

**CULTURAL HERITAGE REPORT:
EXISTING CONDITIONS AND PRELIMINARY IMPACT ASSESSMENT**

**MONTROSE ROAD AND LYONS CREEK ROAD/BIGGAR ROAD
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**

REGION OF NIAGARA, ONTARIO

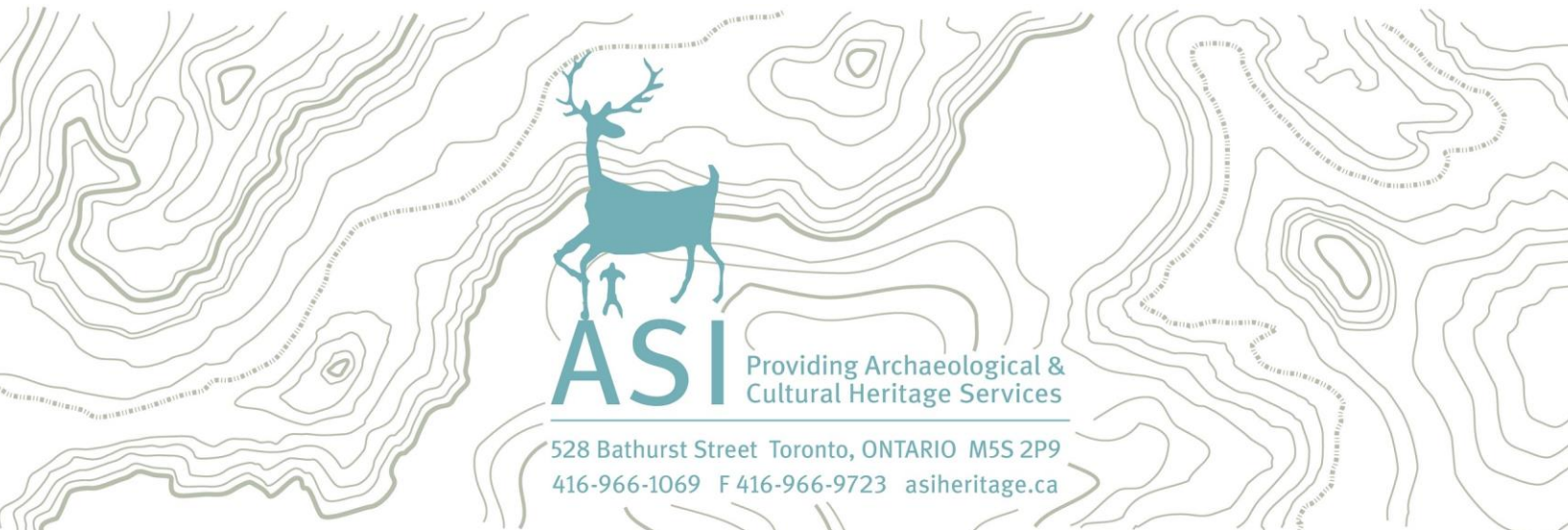
FINAL REPORT

Prepared for:

Parsons
4342 Queen Street Suite 407
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ASI File: 20CH-025

September 2020 (Revised April, May, and October 2021)



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EXECUTIVE SUMMARY

ASI was contracted by Parsons, on behalf of the Regional Municipality of Niagara, to conduct a Cultural Heritage Report as part of the Montrose Road and Lyons Creek Road/Biggar Road Municipal Class Environmental Assessment. The project involves road improvements along Montrose Road between McLeod Road in the north and south of Lyons Creek Road/Biggar Road in the south. Additional road improvements will be completed along Lyons Creek Road/Biggar Road from the Queen Elizabeth Way (QEW) interchange in the east to approximately 830 metres west of Montrose Road in the west. The Montrose Road and Lyons Creek Road/Biggar Road study area consists of mainly commercial sections to the north, with agricultural fields, industrial areas, and residences in the rest of the area. The study area cross the Welland River, the Canadian Pacific Railway Line, and is adjacent to the QEW in the Region of Niagara.

The purpose of this report is to present an inventory of known and potential built heritage resources (BHRs) and cultural heritage landscapes (CHLs), identify existing conditions of the project study area, provide a preliminary impact assessment, and propose appropriate mitigation measures.

The results of background historical research and a review of secondary source material, including historical mapping, revealed a study area with a rural land use history dating back to the late eighteenth century. A review of federal, provincial and municipal registers and inventories and internal ASI project databases revealed that there is one previously-identified feature of cultural heritage value within the Montrose Road and Lyons Creek Road/Biggar Road study area. An additional two potential cultural heritage resources were identified during the fieldwork.

Based on the results of the assessment, the following recommendations have been developed and should be implemented:

1. Construction activities and staging should be suitably planned and undertaken to avoid unintended negative impacts to identified BHRs and CHLs. Avoidance measures may include, but are not limited to: erecting temporary fencing, establishing buffer zones, issuing instructions to construction crews to avoid identified cultural heritage resources, etc.



2. No direct or indirect impacts to the Twin Welland River Bridges (CHR 1) are anticipated as they are not directly adjacent to the recommended preferred alternative. Construction and staging in the Oakwood Drive ROW should be suitably planned to avoid all impacts to CHR 1. No further cultural heritage work is recommended for CHR 1. If construction is anticipated within 50m of the structure, an engineering assessment should be undertaken during detail design to determine potential vibration impacts to the structure. If required, a vibration monitoring plan should be prepared and implemented as part of the detailed design phase of the project to lessen vibration impacts related to construction.
3. Minor indirect impacts to the property at 7847 Montrose Road (CHR 2) are anticipated as a result of the recommended preferred alternative. Indirect impacts include encroachment of the Montrose Road ROW on the residence on the property and the potential removal of a twentieth-century wooden post and beam fence and established trees associated with the property within the Montrose Road ROW. Consultation with planning staff at the City of Niagara Falls noted that a resource-specific Heritage Impact Assessment (HIA) should be completed for this property (email communication 12 July 2021). This HIA should be completed by a qualified cultural heritage professional as early in detailed design as possible, and submitted to planning staff at the City of Niagara Falls and the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) for review and comment.
4. Suitable mitigation measures for CHR 2 include implementing tree protection zones and post construction rehabilitation of the wooden post and beam fence. In this respect, the owner of the residence at 7847 Montrose Road should be consulted regarding the requirements of this fencing.
5. As the residence at CHR 2 is located near the proposed intervention (within 50 m), baseline vibration monitoring should be undertaken during detailed design. Should this advance monitoring assessment conclude that the any structures will be subject to vibrations, a vibration monitoring plan should be prepared and implemented as part of the detailed design phase of the project to lessen vibration impacts related to construction.
6. Minor indirect impacts to the property at 7473 Reixinger Road (CHR 3) are anticipated as a result of the recommended preferred alternative. Indirect impacts include encroachment of the Montrose Road ROW on the property and removal of a small portion of agricultural lands. No direct impacts to the residence, chicken coops, agricultural outbuildings, or any landscape features of potential cultural heritage value on the subject property are anticipated as they are all located greater than 50 m from the recommended preferred alternative. Minor impacts adjacent to the Montrose Road ROW can be suitably mitigated with post-construction rehabilitation including replanting with sympathetic plant species.



7. Should future work require an expansion of the study area then a qualified heritage consultant should be contacted in order to confirm the impacts of the proposed work on potential heritage resources.

8. This report should be submitted to the City of Niagara Falls and the MHSTCI for review and comment, and any other local heritage stakeholders that may have an interest in this project. The final report should be submitted to the City of Niagara Falls for their records.



PROJECT PERSONNEL

<i>Senior Project Manager:</i>	Annie Veilleux, MA, CAHP Senior Cultural Heritage Specialist Manager - Cultural Heritage Division
<i>Project Coordinator:</i>	Katrina Thach, Hon. BA Archaeologist Project Coordinator - Environmental Assessment Division
<i>Project Manager:</i>	John Sleath, MA Cultural Heritage Specialist Project Manager - Cultural Heritage Division
<i>Field Review:</i>	John Sleath
<i>Report Production:</i>	John Sleath
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QUALIFIED PERSONS INVOLVED IN THE PROJECT

Annie Veilleux, MA, CAHP

Senior Cultural Heritage Specialist | Manager - Cultural Heritage Division

The Senior Project Manager for this Cultural Heritage Report is **Annie Veilleux** (MA, CAHP), who is a Senior Cultural Heritage Specialist and Manager of the Cultural Heritage Division with ASI. She was responsible for: overall project scoping and approach; development and confirmation of technical findings and study recommendations; application of relevant standards, guidelines and regulations; and implementation of quality control procedures. Annie is academically trained in the fields of cultural landscape theory, history, archaeology, and collections management and has over 15 years of experience in the field of cultural heritage resource management. This work has focused on the identification and evaluation of cultural heritage resources, both above and below ground. Annie has managed and conducted numerous built heritage and cultural heritage landscape assessments, heritage recordings and evaluations, and heritage impact assessments as required for Environmental Assessments and Planning projects throughout the Province of Ontario. Annie has extensive experience leading and conducting research for large-scale heritage planning studies, heritage interpretation programs, and projects requiring comprehensive public and Indigenous engagement programs. She is fully bilingual in English and French and has served as a French language liaison on behalf of ASI. Annie is a member of the Ontario Archaeological Society, the National Trust for Canada, the Ontario Association for Impact Assessment, and the Association for Critical Heritage Studies. She is also a professional member in good standing of the Canadian Association of Heritage Professionals.

John Sleath, MA

Cultural Heritage Specialist | Project Manager - Cultural Heritage Division

The Project Manager for this Cultural Heritage Report is **John Sleath** (MA), who is a Cultural Heritage Specialist and Project Manager within the Cultural Heritage Division with ASI. He was responsible for the day-to-day management activities, including scoping of research activities and site surveys and drafting of study findings and recommendations. John has worked in a variety of contexts within the field of cultural heritage resource management for the past 13 years, as an archaeologist and as a cultural heritage professional. In 2015 John began working in the Cultural Heritage Division providing support for a multitude of cultural heritage assessment reports, including Cultural Heritage Resource Assessments (CHRA), Cultural Heritage Evaluation Reports (CHER), Heritage Impact Assessments (HIA), and Secondary Plan assessments, and which he was responsible for a variety of tasks including: completing archival research, investigating built heritage and cultural heritage landscapes, report preparation, historical map regression, and municipal consultation. Since 2018 John has been a project manager responsible for a variety of tasks required for successful project completion. This work has allowed John to engage with stakeholders from the public and private sector, as well as representatives from local municipal planning departments and museums. John has conducted heritage assessments across Ontario, with a focus on transit and rail corridor infrastructure including bridges and culverts.



GLOSSARY

Term	Definition
Adjacent	“contiguous properties as well as properties that are separated from a heritage property by narrow strip of land used as a public or private road, highway, street, lane, trail, right-of-way, walkway, green space, park, and/or easement or as otherwise defined in the municipal official plan.” (MHSTCI 2010).
Built Heritage Resource (BHR)	“...a building, structure, monument, installation or any manufactured remnant that contributes to a property’s cultural heritage value or interest as identified by a community, including an Indigenous community. Built heritage resources are located on property that may be designated under Parts IV or V of the <i>Ontario Heritage Act</i> , or that may be included on local, provincial, federal and/or international registers” (Government of Ontario 2020:41).
Cultural Heritage Landscape (CHL)	“...a defined geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including an Indigenous community. The area may include features such as buildings, structures, spaces, views, archaeological sites or natural elements that are valued together for their interrelationship, meaning or association. Cultural heritage landscapes may be properties that have been determined to have cultural heritage value or interest under the <i>Ontario Heritage Act</i> , or have been included on federal and/or international registers, and/or protected through official plan, zoning by-law, or other land use planning mechanisms” (Government of Ontario 2020:42).
Cultural Heritage Resource	Includes above-ground resources such as built heritage resources and cultural heritage landscapes, and built or natural features below-ground including archaeological resources.
Known Cultural Heritage Resource	A known cultural heritage resource is a property that has recognized cultural heritage value or interest. This can include a property listed on a Municipal Heritage Register, designated under Part IV or V of the <i>Ontario Heritage Act</i> , or protected by a heritage agreement, covenant or easement, protected by the <i>Heritage Railway Stations Protection Act</i> or the <i>Heritage Lighthouse Protection Act</i> , identified as a Federal Heritage Building, or located within a UNESCO World Heritage Site (Ministry of Tourism, Culture and Sport 2016).
Impact	Includes negative and positive, direct and indirect effects to an identified cultural heritage resource. Direct impacts include destruction of any, or part of any, significant heritage attributes or features and/or unsympathetic or incompatible alterations to an identified resource. Indirect impacts include, but are not limited to, creation of shadows, isolation of heritage attributes, direct or indirect obstruction of significant views, change in land use, land disturbances (MHSTCI 2006). Indirect impacts also include potential vibration impacts (See Section 2.5 for complete definition and discussion of impacts).



