

APPENDIX L

**Cultural Heritage Resource
Assessment Report**

MINISTRY OF TRANSPORTATION – EASTERN REGION

CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT

HIGHWAY 401 PLANNING STUDY FROM COLBORNE TO
BRIGHTON – PRELIMINARY DESIGN AND CLASS
ENVIRONMENTAL ASSESSMENT STUDY
(GWP 4054-17-00)

FEBRUARY 28, 2022

FINAL REPORT





CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT

HIGHWAY 401 PLANNING STUDY
FROM COLBORNE TO BRIGHTON
REHABILITATION/REPLACEMENT AND
WIDENING, COLBORNE TO BRIGHTON
– PRELIMINARY DESIGN AND CLASS
ENVIRONMENTAL ASSESSMENT
STUDY

MINISTRY OF TRANSPORTATION – EASTERN REGION

TOWNSHIP OF CRAMAHE, MUNICIPALITY OF BRIGHTON,
COUNTY OF NORTHUMBERLAND AND CITY OF QUINTE WEST
PROVINCE OF ONTARIO

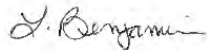
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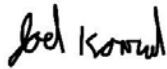
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EXECUTIVE SUMMARY

WSP was retained by the Ontario Ministry of Transportation (MTO), Eastern Region to undertake the Planning, Preliminary Design and Class Environmental Assessment (Class EA) Study on Highway 401 for the replacement / rehabilitation of bridges and structural culverts, establishing the future Highway 401 footprint for an interim six lanes and ultimate eight lanes to address current and future transportation needs, and commuter parking lot improvements from 0.8 km east of Percy Street to 0.4 km west of Christiani Road. The study area traverses Northumberland County, the Township of Cramahe, Municipality of Brighton, and borders the City of Quinte-West and Hastings County. The Class EA involves the rehabilitation or replacement of seven bridges and culverts, and commuter parking lot improvements at County Road 30.

The study will follow the approved environmental planning process for Group “B” projects under the *Class Environmental Assessment for Provincial Transportation Facilities* (2000) with the opportunity for public input throughout.

A Cultural Heritage Resource Assessment Report (CHRAR) has been completed as a requirement of the Class EA process to identify properties within the study area that are potential built heritage resources (BHR) and cultural heritage landscapes (CHL). Background historical research and a review of secondary source material identified the study area’s land use history dates back to the late-eighteenth century. The field review identified potential BHRs and CHLs dating from the mid-nineteenth century that reflect the early agricultural and township settlement of the study area, mid-to-late twentieth century rural residential development, and nineteenth and twentieth century road and highway construction. A total of 26 CHLs and 11 BHRs were identified within or adjacent to the Highway 401 EA study area.

Based on the results of this assessment, 18 CHLs and 5 BHRs will be directly impacted by the proposed seven short-listed alternatives for the Highway 401 Preliminary Design and Class EA. In addition, there may be indirect impacts to one CHL and one BHR given the proximity of construction activities. As such, the recommendations are as follows:

- 1) When determining the Preferred Plan, consideration should be given to a design that directly and indirectly impacts as few BHRs and CHLs as is feasible. Alternatives should be selected that require as little property acquisition as possible.
- 2) Storage and construction staging areas should be appropriately located and/or planned to avoid impacting any of the identified BHRs and CHLs.
- 3) A Cultural Heritage Evaluation Report should be completed for CHL 11, CHL 16 (12 McDonald Road), CHL 25, BHR 8 and BHR 9 prior to the determination of the Preferred Plan as an appropriate mitigation measure to establish whether the properties possess cultural heritage value or interest. If a property is found to possess cultural heritage value or interest, a Heritage Impact Assessment should also be completed during Preliminary Design to determine appropriate alternatives or mitigation measures early in the project.
- 4) Given the immediate adjacency of CHL 16 and BHR 2 to the grading limits, mitigation measures should be undertaken during construction planning to ensure that indirect impacts, such as vibrations, or the proximity of construction equipment, do not damage the properties. If necessary, construction fencing should be erected around property boundaries to ensure they are not damaged by any construction machinery or vehicles.
- 5) The rural cross-sections of CHL 5, CHL 6, CHL 9, CHL 12, CHL 14, CHL 15, and CHL 24 should be maintained to ensure new construction is consistent with the rural character of the roadscapes.
- 6) Where construction is anticipated to result in grading impacts and tree removal, post-construction landscaping with native tree species should be employed to mitigate visual impacts to CHL 3 to CHL 5, CHL 7, CHL 9, CHL 12, CHL 14, CHL 15, CHL 16, CHL 18, CHL 19, CHL 23, CHL 24, BHR 2 and BHR 10.

- 7) Should future work require an expansion or alteration of the study area, the additional area or change should be studied by a qualified heritage professional to confirm the impacts of the proposed work on potential BHRs and CHLs.



TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	Study Purpose and Objectives	1
1.2	Project Description and Study area	2
2	LEGISLATION AND POLICY CONTEXT	3
2.1	Environmental Assessment Act	3
2.2	Provincial Policy Statement	3
2.3	Ontario Heritage Act	3
2.4	Standards and Guidelines for Conservation of Provincial Heritage Properties	4
2.5	MTO Environmental Reference for Highway Design	5
2.6	MTO Environmental Guide for Built Heritage and Cultural Heritage Landscapes	5
2.7	Northumberland County Official Plan	5
2.8	Township of Cramahe Official Plan	6
2.9	Municipality of Brighton Official Plan	7
2.10	Hastings County Official Plan	8
2.11	City of Quinte-West Official Plan	10
3	METHODOLOGY	12
3.1	Background History	12
3.2	Consultation.....	12
3.3	Field Assessment.....	13
3.4	Screening for Potential Cultural Heritage Value or Interest	13
3.5	Screening for Potential Impacts	13
4	HISTORICAL CONTEXT	15
4.1	Pre-Contact Period	15
4.2	Post-Contact Period	17
4.2.1	Euro-Canadian Context	17
4.2.2	Roadway Transportation History in Ontario	19
4.2.3	Review of Historical Mapping and Aerial Photography	21
5	EXISTING CONDITIONS	23
5.1.1	Highway 401	23
5.1.2	Purdy Road.....	25



5.1.3	Durham Road / Herley Road	25
5.1.4	Honey Road.....	26
5.1.5	Crandall Road.....	27
5.1.6	Lake Road	28
5.1.7	McDonald Road.....	30
5.1.8	Telephone Road.....	31
5.1.9	County Road 26	33
6	CONSULTATION	34
7	IDENTIFIED CULTURAL HERITAGE RESOURCES	35
8	SCREENING FOR POTENTIAL IMPACTS.....	37
8.1	Description of Proposed Undertaking	37
8.2	Potential Impacts.....	39
9	CONCLUSIONS.....	53
10	RECOMMENDATIONS.....	54
11	BIBLIOGRAPHY.....	55

TABLES

TABLE 1: SUMMARY OF CHLS AND BHRS IN THE STUDY AREA	35
TABLE 2: SUMMARY OF STUDY AREA SECTIONS.....	37
TABLE 3: SUMMARY OF HIGHWAY 401 WIDENING SHORT-LIST ALTERNATIVES.....	37
TABLE 4: SUMMARY OF HIGHWAY 401 CROSSING ROADS SHORT-LIST ALTERNATIVES	38
TABLE 5: POTENTIAL IMPACTS TO CHLS AND BHRS BASED ON DESIGN ALTERNATIVES.....	39

APPENDICES

A	FIGURES
B	CULTURAL HERITAGE RESOURCE FORMS
C	MTO INTERNAL HERITAGE SCREENING FOR BRIDGES AND CULVERTS

1 INTRODUCTION

1.1 STUDY PURPOSE AND OBJECTIVES

WSP was retained by the Ontario Ministry of Transportation (MTO), Eastern Region to undertake the Planning, Preliminary Design and Class Environmental Assessment (Class EA) Study on Highway 401 for the replacement / rehabilitation of bridges and structural culverts, establishing the future Highway 401 footprint for an interim six lanes and ultimate eight lanes to address current and future transportation needs, and commuter parking lot improvements from 0.8 km east of Percy Street to 0.4 km west of Christiani Road (Figure 1, Appendix A). The study area traverses Northumberland County, the Township of Cramahe, Municipality of Brighton, and borders the City of Quinte-West and Hastings County. The Class EA involves the rehabilitation or replacement of seven bridges and culverts, and commuter parking lot improvements at County Road 30.

The study will follow the approved environmental planning process for Group “B” projects under the *Class Environmental Assessment for Provincial Transportation Facilities* (2000) including the preparation of a Transportation Environmental Study Report (TESR) with the opportunity for public input throughout.

