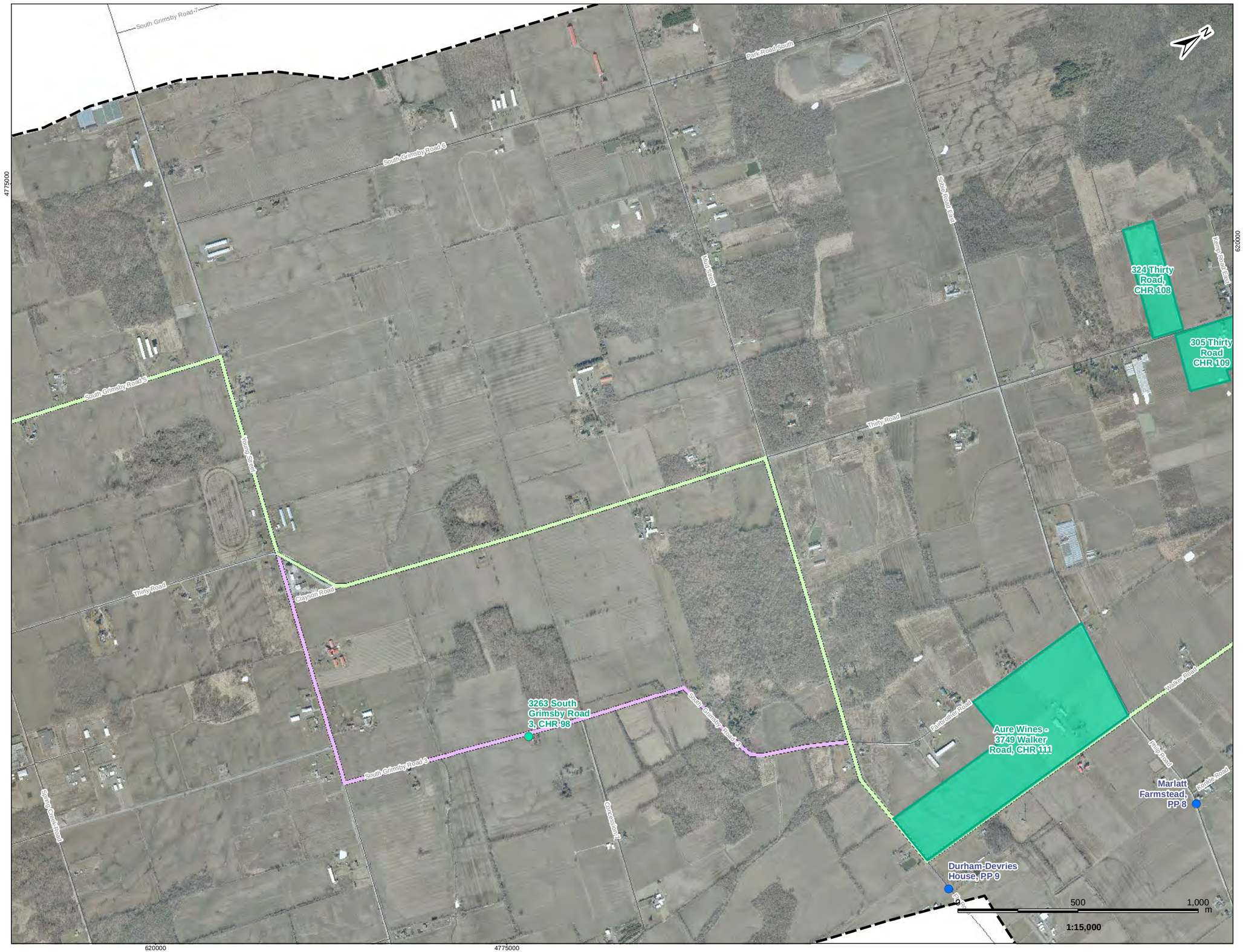
Revised: 2013-04-02 By: sarogers



Legend

- Protected Property
- Cultural Heritage Resource
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Proposed Culvert
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
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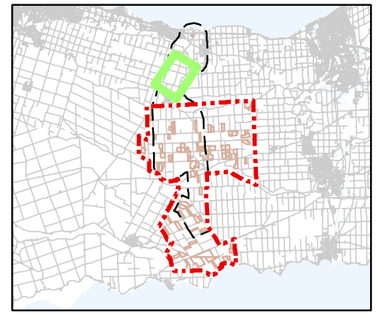
- Potential Access Road
- Proposed Fibre Optic Line
- Transformer Substation
- Potential Construction Laydown Area
- Participating Property
- Interconnector Study Area
- Project Study Area



Notes

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Client/Project

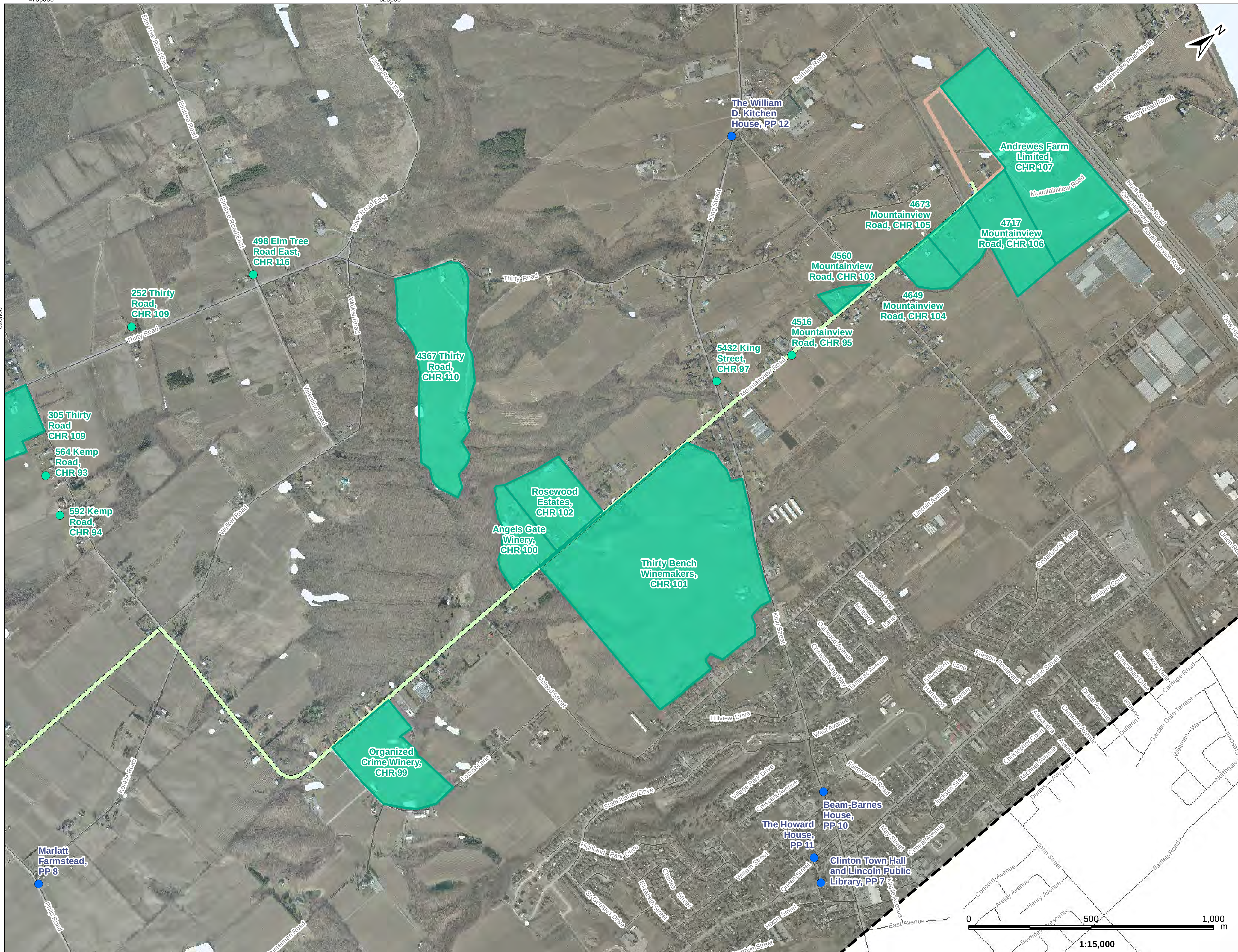
Niagara Region Wind Corporation
Niagara Region Wind Farm

Figure No.