Mitigation	Mitigation is the process of lessening or negating anticipated adverse impacts to cultural heritage resources and may include, but are not limited to, such actions as avoidance, monitoring, protection, relocation, remedial landscaping, and documentation of the cultural heritage landscape and/or built heritage resource if to be demolished or relocated.
Potential Cultural Heritage Resource	A potential cultural heritage resource is a property that has the potential for cultural heritage value or interest. This can include properties/project area that contain a parcel of land that is the subject of a commemorative or interpretive plaque, is adjacent to a known burial site and/or cemetery, is in a Canadian Heritage River Watershed, or contains buildings or structures that are 40 or more years old (Ministry of Tourism, Culture and Sport 2016).
Significant	With regard to cultural heritage and archaeology resources, significant means “resources that have been determined to have cultural heritage value or interest. Processes and criteria for determining cultural heritage value or interest are established by the Province under the authority of the <i>Ontario Heritage Act</i> . While some significant resources may already be identified and inventoried by official sources, the significance of others can only be determined after evaluation” (Government of Ontario 2020).
Vibration Zone of Influence	Area within a 50 m buffer of construction-related activities in which there is potential to affect an identified cultural heritage resource. A 50 m buffer is applied in the absence of a project-specific defined vibration zone of influence based on existing secondary source literature and direction provided from the MHSTCI (Wiss 1981; Rainer 1982; Ellis 1987; Crispino and D’Apuzzo 2001; Carman et al. 2012). This buffer accommodates the additional threat from collisions with heavy machinery or subsidence (Randl 2001).



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1.0 INTRODUCTION

1.1 Report Purpose

ASI was contracted by Parsons, on behalf of the Regional Municipality of Niagara, to conduct a Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment as part of the Montrose Road and Lyons Creek Road/Biggar Road Municipal Class Environmental Assessment. The purpose of this report is to present an inventory of known and potential built heritage resources (BHRs) and cultural heritage landscapes (CHLs), identify existing conditions of the project study area, provide a preliminary impact assessment, and propose appropriate mitigation measures.

1.2 Project Overview

The project involves road improvements along Montrose Road between McLeod Road in the north and south of Lyons Creek Road/Biggar Road in the south. Additional road improvements will be completed along Lyons Creek Road/Biggar Road from the Queen Elizabeth Way (QEW) interchange in the east to approximately 830 metres west of Montrose Road in the west. The Montrose Road and Lyons Creek Road/Biggar Road study area consists of mainly commercial sections to the north, with agricultural fields, industrial areas, and residences in the rest of the area. The roadways in the study area cross the Welland River, the Canadian Pacific Railway (CP) Line, and is adjacent to the QEW in the Region of Niagara.

1.3 Description of Study Area

This Cultural Heritage Report will focus on the project study area for road improvements along Montrose Road with an additional 50 metre buffer (Figure 1). This project study area has been defined as inclusive of those lands that may contain BHRs or CHLs that may be subject to direct or indirect impacts as a result of the proposed undertaking. Properties within the study area are located in the Region of Niagara.



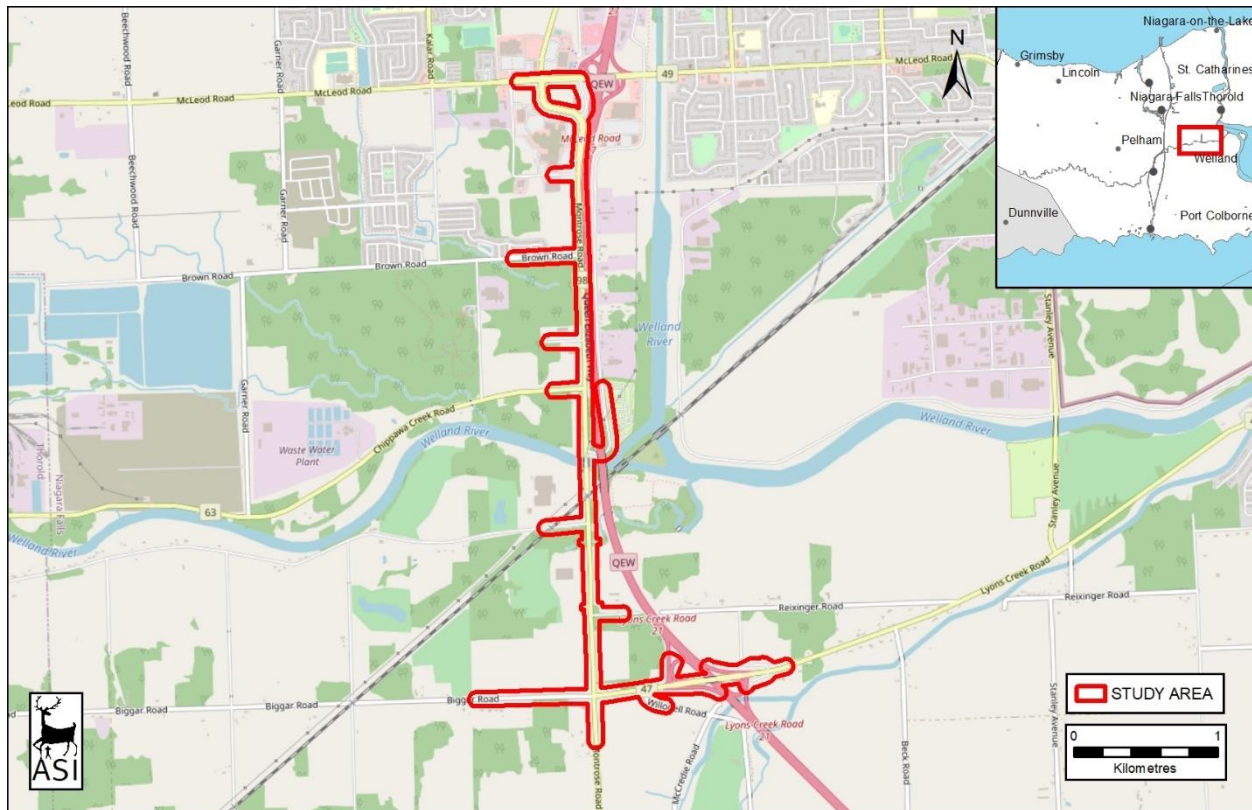


Figure 1: Location of the study area

Base Map: ©OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)

2.0 BUILT HERITAGE RESOURCE AND CULTURAL HERITAGE LANDSCAPE ASSESSMENT CONTEXT

2.1 Regulatory Requirements

The *Ontario Heritage Act* (OHA) (MHSTCI 1990) is the main piece of legislation that determine policies, priorities and programs for the conservation of Ontario’s heritage. There are many other provincial acts, regulations and policies governing land use planning and resource development support heritage conservation including:

- The *Planning Act* (Ministry of Municipal Affairs and Housing 1990), which states that “conservation of features of significant architectural, cultural, historical, archaeological or scientific interest” (cultural heritage resources) is a “matter of provincial interest”. The Provincial Policy Statement (Government of Ontario 2020), issued under the Planning Act, links heritage conservation to long-term economic prosperity and requires municipalities and the Crown to conserve significant cultural heritage resources.
- The *Environmental Assessment Act* (Ministry of the Environment 1990), which defines “environment” to include cultural conditions that influence the life of humans or a community. Cultural heritage resources, which includes archaeological resources, built heritage resources and cultural heritage landscapes, are important components of those cultural conditions.

The MHSTCI is charged under Section 2.0 of the OHA with the responsibility to determine policies, priorities, and programs for the conservation, protection, and preservation of the heritage of Ontario. The MHSTCI published *Standards and Guidelines for Conservation of Provincial Heritage Properties* (Ministry of Tourism, Culture and Sport, 2010; now administered by the MHSTCI) (hereinafter “Standards and Guidelines”). These Standards and Guidelines apply to properties the Government of Ontario owns or controls that have cultural heritage value or interest (CHVI). The Standards and Guidelines provide a series of guidelines that apply to provincial heritage properties in the areas of identification and evaluation; protection; maintenance; use; and disposal. For the purpose of this report, the Standards and Guidelines provide points of reference to aid in determining potential heritage significance in identification of BHRs and CHLs. While not directly applicable for use in properties not under provincial ownership, the Standards and Guidelines are regarded as best practice for guiding heritage assessments and ensure that additional identification and mitigation measures are considered.

Similarly, the *Ontario Heritage Toolkit* (Ministry of Culture 2006) provides a guide to evaluate heritage properties. To conserve a BHR or CHL, the *Ontario Heritage Toolkit* states that a municipality or approval authority may require a heritage impact assessment and/or a conservation plan to guide the approval, modification, or denial of a proposed development.

2.2 Municipal/Regional Heritage Policies

The study area is located within the City of Niagara Falls, in the Region of Niagara. Policies relating to cultural heritage resources were reviewed from the following sources:

- City of Niagara Falls Official Plan (City of Niagara Falls 2019)
- Regional Municipality of Niagara Official Plan (Niagara Region 2014)

2.3 Identification of Built Heritage Resources and Cultural Heritage Landscapes

This Cultural Heritage Report follows guidelines presented in the *Ontario Heritage Toolkit* (Ministry of Culture 2006) and MHSTCI tool *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* (Ministry of Heritage, Tourism and Sport, 2016). The objective of this report is to present an inventory of known and potential BHRs and CHLs, and to provide a preliminary understanding of known and potential BHRs and CHLs located within areas anticipated to be directly or indirectly impacted by the proposed project.

In the course of the cultural heritage assessment process, all potentially affected BHRs and CHLs are subject to identification and inventory. Generally, when conducting an identification of BHRs and CHLs within a study area, three stages of research and data collection are undertaken to appropriately establish the potential for and existence of BHRs and CHLs in a geographic area: background research and desktop data collection; field review; and identification.

Background historical research, which includes consultation of primary and secondary source research and historical mapping, is undertaken to identify early settlement patterns and broad agents or themes of change in a study area. This stage in the data collection process enables the researcher to determine the presence of sensitive heritage areas that correspond to nineteenth- and twentieth-century



settlement and development patterns. To augment data collected during this stage of the research process, federal, provincial, and municipal databases and/or agencies are consulted to obtain information about specific properties that have been previously identified and/or designated as having cultural heritage value. Typically, resources identified during these stages of the research process are reflective of particular architectural styles or construction methods, associated with an important person, place, or event, and contribute to the contextual facets of a particular place, neighbourhood, or intersection.

A field review is then undertaken to confirm the location and condition of previously identified BHRs and CHLs. The field review is also used to identify potential BHRs or CHLs that have not been previously identified on federal, provincial, or municipal databases or through other appropriate agency data sources.

During the cultural heritage assessment process, a property is identified as a potential BHR or CHL based on research, the MHSTCI screening tool, and professional expertise. In addition, use of a 40-year-old benchmark is a guiding principle when conducting a preliminary identification of BHRs and CHLs. While identification of a resource that is 40 years old or older does not confer outright heritage significance, this benchmark provides a means to collect information about resources that may retain heritage value. Similarly, if a resource is slightly younger than 40 years old, this does not preclude the resource from having cultural heritage value or interest.

2.4 Background Information Review

To make an identification of previously identified known or potential BHRs and CHLs within the study area, the following resources were consulted as part of this Cultural Heritage Report.

2.4.1 Review of Existing Heritage Inventories

A number of resources were consulted in order to identify previously identified BHRs and CHLs within the study area. These resources, reviewed on 25 August 2020, include:

- The City of Niagara Falls Heritage Register (City of Niagara Falls n.d.);
- Internal ASI Project Database with the location of past ASI Assessments;
- The *Ontario Heritage Act Register* (Ontario Heritage Trust n.d.);
- The inventory of Ontario Heritage Trust easements (Ontario Heritage Trust n.d.);
- The *Places of Worship Inventory* (Ontario Heritage Trust n.d.);
- *Ontario Heritage Plaque Database* (Ontario Heritage Trust n.d.);
- *Ontario's Historical Plaques* website (Brown 2019);
- Database of known cemeteries/burial sites curated by the Ontario Genealogical Society (Ontario Genealogical Society n.d.);
- *Canada's Historic Places* website (Parks Canada n.d.);
- *Directory of Federal Heritage Designations* (Parks Canada n.d.);
- Canadian Heritage River System (Canadian Heritage Rivers Board and Technical Planning Committee n.d.); and,



- United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Sites (UNESCO World Heritage Centre n.d.).

2.4.2 Stakeholder Data Collection

The following individuals, groups, and/or organizations were contacted to gather information on known and potential BHRs and CHLs, active and inactive cemeteries, and areas of identified Indigenous interest within the study area:

The following stakeholders were contacted to gather information on potential cultural heritage resources, active and inactive cemeteries, and areas of identified Indigenous interest within and/or adjacent to the study area:

- Peggy Boyle, Assistant Planner, City of Niagara Falls (email communication 25 and 26 August 2020). A response confirmed that there are no previously identified heritage resources or concerns regarding the study area. Additional consultation with planning staff at the City of Niagara Falls noted that a resource-specific Heritage Impact Assessment (HIA) should be completed for the property at 7847 Montrose Road (CHR 2) if impacts to the property are anticipated (email communication 12 July 2021).
- The MHSTCI (email communication 25 and 26 August 2020)¹. Email correspondence confirmed that there are no previously identified heritage resources or concerns regarding the study area.
- The Ontario Heritage Trust (email communications 25 and 27 August 2020). A response indicated that there are no conservation easements or Trust-owned properties within or adjacent to the study area.
- Property owner of 7847 Montrose Road (CHR 2) was encountered during the field review. The owner provided information on the property, the history of the residence, and some details on the interior of the structure.