A Cultural Heritage Resource Assessment Report (CHRAR) is required for the EA process to: identify existing and potential built heritage resources (BHR) and cultural heritage landscapes (CHL); review the background history of the project area; complete a site visit to confirm existing conditions; provide a preliminary impact assessment for BHRs and CHLs within the study area; identify mitigation and/or monitoring for potential impacts; and determine whether additional heritage reporting is required.

To meet these objectives, the report will:

- Introduce the study including the purpose and methodology used to undertake the work.
- Review background studies to complete a summary history of the study area using local histories, historical mapping and aerial photographs. This work will trace the evolution of the study area and aid in the identification of existing and potential BHRs and CHLs.
- Contact Planning staff at the Township of Cramahe, Municipality of Brighton, City of Quinte-West, Northumberland County and Hastings County regarding heritage recognitions and identification of listed and/or designated heritage properties within and adjacent to the study area to identify existing BHRs and CHLs.
- Conduct a survey to confirm the existing conditions of the study area and review survey findings. This process will aid in the identification of BHRs and CHLs that may be impacted by the undertaking. This task will produce photographs of the resources within and adjacent to the study area for the purposes of preparing the report.
- Undertake a screening of alternatives to produce a preliminary assessment of impacts to BHRs and CHLs within and adjacent to the study area.
- Identify mitigation/monitoring issues and provide general mitigation recommendations.

This CHRAR will be conducted in accordance with the *Ontario Heritage Act* (2005), the *Standards and Guidelines for Conservation of Provincial Heritage Properties* (2010), the *Environmental Assessment Act* (1990), the *Planning*

Act (1990), the *Provincial Policy Statement* (2020), the MTO's cultural heritage policies and guidelines, and the relevant upper and lower tier Official Plans for each municipality located within the Highway 401 EA study area.

1.2 PROJECT DESCRIPTION AND STUDY AREA

The section of Highway 401 that comprises the study area is currently a four-lane divided highway. It carries local, commercial, commuter, tourist, and agricultural traffic and is the primary through route across southern, central, and eastern Ontario. The study requirements are to prepare the Preliminary Design and Class EA for the rehabilitation or replacement of seven bridges and culverts, commuter parking lot improvements at County Road 30, along with the widening of Highway 401 to either six (interim) or eight (long-term) lanes of traffic between the Town of Colborne and the Municipality of Brighton. The purpose of the study is to identify the Preferred Plan that addresses current and future transportation needs in the study area as part of the Ministry's ongoing review of safety and operational needs for the provincial highway network. Specifically, the study area limits include Highway 401 from 0.8 km east of Percy Street in the Town of Colborne to 0.4 km west of Christiani Road in the Municipality of Brighton (approximately 16.8 km) (Figure 1, Appendix A).

The County Road 30 interchange is located within the study limits; however, a previous EA was completed for the interchange in 2005. As such, it will not be included in this EA study but will be a part of the traffic model. No impacts to cultural heritage resources were identified through the 2005 EA. Potential improvements to the carpool lot located at the interchange, near the northeast corner of County Road 30 and Telephone Road will be assessed through this EA study.

The structures within the project limits are approaching the end of their service life and need to be replaced. The new bridges are planned to have a service life of 75 years; therefore, the replacement bridges will be designed to accommodate future Highway 401 expansion. The existing Highway 401 platform cannot accommodate the traffic staging required to rehabilitate or replace the bridges and structural culverts. The new wider structures will provide sufficient room for traffic staging for future rehabilitation projects. The study will establish the footprints of future six and eight lanes so that the structures can be designed efficiently.

The following structures located within the study area have been screened for heritage potential by the MTO and do not require any further heritage consideration and will not be documented in this CHRAR:

- Highway 401/County Road 26 Underpass (Site No. 21-297);
- Highway 401/Herley Road Underpass (Site No. 21-294);
- Highway 401/Lake Road Underpass (Site No. 21-295);
- Culvert, 5 km west of County Road 30 (Site No. 21-471/C);
- Culvert, 4.5 km west of County Road 30 (Site No. 21-472/C);
- Culvert, 4 km west of County Road 30 (Site No. 21-473/C); and
- Culvert, 3 km west of County Road 30 (Site No. 21-474/C).

The summary results of the screening and screening forms are provided in Appendix C.

Upon completion of the Preliminary Design phase, the MTO will amend the highway designation and move toward property acquisition and utility relocations. The results of the Preliminary Design study will also inform the phasing and implementation of future Detail Design and construction work.

2 LEGISLATION AND POLICY CONTEXT

This report is prepared in accordance with the following legislation and guidelines:

- *Ontario Heritage Act* (2005);
- *Standards and Guidelines for Conservation of Provincial Heritage Properties* (2010);
- *Environmental Assessment Act* (1990);
- *Class Environmental Assessment for Provincial Transportation Facilities* (2000);
- *Planning Act* (1990);
- *Provincial Policy Statement* (2020);
- MTO’s cultural heritage policies and guidelines; and,
- Relevant upper and lower tier Official Plans for each municipality located within the Highway 401 EA study area.

This section outlines the various legislative frameworks and policies relevant to the report.

2.1 ENVIRONMENTAL ASSESSMENT ACT

The purpose of the EA Act is “the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management, in Ontario, of the environment” (EA Act, 2009, Part I-Section 2). The EA Act defines environment broadly to include the built and cultural environment and outlines a planning and decision-making process to ensure that potential environmental effects are considered before a project begins. This legislation applies to provincial ministries and agencies, municipalities, and other public bodies. Certain “classes” of projects can follow streamlined EA processes, such as the MTO Class EA.

The MTO Class EA Document proposes that cultural heritage resources of high and moderate significance should be avoided during generation of the Preliminary Design alternatives. Where impacts cannot be avoided, mitigation measures should be proposed in accordance with provincial standards and guidelines.

2.2 PROVINCIAL POLICY STATEMENT

The *Provincial Policy Statement* (PPS) (2020) outlines provincial “policy direction on matters of provincial interest related to land use planning and development” (Part I: Preamble PPS 2020). The intent is to provide for appropriate development that protects resources of public interest, public health and safety, and the quality of the natural and built environment.

The PPS 2020 identifies the conservation of significant BHRs and CHLs as a provincial interest in Section 2.6.1.

2.3 ONTARIO HERITAGE ACT

The *Ontario Heritage Act* (OHA) (2005) provides the primary statutory framework for the conservation of cultural heritage resources in Ontario. The OHA gives municipalities and the provincial government powers to conserve cultural heritage resources. The OHA grants the authority to municipalities and to the province to identify and

designate properties of heritage significance, provide standards and guidelines for the conservation of provincial heritage properties and enhance protection of heritage conservation districts, marine heritage sites and archaeological resources.

Designation helps to ensure the conservation of cultural heritage resources and can take the form of individual designations (Part IV of the OHA) or as part of a larger group of properties, known as a Heritage Conservation District (Part V of the OHA).

In addition to designated properties, the OHA allows municipalities to list properties that are considered to have cultural heritage value or interest (CHVI) on their Municipal Heritage Register. Under Part IV, Section 27 of the OHA, municipalities must maintain a Register of properties situated in the municipality that are of CHVI. Section 27 (1.1) states that the register shall be kept by the clerk and that it must list all designated properties (Part IV and V). Under Section 27 (1.2), the Register may include property that has not been designated, but that council believes to be of CHVI. Listed properties, although recognized as having CHVI, are not protected under the OHA, but are acknowledged under Section 2 of the PPS 2020 under the *Planning Act*.

Provincial heritage properties (PHP) are not subject to designation by municipalities or the Minister. Part III.1 of the OHA enables the Minister of the Ministry of Heritage, Sport, Tourism and Cultural Industries (MHSTCI), in consultation with affected ministries and prescribed public bodies, to prepare standards and guidelines that set out the criteria and process for identifying PHPs (Part II of the OHA) and to set standards for their protection, maintenance, use, and disposal.

2.4 STANDARDS AND GUIDELINES FOR CONSERVATION OF PROVINCIAL HERITAGE PROPERTIES

The MHSTCI's *Standards and Guidelines for Conservation of Provincial Heritage Properties (Standards & Guidelines)* (2010) apply to properties the Government of Ontario owns or controls that have CHVI, and are therefore recognized as PHPs. Adherence to the *Standards & Guidelines* is mandatory for ministries and prescribed public bodies.

PHPs include three types of cultural heritage resources: built heritage resources, cultural heritage landscapes, and archaeological sites. Relevant definitions from the *Standards & Guidelines* include:

Built Heritage Resources (BHR): means one or more significant buildings (including fixtures or equipment located in or forming part of a building), structures, earthworks, monuments, installations, or remains that have cultural heritage value.

Cultural Heritage Landscapes (CHL): means a defined geographical area that human activity has modified and that has cultural heritage value. Such an area involves one or more groupings of individual heritage features, such as structures, spaces, archaeological sites, and natural elements, which together form a significant type of heritage form distinct from that of its constituent elements or parts. Heritage conservation districts designated under the *Ontario Heritage Act*, villages, parks, gardens, battlefields, mainstreets and neighbourhoods, cemeteries, trails, and industrial complexes of cultural heritage value are some examples.