18

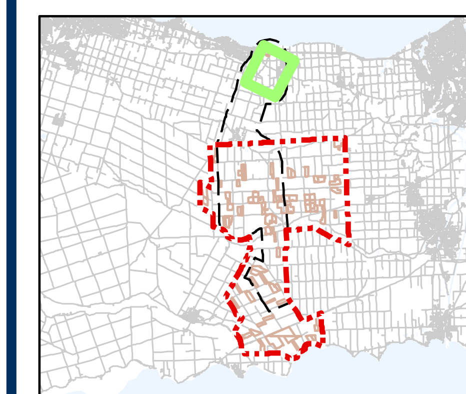
Title

Heritage Resources & Project Components Interconnector Study Area, Central



Legend

- Protected Property
- Cultural Heritage Resource
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Proposed Culvert
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
- Temporary Laydown Area
- Potential Access Road
- Proposed Fibre Optic Line
- Transformer Substation
- Potential Construction Laydown Area
- Participating Property
- Interconnector Study Area
- Project Study Area



Notes

1. Coordinate System: NAD 1983 UTM Zone 17N).
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Client/Project
Niagara Region Wind Corporation
Niagara Region Wind Farm

Figure No.
19

Title
Heritage Resources & Project Components Interconnector Study Area, North

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Revised: 2013-04-02 By: sarogers

Legend

- Protected Property
- Cultural Heritage Resource
- Cultural Heritage Resource
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Proposed Culvert
- Preferred Transmission Line Route
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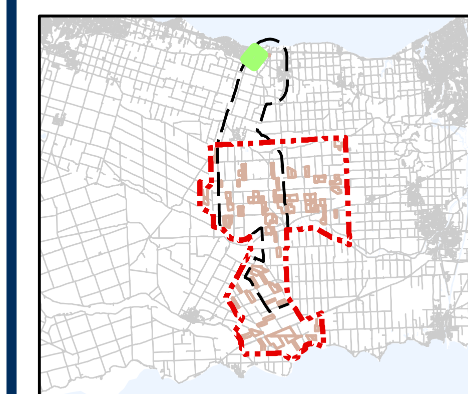
- Project Study Area



Notes

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Client/Project
Niagara Region Wind Corporation
Niagara Region Wind Farm

Figure No.
20

Title
Heritage Resources & Project Components Interconnector Study Area, Northwest

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Revised: 2013-04-12 By: zbartlett

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-93	564 Kemp Road	Design or Physical	The Villa Bacchus bed and breakfast, built in 1976 as the former residence of the Comisso family. Character-defining features include the large, two storey estate house and the manicured gardens in its immediate setting which contribute to its Italian Villa design.	meets criteria	 Photo 149
		Historical or Associative	Associated with the Comisso family, who operated one of the largest supermarket chains in southern Ontario in the mid to late-20th century.		
		Contextual	Although the style of architecture is not consistent with typical rural Ontario, its setback, scale and soft landscaping elements are consistent with the character of the immediately surrounding vineyard landscape.		
CHR-94	592 Kemp Road	Design or Physical	Two storey gable-roofed house. Design features include five bay front façade with central portico and wide doorway, suggesting Georgian design. Representative example of Georgian-influenced architecture.	meets criteria	 Photo 150
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-95	4516 Mountainview Road	Design or Physical	Niagara Presents Specialty Foods store and processing plant. Multiple-gabled brick building appears to incorporate former schoolhouse. Design elements include: brickwork detailing around eaves, gable, and windows of front elevation; and labelstone which reads "School Section No. 2 Clinton 1902". School facade a unique example in area of early 20th century rural schoolhouse design.	meets criteria	 Photo 151
		Historical or Associative	Associated with the provision of education to the local early 20th century settlement.		
		Contextual	Historically linked to its surroundings as a former schoolhouse location.		
CHR-96	252 Thirty Road	Design or Physical	Large, one and a half storey Gothic Revival brick house. Design features include: finials and gable bargeboard bargeboarding; prominent central doorway with side and transom lights; and a biforate rounded lancet window. A unique and representative example of Gothic Revival vernacular design with three front gables.	meets criteria	 Photo 152
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-97	5432 King Street	Design or Physical	Two storey hipped roof farmhouse on a square footprint. Design features include: three bay front façade with central first and second storey doors and 3-over-2 hung windows; wraparound porch; chimneys on opposing exterior walls; and plaster cladding. Rare use of plaster exterior cladding in area.	meets criteria	 Photo 153
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

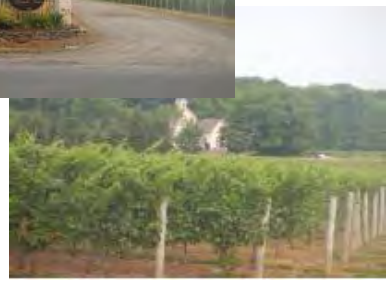
Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-98	3263 South Grimsby Road 3	Design or Physical	Former Grimsby Union school Section 7, built 1865. Currently being converted into residence. One storey stone building with gabled roof and small, one storey rear addition, set among mature deciduous trees on a small rise. Design features include: three bay front facade with central doorway; original wood frame windows and wood label plate on front facade; and a simple cornice.	meets criteria	 Photo 154
		Historical or Associative	Associated with the development and education of the local community.		
		Contextual	Quintessential one room schoolhouse defines and is historically linked to the rural landscape. Functions as a landmark.		
CHR-99	Organized Crime Winery CHL (4043 Mountainview Road)	Design or Physical	Organized Crime Winery (4043 Mountainview Road) includes one and a half storey modern residence and wine bar and associated vineyards. Landscape characterized by the rolling terrain of the Niagara Escarpment, and is located in the Beamsville Bench wine-growing sub-appellation.	meets criteria	 Photo 155
		Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.		
		Contextual	As an evolved landscape, CHL 22 demonstrates a unique relationship between the natural environment and the socio-economic practices associated with wine-growing through its cultivated vineyards. Supports character of the area as a wine-making and fruit-growing region.		
CHR-100	Angels Gate Winery CHL (4260 and 4262 Mountainview Road)	Design or Physical	Angels Gate Winery CHL (4260 and 4262 Mountainview Road) includes one storey gabled-roof residence, large Italian Villa-inspired winery estate house and associated vineyards. Landscape characterized by the rolling terrain of the Niagara Escarpment, and is located in the Beamsville Bench wine-growing sub-appellation.	meets criteria	  Photos 156 and 157
		Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.		
		Contextual	As an evolved landscape, CHL 23 demonstrates a unique relationship between the natural environment and the socio-economic practices associated with wine-growing through its cultivated vineyards. Supports character of the area as a wine-making region.		

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-101	Thirty Bench Winemakers CHL (4281 Mountainview Road)	Design or Physical	Thirty Bench Winemakers CHL (4281 Mountainview Road) includes one storey cottage and large, one storey gable-roofed winery estate house, and associated vineyards. Landscape characterized by the rolling terrain of the Niagara Escarpment, and is located in the Beamsville Bench wine-growing sub-appellation.	meets criteria	 Photo 158
		Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.		
		Contextual	As an evolved landscape, CHL 24 demonstrates a unique relationship between the natural environment and the socio-economic practices associated with wine-growing through its cultivated vineyards. Supports character of the area as a wine-making and fruit-growing region.		
CHR-102	Rosewood Estates CHL (4352 Mountainview Road)	Design or Physical	Rosewood Estates (4352 Mountainview Road) includes several buildings which form an estate, and associated vineyards. Landscape characterized by the rolling terrain of the Niagara Escarpment, and is located in the Beamsville Bench wine-growing sub-appellation.	meets criteria	 Photo 159
		Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.		
		Contextual	As an evolved landscape, Rosewood Estates (4352 Mountainview Road) demonstrates a unique relationship between the natural environment and the socio-economic practices associated with wine-growing through its cultivated vineyards. Supports character of the area as a wine-making and fruit-growing region.		

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-103	4560 Mountainview Road CHL	Design or Physical	Agricultural CHL includes two storey hipped-roof brick farmhouse and associated orchards. Landscape characterized by the flat terrain of the Lincoln Lakeshore sub-appellation and the glacial Lake Iroquois Plain, a distinctive micro-climate in the Niagara Region, located between the Escarpment and Lake Ontario.	meets criteria	 Photo 160
		Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.		
		Contextual	As an evolved landscape, 4560 Mountainview Road demonstrates a unique relationship between the natural environment and the socio-economic practices associated with fruit-growing through its cultivated orchards. Supports character of the area as a wine-making and fruit-growing region.		
CHR-104	4649 Mountainview Road CHL	Design or Physical	Agricultural landscape includes one and a half storey multiple-gabled farmhouse with plaster cladding, an outbuilding and associated orchards. Landscape characterized by the flat terrain of the Lincoln Lakeshore sub-appellation and the glacial Lake Iroquois Plain, a distinctive micro-climate in the Niagara Region, located between the Escarpment and Lake Ontario.	meets criteria	 Photo 161
		Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.		
		Contextual	As an evolved landscape, 4649 Mountainview Road demonstrates a unique relationship between the natural environment and the socio-economic practices associated with fruit-growing through its cultivated orchards. Supports character of the area as a wine-making and fruit-growing region.		