2.5 Preliminary Impact Assessment Methodology

To assess the potential impacts of the undertaking, identified BHRs and CHLs are considered against a range of possible negative impacts, based on the *Ontario Heritage Tool Kit InfoSheet #5: Heritage Impact Assessments and Conservation Plans* (Ministry of Tourism and Culture, 2006). These include:

- Direct impacts:
 - Destruction of any, or part of any, significant heritage attributes or features; and
 - Alteration that is not sympathetic, or is incompatible, with the historic fabric and appearance.
- Indirect impacts
 - 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;

¹ Contacted at registrar@ontario.ca.



- 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.

Indirect impacts from construction-related vibration have the potential to negatively affect BHRs or CHLs depending on the type of construction methods and machinery selected for the project and proximity and composition of the identified resources. Potential vibration impacts are defined as having potential to affect any identified BHRs and CHLs where work is taking place within 50 m of features on the property. A 50 m buffer is applied in the absence of a project-specific defined vibration zone of influence based on existing secondary source literature and direction provided from the MHSTCI (Wiss 1981; Rainer 1982; Ellis 1987; Crispino and D'Apuzzo 2001; Carman et al. 2012). This buffer accommodates any additional or potential threat from collisions with heavy machinery or subsidence (Randl 2001).

Several additional factors are also considered when evaluating potential impacts on identified BHRs and CHLs. These are outlined in a document set out by the Ministry of Culture and Communications (now MHSTCI) and the Ministry of the Environment entitled *Guideline for Preparing the Cultural Heritage Resource Component of Environmental Assessments* (1992) and include:

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

The proposed undertaking should endeavor to avoid adversely affecting known and potential BHRs and CHLs and interventions should be managed in such a way that identified significant cultural heritage resources are conserved. When the nature of the undertaking is such that adverse impacts are unavoidable, it may be necessary to implement alternative approaches or mitigation strategies that alleviate the negative effects on identified BHRs and CHLs. Mitigation is the process of lessening or negating anticipated adverse impacts to cultural heritage resources and may include, but are not limited to, such actions as avoidance, monitoring, protection, relocation, remedial landscaping, and documentation of the BHR or CHL if to be demolished or relocated.

Various works associated with infrastructure improvements have the potential to affect BHRs and CHLs in a variety of ways, and as such, appropriate mitigation measures for the undertaking need to be considered.



3.0 SUMMARY OF HISTORICAL DEVELOPMENT WITHIN THE STUDY AREA

This section provides a brief summary of historical research and a description of identified cultural heritage resources that may be affected by the proposed undertaking.

A review of available primary and secondary source material was undertaken to produce a contextual overview of the study area, including a general description of Indigenous land use, and Euro-Canadian settlement

3.1 Indigenous Land Use and Settlement

Southern Ontario has been occupied by human populations since the retreat of the Laurentide glacier approximately 13,000 years ago, or 11,000 Before the Common Era (B.C.E.) (Ferris 2013).² During the Paleo period (c. 11,000 B.C.E. to 9,000 B.C.E), groups tended to be small, nomadic, and non-stratified. The population relied on hunting, fishing, and gathering for sustenance, though their lives went far beyond subsistence strategies to include cultural practices including but not limited to art and astronomy. Fluted points, beaked scrapers, and gravers are among the most important artifacts to have been found at various sites throughout southern Ontario, and particularly along the shorelines of former glacial lakes. Given the low regional population levels at this time, evidence concerning Paleo-Indian period groups is very limited (Ellis and Deller 1990).

Moving into the Archaic period (c. 9,000 B.C.E. to 1,000 B.C.E.), many of the same roles and responsibilities continued as they had for millennia, with groups generally remaining small, nomadic, and non-hierarchical. The seasons dictated the size of groups (with a general tendency to congregate in the spring/summer and disperse in the fall/winter), as well as their various sustenance activities, including fishing, foraging, trapping, and food storage and preparation. There were extensive trade networks which involved the exchange of both raw materials and finished objects such as polished or ground stone tools, beads, and notched or stemmed projectile points. Furthermore, mortuary ceremonialism was evident, meaning that there were burial practices and traditions associated with a group member's death (Ellis and Deller 1990; Ellis et al. 2009).

The Woodland period (c. 1,000 B.C.E. to 1650 C.E.) saw several trends and aspects of life remain consistent with previous generations. Among the more notable changes, however, was the introduction of pottery, the establishment of larger occupations and territorial settlements, incipient horticulture, more stratified societies, and more elaborate burials. Later in this period, settlement patterns, foods, and the socio-political system continued to change. A major shift to agriculture occurred in some regions, and the ability to grow vegetables and legumes such as corn, beans, and squash ensured long-term settlement occupation and less dependence upon hunting and fishing. This development contributed to population growth as well as the emergence of permanent villages and special purpose sites supporting those villages. Furthermore, the socio-political system shifted from one which was

² While many types of information can inform the precontact settlement of Ontario, such as oral traditions and histories, this summary provides information drawn from archaeological research conducted in southern Ontario over the last century.



strongly kinship based to one that involved tribal differentiation as well as political alliances across and between regions (Ellis and Deller 1990; Williamson 1990; Dodd et al. 1990; Birch and Williamson 2013).

The arrival of European trade goods in the sixteenth century, Europeans themselves in the seventeenth century, and increasing settlement efforts in the eighteenth century all significantly impacted traditional ways of life in Southern Ontario. Over time, war and disease contributed to death, dispersion, and displacement of many Indigenous peoples across the region. The Euro-Canadian population grew in both numbers and power through the eighteenth and nineteenth centuries and treaties between colonial administrators and First Nations representatives began to be negotiated.

The study area is within Treaty 381, the Niagara Purchase, signed in 1781 between the Crown and the Chippewa and Mississaugas for the tract of land which had not been agreed upon in the 1764 Niagara Peace Treaty on the west side of “the Straits” that lead from Lake Erie to Lake Ontario at Niagara Falls (Crown-Indigenous Relations and Northern Affairs 2016).

3.2 Historical Euro-Canadian Township Survey and Settlement

Historically, the study area is located in the Lots 170, 178, 179, 186, 198, 209, 210, and 211 in the Township of Stamford; Lots 1 and 2 Broken Front Concession, and Lots 1 and 2 Concession 1 in the Township of Crowland; and Lot 10 Broken Front of Chippewa Creek, Lots 15 and 16 Concession 6, and Lot 15 and 16 Concession 7 in the Township of Willoughby.

3.2.1 Township of Stamford

The land which comprises the subject property in the former Township of Stamford formed part of a tract of land which was alienated by the British in 1764, and was one of the earliest land purchases within Ontario made by the Crown.

In April 1764, a peace treaty was negotiated with the Seneca by Sir William Johnson. Under the terms of this treaty, a four-mile-wide strip of land was ceded to the British. This strip measured two miles in width on either side of the Niagara River, and fourteen miles in depth (i.e., to a point just above the “Great Cataract.”) This also included all of the islands within the river. In August 1764, the Seneca consented to the terms of this treaty, and further ceded a similar sized tract of land to the Crown which extended from the Falls to the mouth of the Niagara River at Lake Erie (O’Callaghan 1887:562, 621, 647-649, 652-653). The remainder of the land within Stamford Township was acquired by the British from the Mississauga under the terms of a provisional treaty negotiated at Niagara in May 1784. This surrender was fully ratified at Navy Hall in December 1792 (Anonymous 1891:5-7; Armstrong 1985:147).

The area long known as Stamford Township was, during the 1780s, initially referred to as “Township No. 2,” and also as the “Mountain Township.” In the late 1780s and early 1790s, it was also known as “Mount Dorchester.” The name “Stamford” officially came into common use after Simcoe renamed the townships in the Niagara Region in 1792. This name was selected in honour of a very old town by the same name located in Lincolnshire in England (Gardiner 1899:277).



Stamford comprised part of Lincoln County in the Home District from 1792 until 1800. At that time, the Home District (York) was separated and raised to independent status, and the remainder of the older administrative unit on the south side of Lake Ontario was renamed as the Niagara District. Following the abolition of the Districts in 1849, the Niagara District was succeeded for judicial purposes by the United Counties of Lincoln, Welland and Haldimand. Haldimand was separated from this union in 1850-1851, and the provisional County of Welland was fully separated from the union in 1856. Both Lincoln and Welland counties were abolished in 1969-1970, and replaced by the Regional Municipality of Niagara (Proclamation 24 July 1788; Proclamation 16 July 1792; 32 Geo. III c. 8; 38 Geo. III c. 5; 12 Vic. c. 78; Armstrong 1985:138-140, 147, 186)

3.2.2 Township of Willoughby

Willoughby Township is bounded on the south by Bertie Township, on the north by Stamford Township, on the west by Crowland Township, and on the east by the Niagara (Page 1876:14). Willoughby Township was first settled in 1784, and was surveyed in 1787. Land could initially be purchased for one shilling per acre. By 1817, the township had 450 inhabitants and the value of the land had increased to 25 shillings per acre (Page 1876:14).

Around 1830, a number of German settlers arrived in the area. Many bought small pieces of land, usually no more than fifty acres. They paid for this land by chopping the wood into cordwood and taking it to the settlement centre of Chippewa (Page 1876:14). By 1850, there were 970 residents in the township. The township did not have as many improvements and impressive residences as some other townships due to the number of uprisings in the area over the years such as the War of 1812, the rebellion of 1837, and the 1867 Fenian raid (Page 1876:14).

3.2.3 Township of Crowland

Crowland Township was established in 1788, named after a town in Lincolnshire, England. The township was settled by United Empire Loyalists who arrived as early as the 1770's. Some of the early families included Buchner, Young, Misner, Cook, Yokam, Bender, Wilson, Brailey, Brookfield, Brown, Doan and Everingham (Mika and Mika 1977:504).

In 1801, a road from Bertie Township through Crowland to the Welland River was surveyed by Charles Fell. In 1803, Crowland had its first town meeting and the population at this time was 120 males and 96 females. By 1817, the population was approximately 600 individuals (Page 1876).

The first post office opened in 1841 at Cook's Mills, in the store of Luther Boardman. Mr. Boardman was also a hotelkeeper in Cook's Mills and credited for organizing the Crowland Agricultural Society in 1846. The Methodists were the first to build a church in the township, followed by the Presbyterians in 1850. The first school was built at Cook's Mills on land donated by Mr. Street in the mid-1800s (Mika and Mika 1977:505). The hamlet of Cook's Mills was located on Lots 11-13, Concessions 4 and 5; this hamlet later became known as Crowland.

During this time, waterways were certainly the easiest modes of travel. The Welland River (also known as Chippawa Creek) divides the townships of Crowland, Thorold and Stamford (Page 1876).



In 1970, Crowland Township was dissolved, being incorporated into the Town of Thorold, City of Niagara Falls and City of Welland (Mika and Mika 1977:505).

3.2.4 Queen Elizabeth Way (QEW)

Built between 1931 and 1956, the Queen Elizabeth Way (QEW) was Canada's first super-highway, with the distinction of being the first intercity divided highway in North America and the first continuously illuminated roadway in the world (Stamp 1987). Named in honour of Queen Elizabeth during a royal visit in 1939, the QEW has been one of the major travel routes to and through the Niagara region since it was built (Stamp 1987).

3.2.5 Canadian Pacific Railway

The Canada Southern railroad (CASO) was founded as the Erie and Niagara Extension Railroad in 1868 and was incorporated as the CASO in 1869. The railroad was constructed to provide a quicker link between Buffalo, New York and Detroit, Michigan, and was financed by American investors. The railway crossed the Canadian border at Niagara-on-the-Lake in the northeast and Windsor in the southwest and serviced southwestern Ontario settlements such as Tillsonburg. In 1873, the railway was bought by American railroad developer Cornelius Vanderbilt, and in 1883, it was leased to a company under his control, the Michigan Central Railroad. In 1929, CASO was assumed by the New York Central Railroad, which was in turn assumed by the Pennsylvania Railroad in 1968. In 1974, the Consolidated Rail Corporation (Conrail) was formed by the United States government which consolidated the operations of the former CASO line. In 1983 the Canadian National Railway (CN) and the Canadian Pacific Railway (CP) purchased the former CASO line from Conrail, and large segments of the line were eventually abandoned in 1996 (N.A.; N.A.; St. Thomas Public Library 2013).

The railway that passes through the study area was constructed in 1883 as the CASO Montrose Spur to connect the CASO mainline in the south with Niagara Falls in the north. This track fell under CP ownership in the 1980s and currently operates as the CP Montrose Subdivision.

3.3 Review of Historical Mapping

The 1862 *Tremaine's Map of the Counties of Lincoln and Welland* (Tremaine and Tremaine 1862) and the 1876 *Illustrated Historical Atlas of the Counties of Lincoln and Welland* (Page 1876), were examined to determine the presence of historical features within the study area during the nineteenth century (Figure 2 and Figure 3).

It should be noted, however, that not all features of interest were mapped systematically in the Ontario series of historical atlases. For instance, they were often financed by subscription limiting the level of detail provided on the maps. Moreover, not every feature of interest would have been within the scope of the atlases. The use of historical map sources to reconstruct or predict the location of former features within the modern landscape generally begins by using common reference points between the various sources. The historical maps are geo-referenced to provide the most accurate determination of the location of any property on a modern map. The results of this exercise can often be imprecise or even



contradictory, as there are numerous potential sources of error inherent in such a process, including differences of scale and resolution, and distortions introduced by reproduction of the sources.