Section B of the *Standards & Guidelines* details the Identification and Evaluation process to be undertaken for PHPs. Specifically, Provision B.1 states that ministries and prescribed public bodies shall:

“Apply the ‘Criteria for Determining Cultural Heritage Value or Interest’ set out in Ontario Regulation 9/06 under the Act as amended or replaced from time to time...to determine the cultural heritage value or interest of a property; and apply the “Criteria for Determining Cultural Heritage Value of Provincial Significance” set out in Ontario

Regulation 10/06 as amended or replaced from time to time...to determine whether a property is of provincial significance” (MHSTCI, 2010:5).

2.5 MTO ENVIRONMENTAL REFERENCE FOR HIGHWAY DESIGN

Section 3.7 of the *Environmental Reference for Highway Design* (2013) addresses the requirements specific for undertaking BHR and CHL assessments for MTO Highway projects. It requires the identification and assessment of heritage resources, their mitigation (as required), technical reports and the qualifications of the cultural heritage specialist.

2.6 MTO ENVIRONMENTAL GUIDE FOR BUILT HERITAGE AND CULTURAL HERITAGE LANDSCAPES

In addition to the *Environmental Reference for Highway Design*, the *Environmental Guide for Built Heritage and Cultural Heritage Landscapes* (2007) provides more detailed guidance for the identification and assessment of BHRs and CHLs and appropriate mitigation measures for implementation in the design and construction processes in transportation projects. The Guide states that the character-defining elements of BHRs shall be conserved, and the isolation of BHRs and CHLs shall be avoided. The Guide requires that a CHRAR include the following sections:

- Executive Summary;
 - Introduction (purpose of assignment);
 - A study area location plan;
 - Summary of the history of the study area;
 - A description of the affected resources and their heritage interest or value;
 - A description of potential impacts and sensitivities;
 - Recommendation of preservation/mitigation strategies during subsequent stages;
 - Historical mapping, aerial photographs and graphic materials as needed to illustrate changes in the study area; and,
 - Cultural heritage resource forms.
-

2.7 NORTHUMBERLAND COUNTY OFFICIAL PLAN

The *Northumberland County Official Plan* was approved by the Ontario Municipal Board on November 23, 2016. Policies relevant to this CHRAR include:

D3.2 Heritage Policies Objectives

It is the objective of this Plan that the County and local municipalities participate in the conservation of cultural heritage resources by:

- a) Conserving heritage buildings, cultural heritage landscapes and archaeological resources that are under municipal ownership and/or stewardship;
- b) Conserving and mitigating impacts to all significant cultural heritage resources, when undertaking public works;
- c) Respecting the heritage resources recognized or designated by federal and provincial agencies; and,
- d) Respecting the heritage designations and other heritage conservation efforts by area municipalities.

D3.5 Implementation

- a) Significant built heritage resources and significant cultural heritage landscapes shall be conserved.
- b) Development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved.
- c) The County will require a heritage impact assessment to be conducted by a qualified professional whenever a development has the potential to affect a cultural heritage resource, whether it is located on the same property or on adjacent lands.
- d) A heritage impact assessment should outline the context of the proposal, any potential impacts the proposal may have on the heritage resource, and any mitigative measures required to avoid or lessen negative impact on the heritage resource.
- e) Local municipalities are encouraged to establish Municipal Heritage Committees pursuant to the Ontario Heritage Act.
- f) Local municipalities are encouraged to support the use of Community Improvement Plans under the Planning Act to conserve cultural heritage resources.
- g) Planning authorities shall not permit development and site alteration on adjacent lands to protected heritage property except where the proposed development and site alteration has been evaluated and it has been demonstrated that the heritage attributes of the protected heritage property will be conserved.

2.8 TOWNSHIP OF CRAMAHE OFFICIAL PLAN

The Official Plan of the Township of Cramahe is in draft and dated May 2018. Policies relevant to this CHRAR include:

4.11 Archaeological, Built Heritage, and Cultural Heritage Resources

4.11.1 Goals

To ensure that Cultural Heritage Resources in the municipality are managed in a responsible manner which perpetuates their use while maintaining the heritage value and benefit to the community.

4.11.2 Objectives

- (a) To identify and conserve heritage resources through appropriate means.
- (b) To consult with Heritage Cramahe in the identification and conservation of heritage resources.

5.1.23 Cultural Heritage and Archaeological Resource Conservation

Heritage resources include but are not limited to archaeological sites, buildings and structural remains of historical, architectural and contextual value, and human-made rural, village and community landscapes of historic and scenic interest.

5.1.23.1 General Policies

Council shall recognize the importance of cultural heritage and archaeological resources by:

- a) Conserving *built heritage resources, cultural heritage landscapes* and *archaeological resources* that are under municipal ownership and/or stewardship;
- b) Conserving and mitigating impacts to all *significant* cultural heritage resources, when undertaking public works;
- c) Respecting cultural and *archaeological resources* recognized or designated by federal and provincial agencies;
- d) Supporting the use of Community Improvement Plans under the *Planning Act* to conserve *cultural heritage resources*; and
- e) Encouraging the identification or recognition, restoration, protection, maintenance and enhancement of such resources.

All new development permitted by the land use policies and designations of this Plan, shall have regard for cultural heritage resources and shall, whenever possible incorporate these resources into any plans which may be prepared for such new development. In addition, all new development will be considered in a manner which preserves and enhances the character of the context in which heritage resources are situated and in accordance with all of the policies of this Plan.

2.9 MUNICIPALITY OF BRIGHTON OFFICIAL PLAN

The Corporation of the Municipality of Brighton *Official Plan* was adopted by Council on July 19, 2010 and was approved with modifications by the Ministry of Municipal Affairs and Housing on April 23, 2014. Policies relevant to this CHRAR include:

2.4.11 Heritage Conservation

It is an objective of this Plan to conserve all cultural heritage and archaeological resources and to promote recognition of the unique nature of cultural heritage, and its contribution to the character, civic pride, tourism potential, and economy of the community.

Council, under the *Ontario Heritage Act*, may designate cultural heritage resources, including individual properties, conservation districts and landscapes. Significant built heritage resources and significant cultural heritage landscapes shall be identified prior to development and conserved, through the identification, protection, use and or management in such a way that their heritage values, attributes and integrity are retained. Conservation may involve a conservation plan or heritage impact assessment. Development on lands adjacent to protected heritage properties shall only be permitted where it has been demonstrated that the significant heritage property will be conserved.

3.7 Cultural Heritage Conservation

3.7.1.1 Identify and Conserve Resources

To identify and conserve the cultural heritage resources in the Municipality through the implementation of appropriate designations, policies and programs including public and private stewardship and partnering with other heritage organizations in the community.

3.7.1.2 Promote Awareness

To promote the continuing public and private awareness, appreciation and enjoyment of Brighton's cultural heritage through educational activities, and by providing guidance on sound conservation practices.

3.7.1.3 Develop Partnerships

To develop partnerships between various agencies and organizations to conserve and promote cultural heritage resources.

3.7.1.4 Provincial Legislation

To use, as appropriate, all relevant Provincial legislation that refers to conservation of cultural heritage resources, particularly the provisions of the Ontario Heritage Act, the Planning Act, the *Environmental Assessment Act*, the *Municipal Act*, and the *Cemeteries Act*, in order to conserve the cultural heritage of the Municipality.

3.7.2.12 Public Undertakings

The Municipality of Brighton will encourage that cultural heritage resources are identified, evaluated and conserved prior to municipal, Northumberland County or Provincial public works or other development activities, and where necessary, suitable mitigation measures taken.

3.7.2.14 Cultural and Natural Landscapes

In its consideration of all development and redevelopment proposals, the Municipality of Brighton will have regard for the interrelationship between cultural heritage landscapes.

3.7.2.15 Vegetation

The Municipality of Brighton will encourage the preservation of mature trees and other vegetation of heritage significance. Retention of existing landmark trees and tree or hedgerows shall be an important consideration in the design of any development. The preservation of trees along streets and roads shall be encouraged by the Municipality, except where removal is necessary because of disease, damage or to ensure public health and safety.