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-105	4673 Mountainview Road CHL	Design or Physical	Agricultural landscape includes one and a half storey gambrel-roofed vernacular house and associated orchards. Landscape characterized by the flat terrain of the Lincoln Lakeshore sub-appellation and the glacial Lake Iroquois Plain, a distinctive micro-climate in the Niagara Region, located between the Escarpment and Lake Ontario.	meets criteria	 Photo 162
		Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.		
		Contextual	As an evolved landscape, 4673 Mountainview Road demonstrates a unique relationship between the natural environment and the socio-economic practices associated with fruit-growing through its cultivated orchards. Suppors character of the area as a wine-making and fruit-growing region.		
CHR-106	4717 Mountainview Road CHL	Design or Physical	Agricultural landscape includes: one and a half storey cross-gambrel roof house; a one and a half store ell-shaped vernacular farmhouse; various outbuildings; and associated orchards. Landscape characterized by the flat terrain of the Lincoln Lakeshore sub-appellation and the glacial Lake Iroquois Plain, a distinctive micro-climate in the Niagara Region, located between the Escarpment and Lake Ontario.	meets criteria	 Photo 163
		Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.		
		Contextual	As an evolved landscape, 4717 Mountainview Road demonstrates a unique relationship between the natural environment and the socio-economic practices associated with fruit-growing through its cultivated orchards. Supports character of the area as a wine-making and fruit-growing region.		

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-107	Andrewes Farm Limited CHL (4764 Mountainview Road)	Design or Physical	Agricultural landscape consists of a primarily fruit-producing 625 acre farm. Landscape characterized by the flat terrain of the Lincoln Lakeshore sub-appellation and the glacial Lake Iroquois Plain, a distinctive micro-climate in the Niagara Region, located between the Escarpment and Lake Ontario.	meets criteria	 Photo 164
		Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada. Further associated with Scotch Block, a historic, mid-19th century settlement of Scots in which the farm is located.		
		Contextual	As an evolved landscape, this CHL demonstrates a unique relationship between the natural environment and the socio-economic practices associated with fruit-growing through its cultivated fields and orchards. Supports character of the area as a wine-making and fruit-growing region.		
CHR-108	324 Thirty Road CHL	Design or Physical	CHL includes one and a half storey plaster cladded Gothic Revival cottage and associated vineyards. Landscape characterized by the rolling terrain of the Niagara escarpment, and is located in the Vinemount Ridge wine-growing sub-appellation.	meets criteria	 Photo 165
		Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.		
		Contextual	As an evolved landscape, 324 Thirty Road demonstrates a unique relationship between the natural environment and the socio-economic practices associated with wine-growing through its cultivated vineyards. Supports character of the area as a wine-making and fruit-growing region.		

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-109	305 Thirty Road CHL	Design or Physical	CHL 32 includes two storey vernacular farmhouse and associated orchards and vineyards. Landscape characterized by the rolling terrain of the Niagara Escarpment, and is located in the Vinemount Ridge wine-growing sub-appellation.	meets criteria	 Photo 166
		Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.		
		Contextual	As an evolved landscape, 305 Thirty Road demonstrates a unique relationship between the natural environment and the socio-economic practices associated with wine-growing through its cultivated vineyards. Supports character of the area as a wine-making and fruit-growing region.		
CHR-110	4367 Thirty Road CHL	Design or Physical	CHL 33 includes two storey vernacular farmhouse, agricultural outbuildings including a one storey gabled stone shed and associated vineyards. Landscape characterized by the rolling terrain of the Niagara Escarpment, and is located in the Beamsville Bench wine-growing sub-appellation.	meets criteria	 Photo 167
		Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.		
		Contextual	As an evolved landscape, 4367 Thirty Road demonstrates a unique relationship between the natural environment and the socio-economic practices associated with fruit-growing through its cultivated fields and orchards. Supports character of the area as a wine-making and fruit-growing region.		

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-111	Aure Wines (3749 Walker Road)	Design or Physical	Cultural heritage landscape. Aure Winery is a small winery which has been in operation since 2007. The landscapes include a small vineyard, the remains of a concrete silo and stone foundation building, and several barns and other buildings associated with wine production. Landscape characterized by the gently rolling terrain of the Niagara Escarpment, and is located in the Vinemount Ridge wine-growing sub-appellation.	meets criteria	 Photo 168
		Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.		
		Contextual	As an evolved landscape, the Aure Wines Cultural Heritage Landscape demonstrates a unique relationship between the natural environment and the socio-economic practices associated with wine-growing through its cultivated vineyards. Helps to support character of the area as a wine-making and fruit-growing region.		
CHR-116	498 Elm Tree Road East	Design or Physical	The two storey brick building is a former schoolhouse or church, now converted into a residence. The building consists of a main structure, constructed on a rectangular plan with a hipped roof, and a two storey square addition with a hipped roof. Value defining features include a rounded bell tower; a front door with sidelights and a returned eave portico; and stone banding, sills, and lintels	meets criteria	 Photo 169
		Historical or Associative	Town of Grimsby's Heritage Register, approved by Council on February 4, 2008		
		Contextual	Consistent with the character of the surrounding landscape.		

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-117	276 Main Street East	Design or Physical	The property includes a two storey building on a square plan, with a hipped roof, large front porch, and frontispiece	meets criteria	 Photo 170
		Historical or Associative	Town of Grimsby's Heritage Register, approved by Council on February 4, 2008		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-118	321 Main Street East	Design or Physical	This property appears to have recently been replaced with a TSC Store.	meets criteria	 Photo 171
		Historical or Associative	Town of Grimsby's Heritage Register, approved by Council on February 4, 2008		
		Contextual	Removed		

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-119	326 Main Street East	Design or Physical	The property features a two storey brick building on a wide setback. Value defining features include an irregular, multiple-gabled roof, attic window with rounded transom and sidelights, and a large, wraparound porch.	meets criteria	 Photo 172
		Historical or Associative	Town of Grimsby's Heritage Register, approved by Council on February 4, 2008		
		Contextual	Consistent with the character of the surrounding landscape.		

6 IMPACT ASSESSMENTS

A total of 111 cultural heritage resources have been identified which satisfy the criteria for determining cultural heritage value or interest as outlined under O.Reg.9/06 (Tables 5 through 11). Potential Project-related negative impacts have been assessed for each of the resources that have been evaluated as meeting the criteria for cultural value or interest. Methodology for this assessment is outlined in Section 1.3.2.

6.1 Area 1

Area 1 is roughly bounded by Smithville Road to the north, Vaughan Road to the south, Highway 30 and St. Ann's Road to the east, and Caistor-Gainsborough Townline to the west (Figure 11). Table 12 summarizes the assessment of potential Project impacts on identified built heritage resources and cultural heritage landscapes in Area 1.

No potential visual impacts have been identified with respect to significant views of or from cultural heritage resources or views from public spaces, such as cemetery grounds which directly or indirectly obstruct cultural heritage values of identified resources. Three cemeteries have been noted within Area 1: Winslow Cemetery; West Lincoln Grace United Church Cemetery; and West Lincoln McCaffrey Cemetery. Winslow Cemetery and West Lincoln Grace United Church cemetery are considered to have sufficient tree cover around their perimeters to provide a visual barrier between the cemetery grounds and Project components (see Appendix A, Photos 16, 17 and 19).

This assessment considered the potential for overhead transmission infrastructure to have a negative visual impact on adjacent structures, specifically: 6500 Sixteen Road (CHR-5); 5711 Concession Road 4 (CHR-7); and 6677 Silver Street (CHR-9) (Figure 11). Transmission lines supported on monopoles of varying sizes are located throughout the general Study Area (Appendix A, Photo 9). This type of transmission line has become a ubiquitous feature of the rural landscapes in Southern Ontario. Although additional poles, if required, will be taller than existing poles, the introduction of transmission infrastructure which is generally consistent with existing infrastructure will not have a negative impact on the overall character of the area. With respect to the obstruction of views from any additional poles which may be required, these visual impacts would be localized to specific vantage points where additional poles would be situated directly between the viewer and the landscape. As such, any direct obstruction from overhead transmission infrastructure is not considered to be of significant magnitude as to warrant mitigation.