Historically, the study area is located in the Lots 170, 178, 179, 186, 198, 209, 210, and 211 in the Township of Stamford; Lots 1 and 2 Broken Front Concession, and Lots 1 and 2 Concession 1 in the Township of Crowland; and Lot 10 Broken Front of Chippewa Creek, Lots 15 and 16 Concession 6, and Lot 15 and 16 Concession 7 in the Township of Willoughby. Details of historical property owners and historical features in the study area are listed in Table 1.



Table 1: Nineteenth-century property owner(s) and historical features(s) within the study area

Con #	Lot #	1862 Map of the Counties of Lincoln and Welland		1876 Illustrated Historical Atlas of the Counties of Lincoln and Welland	
		Property Owner(s)	Historical Feature(s)	Property Owner(s)	Historical Feature(s)
Township of Stamford					
	170	Hervey Edward	n/a	Peter Sutton	n/a
	178	Henry Spencer	n/a	J. Malone	n/a
	179	C. R. Henry Spencer	Spencer homestead	William Sutton William Lundy	Sutton homestead
	186	T. A. Henry Spencer Skinner	n/a	John Howey	Howey farmstead
	198	Miller?	n/a	Lanty McGilly	n/a
	209	Archibald Thompson Archibald Grey	n/a	Archibald Thompson Mrs. Smith	n/a
	210	Archibald Thompson Archibald Grey	Thompson and Grey homesteads	Archibald Grey	Post Office, mill.
	211	Illegible Archibald Grey	Two buildings	Murray	n/a
Township of Crowland					
Broken Front	1	Jonathan Ven (Sp?) W. T. Wilkins	Swing bridge	J.O. Dell Thomas Dell Harvey Burns T. Wilkins	Hotel, farmstead
Broken Front	2	Jonathan Ven (Sp?) William Binckley	n/a	Harvey Burns	n/a
1	1	John Wells	n/a	Jno. Wells	n/a
1	2	John Wells	n/a	Harvey Burns	n/a
Township of Willoughby					
B. Front Chippewa Creek	10	Estate of W. Miller (N 2/3) H. Dell (S 1/3)	n/a	James Malone (N ½) Edward Dell (S ½)	Farmstead Farmstead
6	15	E. Mc Credie	n/a	E. Mc Credie	n/a
7	15	H. Dell (Estate of Barney Dell)	n/a	Jason Heimer	Heimer farmstead
6	16	E. M. Mc Credie	n/a	E. Mc Credie	n/a
7	16	n/a	n/a	Christopher Dell	n/a

The nineteenth-century mapping depicts the study area in a rural agricultural context in the mid and late nineteenth century. The 1862 *Tremaine's Map* (Figure 2) depicts the study area in a rural context with no settlement centers in the vicinity. Few farmsteads are illustrated, and the road network is depicted as being largely undeveloped. Montrose Road is depicted in the southern half of the study area however it



terminates at Chippewa Creek Road to the north of the Welland River. Biggar Road and some secondary roadways that intersect the study area are also depicted. The main feature depicted is the Welland River, which passes in a general west-east orientation through the center of the study area. Montrose Road is carried over the Welland River by a swing bridge. The 1876 *Illustrated Historical Atlas* (Figure 3) depicts the study area in a similar rural context, however the road network is shown to have undergone some significant development. Montrose Road is depicted as extending from Biggar Road in the south to McLeod Road in the north, and passes over the Welland River on an unknown bridge. Other intersecting roadways such as Brown Road, Grassy Brook Road, and Reixinger Road are also depicted.

In addition to nineteenth-century mapping, historical topographic mapping and aerial photographs from the twentieth century were examined. This report presents maps and aerial photographs from 1920, 1954, 1973, and 1996 (Figure 4 to Figure 7). These do not represent the full range of maps consulted for the purpose of this study but were judged to cover the full range of land uses that occurred in the area during this period.

The 1920 Topographic Map (Figure 4) depicts the study area in a rural agricultural setting in the early nineteenth century. The Welland River bisects the study area, and Montrose Road is carried over the river by an unknown bridge type. Montrose Road is depicted on its extant alignment south of the Welland River, and diverts to the east and outside of the study area near the intersection with Chippewa Creek Road. The CPR line is labelled as the Michigan Central Railway, and features a large freight yard to the east of the study area. Biggar Road, Chippewa Creek Road, and McLeod Road are all depicted in their extant alignments. Lyons Creek Road does not intersect the study area at this time, and diverts to the south before intersecting with Montrose Road. The 1954 aerial photograph (Figure 5) and 1973 NTS map (Figure 6) depicts the study area in a similar context as in the early twentieth century, with the addition of the QEW to the east. While the QEW is constructed at this time, the interchanges with McLeod Road in the north and Lyons Creek Road in the south do not feature the complex arrangement of on and off ramps that are depicted in later mapping. Lyons Creek Road and Montrose Road are both depicted with their original alignments, and are not in the same location as observed during the field review. Further, Reixinger Road is depicted with an at-grade crossing to the QEW and does not terminate with a dead-end at the highway as depicted in later mapping.

The 1996 NTS map (Figure 7) depicts the roads within the study area in their extant alignment, with Montrose Road straightened at the intersection of Chippewa Creek Road, the McLeod Road and Lyons Creek Road interchanges with the QEW featuring on and off ramps, and Reixinger Road terminating at the QEW. The study area is depicted as being subject to some additional development along Montrose Road in general, and more intensive development with the construction of a shopping centre to the southwest of the intersection of Montrose Road and McLeod Road.



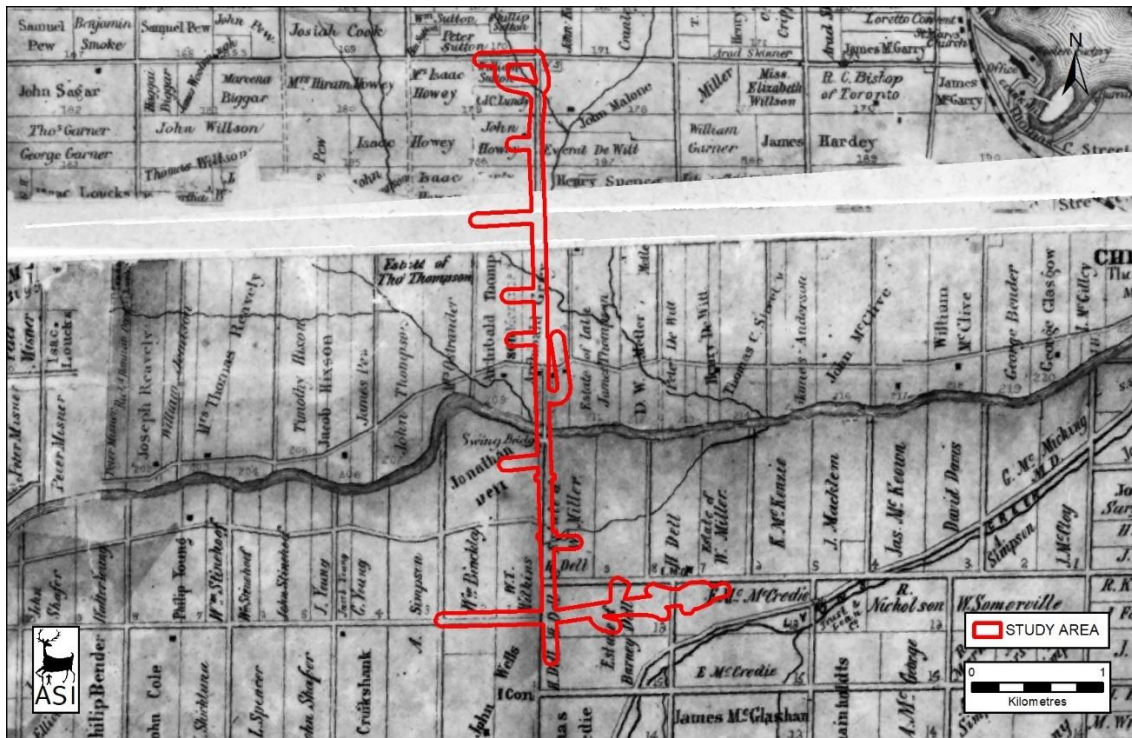


Figure 2: The study area overlaid on the 1862 Tremaine's Map of the Counties of Lincoln and Welland Base Map: (Tremaine and Tremaine 1862)

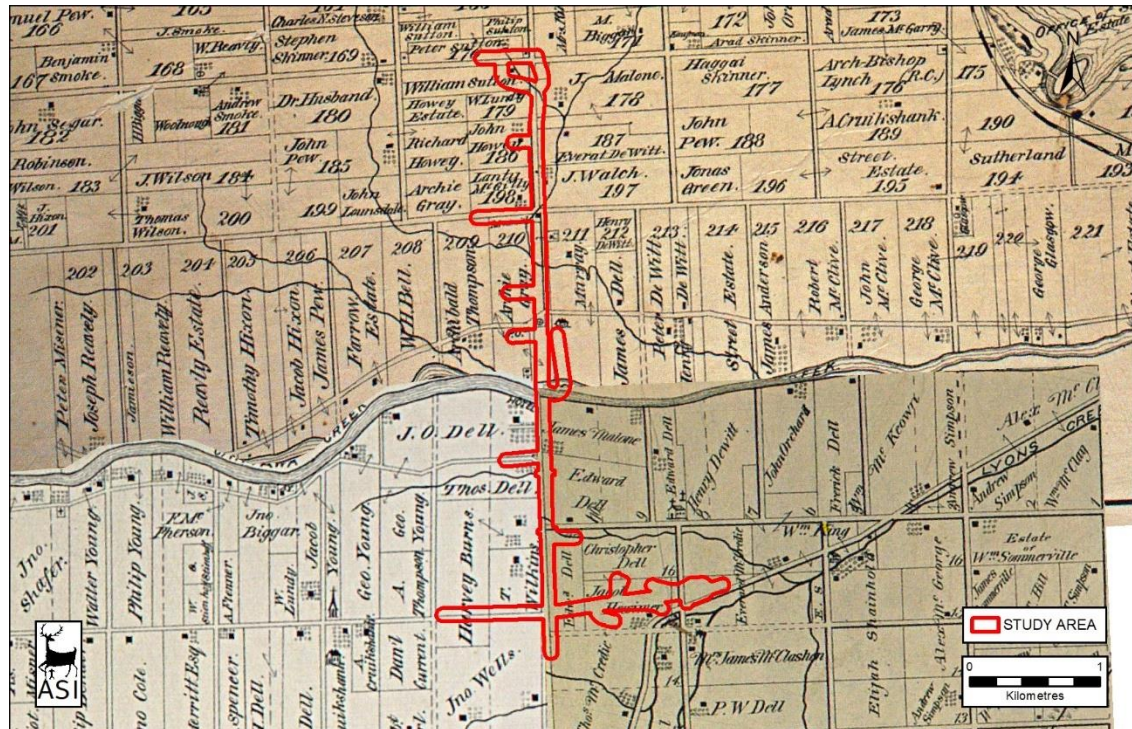


Figure 3: The study area overlaid on the 1876 Historical Atlas of the Counties of Lincoln and Welland Base Map: (Page 1876)

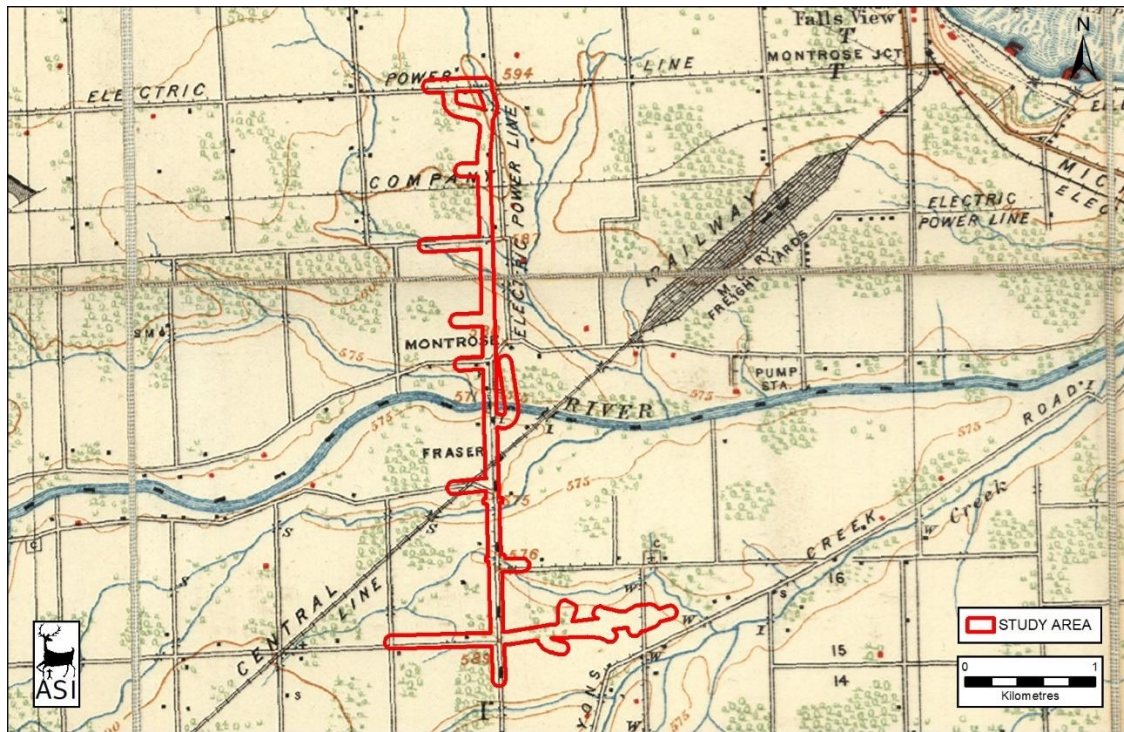


Figure 4: The study area overlaid on the 1920 topographic map of Niagara
Base Map: (Department of Militia and Defence 1920)