2.10 HASTINGS COUNTY OFFICIAL PLAN

The Hastings County Official Plan was adopted by the Council of the Corporation of the County of Hastings on December 19, 2017. Policies relevant to this CHRAR include:

5.3 Cultural Heritage Resources

5.3.1.1 Cultural heritage resources form an important and in many cases highly visible part of the community fabric. These resources are a source of civic pride for the residents, a benefit to the local economy through tourism, and are important to our understanding of the settlement of the County. The policies of this Plan, in conjunction with the Ontario Heritage Act, provide a framework for the protection and enhancement of cultural heritage resources in Hastings County

- 5.3.1.3 Cultural heritage resources are defined as the physical remains and the intangible cultural traditions of past human activities. These include, but are not limited to:
- a. Buildings (residential, commercial, institutional, industrial and agricultural);
 - b. Cultural heritage landscapes (designed, organic/evolved);
 - c. Structures (water tower, bridge, fence and dam);
 - d. Monuments (cenotaph, statue and cairn);
 - e. Archaeological resources (see Part A - Section 5.3.4);
 - f. Cemeteries;
 - g. Scenic roads;
 - h. Vistas/viewsheds;
 - i. Culturally significant natural features (tree and landform);
 - j. Movable objects (archival records and artifacts); and
 - k. Cultural traditions (language, stories, music, dance, food, celebrations, art and crafts).
- 5.3.1.4 Cultural heritage landscapes involve groupings of individual heritage features such as structures, spaces, archaeological sites, and natural elements which together form a larger area of heritage value. The identification, listing, evaluation and protection of cultural heritage landscapes are ongoing processes.
- 5.3.1.8 The County and the Member Municipalities shall consider the interests of Aboriginal communities in conserving cultural heritage and archaeological resources.
- 5.3.2.2 The County will assist local municipalities in creating and maintaining an inventory of cultural heritage resources for land use planning and conservation, including but not limited to:
- a) Heritage resources designated under the Ontario Heritage Act;
 - b) Sites or areas having cultural heritage value or interest; and,
 - c) Cemeteries.
- 5.3.4 Conservation of Cultural Heritage and Archaeological Resources and Consultation
- 5.3.4.1 Significant built heritage resources and significant cultural heritage landscapes shall be conserved.
- 5.3.4.2 Wherever feasible, the County and its Member Municipalities will further the conservation of cultural heritage resources by:
- a) Preserving and maintaining heritage buildings, cultural heritage landscapes and archaeological resources that are under County or member municipal ownership and/or stewardship;
 - b) When undertaking public works, conserving and mitigating impacts to all significant cultural heritage resources; and,
 - c) Respecting the heritage resources recognized or designated by federal and provincial agencies.

2.11 CITY OF QUINTE-WEST OFFICIAL PLAN

The *City of Quinte-West Official Plan* was modified by Ontario Municipal Board decision dated July 17, 2013, approved with modifications by the Ministry of Municipal Affairs and Housing on January 9, 2013, adopted by Council on August 15, 2011 (By-law #11-122) and consolidated on August 3, 2018 (By-law #18-092, Amendment #12). Policies relevant to this CHRAR include:

10.6 Cultural Heritage Conservation

10.6.1 Goal

To ensure that cultural heritage resources in the municipality are managed in a manner which perpetuates their functional use while maintaining their heritage value and benefit to current and future generations of the community.

10.6.2 Objectives

(i) To protect, conserve and enhance the distinguishing qualities and character of the City's cultural heritage resources, including significant built heritage resources and significant cultural heritage landscapes.

(ii) To consider cultural heritage resources in all planning and development decisions.

(iii) To enforce the importance of early identification, protection and management of cultural heritage resources during the land use and development process.

(iv) To prevent the demolition, destruction or inappropriate alteration of cultural heritage resources.

(v) To minimize the effects of development on cultural heritage resources.

(vi) To encourage development adjacent to significant cultural heritage resources to be of an appropriate scale and character.

(vii) To ensure that any changes to a heritage property are appropriately managed and that these changes respect the property's heritage value.

(viii) To require the preparation of an adequate heritage/archaeological impact assessment when development proposals affect significant cultural heritage resources or areas containing archaeological potential.

10.6.3 General Policies

(iv) The City may investigate and adopt further measures available for the implementation of cultural heritage resource conservation policies. These shall include measures for cultural heritage conservation pursuant to the following legislation: The Ontario Heritage Act, The Planning Act, The Municipal Act, the Environmental Assessment Act, and the Aggregate Resources Act.

(vi) The City shall protect and enhance the distinguishing qualities and character of cultural heritage landscapes.

(vii) The City shall participate, wherever feasible, in the conservation of cultural heritage resources by:

(a) conserving heritage buildings, cultural heritage landscapes and archaeological resources that are under municipal ownership and/or stewardship;

- (b) conserving and mitigating impacts to all significant cultural heritage resources, when undertaking public works;
- (c) respecting the heritage resources recognized or designated by federal and provincial agencies;
- (d) respecting the heritage designations and other heritage conservation efforts by area municipalities.

(xii) Demolition of designated heritage buildings under the Ontario Heritage Act is discouraged in order to protect their heritage value and appearance.

(xiii) Retention and conservation of significant built heritage resources in their original locations will be encouraged.

3 METHODOLOGY

3.1 BACKGROUND HISTORY

This report includes background research that summarizes the history of the Highway 401 EA study area as well as the larger cultural heritage study area, which includes adjacent properties. In addition to textual sources, historical mapping and aerial photography were consulted to identify the presence of structures/buildings, settlement patterns and other potential heritage resources in advance of a field assessment.

3.2 CONSULTATION

BHRs and CHLs already recognized by municipalities, the Ontario Heritage Trust (OHT), provincially and federally were identified through review of the following:

- Inventory of OHT-owned properties and easement properties;
- OHT's *Ontario Heritage Plaque Guide*, an online, searchable database of Ontario Heritage Plaques;
- Ontario's Historical Plaques website;
- *Ontario Heritage Act* Register maintained by the OHT;
- MHSTCI's Ontario Heritage Bridge List, current as of January 2012;
- Inventory of known cemeteries/burial sites in the Ontario Ministry of Government and Consumer Services and the Ontario Genealogical Society's online databases;
- Parks Canada's Historic Places website: available online, the searchable register provides information on historic places recognized at the local, provincial/territorial and national levels;
- Parks Canada's Directory of Federal Heritage Designations, a searchable on-line database that identifies National Historic Sites, National Historic Events, National Historic People, Heritage Railway Stations, Federal Heritage Buildings, and Heritage Lighthouses;
- Canadian Heritage River System, a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage; and,
- United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Sites.

The following municipality-specific resources were consulted in addition to contacting municipal staff:

- Brighton Municipal Heritage Register Index (2017);
- Northumberland Tourism's Heritage webpage (2019);
- Heritage Cramahe Cultural Heritage Property Register by Location (2021); and
- City of Quinte West Historic Buildings webpage (2021).

For the purposes of this study, the term "existing" refers to a property where CHVI, or potential CHVI, has been previously identified by the council of a municipality, municipal staff, and/or provincial or federal agencies.

3.3 FIELD ASSESSMENT

Field assessment for this report included a survey of the cultural heritage study area from the publicly accessible right-of-way (ROW) to confirm or identify existing and/or potential BHRs and CHLs. Where identified, potential resources were photographed and mapped, and physical characteristics visible from the ROW or aerial imagery were described.

The purpose of the field assessment is primarily to identify BHRs and CHLs that are more than 40 years old. The use of the 40-year threshold is generally acceptable as a guiding principle when conducting a preliminary identification of heritage resources (MTO, 2007). Identification of a resource older than 40 years does not necessarily mean that it will have CHVI. Similarly, if a resource is younger than 40 years old it does not preclude this resource from having CHVI, however it does provide a systematic means of identifying properties that have a higher likelihood of retaining CHVI.

3.4 SCREENING FOR POTENTIAL CULTURAL HERITAGE VALUE OR INTEREST

Properties identified were screened using MHSTCI's screening form, *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* (MHSTCI, 2015). The screening form is used in conjunction with the professional judgment of the qualified person to determine if a more technical Cultural Heritage Evaluation Report (CHER) is required. The 40-year threshold is also used as a trigger for screening as it is a requirement under the *Standards & Guidelines* (section B.4) that MTO evaluate properties that it owns or controls that are 40 or more years old, otherwise MTO is required to:

- Prevent building(s) or structure(s) from undergoing demolition by neglect; and,
- Obtain consent of the Minister of MHSTCI before removing or demolishing the building(s) or structure(s), or before transferring the property from provincial control.

3.5 SCREENING FOR POTENTIAL IMPACTS

To establish potential impacts, identified BHRs and CHLs were considered against a range of possible impacts as outlined in the MHSTCI's *Information Bulletin 3: Heritage Impact Assessments for Provincial Heritage Properties* (*Information Bulletin 3*) (2017).