In the case of West Lincoln McCaffrey Cemetery (CHR-14), there is a potential for new above ground transmission infrastructure to directly obstruct views of the cemetery. At present, the cemetery is characterized by its treed perimeter along its northern, western, and southern edges which provide a backdrop for the gravemakers – the sole built components of the cemetery. The eastern edge of the cemetery, fronting on Port Davidson Road, is completely open (Appendix A,

Photo 19). In order to best preserve views of the cemetery landscape, it is recommended that any overhead transmission infrastructure installed along Port Davidson Road in the vicinity of the West Lincoln McCaffrey Cemetery be installed on the east side of the road.

Potential indirect impacts related to damage from construction vibrations were identified for 6500 Sixteen Road (CHR-5), 5711 Concession Road 4 (CHR-7), and 6677 Silver Street (CHR-9). The effect of traffic and construction vibrations on historic period structures is not fully understood; however, negative effects have been demonstrated on buildings with a setback of less than 40 m from the curbside (Crispino and D'Apuzzo, 2001; Ellis, 1987; Rainer, 1982; Wiss, 1981). In this case, the former Mount Carmel United Brethren Church is narrowly setback and falls within the 50 m bufferzone used by this assessment to identify potential indirect impacts resulting from Project-related construction vibrations within the road allowance. Although not planned at present, in the event that collector and/or transmission lines are installed below-grade, it is recommended that construction be avoided within 50 m of any structure on these properties. If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with built heritage experience under similar circumstances. Construction within 50 m of CHR-5, CHR-7 and CHR-9 should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.

Potential direct impacts related to alteration or damage to the Former Rail Line (CHR-15) were identified for instances where Project components (i.e., collector lines) intersect the rail line (Figures 11 and 13). There is a potential for the installation of any new collector or transmission infrastructure to alter the heritage character of the former rail line and associated components (i.e., extant bridges or culverts, areas where rail ties may remain). Alteration to the former rail corridor should be avoided to the greatest extent possible.

Table 12: Summary of Impact Assessments, Area 1

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-1	2474 Smithville Road	1	N	N	N	N	R	N	No further mitigation recommended.
CHR-2	2723 Port Davidson Road	1	N	N	N	N	N	N	No further mitigation recommended.
CHR-3	5777 Mataseje Road	1	N	N	N	N	N	N	No further mitigation recommended.
CHR-4	7058 Sixteen Road	1	N	N	N	N	R	N	No further mitigation recommended.
CHR-5	6500 Sixteen Road	1	I	I	N	N	N	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-6	5798 Sixteen Road	1	N	N	N	N	N	N	No further mitigation recommended.
CHR-7	5711 Concession Road 4	1	I	I	N	N	N	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-8	1500 Caistor-Gainsborough Townline Road	1	N	N	N	N	R	N	No further mitigation recommended.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

Table 12: Summary of Impact Assessments, Area 1

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-9	6677 Silver Street	1	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-10	6259 Silver Street	1	N	N	N	N	R	N	No further mitigation recommended.
CHR-11	Smithville Christian Reformed Cultural Heritage Landscape	1	N	N	N	N	N	N	No further mitigation recommended.
CHR-12	West Lincoln Grace United Church Cemetery	1	N	N	N	N	R	N	No further mitigation recommended.
CHR-13	Bethel United Church and Winslow Cemetery	1	N	N	N	N	R	N	No further mitigation recommended.
CHR-14	West Lincoln McCaffrey Cemetery	1	N	N	N	N	I	N	• Overhead transmission lines along Port Davidson should be installed on the east side of the road in the vicinity of the West Lincoln McCaffrey Cemetery
CHR-15	Former Rail Line	1	I	I	N	N	R	N	• Ensure construction avoids damage to or removal of identified heritage attributes.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

6.2 Area 2

Area 2 is roughly bounded by Twenty Mile Creek Road to the north, Vaughan Road to the south, Victoria Avenue to the east, and Highway 30/Regional Road 27 to the west (Figure 12). Table 13 summarizes the assessment of potential Project impacts on built heritage resources and cultural heritage landscapes in Area 2.

The majority of built heritage resources and cultural heritage landscapes in Area 2 are situated in locations where no negative Project-related impacts are expected. No potential visual impacts have been identified with respect to significant views of cultural heritage resources or views from public spaces, such as cemetery grounds. Although two cemeteries have been noted within Area 2, Lane's Cemetery and St. Ann's Community Cemetery, both are located far from visible Project components; Lane's Cemetery is approximately 3000 m north of Turbine 52 and St. Ann's Cemetery is approximately 2000 m north of Turbine 27. At distances of greater than 2000 m, the Project will not have a significant visual impact on views from either cemetery (Figure 12).

Potential indirect impacts on structural integrity of cultural heritage resources or attributes resulting from construction vibrations were identified for five built heritage resources and components of three cultural heritage resources, including:

- 5028 Highway 20 (CHR-16);
- 1698 Highway 20 (CHR-17);
- 1750 Highway 20 (CHR-18);
- 1137 Gee Road (CHR-20);
- 4411 Concession Road 4 (CHR-23);
- Hrvatski Park (CHR-34);
- The Bismark Streetscape (CHR-37); and
- The St. Ann's Streetscape (CHR-38).

All of the cultural heritage resources and landscapes noted above are located along proposed collector lines (Figure 12). At present, transmission lines supported on monopoles of varying sizes are located throughout the general Study Area (Appendix A, Photos 21 through 23, 44 and 46, 48 through 51, and 53 through 54). This type of transmission line has become a ubiquitous feature of the rural landscapes in Southern Ontario. Although additional poles, if required, will be taller than existing poles, the introduction of transmission infrastructure which is generally consistent with

existing infrastructure will not have a negative impact on the overall character of the area. With respect to the obstruction of views from any additional poles which may be required, these visual impacts would be localized to specific vantage points where additional poles would be situated directly between the viewer and the landscape. As such, any direct obstruction from overhead transmission infrastructure is not considered to be of significant magnitude as to warrant mitigation.

Although not expected, in the event that new collector lines are installed below-grade, it is recommended that construction be avoided within 50 m of any structures associated with these cultural heritage resources. If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with built heritage experience under similar circumstances. Construction within the 50 m bufferzone should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.

Potential direct impacts related to alteration or damage to the Rail Line were identified for instances where Project components (*i.e.,* collector lines) intersect the rail line (Figure 12). There is a potential for the installation of any new collector infrastructure to alter the heritage character of the rail line and associated components (*i.e.,* bridges or culverts, rail ties). Alteration to the rail corridor should be avoided to the greatest extent practicable.

Table 13: Summary of Impact Assessments, Area 2

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-16	5028 Highway 20	2	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-17	1698 Highway 20	2	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-18	1750 Highway 20	2	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-19	Gainsborough S.S. No. 5	2	N	N	N	N	R	N	No further mitigation recommended.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

Table 13: Summary of Impact Assessments, Area 2

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-20	1137 Gee Road	2	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-21	4117 Vaughan Road	2	N	N	N	N	R	N	No further mitigation recommended.
CHR-22	3976 Highway 20	2	N	N	N	N	R	N	No further mitigation recommended.
CHR-23	4411 Concession Road 4	2	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-24	Gainsborough S.S. No. 4	2	N	N	N	N	R	N	No further mitigation recommended.
CHR-25	4723 Sixteen Road	2	N	N	N	N	N	N	No further mitigation recommended.
CHR-26	4724 Sixteen Road	2	N	N	N	N	N	N	No further mitigation recommended.
CHR-27	Silverdale Community Centre	2	N	N	N	N	N	N	No further mitigation recommended.
CHR-28	4326 Sixteen Road	2	N	N	N	N	N	N	No further mitigation recommended.
CHR-29	4272 Twenty Mile Creek Road	2	N	N	N	N	N	N	No further mitigation recommended.
CHR-30	4454 Twenty Mile Creek Road	2	N	N	N	N	N	N	No further mitigation recommended.
CHR-31	4586 Twenty Mile Creek Road	2	N	N	N	N	N	N	No further mitigation recommended.
CHR-32	5293 Twenty Mile Creek Road	2	N	N	N	N	N	N	No further mitigation recommended.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

Table 13: Summary of Impact Assessments, Area 2

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-33	2467 Moote Road	2	N	N	N	N	R	N	No further mitigation recommended.
CHR-34	Hrvatski Park	2	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-35	Lane's Cemetery	2	N	N	N	N	N	N	No further mitigation recommended.
CHR-36	St. Ann's Community Church and Cemetery	2	N	N	N	N	N	N	No further mitigation recommended.
CHR-37	Bismark Streetscape	2	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

Table 13: Summary of Impact Assessments, Area 2

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-38	St. Ann's Streetscape	2	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-39	Rail Line	2	I	I	N	N	R	N	• Ensure construction avoids negative impacts to identified heritage attributes

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

6.3 Area 3

Area 3 is roughly bounded by Vaughan Road to the north, Canborough Road and Dunn-Wainfleet Townline Road to the south, Regional Road 27 and Sideroad 44 to the east, and Caistor-Gainsborough Townline and Marshagan Road to the west (Figure13). Table 14 summarizes the assessment of potential Project impacts on built heritage resources and cultural heritage landscapes in Area 3.