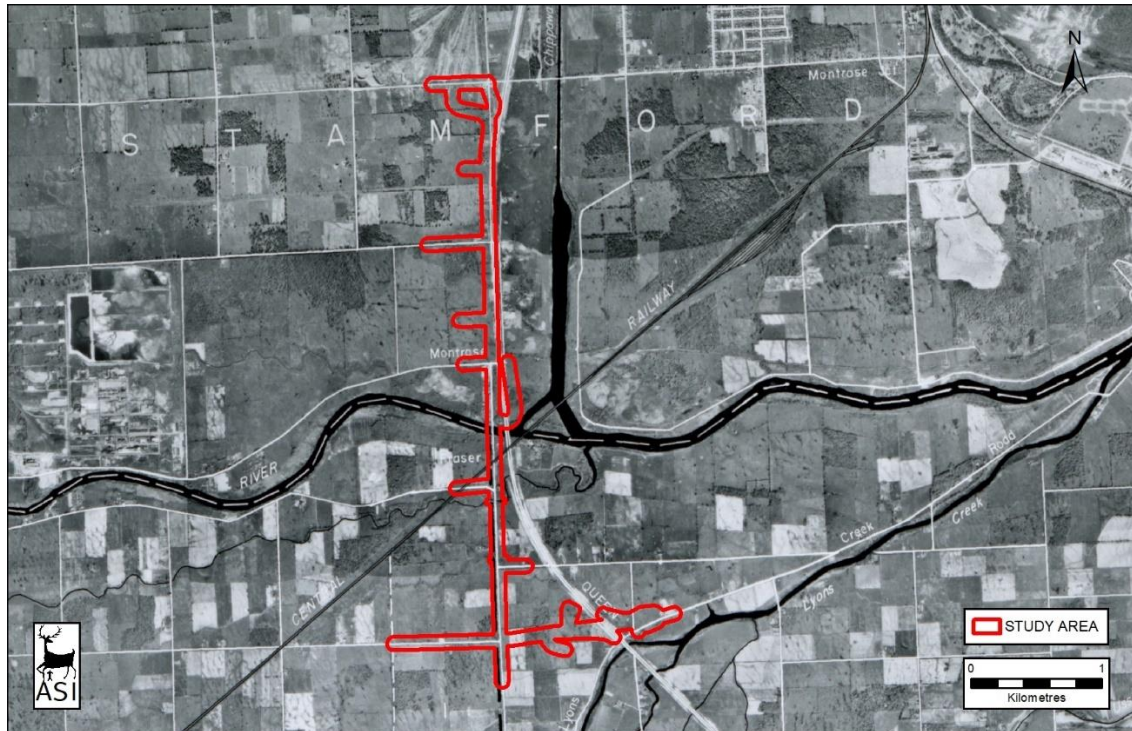


Figure 5: The study area overlaid on the 1954 aerial photograph of Niagara
Base Map: (Hunting Survey Corporation Limited 1954)

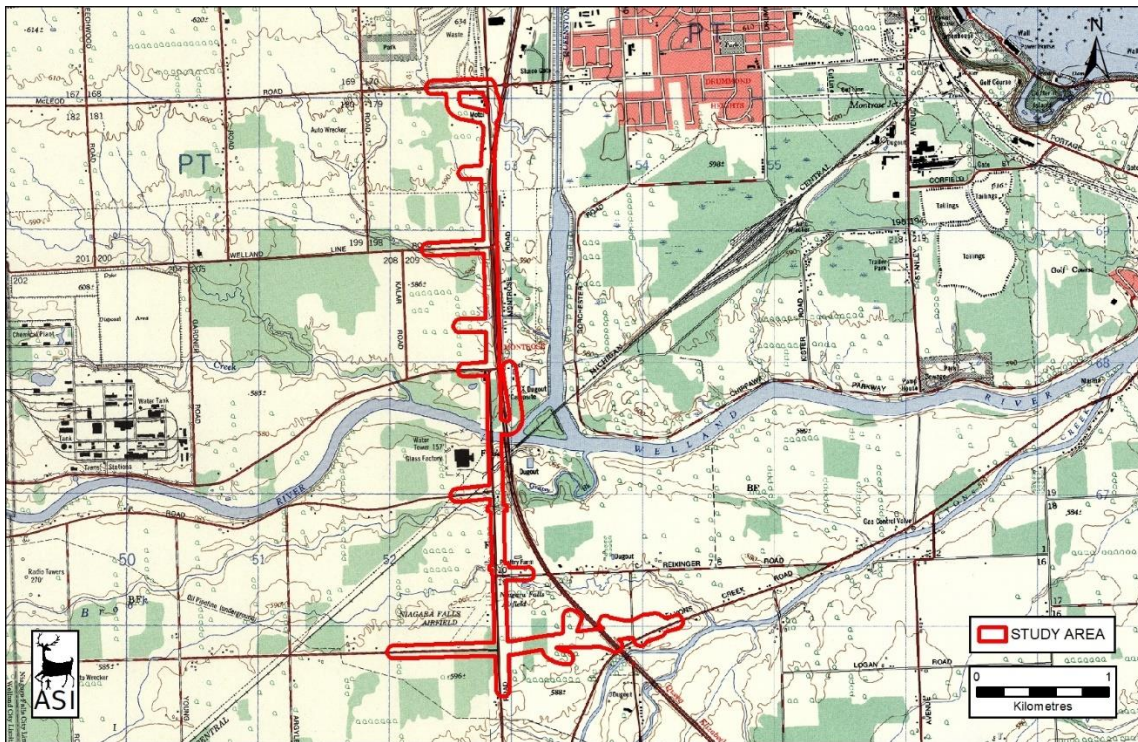


Figure 6: The study area overlaid on the 1973 topographic map of Niagara
Base Map: (Department of Energy, Mines and Resources 1973)

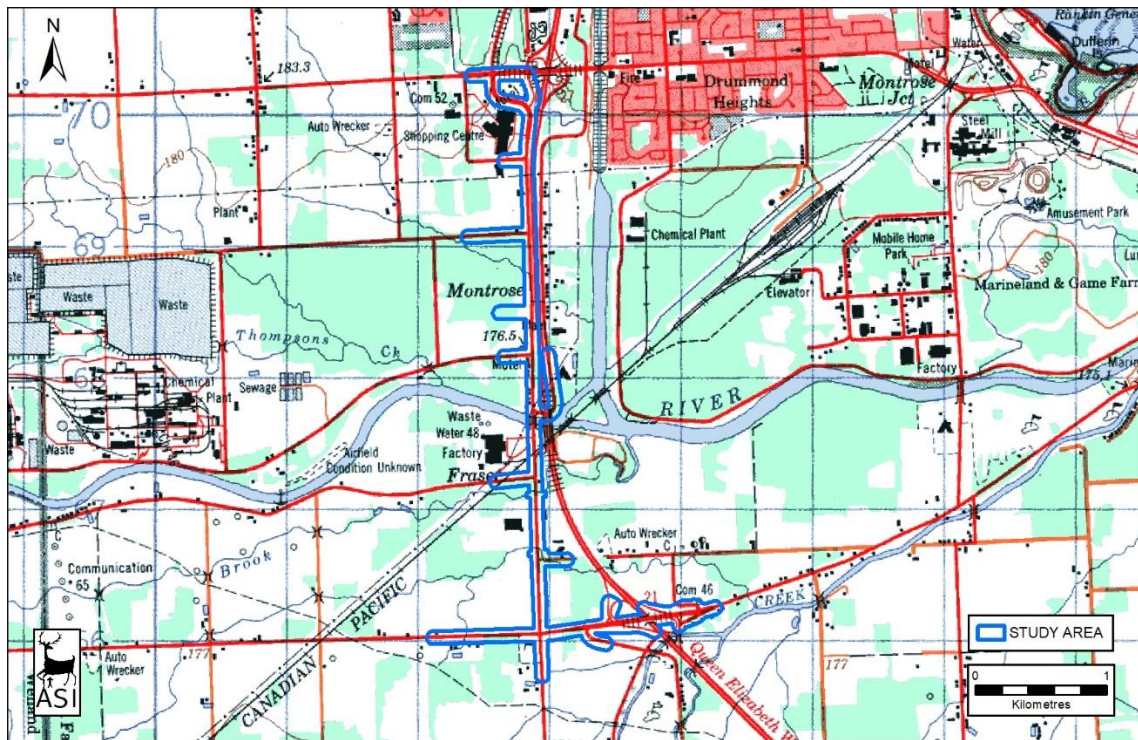


Figure 7: The study area overlaid on the 1996 NTS map of Niagara
Base Map: (Department of Natural Resources 1996)

4.0 EXISTING CONDITIONS

4.1 Description of Field Review

A field review of the study area was undertaken by John Sleath of ASI, on 27 August 2020 to document the existing conditions of the study area from existing rights-of-way. The existing conditions of the study area are described below and captured in Plate 1 to Plate 18. Identified cultural heritage resources are discussed in Section 4.2 and are mapped in Figure 8 to Figure 10 of this report.

The study area is generally a mix of commercial structures, residences, and agricultural properties, and centres on Montrose Road between McLeod Road in the north and Lyons Creek Road/Biggars Road in the south in the City of Niagara Falls. The QEW is oriented parallel and to the immediate east of Montrose Road, and the Welland River bisects the study area.

The northern portion of the study area is bound by the interchange between McLeod Road, the QEW and McLeod Road interchange, and Montrose Road. This area is primarily bound by commercial structures fronting on McLeod Road, and a large shopping center south of McLeod Road to the west of Montrose Road. South of this shopping center, the study area features an historical farmhouse surrounded by agricultural lands and an early twenty-first century residential subdivision on the north side of Brown Road to the west of Montrose Road.

South of Brown Road the study area is a mix of agricultural lands, residences, and commercial structures until the intersection with Oakwood Drive. The study area extends slightly east of the QEW on Oakwood Drive and features wooded areas and residences adjacent to the Welland River. Montrose Road is carried over the Welland River by a four-span concrete girder bridge with steel pile bents. This bridge is not an original structure at this crossing and appears to have been constructed in the early twenty first century based on the condition of the concrete. Immediately south of the Welland River, Montrose Road passes over the CP Montrose Subdivision rail line, with a wooded park on the east and a large construction warehouse to the west at Grassy Brook Road.

The southern portion of the study area to the south of Grassy Brook Road is primarily agricultural, with a large factory or warehouse on the west side of Montrose Road. A chicken farm is located northeast of the intersection of Montrose Road and Reixinger Road, while south of Reixinger Road the study area is surrounded by agricultural fields and wooded areas until the intersection with Lyons Creek Road and Biggar Road. The study area extends approximately 350 metres south of Lyons Creek Road/ Biggar Road with wooded and agricultural lands on the east and a commercial structure and residences on the west.

The portion of the study area on Lyons Creek Road is bound by Montrose Road on the west and extends for approximately 1.4 kilometres to the east. This portion of Lyons Creek Road is generally bound by agricultural lands and the Lyons Creek Road interchange with the QEW. East of the QEW interchange Lyons Creek Road features agricultural lands on the north, and a mosque and residences on the south.

The portion of the study area on Biggar Road is bound by Montrose Road on the east and extends for approximately 830 metres west with agricultural lands on the north and residences and agricultural lands to the south.





Plate 1: McLeod Road, looking east from Montrose Road to the QEW interchange.



Plate 2: Intersection of Montrose Road and McLeod Road, with commercial properties at right, looking northwest.



Plate 3: Commercial properties in Niagara Square Shopping Centre, looking north on Montrose Road.



Plate 4: Montrose Road, looking north from Brown Road.



Plate 5: Residences on Brown Road, looking west



Plate 6: Montrose Road, looking south from Chippewa Creek Road.



Plate 7: Montrose Road bridge over the Welland River, looking north.



Plate 8: CPR tracks crossing Montrose Road, looking south.



Plate 9: Looking south on Montrose Road from Grassy Brook Road.



Plate 10: Looking north on Montrose Road from Grassy Brook Road.



Plate 11: Montrose Road, looking north from Reixinger Road.



Plate 12: Intersection of Montrose Road and Lyons Creek Road (at right) and Biggar Road (at left), looking north.



Plate 13: Lyons Creek Road, looking east from Montrose Road towards the QEW interchange.



Plate 14: Lyons Creek interchange with the QEW, looking east.



Plate 15: Lyons Creek Road bridge over the QEW, looking northeast.



Plate 16: Lyons Creek Road in the east portion of the study area, looking west.



Plate 17: Residences on the south side of Biggar Road, looking southwest.