A direct adverse impact is described as one that would have a permanent and irreversible negative affect on the CHVI of a property or result in the loss of a heritage attribute on all or part of the PHP. Examples of direct adverse impacts on a PHP may include, but are not limited to:

- Removal or demolition of all or part of any heritage attribute;
- Removal or demolition of any building or structure on the PHP whether or not it contributes to the CHVI of the property (i.e. non-contributing buildings);
- Any land disturbance, such as a change in grade and/or drainage patterns that may adversely affect a PHP, including archaeological resources;

- Alterations to the property in a manner that is not sympathetic, or is incompatible, with CHVI of the property. This may include necessary alterations, such as new systems or materials to address health and safety requirements, energy-saving upgrades, building performance upgrades, security upgrades or servicing needs;
- Alterations for access requirements or limitations to address such factors as accessibility, emergency egress, public access, security;
- Introduction of new elements that diminish the integrity of the property, such as a new building, structure or addition, parking expansion or addition, access or circulation roads, landscape features;
- Changing the character of the property through removal or planting of trees or other natural features, such as a garden, or that may result in the obstruction of significant views or vistas within, from, or of built and natural features;
- Change in use for the PHP that could result in permanent, irreversible damage or negates the property's CHVI; and,
- Continuation or intensification of a use of the PHP without conservation of heritage attributes (MHSTCI, 2017:6-7).

An indirect adverse impact is described in *Information Bulletin 3* as one that would result from an activity on or near the property that may adversely affect its CHVI and/or heritage attributes. Examples of indirect adverse impacts include, but are not limited to:

- Shadows that alter the appearance of a heritage attribute or change the visibility of an associated natural feature or plantings, such as a tree row, hedge or garden;
- Isolation of a heritage attribute from its surrounding environment, context or a significant relationship;
- Vibration damage to a structure due to construction or activities on or adjacent to the property; and,
- Alteration or obstruction of a significant view of or from the PHP from a key vantage point (MHSTCI, 2017:7).

The MHSTCI describes positive impacts as those that may positively affect a property by conserving or enhancing its CHVI and/or heritage attributes. Examples of positive impacts may include, but are not limited to:

- Changes or alterations that are consistent with accepted conservation principles, such as those articulated in the MHSTCI's *Eight Guiding Principles in the Conservation of Historic Properties, Heritage Conservation Principles for Land Use Planning*, and Parks Canada's *Standards and Guidelines for the Conservation of Historic Places in Canada*;
- Adaptive re-use of a property, notably alteration of a PHP to fit new uses or circumstances of the property in a manner that retains its CHVI; and,
- Public interpretation or commemoration of the PHP (MHSTCI, 2017:7).

Where any identified BHRs and CHLs may experience direct or indirect impacts, appropriate mitigation measures will be recommended. This may include the recommendation to complete a CHER to determine if the property possesses CHVI.

4 HISTORICAL CONTEXT

This section provides a brief overview of the history of the Highway 401 EA study area. The intent of this section is to provide context for the identified BHRs and CHLs.

4.1 PRE-CONTACT PERIOD

Paleo period populations were the first to occupy what is now southern Ontario, moving into the region following the retreat of the Laurentide Ice Sheet approximately 11,000 years before present (BP). The first Paleo period populations to occupy southern Ontario were referred to by archaeologists as Early Paleoindians (Ellis and Deller, 1990).

Early Paleo period groups are identified by their distinctive projectile point types, exhibiting long grooves, or “flutes,” that likely functioned as a hafting mechanism (method of attaching the point to a wooden stick). These Early Paleo group tool types include Gainey (ca. 10,900 BP), Barnes (ca. 10,700), and Crowfield (ca. 10,500) (Ellis and Deller, 1990). By approximately 10,400 BP, Paleo projectile points transitioned to various unfluted varieties such as Holcombe (ca. 10,300 BP), Hi Lo (ca. 10,100 BP), and Unstemmed and Stemmed Lanceolate (ca. 10,400 to 9,500 BP). These types were used by Late Paleo period groups (Ellis and Deller, 1990). Both Early and Late Paleo period populations were highly mobile, participating in the hunting of large game animals. Paleo period sites often functioned as small campsites where stone tool production and maintenance occurred (Ellis and Deller, 1990).

Climatic warming, around approximately 8,000 BP, was accompanied by the arrival of the deciduous forest in southern Ontario. With this shift in flora came new faunal resources, resulting in a change in cultural adaptations in the region. This change is reflected in new tool-kits and associated subsistence strategies referred to archaeologically as the Archaic period. The Archaic period in southern Ontario is divided into three phases: the Early Archaic (ca. 10,000 to 8,000 BP), the Middle Archaic (ca. 8,000 to 4,500 BP), and the Late Archaic (ca. 4,500 to 2,800 BP) (Ellis et al. 1990).

The Archaic period is differentiated from earlier Paleo populations by a number of traits such as: 1) an increase in tool stone variation and reliance on local tool stone sources, 2) the emergence of notched and stemmed projectile point morphologies, 3) a reduction in extensively flaked tools, 4) the use of native copper, 5) the use of bone tools for hooks, gorges, and harpoons, 6) an increase in extensive trade networks, and 7) the production of ground stone tools. Also noted is an increase in the recovery of large woodworking tools such as chisels, adzes (a tool similar to an axe with an arched blade, used for cutting or shaping large pieces of wood), and axes (Ellis et al., 1990).

The Archaic period is marked by population growth. Archaeological evidence suggests that by the end of the Middle Archaic period (ca. 4,500 BP) populations were steadily increasing in size (Ellis et al., 1990). Over the course of the Archaic period, populations began to rely on more localized hunting and gathering territories. By the end of the Archaic period, populations were focused on more seasonal encampments. From spring to fall, the archaeological record indicates that settlements would be located along lakeshore/riverine areas where a broad-based subsistence strategy could be employed, while the late fall and winter months would be spent at interior sites where game hunting and the collection of wild edibles was likely the primary focus (Ellis et al. 1990:114). This steady increase in population size and adoption of a more localized seasonal subsistence strategy eventually evolved into what is termed the Woodland period.

The beginning of the Woodland period is identified by archaeologists by the emergence of ceramic technology for the manufacture of pottery. Similar to the Archaic period, the Woodland period is separated into three primary

timeframes: the Early Woodland (approximately 2,800 to 2,000 BP), the Middle Woodland (approximately 2,000 to 1,200 BP), and the Late Woodland (approximately 1,200 to 350 BP) (Spence et al., 1990; Fox, 1990).

During the Early Woodland period, the life ways of populations differed little from that of the Late Archaic with hunting and gathering representing the primary subsistence strategies. The pottery of this period is characterized by its relatively crude construction and lack of decorations. These early ceramics exhibit cord impressions, likely resulting from the techniques used during manufacture (Spence et al., 1990).

The Middle Woodland period is differentiated from the Early Woodland period by changes in lithic tool types (e.g. projectile points, expedient tools) and the increased elaboration of ceramic vessels (Spence et al., 1990). In southern Ontario, the Middle Woodland is observed in three different cultural complexes: the Point Peninsula Complex to the north and northeast of Lake Ontario, the Couture Complex near Lake St. Clair, and the Saugeen Complex throughout the remainder of southern Ontario. These groups can be identified by their use of either dentate or pseudo scalloped ceramic decorations. It is by the end of the Middle Woodland period that archaeological evidence begins to suggest the rudimentary use of maize horticulture (Warrick, 2000).

The adoption and expansion of maize horticulture during the Late Woodland period allowed for an increase in population size, density, and complexity among Late Woodland populations. As a result, a shift in subsistence and settlement patterns occurred, with the adoption of a more sedentary village life and reliance on maize horticulture, with beans, squash, and tobacco also being grown. Nearing the end of the Late Woodland period (approximately 600 BP) villages reached their maximum size with large populations and the extensive farming of crops. During this period, increased warfare resulted in the development of larger villages (up to five hectares in size) with extensive palisades. Additional site types, including hamlets, cabins, camps and cemeteries are represented in the Late Woodland period as well (Munson and Jamieson, 2013).

Early contact with European settlers at the end of the Late Woodland period resulted in extensive changes to the traditional lifestyles of most populations inhabiting southern Ontario. Trade with the Europeans lead to dependency on European goods and incited conflict between the Indigenous communities in southern Ontario (Warrick, 2000).

4.2 POST-CONTACT PERIOD

4.2.1 EURO-CANADIAN CONTEXT

The Highway 401 EA study area is located within in the historic Counties of Northumberland and Durham, and the Townships of Cramahe and Brighton.

After the American Revolution ended in 1783, many United Empire Loyalists began to move into southern Ontario creating a greater demand for land to settle. In 1787, senior officials from the Indian Department met with the Mississaugas of the Carrying Place to acquire land along the northern shores of Lake Ontario extending northward toward Lake Simcoe. The acquisition extended from the Toronto Purchase and Cook's Bay in the west to the Bay of Quinte and the Crawford Purchase in the east (Surtees, 1994). Due to irregularities in the 1778 treaty, the Deputy Superintendent of Indian Affairs, William Claus, entered negotiations to redefine the northern boundaries and to purchase a larger tract. The Williams Treaties were signed in 1923, transferring 2,000,000 ha of land to the Canadian Government (Surtees, 1994).