Potential visual impacts have been identified for views from the cemetery at Elcho United Church. Project components in the vicinity of the church and cemetery include:

- Turbine 7 approximately 900 m to the northeast;
- Turbine 39 approximately 1100 m to the northwest; and
- Turbines 09 and 51 are located approximately 1500 m and 1250 m to the southwest, respectively (Figure 13).

Although there is moderate tree cover to the southwest of the church and cemetery (Appendix A, Photo 65), the northeast and northwest of the cemetery are generally open, with little tree cover (Appendix A, Photo 66). There is a potential for Turbines 7 and 39 to cause a visual obstruction for users of the cemetery. In order to minimise the potential visual impact on views from the Elcho United Church Cemetery (CHR-49), it is recommended that the proponent work with the Elcho Cemetery Board to design and install an appropriate visual barrier around the cemetery to protect views from within the cemetery (*e.g.,* fencing, shrubbery or trees).

Potential visual impacts were considered for six built heritage resources and components of one cultural heritage resource located along proposed transmission lines, including:

- 6479 Canborough Road (CHR-41);
- 5914 Canborough Road (CHR-43);
- 5753 Canborough Road (CHR-44);
- 6227 Elcho Road (CHR-46);
- The Elcho Schoolhouse (CHR-47);
- 5482 Elcho Road (CHR-48); and
- The Elcho United Church (a component of CHR-49).

Presently, transmission lines supported on monopoles of varying sizes are located throughout the general Study Area (Appendix A, Photo 65 and 68). This type of transmission line has become a ubiquitous feature of the rural landscapes in Southern Ontario. Although additional poles, if required, will be taller than existing poles, the introduction of transmission infrastructure which is generally consistent with existing infrastructure will not have a noticeable negative impact on the overall character of the area. With respect to the obstruction of views from any additional poles which may be required, these visual impacts would be localized to specific vantage points where additional poles would be situated directly between the viewer and the landscape. As such, any direct obstruction from overhead transmission infrastructure is not considered to be of significant magnitude as to warrant mitigation.

Potential indirect impacts with respect to construction vibrations have been identified for these six resources located along potential transmission and collector infrastructure and as a result of the potential construction lay-down site directly east of 5753 Canborough Road (CHR-44). It is recommended that construction activities be avoided within 50 m of any structures associated with these cultural heritage resources. If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with experience working with built heritage resources under similar circumstances. Construction within the 50 m bufferzone should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.

Table 14: Summary of Impact Assessments, Area 3

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-40	7092 South Chippewa Road	3	N	N	N	N	R	N	No further mitigation recommended.
CHR-41	6479 Canborough Road	3	I	I	N	N	N	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-42	65049 Highway 7	3	N	N	N	N	N	N	No further mitigation recommended.
CHR-43	5914 Canborough Road	3	I	I	N	N	N	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-44	5753 Canborough Road	3	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

Table 14: Summary of Impact Assessments, Area 3

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-45	5468 Canborough Road	3	N	N	N	N	R	N	No further mitigation recommended.
CHR-46	6227 Elcho Road	3	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-47	Elcho Schoolhouse	3	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-48	5482 Elcho Road	3	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

Table 14: Summary of Impact Assessments, Area 3

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-49	Elcho United Church and Cemetery	3	I	I	N	N	R	N	• Work with the Elcho Cemetery Board to design and install an appropriate visual barrier around the cemetery to protect views from within the cemetery (e.g., fencing, shrubbery or trees). • Avoid construction within a 50 m bufferzone of structures on the church; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-50	Robertland Academy	3	N	N	N	N	R	N	No further mitigation recommended.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

6.4 Area 4

Area 4 is roughly bounded by Vaughan Road to the north, Riverside Drive and Concession 6 to the south, Victoria Avenue to the east, and Regional Road 27 to the west (Figure 14). Table 15 summarizes the assessment of potential Project impacts on built heritage resources and cultural heritage landscapes in Area 4.

No potential visual impacts have been identified with respect to significant views of cultural heritage resources or views from public spaces, such as cemetery grounds. Although one cemetery is located within Area 4, the Wellandport (Riverside) Cemetery, the nearest visible Project component is Turbine 95, located approximately 1500 m southwest of the cemetery (Figure 14). The cemetery is surrounded by trees to the south and west (Appendix A, Photo 88). Given the distance of the cemetery to the Project and the visual barrier created by trees to the south and west, the Project will not have a negative impact on views from the cemetery.

Potential negative impacts related to proposed transmission lines were identified for seven resources:

- 74221 Creek Road (CHR-51);
- Bethel Community Church (CHR-53);
- 3974 Canborough Road (CHR-54);
- 84008 Highway 4 (CHR-57);
- Riverside Christian Reformed Church (CHR-58);
- Wellandport United Reform Church (CHR-59); and
- Wellandport (Riverside) Cemetery (CHR-66).

Transmission lines supported on monopoles of varying sizes are located throughout the general Study Area (Appendix A, Photo 72). This type of transmission line has become a ubiquitous feature of the rural landscapes in Southern Ontario. Although additional poles, if required, will be taller than existing poles, the introduction of transmission infrastructure which is generally consistent with existing infrastructure will not have a negative impact on the overall character of the area. With respect to the obstruction of views from any additional poles which may be required, these visual impacts would be localized to specific vantage points where additional poles would be situated directly between the viewer and the landscape. As such, any direct obstruction from overhead transmission infrastructure is not considered to be of significant magnitude as to warrant mitigation.

Although not expected, in the event that collector lines are installed below-grade, it is recommended that construction be avoided within 50 m of any structure on these two properties. If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with built heritage conservation experience under similar circumstances. Construction within 50 m of CHRs 51, 53, 54, 57, 58, 59 and 66 should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.

Table 15: Summary of Impact Assessments, Area 4

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-51	74221 Creek Road	4	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-52	1187 Heaslip Road	4	N	N	N	N	R	N	No further mitigation required.
CHR-53	Bethel Community Church	4	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-54	3974 Canborough Road	4	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-55	Boyle Brethren in Christ Church	4	N	N	N	N	R	N	No further mitigation required.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

Table 15: Summary of Impact Assessments, Area 4

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-56	5205 Freure Road	4	N	N	N	N	R	N	No further mitigation required.
CHR-57	84004 Highway 4	4	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-58	Riverside Christian Reformed Church	4	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-59	Wellandport United Reform Church	4	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-60	74015 Highway 4	4	N	N	N	N	N	N	No further mitigation required.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

Table 15: Summary of Impact Assessments, Area 4

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-61	83610 Old River Road West	4	N	N	N	N	N	N	No further mitigation required.
CHR-62	Wellandport Church of Christ	4	N	N	N	N	N	N	No further mitigation required.
CHR-63	72587 River Road	4	N	N	N	N	N	N	No further mitigation required.
CHR-64	72170 River Road	4	N	N	N	N	N	N	No further mitigation required.
CHR-65	Wellandport Streetscape	4	N	N	N	N	R	N	No further mitigation required.
CHR-66	Wellandport/Riverside Cemetery	4	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-67	4891 Canborough Road	4	N	N	N	N	R	N	No further mitigation required.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

6.5 Area 5

Area 5 is roughly bounded by Dunn Wainfleet Townline Road and Concession 5 to the north, Booker Road to the south, Hendershot Road to the east, and Marshagan Road to the west (Figure 15). Table 16 summarizes the assessment of potential Project impacts on built heritage resources and cultural heritage landscapes in Area 5.

Potential indirect impacts on structural integrity of cultural heritage resources or attributes resulting from construction vibrations were identified for seven built heritage resources, including:

- 54051 Wellandport Road, CHR-71;
- 44088 Hendershot Road, CHR-72;
- 44067 Hendershot Road, CHR-73;
- 365 Jenny Jump Road, CHR-47;
- 1943 Highway 3, CHR-75;
- 1855 Highway 3, CHR-76 and
- 1668 Highway 3, CHR-77.

The above-noted built heritage resources are located along proposed collector and transmission lines and 1855 Highway 3 is also adjacent to a proposed access road and the below-grade transmission infrastructure for Turbine 82 (Figure 15). It is recommended that construction be avoided within 50 m of any structures associated with these cultural heritage resources. If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with experience working with built heritage resources under similar circumstances. Construction within the 50 m bufferzone should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.