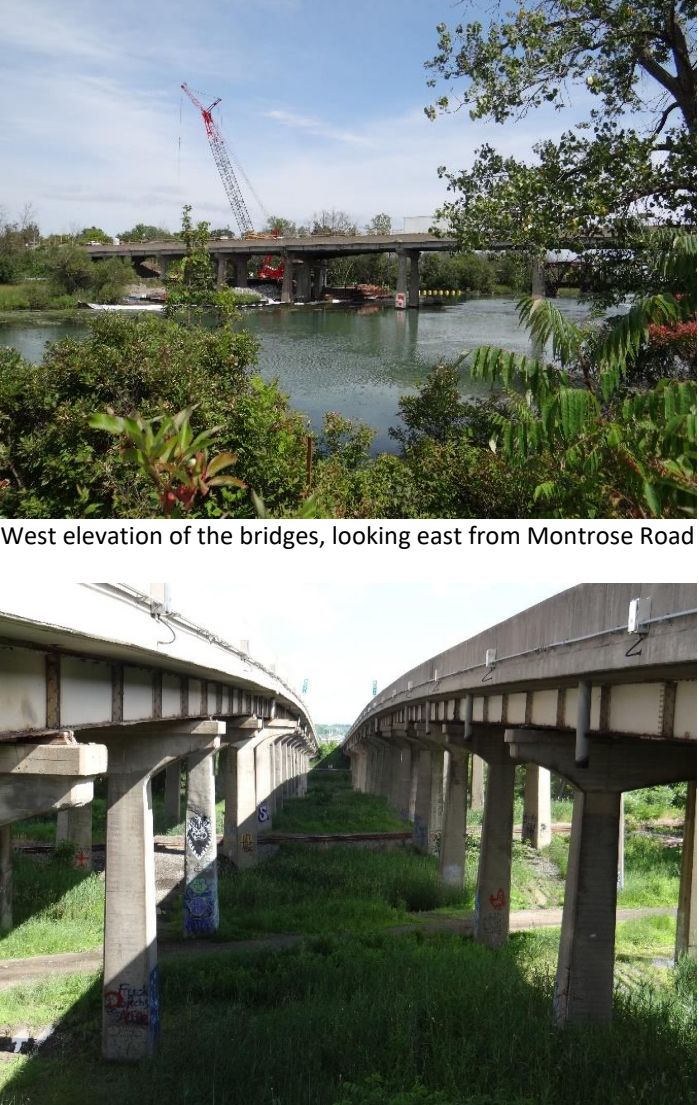
Plate 18: Biggar Road, looking west. Note the residences at left and agricultural fields at right.

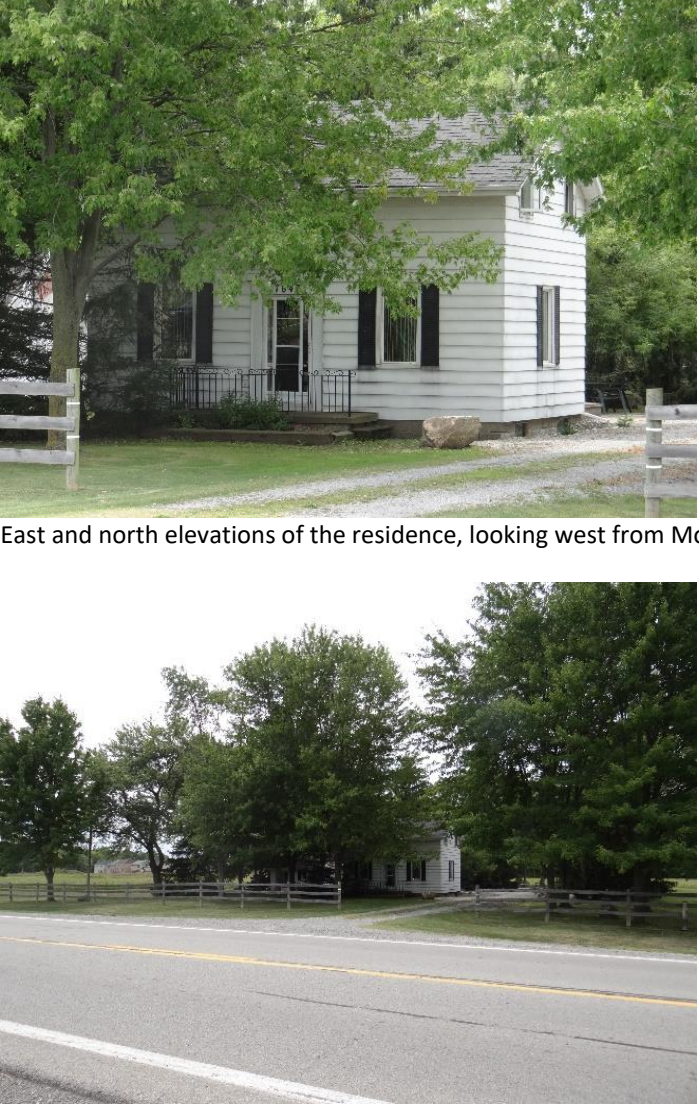
4.2 Identification of Known and Potential Built Heritage Resources and Cultural Heritage Landscapes

Based on the results of the background research and field review, one potential BHR and two potential CHLs were identified within the Montrose Road and Lyons Creek/Biggar Road study area. Of these three potential BHRs and CHLs, one was identified in a previous consultant report (CHR 1), and two were identified during background research and field review. A cultural heritage resource number has been assigned to each resource (CHR #). A detailed inventory of known and potential BHRs and CHLs within the study area is presented in Table 2. See Figure 8 to Figure 10 for mapping showing the location of identified BHRs and CHLs.





Table 2: Inventory of Known and Potential Built Heritage Resources and Cultural Heritage Landscapes within the Study Area

Feature ID	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential CHVI	Photographs/Digital Image
CHR 1	Bridges (BHR)	Twin Welland River Bridges, QEW over the Welland River	Identified as a Provincial Heritage Property (WSP 2018a; WSP 2018b)	<p>The Welland River Bridges are two adjacent 18 span, riveted steel I-beam girder bridges with concrete piers featuring arched pier caps that carries two lanes of QEW vehicular traffic (on each structure) over the Welland River. The structures were designed by the Department of Highways, Ontario (DHO) and approved by Arthur Sedgewick, an influential bridge designer in Ontario, and constructed in 1940.</p> <p>A Cultural Heritage Evaluation Report (CHER) and Heritage Impact Assessment (HIA) were carried out in 2018 by WSP and were determined to retain cultural heritage value (WSP 2018a; WSP 2018b). ASI was retained to complete a Heritage Documentation Report for the Welland River Bridges in 2019 prior to rehabilitations (ASI 2019). These rehabilitations were underway at the time of field inspection (August 2020).</p> <p>The following excerpt is from the CHER completed for the Twin Welland River Bridge. The full Statement of Cultural Heritage Value or Interest is included in Appendix A.</p> <p><i>The heritage value of the Twin Welland River Bridges lies in the significant early design of the structures overseen by the Department of Highways of Ontario and the influential bridge engineer, Arthur Sedgewick. The design is historically significant as it likely served as an important basis for subsequent long I-beam bridges in the region. The design is contextually important as a part of the initial phase of highway expansion in Ontario. The bridges were constructed in 1941 during the Second World War. They were constructed as part of the expansion of the Queen Elizabeth Way from Niagara Falls to Fort Erie. They reflect the evolving bridge construction methods for the highway bridges through this initial phase of highway construction in Ontario and likely informed the design of subsequent long I-beam bridges. The technical merit of the designs is noteworthy to this day with only three bridges in the central region surpassing their length. (WSP 2018a:25).</i></p>	 <p>West elevation of the bridges, looking east from Montrose Road</p> <p>Looking north from the south abutment of the bridge (ASI 2019)</p>

Feature ID	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential CHVI	Photographs/Digital Image
CHR 2	Residence (CHL)	7847 Montrose Road	Identified during background research and field review	<p>Residence is a one-and-a-half storey frame residence with low gable roof and rectangular footprint and is clad in siding. The main entrance is centrally-located on the east elevation fronting on Montrose Road and is flanked by symmetrical fenestration. The interior of the residence features exposed original hand-hewn beams with dowel joinery (personal communication with the owner).</p> <p>The residence was constructed in the late nineteenth century and was originally located in the City of Welland. Residence was relocated c. 1930s to the current site by the owner's grandfather prior to demolition for the construction of a munitions factory for use in the Second World War (personal communication with the owner)</p> <p>The property features a small outbuilding south of the residence, established trees surrounding the residence, and wooden post and beam fences that appear to have been constructed in the late twentieth century. The residence is surrounded by agricultural fields that are anticipated to be developed into residential subdivisions. Located at the west of Montrose Road, a nineteenth century roadway.</p> <p>This property has potential to retain design value as a nineteenth-century residence with hand-hewn beams and dowel construction³.</p> <p>NOTE- The municipal property parcel data indicate that the fence and established trees associated with the relocated residence are located within the Montrose Road ROW, and not within the legal parcel boundaries of 7847 Montrose Road. See Appendix B for mapping outlining the property parcel boundaries.</p>	 <p>East and north elevations of the residence, looking west from Montrose Road.</p> <p>Residence with mature trees, looking west from Montrose Road.</p>

³ An evaluation of this property and CHR 3 against criteria outlined in O. Reg 9/06 is required to identify any formal cultural heritage value or interest or attributes associated with these potential cultural heritage resources.

Feature ID	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential CHVI	Photographs/Digital Image
CHR 3	Farmscape (CHL)	7473 Reixinger Road	Identified during background research and field review	<p>Nineteenth-century mapping indicates the property was owned by the Estate of W. Miller in 1862 and Edward Dell in 1876 (Figure 2 and Figure 3). A structure in the approximate location of the extant residence is depicted on mapping beginning in 1876 (Figure 3), and is labelled as a 'poultry farm' in the 1973 NTS (Figure 6).</p> <p>The house is a good example of Ontario farmhouse architecture built in the Georgian style of the mid-nineteenth century. The residence is a one-and-a-half storey structure clad in siding with symmetrical structural openings on the south elevation fronting on Reixinger Road. The property features several large chicken coops, mature trees, and active agricultural fields.</p> <p>The property has the potential to retain historical, and contextual value as a mid-late-nineteenth century Georgian style farmhouse.</p>	 <p>South elevation of the residence</p>  <p>Large chicken coop north of the residence</p>

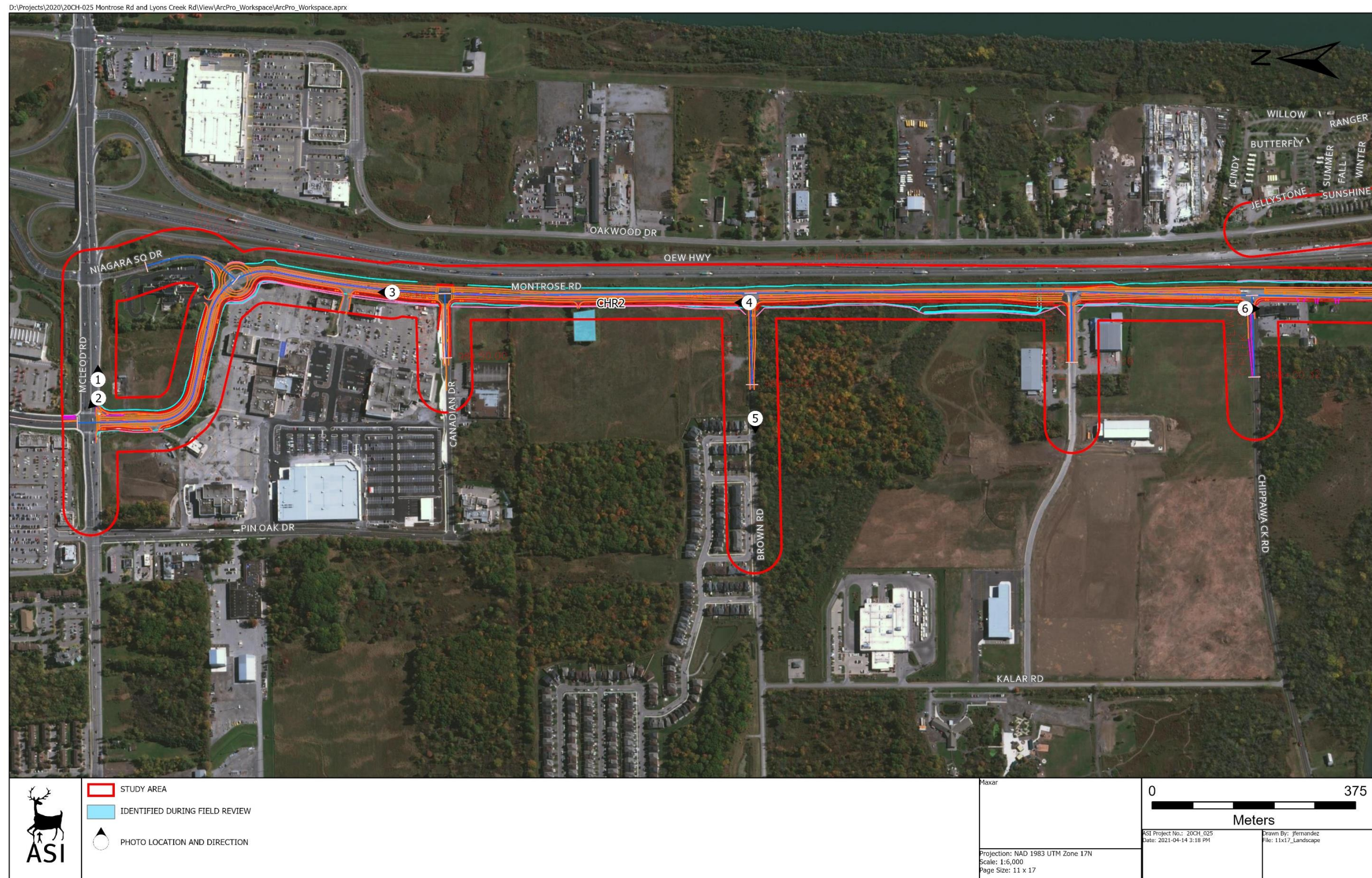


Figure 8: Location of Identified BHRs and CHLs and the Preferred Alternative in the Study Area (Sheet 1)