NORTHUMBERLAND AND DURHAM COUNTY

The County of Northumberland was formed as part of the Newcastle District in 1802. John Graves Simcoe had divided the districts into 19 counties of which he named the adjacent counties of Durham and Northumberland after their respective counties in England. These English counties were also situated next to each other. When the *Baldwin Act* of 1849 dissolved the districts of Upper Canada, both Durham and Northumberland formed a single administrative and judicial unit, the United Counties of Northumberland and Durham. Cobourg, which became a town in 1850, was to be the county seat. The county was settled by United Empire Loyalists as well as Scottish and Irish immigrants. Throughout its history, the county remained predominantly rural. Industry was initially dominated by timber while the fertile soils gave rise to numerous prosperous farms (Mika & Mika, 1981). With Lake Ontario to the south, many of the county's early communities were centered on the trade brought in by the area's several harbours. By 1830, both Port Hope and Cobourg had established harbours (Argyris, 2000).

This municipal organization continued for over a century until 1974 when Durham became the Regional Municipality of Durham. At this point, Northumberland became a separate county as well. It consisted of nine townships (Alnwick, Brighton, Cramahe, Haldimand, Hamilton, Hope, Murray, Percy, and Seymour) and three villages (Colborne, Brighton, and Hastings). The Township of South Monaghan had previously been part of Northumberland but was transferred to the County of Peterborough (Mika & Mika, 1981). By 2016, Northumberland County had a population of 85,598 (Statistics Canada, 2016a).

TOWNSHIP OF CRAMAHE

The western section of the study area is located in the Township of Cramahe. Named after the Lieutenant-Governor of Quebec from 1771 to 1782, Hector Theophilus Cramahe, the Township was surveyed by Augustus Jones beginning in 1792 (Argyris, 2000). The initial settlers were United Empire Loyalists. The first among these was Joseph Keeler who had come from Vermont. He first arrived in 1789 but later returned to the newly established United States of America. When he came back in 1793, he brought with him 40 pioneers who settled across Cramahe and Haldimand Townships. He later established a sawmill, a flouring mill, a carding mill, and a woollen mill along with a distillery at Keeler's Creek (modern day Colborne Harbour) (Mika & Mika, 1977).

In 1799, John Graves Simcoe hired Asa Danforth to establish a road between Toronto and Kingston. This road was the ancestor of many of the later Danforth roads and reached Cramahe Township in 1800, with corduroy roads in the

swampier areas. Keeler later built a gravelled road connecting the area of Colborne with the area of Percy (modern Warkworth). Kingston Road was later built between 1812 and 1814, supplanting the earlier Danforth Road. It was turned into a plank road in 1836 allowing easier carriage travel (Argyris, 2000). In the second half of the nineteenth century, railroads spread across the area. In 1853, the Grand Trunk Railway ran from Toronto to Montreal. It was later joined by the Canadian Pacific and the Canadian Northern railways around 1911. In 1853, a railroad was built between Port Hope and Beaverton, with a branch from Millbrook to Peterborough being added in 1858. These lines became part of the Midland Railway in 1860, connecting Northumberland with Georgian Bay. These roads and railways continued to feed the growth of the Township of Cramahe (Argyris, 2000).

The development of the Township continued under the auspices of Joseph Keeler's son, Joseph A. Keeler Junior. He established the village of Colborne, named after the Lieutenant Governor of Upper Canada, John Colborne. Keeler Junior also became a successful merchant, Colborne postmaster and later the Justice of the Peace for Newcastle District (Mika & Mika, 1977). The harbour near Colborne benefitted the entire township, which shipped lumber, shingles, staves and grains to America. By the 1850s, the Township already had three established wharves (Argyris, 2000). Colborne was later incorporated as a village in 1859 and removed from the county. Joseph Keeler Junior built a grist mill at Castleton in 1795. Largely dependant on the lumber industry, at its most prosperous, Castleton housed four sawmills and 700 residents. When it declined in the 1880s, so too did the community (Mika & Mika, 1977).

Other than timber and trade, the primary industry in the Township of Cramahe was agriculture, including mostly mixed farming, dairy herds and some tobacco farms. Apple farms with facilities for storage and canning were located along the coast. Beneath the township were multiple thick beds of limestone. These resources led to the development of multiple sand and gravel quarries and a large cement plant (Mika & Mika, 1977).

By 1975, the Township of Cramahe had a population of 2,348 (Mika & Mika, 1977). In 2001, it was once again amalgamated with the village of Colborne, which had a population of 2,040, making the total population of the township 5,713 at the time. By 2016, the total population was 6,355 (Statistics Canada, 2016b).

TOWNSHIP OF BRIGHTON

The central and eastern section of the study area was located in the Township of Brighton, which was established in 1851. Through a special act of parliament, the Township was created out of parts of Murray Township to the east and Cramahe Township to the west. The unexpected growth of the Brighton community meant many residents of the area had to travel long-distances to the west and east to access municipal services. The southern boundary of the township was demarcated by Presqu'ile Bay in Lake Ontario and the northern boundary by Seymour Township (Mika & Mika, 1977).

The earliest settlers to the area were United Empire Loyalists who arrived at the end of the eighteenth century. Obediah Simpson took up residence in the area of the future Town of Brighton. The Singleton, Thayer and Proctor families followed shortly after. In 1802, the capital of Newcastle District was to be Presqu'ile Point, but the plan was abandoned when multiple prominent government officials died in a shipwreck off the coast in 1804. The Town of Brighton was originally named Singleton's Corners and its first store was established by John Kemp in 1816. In 1817, a post office was established, and John Simpson became acting postmaster. An official post office was not established until 1832 with Thomas D. Sandford becoming the first official postmaster (Mika & Mika, 1977).

In 1853, a road was established that connected the interior of Brighton Township with the coast. The modern County Road 30 was surveyed by Josiah Proctor and helped encourage settlement north of Brighton. This growth included the establishment of the post villages of Hilton, Newcombe's Milles (modern Orland) and Codrington (Mika & Mika, 1977).

The Township of Brighton was initially driven by the timber industry, which was centered on the saw mills at Singleton's Corners and another owned by William Butler. Produce was shipped out of the harbour in Presqu'ile Bay. Other industries in the early 1800s included a blacksmith shop and a carriage maker. Over the course of the nineteenth century, industry shifted from timber to agriculture. The Township's first Agricultural Society was organized in 1852, which held its first fair in 1853. Agriculture continued to be an important part of the Township of Brighton's economy throughout its history. Fruit and mixed farming became the most dominant types. Other industries developed including apple processing, cement product manufacturers and metal fabricators. The Township was also home to the Warkworth Institute, a medium security prison, and the Codrington Fish Hatchery and Bird Farm. Presqu'ile Provincial Park helped to encourage tourism to the area. By 1975, the Township of Brighton had a population of 3,059 (Mika & Mika, 1977). In 2001, it was reorganized as the Municipality of Brighton and in 2016, the municipality had a population of 11,844 (Statistics Canada, 2016c).

TOWNSHIP OF MURRAY

The easternmost section of the study area is located in the former Township of Murray, now the City of Quinte West. It was bordered on the east by Sidney Township in the County of Hastings; the Township of Brighton to the west; the Percy Reach of the Trent River and Seymour Township to the North; and Wellers Bay of Lake Ontario to the south. The Township was named after James Murray, a British soldier involved in the siege of Quebec in 1759 who later became the Governor of Quebec (Mika & Mika, 1981, p. 704).

Like the rest of Northumberland County, the earliest settlers in Murray were primarily United Empire Loyalists who migrated from the townships along the Bay of Quinte in the 1790s. They settled across the township, including at Trent Port, present-day Trenton, at the head of the Trent-Severn Waterway. The local economy was initially focused on timber due to the availability of pine and other hardwoods, as increased demand was spurred on by the War of 1812 (Mika & Mika, 1983, p. 548). The timber was transported to the sawmills in Trent Port where it was later exported to American markets. The timber industry peaked in the later nineteenth century, but the local economy gradually shifted towards agriculture where its focus remained (Mika & Mika, 1981, p. 704).

As the township grew, Wooler Village became the township seat where the town hall was constructed (Mika & Mika, 1981, p. 704). Between 1799 and 1801, the Danforth Road was constructed through the area but was replaced by the Kingston Road between 1812 and 1814. In the 1830s, work began on the Trent-Severn canal and locks. In 1856, the Grand Trunk Railway was established between Toronto and Montreal. It was later joined by the Central Ontario Railway between Trenton and Picton in 1879 and later the Canadian Northern Railway between Deseronto and Port Hope in 1911. These railways, along with the construction of Murray Canal between the Bay of Quinte and Lake Ontario in 1884, made Trenton, and subsequently Murray Township, a major transportation hub (Mika & Mika, 1983, p. 548). In 1998, Murray Township was amalgamated with the City of Trenton, the village of Frankford, and the Township of Sidney to become the City of Quinte West.