Potential visual impacts related to transmission infrastructure have also been considered. Transmission lines supported on monopoles of varying sizes are located throughout the general Study Area (Appendix A, Photo 97 and 99). This type of transmission line has become a ubiquitous feature of the rural landscapes in Southern Ontario. Although additional poles, if required, may be taller than existing poles, the introduction of transmission infrastructure which is generally consistent with existing infrastructure will not have a negative impact on the overall character of the area. With respect to the obstruction of views from any additional poles which may be required, these visual impacts would be localized to specific vantage points where additional poles would be

situated directly between the viewer and the landscape. As such, any direct obstruction from overhead transmission infrastructure is not considered to be of significant magnitude as to warrant mitigation.

A junction box, measuring 2 m high, 3 m long, and 2 m wide, is proposed to be located within the road Right-of-Way on the south side of Highway 3 connecting Turbine 82 to the existing transmission lines along the road (Figure 15). If located on the south side of the road, the junction box will not obstruct views of the property.

Table 16: Summary of Impact Assessments, Area 5

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-68	663 Marshagan Road	5	N	N	N	N	N	N	No further mitigation recommended.
CHR-69	238 Gore A Road	5	N	N	N	N	R	N	No further mitigation recommended.
CHR-70	554 Hines Road	5	N	N	N	N	N	N	No further mitigation recommended.
CHR-71	54051 Wellandport Road	5	I	I	N	N	N	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-72	44088 Hendershot Road	5	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-73	44067 Hendershot Road	5	I	I	N	N	N	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

Table 16: Summary of Impact Assessments, Area 5

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-74	365 Jenny Jump Road	5	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-75	1943 Highway 3	5	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-76	1855 Highway 3	5	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-77	1668 Highway 3	5	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-78	62 Booker Road	5	N	N	N	N	R	N	No further mitigation recommended.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

Table 16: Summary of Impact Assessments, Area 5

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-79	362 Booker Road	5	N	N	N	N	R	N	No further mitigation recommended.
CHR-112	2083 Highway 3, Mount Carmel United Brethren Church	5	I	N	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-113	1300 Hutchinson Road, Mount Carmel Cemetery	5	I	N	N	N	I	N	• any construction along the road Right-of-Way in the vicinity of the cemetery be planned to avoid removal of, or damage to, character-defining attributes along Hutchinson Road (i.e., fencing, grave markers, tree-plantings). • the proponent work with the municipality and cemetery board to design and erect an appropriate visual barrier (i.e., tree plantings, fencing) around the northern, western, and southern boundaries of the cemetery.
CHR-114	214 Gore A Road	5	N	N	N	N	R	N	No further mitigation recommended.
CHR-115	664 Marshagan Road	5	N	N	N	N	N	N	No further mitigation recommended.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

6.6 Area 6

Area 6 is roughly bounded by Highway 3 and Bell Road to the north, Rymer Road and Lakeshore Road to the south, Burkett Road and Dunnville Wainfleet Townline to the east, and Moulton Aiken Road to the west (Figure 16). Table 17 summarizes the assessment of potential Project impacts on built heritage resources and cultural heritage landscapes in Area 6.

No potential visual impacts have been identified with respect to significant views of cultural heritage resources or views from public spaces, such as cemetery grounds. One cemetery, Highbanks Cemetery, has been identified within Area 6. The nearest visible Project component is Turbine 5, located approximately 1750 m north of the cemetery (Figure 16). Tree cover directly north of the cemetery, is considered to be sufficient to provide a visual barrier between the cemetery grounds and Project components and, as a result, the Project will not obstruct views from the cemetery (see Appendix A, Photo 115).

Potential visual impacts resulting from above ground transmission infrastructure in the vicinity of 753 Inman Road (CHR-81) were considered as part of this assessment. Transmission lines supported on monopoles of varying sizes are located throughout the general Study Area. This type of transmission line has become a ubiquitous feature of the rural landscapes in Southern Ontario. Although additional poles, if required, will be taller than existing poles, the introduction of transmission infrastructure which is generally consistent with existing infrastructure will not have a negative impact on the overall character of the area. With respect to the obstruction of views from any additional poles which may be required, these visual impacts would be localized to specific vantage points where additional poles would be situated directly between the viewer and the landscape. As such, any direct obstruction from overhead transmission infrastructure is not considered to be of significant magnitude as to warrant mitigation.

Potential indirect impacts on structural integrity of cultural heritage resources or attributes resulting from construction vibrations were identified for one resource, 753 Inman Road (CHR-81). The farmhouse is adjacent to a proposed access road and below-grade transmission infrastructure for Turbine 99 (Figure 16). In the event that new construction is required in the vicinity of CHR-81, it is recommended that construction be avoided within 50 m of any structure on the property. If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with experience working with built heritage resources under similar circumstances. Construction within 50 m of CHR-81 should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.

Potential direct impacts related to alteration of or damage to the Gordon Harry Trail (CHR-92) and the Welland Feeder Canal (CHR-90) have been identified for instances where Project components (i.e., collector lines) intersect the rail line (Figure 16). There is a potential for the installation of any

new collector infrastructure to alter the heritage character of the former rail line and associated components (i.e., extant bridges or culverts, areas where rail ties may remain). Alteration to the former rail corridor should be avoided to the greatest extent practicable and any landscape elements altered by the Project should be restored to their former state following construction activities. Because the cultural heritage value of the trail is derived not only from its association with the former railway, but also from its present-day use, it is recommended that disruption of the trail for extended periods of time be avoided. Construction activity in the vicinity of the Welland Feeder Canal should be limited to existing road crossings and alteration or damage to the canal walls should be avoided.

Table 17: Summary of Impact Assessments, Area 6

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-80	55 Moulton Aiken Road	6	N	N	N	N	R	N	No further mitigation recommended.
CHR-81	753 Inman Road	6	I	I	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-82	928 Canal Bank Road	6	N	N	N	N	R	N	No further mitigation recommended.
CHR-83	228 Feeder Bank Road	6	N	N	N	N	R	N	No further mitigation recommended.
CHR-84	Former Schoolhouse	6	N	N	N	N	N	N	No further mitigation recommended.
CHR-85	2307 North Shore Drive	6	N	N	N	N	N	N	No further mitigation recommended.
CHR-86	12698 Mittelstadt Road	6	N	N	N	N	N	N	No further mitigation recommended.
CHR-87	12822 Minor Road	6	N	N	N	N	N	N	No further mitigation recommended.
CHR-88	Stromness Streetscape	6	N	N	N	N	R	N	No further mitigation recommended.
CHR-89	Sherbrook Baptist Church and Highbanks Cemetery	6	N	N	N	N	N	N	No further mitigation recommended.
CHR-90	Welland Feeder Canal	6	I	I	N	N	R	N	• Ensure construction activities remain within existing roadways and avoid damage to or alteration of the Canal.
CHR-91	Lowbanks Streetscape	6	N	N	N	N	R	N	No further mitigation recommended.
CHR-92	Gord Harry Trail	6	I	I	N	N	R	N	• Ensure construction avoids the destruction, removal, or alteration of identified heritage attributes; • Avoid disrupting use of trail for extended periods of time; • Ensure any landscape elements (i.e., pathway, vegetation) altered by the Project are restored to their original state following construction activities.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

6.7 Area 7, Interconnector Study Area

Area 7 is roughly bounded by Lake Ontario to the north, Townline Road to the south, Sann Road to the east, and Park Road South to the west (Figures 17 through 20). Table 18 summarizes the assessment of potential Project impacts on built heritage resources and cultural heritage landscapes in Area 7.

The majority of cultural heritage resources identified during the survey of the potential interconnector routes are located in close proximity to Project infrastructure (Figures 17 through 20). Potential negative impacts related to construction vibrations or the damage or removal of landscape components have been identified for a total of four built heritage resources and ten cultural heritage landscapes, including:

- 564 Kemp Road (CHR-93);
- 592 Kemp Road (CHR-94);
- 4516 Mountainview Road (CHR-95);
- 3263 South Grimsby Road 3 (CHR-98);
- Organized Crime Winery (CHR-99);
- Angels Gate Winery (CHR-100);
- Thirty Bench Winemakers (CHR-101);
- Rosewood Estates (CHR-102);
- 4560 Mountainview Road (CHR-103);
- 4649 Mountainview Road (CHR-104);
- 4673 Mountainview Road (CHR-105);
- 324 Thirty Road (CHR-108);
- 305 Thirty Road (CHR-109); and
- Aure Wines (CHR-111).

All of the cultural heritage resources noted above are located along preferred and alternative transmission lines (Figures 17 through 20). At present, the proposed transmission line will consist of

overhead transmission lines supported on a series of 23 m high monopoles. This assessment considered the potential for above ground transmission infrastructure to have a negative visual impact on built heritage resources and cultural heritage landscapes.