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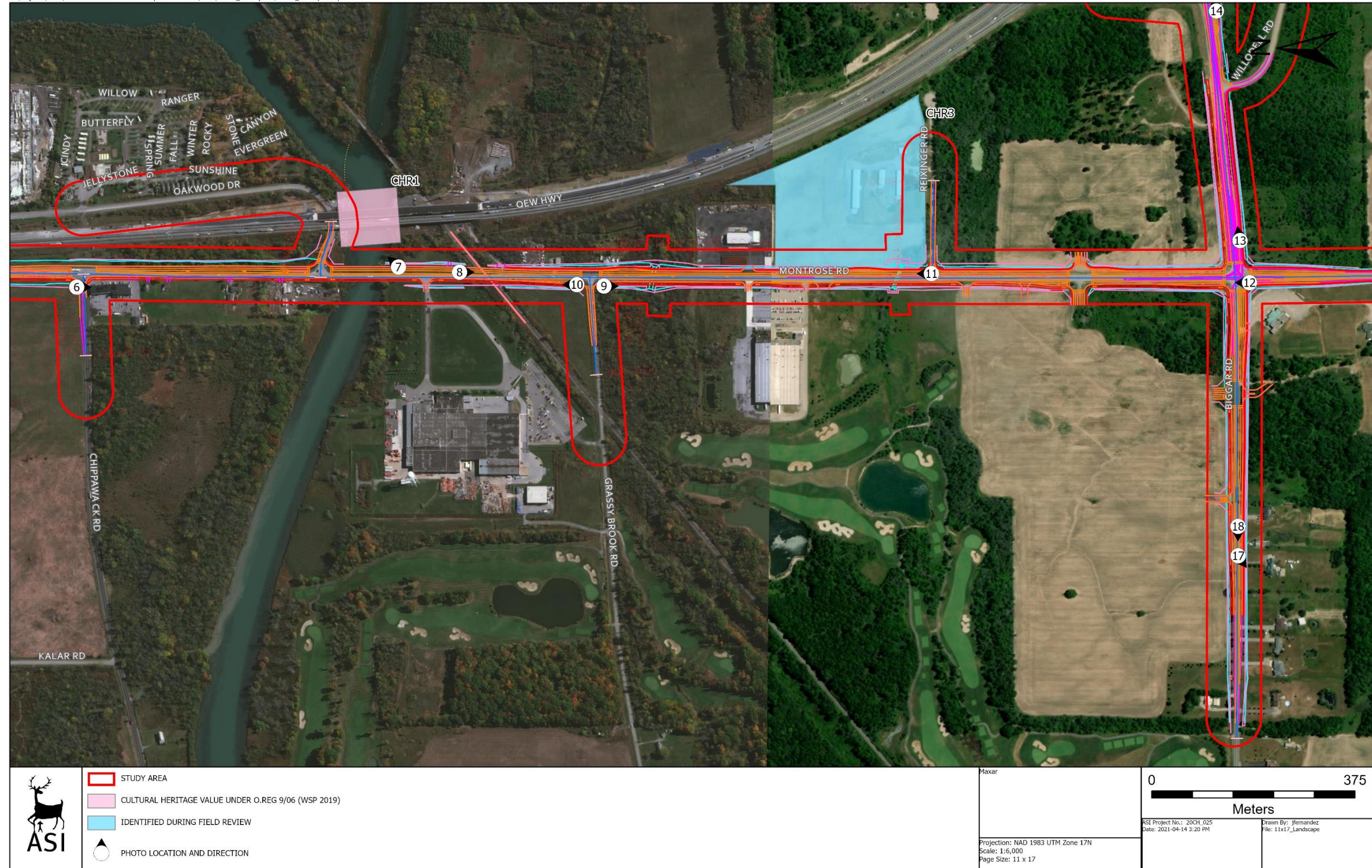


Figure 9: Location of Identified BHRs and CHLs and the Preferred Alternative in the Study Area (Sheet 2)



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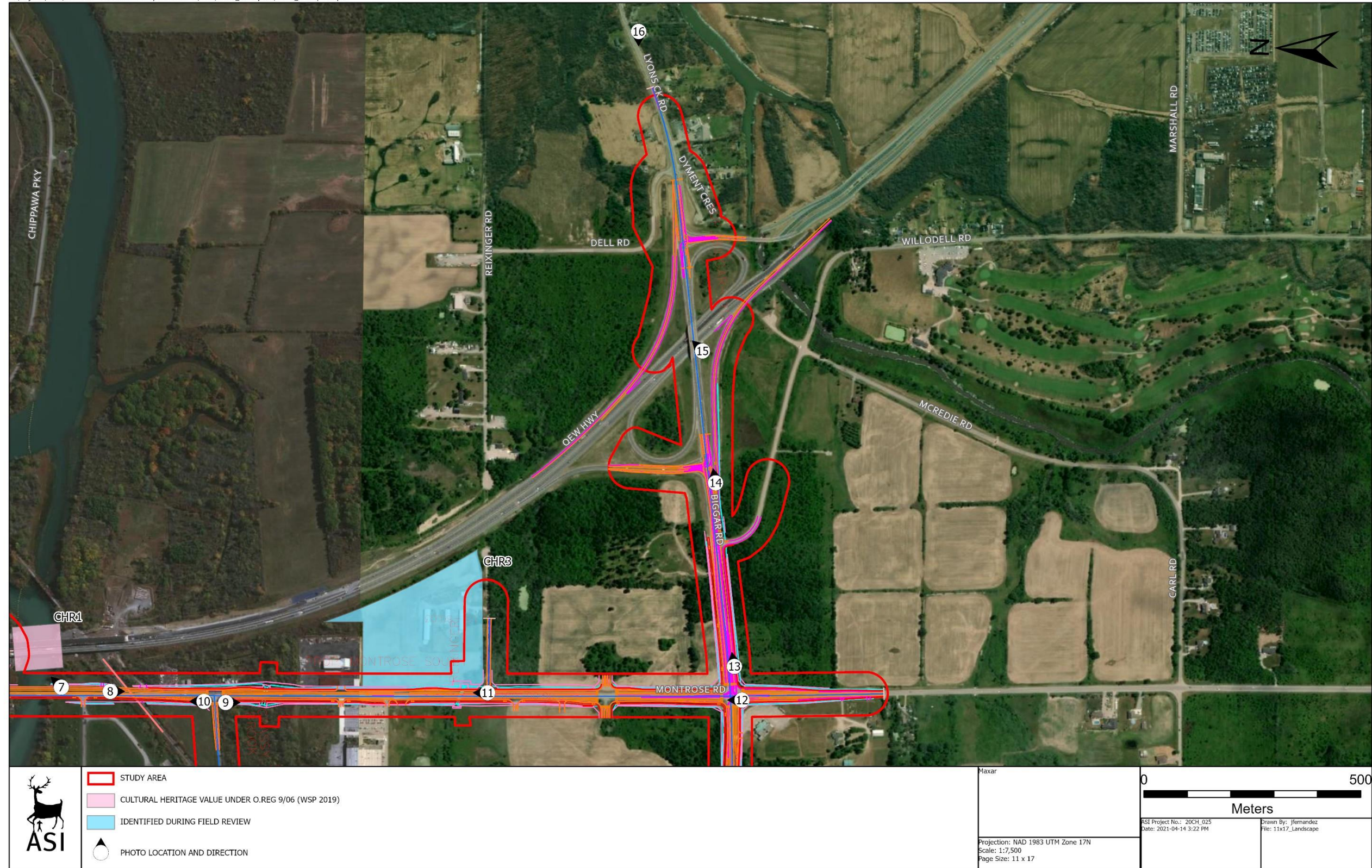


Figure 10: Location of Identified BHRs and CHLs and the Preferred Alternative in the Study Area (Sheet 3)



5.0 PRELIMINARY IMPACT ASSESSMENT

5.1 Description of Proposed Undertaking

The proposed undertaking for the Montrose Road and Lyons Creek Road/Biggar Road EA involves road improvements along Montrose Road between McLeod Road in the north and south of Lyons Creek Road/Biggar Road in the south. Additional road improvements will be completed along Lyons Creek Road/Biggar Road from the Queen Elizabeth Way (QEW) interchange in the east to approximately 830 metres west of Montrose Road in the west. These improvements are required to address the projected future transportation needs in the area and will consider intersection improvements, creation of additional lanes, access management, and active transportation (Niagara Region 2020). Preliminary designs for the proposed road improvements are provided in Appendix C.

5.2 Analysis of Potential Impacts

Table 3 outlines the potential impacts of the preferred alternative on all identified BHRs and CHLs within the study area.

Table 3: Preliminary Impact Assessment and Recommended Mitigation Measures

Feature ID	Location/Name	Type and Description of Potential/Anticipated Impact	Mitigation Strategies
CHR 1 (BHR)	Twin Welland River Bridges, QEW over the Welland River	It is understood that the limits of the proposed improvements will terminate west of the subject bridge on Oakwood Drive. Therefore, no negative direct or indirect impacts to CHR 1 are anticipated. If construction is to occur in close proximity to the bridge (within 50m), the impacts of the vibrations should be investigated through an engineering assessment and any necessary mitigation measures should be implemented prior to construction.	Construction and staging in the Oakwood Drive ROW should be suitably planned to avoid all impacts to CHR 1. Undertake engineering assessment during detail design to determine potential vibration impacts to the structure if construction is anticipated within 50m of the structure.
CHR 2 (CHL)	7847 Montrose Road	Minor indirect impacts to the property at 7847 Montrose Road are anticipated as a result of the recommended preferred alternative. Indirect impacts include encroachment of the Montrose Road ROW on the residence	Excavation, grading, and staging activities should be planned and executed to limit impacts to this built heritage resource. Where feasible, review design opportunities to prevent impacts to mature vegetation and the existing post fence during detailed design.



Feature ID	Location/Name	Type and Description of Potential/Anticipated Impact	Mitigation Strategies
		<p>and the potential removal of a twentieth-century post fence and established trees associated with the property within the existing Montrose Road ROW (See Appendix B).</p> <p>No direct impacts to the residence on the subject property are anticipated. However, since the house sits very close to the existing road, construction should be planned at a distance as far from the cultural heritage resource as possible. As construction is to occur in close proximity to the residence (within 50m), the impacts of the vibrations should be investigated through an engineering assessment and any necessary mitigation measures should be implemented prior to construction.</p>	<p>Tree protection zones should be implemented to protect the mature trees adjacent to Montrose Road from any unintended impacts.</p> <p>Given that neither the structure on the property or any apparent landscape features of significant cultural heritage value are anticipated to be impacted, no HIA is recommended in this case if suitable mitigation measures can be implemented.</p> <p>Undertake engineering assessment during detail design to determine potential vibration impacts to the structure.</p> <p>Post construction rehabilitation including planting with sympathetic plant species and the reinstallation of the wooden post and beam fence should be considered to mitigate any impacts. In this regard, the proponent should consult with the property owner in regards to the requirements of this fencing.</p>
CHR 3 (CHL)	7473 Reixinger Road	<p>Minor indirect impacts to the property at 7473 Reixinger Road are anticipated as a result of the recommended preferred alternative.</p> <p>Indirect impacts include encroachment of the Montrose Road ROW and the potential construction of a bus bay on the property and removal of a small portion of agricultural lands.</p> <p>No direct impacts to the residence, chicken coops, agricultural outbuildings, or any landscape features of potential</p>	<p>Excavation, grading, and staging activities should be planned and executed to limit impacts to this cultural heritage landscape. Where feasible, review design opportunities to limit impacts to active agricultural lands during detailed design.</p> <p>Post construction rehabilitation including planting with sympathetic plant species should be considered to mitigate any impacts.</p>



Feature ID	Location/Name	Type and Description of Potential/Anticipated Impact	Mitigation Strategies
		cultural heritage value on the subject property are anticipated, as they are all located greater than 50m from the recommended preferred alternative.	

No direct or indirect impacts to the Twin Welland River Bridges (CHR 1) are anticipated as they are not directly adjacent to the recommended preferred alternative. Construction and staging in the Oakwood Drive ROW should be suitably planned to avoid all impacts to CHR 1. No further cultural heritage work is recommended for CHR 1. If construction is anticipated within 50m of the structure, an engineering assessment should be undertaken during detail design to determine potential vibration impacts to the structure.