4.2.2 ROADWAY TRANSPORTATION HISTORY IN ONTARIO

The earliest transportation routes in Ontario consisted of the many waterways and paths utilized by Canada's Indigenous populations. These same routes were used by early European explorers during the fur trade as they were the most effective way to traverse the tree covered land (MTO, 2016). It was not until the growth of Euro-Canadian settlement that the need for cleared paths suitable for wagon travel led to the development of roadways.

The earliest roadways consisted of little more than dirt pathways cleared of stumps and boulders to a width that would allow for the passage of wagons and coaches. These roads were often built to varying levels of quality by settlers and quickly became pitted and washed out.

The introduction of corduroy roads, consisting of horizontal logs laid along the roadway and covered/chinked with dirt, provided an improvement upon basic dirt roads. They allowed for the construction of roadways over marshy, wet terrain that basic dirt roads could not pass through easily. However, these roads survived only short periods of use before decaying and becoming impassable (MTO, 2016).

In the late 1700s there were no formal road workers responsible for the construction and maintenance of roadways. Instead, the construction of roads was the responsibility of township citizens and settlers who were required to contribute time to road work every year as statutory labour, which was overseen by the local “Pathmaster.”

Techniques for roadway construction improved throughout the 1800s, with the invention of the plank road (sawed planks of wood laid horizontally perpendicular to the road alignment) in the 1830s. Like the previous corduroy roads, plank roads were prone to decomposition and deterioration (MTO, 2016). The macadam road (using various gravel sizes) provided better drainage, compaction, slope control and longevity, but the initial construction cost posed an issue for many roadworks. The costly repair and maintenance of these early roads meant that in the latter half of the nineteenth century many of Ontario’s roadways were in disrepair.

The arrival of the automobile in Ontario during the late 1800s to early 1900s, and the advocacy work of the bicycle lobby, resulted in a push for new and improved roadways. The use of cars and bicycles on roadways resulted in the development of improved gravel and macadamized dirt roadways, and the patent of modern tarmac technology in 1901 allowed for improved road conditions and longevity (MTO, 2016). By 1916, roadways had become important enough to warrant the founding of the Department of Public Highways, which would eventually become the MTO.

The first half of the twentieth century saw several developments on Ontario’s roadways, despite the restrictions imposed by the great depression and two World Wars. The 1920s saw the formalization of road systems, the passing of the provincial *Highway Traffic Act* and the removal of municipal and regional road tolls. By the 1940s, preliminary construction on numerous sections of the 400 series highways were completed. Over the following decades, numerous highway expansions were completed, and older dirt roads were upgraded to improved tarmac.

HIGHWAY 401

King’s Highway 401 is the primary route across the west, central and eastern portions of southern Ontario. Totalling 818 km in length, the highway terminates in the west at Highway 3 in Windsor and at the Ontario-Quebec border in the east. Opened to traffic in the late 1960s, Highway 401 has evolved from being a convenient bypass to a vital economic corridor. Used by thousands of motorists and transport trucks every day, a portion of Highway 401 is North America’s busiest highway (Bever, 2020).

It was in the 1930s that a need for a new east-west highway across Ontario was first realized as congestion was becoming a problem in the towns and cities along Highway 2, a standard two-lane highway. Although planning for a new four-lane highway began before World War II, the first section was not completed until 1947 (Bever, 2020). The route number was changed to Highway 401 in 1952, the year in which 400-series highway numbering was introduced in Ontario. Early construction efforts focused on the Toronto Bypass, followed by priority being given to areas where traffic congestion on neighbouring highways was a problem (e.g., between Windsor and Tilbury, London and Woodstock, Milton and Toronto, Oshawa and Port Hope, Trenton and Belleville, and Kingston and Gananoque) (Bever, 2020). The remaining phases of Highway 401, including the study area, were constructed later during the 1960s. The final section of the highway was completed between Gananoque and Brockville in 1968, linking the 818 km controlled-access freeway across the southern half of Ontario (Bever, 2020). The highway was rededicated as the Macdonald-Cartier Freeway in 1965 in commemoration of two of Canada’s Fathers of Confederation, Sir John A. Macdonald and Sir George Etienne Cartier.

The initial construction of the highway was four lanes with two lanes in each direction. Increasing congestion throughout the 1960s and 1970s saw the widening of many portions of the highway. Some of the widest lane

configurations were seen on the Toronto Bypass, with 12 lanes (six in each direction) and the introduction of collector-express lanes (Bever, 2020). Other sections of Highway 401 both east and west of Toronto have been widened to six lanes since the 1970s. West of the study area, beginning in the 1990s, Highway 401 was widened to six lanes from the Highway 35/Highway 115 Interchange near Bowmanville to the Burnham Street Interchange in Cobourg. The widening of Highway 401 from four to six lanes from Burnham Street to beyond Nagle Road near Cobourg was completed in 2017 (Bever, 2020).

On August 24, 2007, Transportation Minister Donna Cansfield announced that Highway 401 from Trenton to Toronto would be dedicated as the "Highway of Heroes," with the intent to commemorate Canada's fallen soldiers who died while serving in Afghanistan (Bever, 2020).

4.2.3 REVIEW OF HISTORICAL MAPPING AND AERIAL PHOTOGRAPHY

A review of historical mapping and aerial photography was undertaken to understand the changing landscape and built environment within and adjacent to the Highway 401 EA study area. To determine the presence of historical features, nineteenth century historic county maps, and a twentieth century topographic map and aerial photo were reviewed. While these maps and photographs were not the only visual sources consulted for the purposes of this study, they were determined to provide the best overview of land development in the study area. It should also be noted that the absence of structures or other features shown on the historical maps does not preclude their presence on these properties. Illustrating all homesteads on the historic atlas maps would have been beyond the intended scope of the atlas and, often, homes were only illustrated for those landowners who purchased a subscription.

The 1878 *Illustrated Historical Atlas of the Counties of Northumberland and Durham, Ont.* (H. Belden & Co., 1878; Figure 2, Appendix A) indicates that the Highway 401 EA study area was a predominantly rural landscape that included two schoolhouses and dozens of farmsteads. Inhabitants were largely concentrated on the east-west roadways in the area including present-day Purdy Road, Honey Road, Crandall Road, and Telephone Road. Settlement also concentrated on County Road 26 and three roadways that have since been abandoned between Lots 28 and 29; Lots 26 and 27; and Lots 24 and 25, Concession 3. In the far east, there were some structures on the bend of Christiani and Coltman Roads. Many historical roadways were illustrated on the 1878 map in proximity to the study area, including present-day Purdy Road, Herley Road/Durham Road, Honey Road, Samis Road, Crandall Road, Dunk Road, Dean Road, Pine Tree Lane, Lake Road, Telephone Road, County Road 26, 1st Avenue, Scrivner Road, Middle Ridge Road, Coltman Road, Christiani Road, and the three abandoned roadways noted previously.

For a twentieth century view of the study area, aerial imagery from 1954 (Figure 3, Appendix A) made available by the University of Toronto, as well as a Department of National Defence topographic map from 1970 (Figure 4, Appendix A) were consulted to assist in documenting more recent changes to the landscape. The aerial photography and topographic map reveal a largely agricultural landscape not significantly different than that depicted in the 1878 historical map nor from the present day. Multiple farmsteads from 1878 appear to still be present on Purdy Road, Durham/Herley Road, Crandall Road, Lake Road, Telephone Road, County Road 26, and Coltman Road.

The most significant development after 1954 was the construction of Highway 401, which severed many of the lots that it was built through. Some of the cultivated agricultural fields in the area have been consolidated into larger agricultural fields, others have been abandoned and overgrown, while many of the woodlots have persisted or grown. It has also altered some of the historical roadways such as Crandall Road, which has been severed from modern-day Quarry Road, Pine Tree Lane, and Lake Road. Crandall Road has also since been extended east to Little Lake, referred to as Bidy Lake in 1954. Despite the presence of the highway, Little Lake and its tributaries remained largely unaltered.

The only significant development in the west end of the study area was the industrial park at Purdy Road and County Road 25; the quarries on Lot 19 and 20, Concession 3; the housing and cottages along Little Lake; the trailer park on Telephone Road; and a general increase in large-lot residential homes. Where Highway 401 passes through Wade Corners, there is little change in the landscape. The Highway 401 carpool lot has been added to Lot 4, Concession 4 and the homesteads opposite the lot have been removed and replaced with a gas station.

East of Wade Corners, Highway 401 has diverted other historic roadways, including present-day Telephone Road, which was shifted slightly southwards. Multiple roadways north of the highway have since been abandoned and some of the areas that they previously serviced have become overgrown bush and wood lots. First Avenue has been altered and constructed to parallel the highway in an east-west orientation for a short period, providing access to the Brighton Provincial Wildlife Area. Otherwise, the only significant change is a general increase in large-lot residential homes, particularly on Telephone Road.