At present, transmission lines supported on monopoles of varying sizes are located along both sides of the road Right-of-Way along the length of the preferred and alternative transmission routes (Appendix A, Photos 131 through 133, 137). This type of transmission line has become a ubiquitous feature of the rural landscapes in Southern Ontario. Although the proposed poles are taller than existing poles and will, as such be visible, the introduction of additional transmission infrastructure which is generally consistent with existing infrastructure will not have a negative impact on the overall character of the area. With respect to the obstruction of views from any additional poles which may be required, these visual impacts would be localized to specific vantage points where additional poles would be situated directly between the viewer and the landscape. As such, any direct obstruction from overhead transmission infrastructure is not considered to be of significant magnitude as to warrant mitigation.

It is recommended that construction be avoided within 50 m of any structures associated with these cultural heritage resources. If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with experience working with built heritage resources under similar circumstances. Construction within the 50 m bufferzone should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.

Some of the heritage value of the majority of cultural heritage landscapes noted above is related to their association with the development of wine-making and fruit-growing industries characteristic of the Niagara area. Cultural resources associated with this theme include CHRs 99 through 111. As a result, it is recommended that removal of or damage to root systems and above ground vegetation of vineyards and orchards along the interconnector route should be avoided to the greatest extent practicable. Risk of damage to or removal of existing vineyards and orchards is considered to be low as Project activities will be limited to the road Right-of-Way. Where damage or removal is accidental or unavoidable, the vegetation should be restored to its pre-Project state.

As a general recommendation, the use of Mountainview Road for the transportation of heavy machinery, large Project components, and staff be avoided to the greatest extent practicable, in order to best protect the cultural heritage landscapes and their patterns of use (i.e., tourism, viticulture, transportation of agricultural products).

Table 18: Summary of Impact Assessments, Area 7 (Interconnector Study Area)

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-93	564 Kemp Road	7 (Figure 19)	I	I	N	N	N	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-94	592 Kemp Road	7 (Figure 19)	I	I	N	N	N	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-95	4516 Mountainview Road	7 (Figure 19)	I	I	N	N	N	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-96	252 Thirty Road	7 (Figure 19)	N	N	N	N	N	N	No further mitigation required.
CHR-97	5432 King Street	7 (Figure 19)	N	N	N	N	N	N	No further mitigation required.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

Table 18: Summary of Impact Assessments, Area 7 (Interconnector Study Area)

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-98	3263 South Grimsby Road 3	7 (Figure 18)	I	I	N	N	N	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-99	Organized Crime Winery CHL (4043 Mountainview Road)	7 (Figure 19)	I	I	N	N	N	N	• Avoid removal or damage to cultivated vines, including root systems and above ground vegetation; and • provide compensation or replacement in the event that cultivated vines are removed or damaged.
CHR-100	Angels Gate Winery CHL (4260 and 4262 Mountainview Road)	7 (Figure 19)	I	I	N	N	N	N	• Avoid removal or damage to cultivated vines, including root systems and above ground vegetation; • provide compensation or replacement in the event that cultivated vines are removed or damaged.
CHR-101	Thirty Bench Winemakers CHL (4281 Mountainview Road)	7 (Figure 19)	I	I	N	N	N	N	• Avoid removal or damage to cultivated vines, including root systems and above ground vegetation; • provide compensation or replacement in the event that cultivated vines are removed or damaged.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

Table 18: Summary of Impact Assessments, Area 7 (Interconnector Study Area)

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-102	Rosewood Estates CHL (4352 Mountainview Road)	7 (Figure 19)	I	I	N	N	N	N	• Avoid removal or damage to cultivated vines, including root systems and above ground vegetation; • provide compensation or replacement in the event that cultivated vines are removed or damaged.
CHR-103	4560 Mountainview Road CHL	7 (Figure 19)	I	I	N	N	N	N	• Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded; • avoid removal or damage to cultivated orchards, including root systems and above ground vegetation; • provide compensation or replacement in the event that cultivated orchards are removed or damaged.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

Table 18: Summary of Impact Assessments, Area 7 (Interconnector Study Area)

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-104	4649 Mountainview Road CHL	7 (Figure 19)	I	I	N	N	N	N	• Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded; • avoid removal or damage to cultivated orchards, including root systems and above ground vegetation; • provide compensation or replacement in the event that cultivated orchards are removed or damaged.
CHR-105	4673 Mountainview Road CHL	7 (Figure 19)	I	I	N	N	N	N	• Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded; • avoid removal or damage to cultivated orchards, including root systems and above ground vegetation; • provide compensation or replacement in the event that cultivated orchards are removed or damaged.
CHR-106	4717 Mountainview Road CHL	7 (Figure 19)	N	N	N	N	N	N	No further mitigation required.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

Table 18: Summary of Impact Assessments, Area 7 (Interconnector Study Area)

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-107	Andrewes Farm Limited CHL (4764 Mountainview Road)	7 (Figure 19)	N	N	N	N	N	N	No further mitigation required.
CHR-108	324 Thirty Road CHL	7 (Figure 18)	I	I	N	N	N	N	• Avoid removal or damage to cultivated vines, including root systems and above ground vegetation; • provide compensation or replacement in the event that cultivated vines are removed or damaged.
CHR-109	305 Thirty Road CHL	7 (Figures 18 and 19)	I	I	N	N	N	N	• Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded; • avoid removal or damage to cultivated orchards, including root systems and above ground vegetation; • provide compensation or replacement in the event that cultivated orchards are removed or damaged.
CHR-110	4367 Thirty Road CHL	7 (Figure 19)	N	N	N	N	N	N	No further mitigation required.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

Table 18: Summary of Impact Assessments, Area 7 (Interconnector Study Area)

CHR #	Address/Name	Area #	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-111	Aure Wines (3749 Walker Road)	7 (Figure 18)	I	I	N	N	N	N	• Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded; • avoid removal or damage to cultivated orchards, including root systems and above ground vegetation; • provide compensation or replacement in the event that cultivated orchards are removed or damaged.
CHR-116	498 Elm Tree Road East	7 (Figure 19)	N	N	N	N	N	N	No further mitigation required.
CHR-117	276 Main Street East	outside of study area, west of Figure 19	N	N	N	N	N	N	No further mitigation required.
CHR-118	321 Main Street East	outside of study area, west of Figure 19	N	N	N	N	N	N	No further mitigation required.
CHR-119	326 Main Street East	outside of study area, west of Figure 19	N	N	N	N	N	N	No further mitigation required.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

7 STUDY RESULTS

A total of 111 cultural heritage resources within the Study Area were evaluated as meeting the criteria for heritage value or interest under O.Reg.9/06. All of these cultural heritage resources and landscapes were assessed for potential Project-related negative impacts.

Although no cultural heritage resources are planned to be destroyed by the proposed Project, potential negative impacts have been identified for 52 cultural heritage resources (listed in Table 19), including:

- 6500 Sixteen Road (CHR-5);
- 5711 Concession Road 4 (CHR-7);
- 6677 Silver Street (CHR-9);
- 5028 Highway 20 (CHR-16);
- 1698 Highway 20 (CHR-17);
- 1750 Highway 20 (CHR-18);
- 1137 Gee Road (CHR-20);
- 4411 Concession Road 4 (CHR-23);
- 6479 Canborough Road (CHR-41);
- 5914 Canborough Road (CHR-43);
- 5753 Canborough Road (CHR-44);
- 6227 Elcho Road (CHR-46);
- The Elcho Schoolhouse (CHR-47);
- 5482 Elcho Road (CHR-48);
- 74221 Creek Road (CHR-51);
- Bethel Community Church (CHR-53);
- 3974 Canborough Road (CHR-54);
- 84008 Highway 4 (CHR-57);
- Riverside Christian Reformed Church (CHR-45);
- Wellandport United Reform Church (CHR-59);
- 54051 Wellandport Road (CHR-71);
- 44088 Hendershot Road (CHR-72);
- 44067 Hendershot Road (CHR-73);
- 365 Jenny Jump Road, (CHR-74);
- 1943 Highway 3, (CHR-75);
- 1855 Highway 3, (CHR-76);
- 1668 Highway 3, (CHR-77);
- 753 Inman Road (CHR-81);
- 564 Kemp Road (CHR-93);
- 592 Kemp Road (CHR-94);
- 4516 Mountainview Road (CHR-95);
- 3263 South Grimsby Road 3 (CHR-98);
- West Lincoln McCaffrey Cemetery (CHR-14);
- Former Rail Line (CHR-15);
- Hrvatski Park (CHR-34);
- The Bismark Streetscape (CHR-37);
- The St. Ann's Streetscape (CHR-38);
- Rail Line (CHR-39);
- Elcho United Church and Cemetery (CHR-49);
- Wellandport (Riverside) Cemetery (CHR-66);
- the Welland Feeder Canal (CHR-90);
- Gordon Harry Trail (CHR-92;
- Organized Crime Winery (CHR-99);
- Angels Gate Winery (CHR-100);
- Thirty Bench Winemakers (CHR-101);
- Rosewood Estates (CHR-102);
- 4560 Mountainview Road (CHR-103);
- 4649 Mountainview Road (CHR-104);
- 4673 Mountainview Road (CHR-105);
- 324 Thirty Road (CHR-108);
- 305 Thirty Road (CHR-109); and
- Aure Wines (CHR-111).