Minor indirect impacts to the property at 7847 Montrose Road (CHR 2) are anticipated as a result of the recommended preferred alternative. Indirect impacts include encroachment of the Montrose Road ROW on the residence on the property and the potential removal of a twentieth-century wooden post and beam fence and established trees associated with the property within the Montrose Road ROW. Consultation with planning staff at the City of Niagara Falls noted that a resource-specific Heritage Impact Assessment (HIA) should be completed for this property (email communication 12 July 2021). This HIA should be completed by a qualified cultural heritage professional as early in detailed design as possible, and submitted to planning staff at the City of Niagara Falls and the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) for review and comment. Further, mitigation measures including implementing tree protection zones and post construction rehabilitation of the wooden post and beam fence should be considered to mitigate any indirect impacts. In this regard, the proponent should consult with the property owner regarding the requirements of this fencing. Further, as the residence is located near the proposed intervention (within 50 m), baseline vibration monitoring should be undertaken during detailed design. Should this advance monitoring assessment conclude that the any structures will be subject to vibrations, a vibration monitoring plan should be prepared and implemented as part of the detailed design phase of the project to lessen vibration impacts related to construction.

Minor indirect impacts to the property at 7473 Reixinger Road (CHR 3) are anticipated as a result of the recommended preferred alternative. Indirect impacts include encroachment of the Montrose Road ROW on the property and removal of a small portion of agricultural lands. This encroachment is required to facilitate improvements to Montrose Road and accommodate construction of a bus bay. No direct impacts to the residence, chicken coops, agricultural outbuildings, or any landscape features of potential cultural heritage value on the subject property are anticipated as the recommended preferred alternative is greater than 50m from these features. Minor impacts adjacent to the Montrose Road ROW can be suitably mitigated with post-construction rehabilitation including replanting with sympathetic plant species.



6.0 SUMMARY OF COMMUNITY DATA COLLECTION

Consultation with the community will be undertaken through submission of this report for review and comment to municipal heritage staff, the MHSTCI, and any other relevant stakeholder with an interest in this project. Consultation will also be undertaken through Public Information Centres (PICs) conducted as part of the EA project. This section will be updated following receipt of any feedback.

7.0 RESULTS AND MITIGATION RECOMMENDATIONS

The results of background historical research and a review of secondary source material, including historical mapping, indicate a study area with a rural land use history dating back to the late eighteenth century. A review of federal, provincial, and municipal registers, inventories, and databases and internal ASI project databases revealed that there is one previously identified feature of cultural heritage value within and adjacent to the Montrose Road and Lyons Creek/Biggar Road study area. An additional two features were identified during the fieldwork.

7.1 Key Findings

- A total of three cultural heritage resources were identified within and/or adjacent to the study area, including one built heritage resource (CHR 1) and two potential cultural heritage landscapes (CHR 2 and CHR 3).
- One CHR was previously assessed and determined to retain cultural heritage value under O. Reg 9/06 (CHR 1, Twin Welland River Bridges, QEW over the Welland River) (WSP 2018a; ASI 2019), and two were identified during field review (CHR 2 at 7847 Montrose Road and CHR 3 at 7473 Reixinger Road).
- Identified cultural heritage resources are historically and contextually associated with land use patterns in the City of Niagara Falls and more specifically representative of the settlement of small communities along Montrose Road, a nineteenth century rural roadway, and early twentieth-century transportation infrastructure.

Results of Preliminary Impact Assessment

- The recommended preferred alternative is anticipated to result in indirect impacts to two CHRs (CHR 2 at 7847 Montrose Road and CHR 3 at 7473 Reixinger Road) and no impacts to one CHR (CHR 1, Twin Welland River Bridges).
- No direct impacts to any potential cultural heritage resources are anticipated as a result of the recommended preferred alternative.



7.2 Recommendations

Based on the results of the assessment, the following recommendations have been developed:

1. Construction activities and staging should be suitably planned and undertaken to avoid unintended negative impacts to identified BHRs and CHLs. Avoidance measures may include, but are not limited to: erecting temporary fencing, establishing buffer zones, issuing instructions to construction crews to avoid identified cultural heritage resources, etc.
2. No direct or indirect impacts to the Twin Welland River Bridges (CHR 1) are anticipated as they are not directly adjacent to the recommended preferred alternative. Construction and staging in the Oakwood Drive ROW should be suitably planned to avoid all impacts to CHR 1. No further cultural heritage work is recommended for CHR 1. If construction is anticipated within 50m of the structure, an engineering assessment should be undertaken during detail design to determine potential vibration impacts to the structure. If required, a vibration monitoring plan should be prepared and implemented as part of the detailed design phase of the project to lessen vibration impacts related to construction.
3. Minor indirect impacts to the property at 7847 Montrose Road (CHR 2) are anticipated as a result of the recommended preferred alternative. Indirect impacts include encroachment of the Montrose Road ROW on the residence on the property and the potential removal of a twentieth-century wooden post and beam fence and established trees associated with the property within the Montrose Road ROW. Consultation with planning staff at the City of Niagara Falls noted that a resource-specific HIA should be completed for this property (email communication 12 July 2021). This HIA should be completed by a qualified cultural heritage professional as early in detailed design as possible, and submitted to planning staff at the City of Niagara Falls and the MHSTCI for review and comment.
4. Suitable mitigation measures for CHR 2 include implementing tree protection zones and post construction rehabilitation of the wooden post and beam fence. In this respect, the owner of the residence at 7847 Montrose Road should be consulting regarding the requirements of this fencing.
5. As the residence at CHR 2 is located near the proposed intervention (within 50 m), baseline vibration monitoring should be undertaken during detailed design. Should this advance monitoring assessment conclude that the any structures will be subject to vibrations, a vibration monitoring plan should be prepared and implemented as part of the detailed design phase of the project to lessen vibration impacts related to construction.
6. Minor indirect impacts to the property at 7473 Reixinger Road (CHR 3) are anticipated as a result of the recommended preferred alternative. Indirect impacts include encroachment of the Montrose Road ROW on the property and removal of a small portion of agricultural lands. No direct impacts to the residence, chicken coops, agricultural outbuildings, or any landscape features of potential cultural heritage value on the subject property are anticipated as they are all located greater than 50 m from the recommended preferred alternative. Minor impacts adjacent to the Montrose Road ROW can be suitably mitigated with post-construction rehabilitation including replanting with sympathetic plant species.



7. Should future work require an expansion of the study area then a qualified heritage consultant should be contacted in order to confirm the impacts of the proposed work on potential heritage resources.
8. This report should be submitted to the City of Niagara Falls and the MHSTCI for review and comment, and any other local heritage stakeholders that may have an interest in this project. The final report should be submitted to the City of Niagara Falls for their records.



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APPENDIX A: STATEMENT OF CULTURAL HERITAGE VALUE



5 STATEMENT OF CULTURAL HERITAGE VALUE OR INTEREST

While the evaluation of the bridges was completed separately the twin bridges are considered to be a single cultural heritage resource. The bridge structures are nearly identical and are functionally, visually and historically linked. All statements relevant to one bridge are relevant to the other. Hence, the bridges should be considered to be a single resource. The following is the Statement of Cultural Heritage Value or Interest for the Twin Welland River Bridges.

DESCRIPTION OF PROPERTY

The Twin Welland River Bridges are located in the municipal boundaries of the City of Niagara Falls, within the river valley of the Welland River along the Queen Elizabeth Way. The Welland River has a mild gradient resulting in a meandering and sluggish river at this location. As such the Welland Bridges require moderate embankments to increase their grade to effectively cross the river and the railroad at this location. The railroad is located on the south bank of the river and crosses under the bridges in a northeast-southwest fashion, while the bridges crosses the river ostensibly north-south.

The immediate area around the bridges is predominately undeveloped with a park (Braden-Powell) immediately southeast and some limited development to the north and southwest. Residential portions of the City of Niagara Falls lie approximately 2 km to the north. The remainder of the area to the south, west and east is predominately agricultural.

STATEMENT OF CULTURAL HERITAGE VALUE OR INTEREST

The heritage value of the Twin Welland River Bridges lies in the significant early design of the structures overseen by the Department of Highways of Ontario and the influential bridge engineer, Arthur Sedgwick. The design is historically significant as it likely served as an important basis for subsequent long I-beam bridges in the region. The design is contextually important as a part of the initial phase of highway expansion in Ontario.

The bridges were constructed in 1941 during the Second World War. They were constructed as part of the expansion of the Queen Elizabeth Way from Niagara Falls to Fort Erie. They reflect the evolving bridge construction methods for the highway bridges through this initial phase of highway construction in Ontario and likely informed the design of subsequent long I-beam bridges. The technical merit of the designs is noteworthy to this day with only three bridges in the central region surpassing their length.

DESCRIPTION OF HERITAGE ATTRIBUTES

Heritage attributes are defined in relation to the physical or real property which reflect the cultural heritage values of the resource. The Twin Welland River Bridges heritage attributes include:

- Early design elements including:
 - Steel I-beam girders
 - Large number of spans (18)

- Steel rivet construction
- Overall form within the landscape including:
 - Arch cap pier design typical of the period
 - Massing of the bridge in relatively low relief over the river and railway

APPENDIX B: 7847 MONTROSE ROAD PROPERTY PARCEL BOUNDARIES (NIAGARA NAVIGATOR)





Legend

- Address Points
- Assessment Parcels

0.0 0 0.01 0.0 Kilometers

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This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. This map is not to be used for navigation.



Notes

APPENDIX C: PRELIMINARY DESIGN DRAWINGS

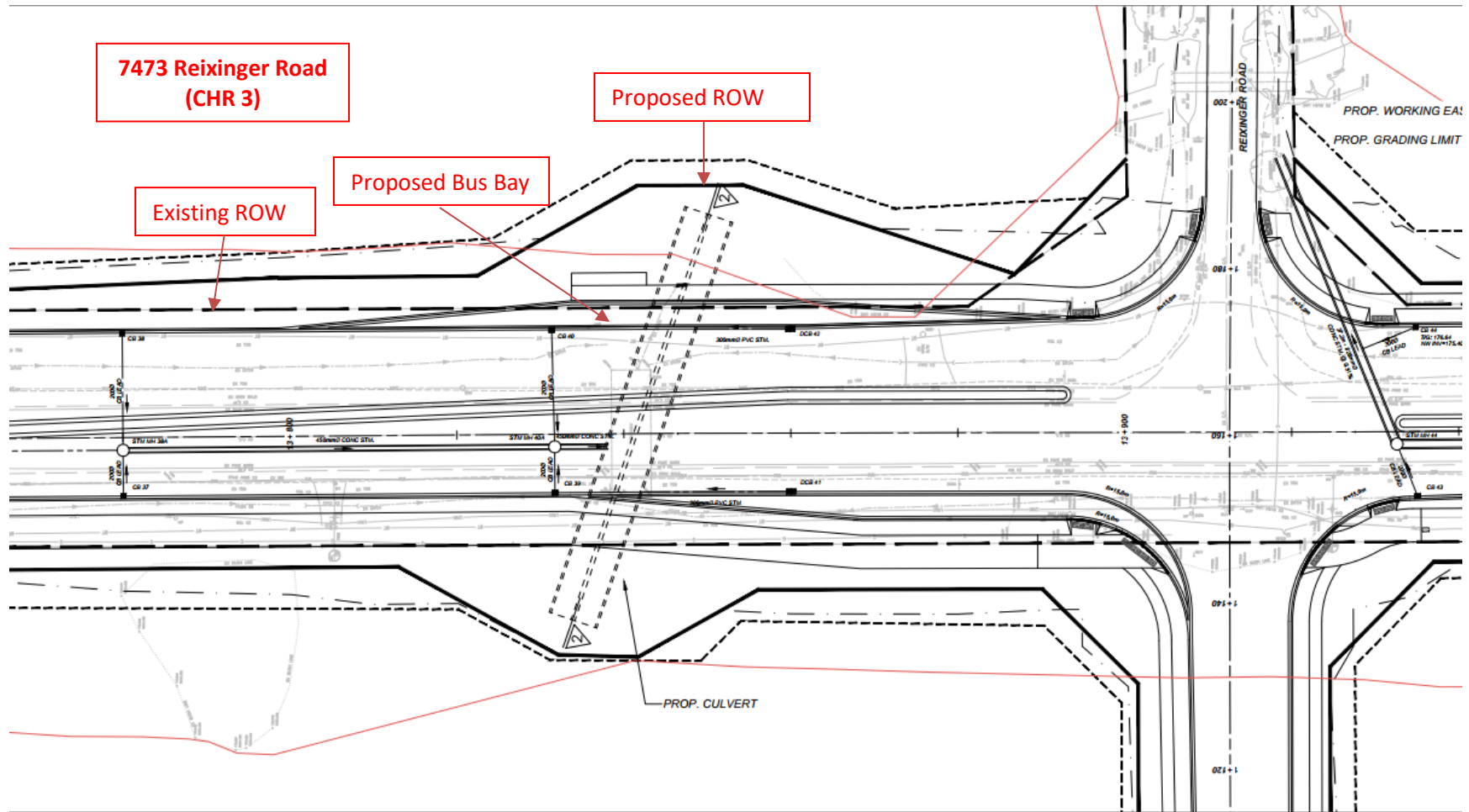


Figure 11: Excerpt of Preliminary Design Drawing Showing Potential Encroachment of Bus Bay on 7473 Reixinger Road (CHR 3) (annotations by ASI in red)