Table 19: Summary of Potential Negative Impacts and Recommended Mitigation

BHR/CHL #	Address/Name	Potential Negative Impact						Recommended Mitigation
		Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-5	6500 Sixteen Road	I	N	N	N	N	N	• Avoid construction within a 50 m bufferzone of structures on the property; • In the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-7	5711 Concession Road 4							
CHR-9	6677 Silver Street							
CHR-16	5028 Highway 20							
CHR-17	1698 Highway 20							
CHR-18	1750 Highway 20							
CHR-20	1137 Gee Road							
CHR-23	4411 Concession Road 4							
CHR-41	6479 Canborough Road							
CHR-43	5914 Canborough Road							
CHR-44	5753 Canborough Road							
CHR-46	6227 Elcho Road							
CHR-47	Elcho Schoolhouse							
CHR-48	5482 Elcho Road							
CHR-51	74221 Creek Road							
CHR-53	Bethel Community Church							
CHR-54	3974 Canborough Road							
CHR-57	84004 Highway 4							
CHR-58	Riverside Christian Reformed Church							
CHR-59	Wellandport United Reform Church							
CHR-71	54051 Wellandport Road							
CHR-72	44088 Hendershot Road							
CHR-73	44067 Hendershot Road							
CHR-74	365 Jenny Jump Road							
CHR-75	1943 Highway 3							
CHR-76	1855 Highway 3							
CHR-77	1668 Highway 3							
CRH-81	753 Inman Road							
CHR-93	564 Kemp Road							
CHR-94	592 Kemp Road							
CHR-95	4516 Mountainview Road							
CHR-98	3263 South Grimsby Road 3							

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

Table 19: Summary of Potential Negative Impacts and Recommended Mitigation

BHR/CHL #	Address/Name	Potential Negative Impact						Recommended Mitigation
		Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-14	West Lincoln McCaffrey Cemetery	N	N	N	N	I	N	• Overhead tranmission infrastructure should be installed on the east side of Port Davidson Road in the vicinity of the West Lincoln McCaffrey Cemetery in order to conserve open views of the cemetery.
CHR-34	Hrvatski Park	I	N	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; • In the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-37	Bismark Streetscape							
CHR-38	St. Ann's Streetscape							
CHR-66	Wellandport (Riverside) Cemetery							
CHR-49	Elcho United Church and Cemetery	I	N	N	N	R	N	• Work with the Elcho Cemetery Board to design and install an appropriate visual barrier around the cemetery to protect views from within the cemetery (e.g., fencing, shrubbery or trees). • Avoid construction within a 50 m bufferzone of structures on the church; • In the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-99	Organized Crime Winery CHL (4043 Mountainview Road)	I	I	N	N	N	N	• Avoid removal or damage to cultivated vines, including root systems and above ground vegetation; and • Provide compensation or replacement in the event that cultivated vines are removed or damaged.
CHR-100	Angels Gate Winery CHL (4260 and 4262 Mountainview Road)							
CHR-101	Thirty Bench Winemakers CHL (4281 Mountainview Road)							
CHR-102	Rosewood Estates CHL (4352 Mountainview Road)							
CHR-103	4560 Mountainview Road CHL	I	I	N	N	N	N	• Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; • In the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded; • Avoid removal or damage to cultivated vines, orchards, trees, and plants (including root systems and above ground vegetation); • Provide compensation in the event that cultivated plants are removed or damaged
CHR-104	4649 Mountainview Road CHL							
CHR-105	4673 Mountainview Road CHL							
CHR-108	324 Thirty Road CHL							
CHR-109	305 Thirty Road CHL							
CHR-111	Aure Wines CHL							
CHR-15	Former Rail Line	I	I	N	N	R	N	• Ensure construction avoids damage to or removal of identified heritage attributes; • Restore Project-crossings to pre-construction state following Project activities
CHR-39	Rail Line							

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

Table 19: Summary of Potential Negative Impacts and Recommended Mitigation

BHR/CHL #	Address/Name	Potential Negative Impact						Recommended Mitigation
		Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHR-90	Welland Feeder Canal	I	N	N	N	R	N	• Ensure construction activities remain within existing road crossings; • Avoid damage to or alteration to Canal infrastructure
CHR-92	Gord Harry Trail	I	N	N	N	R	N	• Avoid destruction, removal, or alteration of identified heritage attributes ; • Avoid disrupting use of trail for extended periods of time; • Ensure any landscape elements (i.e., pathway, vegetation) altered by the Project are restored to their pre-construction state following construction activities.
CHR-112	2083 Highway 3, Mount Carmel United Brethren Church	I	N	N	N	R	N	• Avoid construction within a 50 m bufferzone of structures on the property; • in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-113	1300 Hutchinson Road, Mount Carmel Cemetery	I	N	N	N	I	N	• any construction along the road Right-of-Way in the vicinity of the cemetery be planned to avoid removal of, or damage to, character-defining attributes along Hutchinson Road (i.e., fencing, grave markers, tree-plantings). • the proponent work with the municipality and cemetery board to design and erect an appropriate visual barrier (i.e., tree plantings, fencing) around the northern, western, and southern boundaries of the cemetery.

I = potential negative impact, irreversible; R = potential negative impact, reversible; N = no identified negative impact

8 RECOMMENDATIONS

Potential negative impacts identified for the 52 cultural heritage resources (listed in Table 19) are generally of three types:

- Indirect impacts resulting from construction vibrations of the potential installation of new infrastructure (*i.e.,* access roads, collector lines) in close proximity to structures;
- Direct impacts related to the damage or removal of heritage attributes (*i.e.,* built components such as fencing, or cultivated plants or trees) resulting from the construction of new Project infrastructure; and
- Visual impacts with respect to views from public spaces.

In order to lessen or avoid potential indirect negative impacts from construction vibrations, the following recommendations have been made:

- In the event that new Project infrastructure is constructed in the vicinity of identified CHRs, it is recommended that construction be avoided within 50 m of any structures associated with these cultural heritage resources.
- If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with previous experience with built heritage in similar circumstances. Construction within the 50 m bufferzone should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.
- It is further recommended that the final Project Description Report document which option was chosen to mitigate the potential impact of construction vibrations, a description of how the recommendation will be implemented, and a discussion of the Project factors that determined that decision.

As a general recommendation, roads travelling through cultural heritage landscapes in the communities of Smithville, St. Ann's, Bismark, Elcho, Wellandport, and Stromness should be avoided to the greatest extent practicable when transporting heavy machinery and turbine components to the Project location in order to minimize the potential for accidental or indirect damage to the high concentration of narrowly setback cultural heritage resources and landscapes within those communities.

In order to lessen or avoid potential direct negative impacts resulting from the removal or alteration of the heritage attributes of identified cultural heritage landscapes, the following recommendations have been made:

- removal of or damage to identified heritage attributes (*i.e.,* root systems and above ground vegetation of cultivated plant, canal infrastructure, landscape features and built components of rail landscapes) should be avoided to the greatest extent practicable.

- Where damage or removal is unavoidable, plantings and built features should be restored to their pre-construction state immediately following the completion of Project activities.

In order to minimise the potential visual impact of the Project on views from the Elcho United Church Cemetery (CHR-49), it is recommended that the proponent work with the Elcho Cemetery Board to design and install an appropriate visual barrier around the cemetery to protect views from within the cemetery (*e.g.,* fencing, shrubbery or trees).

In order to avoid direct impacts on views of the West Lincoln McCaffrey Cemetery (CHR-14), it is recommended that any overhead transmission infrastructure installed along Port Davidson Road in the vicinity of the cemetery be installed along the eastern side of the road.

9 CLOSURE

This report has been prepared for the sole benefit of Niagara Region Wind Corporation (NRWC) and may not be used without the express written consent of Stantec Consulting Ltd and NRWC. Any use which a third party makes of this report is the responsibility of such third party.

We trust this report meets your current requirements. Please do not hesitate to contact us should you require further information or have additional questions about any facet of this Project.

Yours truly,

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