5 EXISTING CONDITIONS

The study area for the Highway 401 Colborne to Brighton Preliminary Design and Class EA includes Highway 401 from 0.8 km east of Percy Street to 0.4 km west of Christiani Road (approximately 16.8 km total).

A property visit was conducted via publicly accessible lands on November 6, 2020 by Lindsay Benjamin, Cultural Heritage Specialist, to record the existing conditions of the Highway 401 EA study area and all adjacent properties. The field review was preceded by a review of available historical and current aerial photographs and maps. These photographs and maps were reviewed for any potential BHRs and CHLs that may be extant in the study area. The existing conditions of the study area are described below. Twenty-six CHLs and 11 BHRs were identified and are presented in Table 1 in Section 7. Mapping of these BHRs and CHLs is presented in Figures 5a-i to 5d-iii in Appendix A.

5.1.1 HIGHWAY 401

Highway 401 is an east-west provincial highway spanning the extent of southern Ontario. Within the Highway 401 EA study area, the highway includes two lanes of traffic in both directions and is divided by either a concrete median or grassed boulevard (Images 1 to 7). The grade of the highway varies between flat and rolling, and both sides have paved shoulders. In addition to four structural culverts, the following three, three-span underpasses are located within the study area, providing access to local roads:

- Highway 401/Herley Road Underpass (Site No. 21-294);
- Highway 401/Lake Road Underpass (Site No. 21-295); and
- Highway 401/County Road 26 Underpass (Site No. 21.297).

The immediate ROW on either side of the highway typically consists of bush lots and cultivated farmland. Beyond that, the landscape is typically characterized by agricultural uses or wood lots, although quarries, roadways, houses and barns, and other infrastructure are periodically observed. At one point, Highway 401 bends around Little Lake, a small oblong lake. In some portions of the study area, Highway 401 travels parallel and in close proximity to smaller regional roads such as Crandall Road, McDonald Road, and Telephone Road.



Image 1: View of Highway 401 from Herley Road Underpass, looking east



Image 2: View of Highway 401 from Herley Road Underpass, looking west



Image 3: View of Highway 401 from Lake Road Underpass, looking east



Image 4: View of Highway 401 from Lake Road Underpass, looking west



Image 5: View of Highway 401 from County Road 26 Underpass, looking east



Image 6: View of Highway 401 from County Road 26 Underpass, looking west



Image 7: View of Highway 401 from Christiani Road Underpass, looking west

5.1.2 PURDY ROAD

Purdy Road travels east-west parallel to the south side of Highway 401 within the study area (Images 8 and 9). The road begins at Purdy Corners in the west and becomes Little Lake Road at Little Lake Road in the east. The road surface is asphalt and contains two lanes of traffic in both directions with gravel shoulders. The shoulders of the road narrow through the densely wooded portions of Purdy Road. The grade of the road varies between flat in the west and transitions to rolling hills in the east.

Properties surrounding both sides of the road are dominated by agricultural fields and wooded areas and large lot rural residential homes (primarily in the west end of the study area). Some large lot industrial and commercial land uses are found in the west end of the study area along Purdy Road.

Historic farmsteads were observed in close proximity to the road ROW.



Image 8: View of Purdy Road from west extent of study area



Image 9: View of Purdy Road looking east from west of Arthurs Lane

5.1.3 DURHAM ROAD / HERLEY ROAD

Located in the west end of the study area, Durham Road runs north-south and transitions to Herley Road as it crosses Highway 401 to the north (Images 10 to 13). Both roads accommodate two lanes of traffic in both directions and include gravel shoulders. The road narrows over the Highway 401/Herley Road Underpass, which is a 71 m long, three-span reinforced concrete voided (rectangular) slab bridge fixed to piers. The structure carries two lanes of traffic and has a clear width of 8.75 m between railings. The grade of the roads in the study area are generally flat except for the rise of the Herley Road Underpass over Highway 401. The streetscape within the study area is dominated by cultivated agricultural fields and wooded areas, however, there is a grouping of twentieth century rural residential lots and one nineteenth century property around the intersection of Purdy Road and Durham Road.



Image 10: View of Durham Road looking north to Herley Road Underpass over Highway 401



Image 11: View of Durham Road looking south to Purdy Road from Herley Road Underpass



Image 12: View of Herley Road looking north from Herley Road Underpass



Image 13: View of Herley Road Underpass looking west from Highway 401

5.1.4 HONEY ROAD

Honey Road is aligned east-west, parallel to the north side of Highway 401, however at Samis Road it jogs to the northeast and then aligns north-south east of Crandall Road before terminating at Telephone Road (Images 14 and 15). Honey Road carries two lanes of traffic in each direction. Within the study area the road surface is paved in asphalt with no shoulder. A quarry is located at the northeast corner of the intersection of Honey Road and Herley Road. The remainder of the road is dominated by large, rolling agricultural fields, nineteenth century farmsteads located close to the roadway and a mixture of historic and contemporary large-lot rural residential properties. Mature vegetation screens the surrounding landscape along much of Honey Road.

Samis Road is a narrow, single-lane gravel road accessed from the north side of Honey Road and terminates at Telephone Road. It is also screened on both sides by mature trees that obscure views of the rolling agricultural fields that flank Samis Road.



Image 14: View of Honey Road looking northwest



Image 15: View to agricultural fields looking northeast from Honey Road and Samis Road

5.1.5 CRANDALL ROAD

After quickly traveling south from Honey Road in the west, Crandall Road aligns east-west terminating at Lake Road in the east (Images 16 to 19). Crandall Road travels parallel to Highway 401 to the north and is aligned close to the highway corridor. Passing highway traffic is visible from the roadway looking south. Crandall Road is paved in asphalt and carries two lanes of traffic in each direction with narrow gravel shoulders. The road is quite flat in the east and then slowly rises in elevation as it travels west towards Honey Road.

A number of agricultural farmsteads with livestock are located on the south side of Crandall Road, some of which contain historic farmhouses. The north side of Crandall Road is primarily composed of late-twentieth century large-lot residential properties that are heavily treed and set upon a slight rise in elevation. There are no structures located on Crandall Road west of Lake Road. This portion of the streetscape is composed of woodlots and agricultural fields. A wetland is located on the north side of Crandall Road, immediately west of Dean Road.

Within the study area, Dunk Road and Dean Road are narrow, single-lane gravel roads accessed from the north side of Crandall Road. Both roads terminate at Telephone Road in the north. They are screened on both sides by mature trees that obscure views of the rolling agricultural fields and residential properties.



Image 16: Crandall Road looking east from east of Honey Road

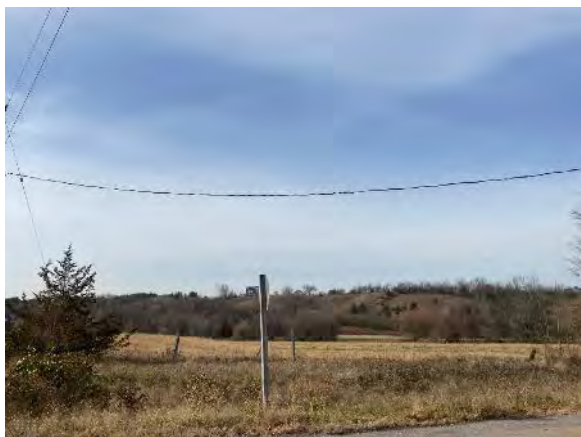


Image 17: View looking northwest from intersection of Crandall Road and Dunk Road



Image 18: Crandall Road looking east, note proximity of Highway 401 to south (left)



Image 19: View of Crandall Road, looking west from Lake Road

5.1.6 LAKE ROAD

Lake Road is a north-south two-lane asphalt road with gravel shoulders that provides access over Highway 401 (Images 22 to 26). The road narrows over the Highway 401/Lake Road Underpass, a 76 m long, three-span reinforced concrete voided (rectangular) slab bridge. The structure carries two lanes of traffic and has a clear width of 8.5 m between curbs. The original metal post and panel railing is extant.

The grade of the road in the study area is relatively flat in the south around Little Lake, rises to cross Highway 401 and then continues to rise as it travels north before descending slightly where Lake Road terminates at Telephone Road.

In the portion of the study area south of Highway 401, the east side of Lake Road is lined with cottages located on small, densely packed lots around the shores of Little Lake. A small park and boat launch that provides panoramic views to Little Lake are also located on the east side of Lake Road near the terminus of Pine Tree Lane. The west side of Lake Road is characterized by large lot contemporary residential structures, one historic residence south of Pine Tree Lane, and a dense wood lot north of Pine Tree Lane.

The portion of the study area north of Highway 401 is largely dominated by agricultural properties and cultivated fields with mature trees closely lining the roadway.



Image 20: View of Lake Road looking north from Pine Tree Lane to Highway 401



Image 21: View of Little Lake from Lake Road, looking northeast

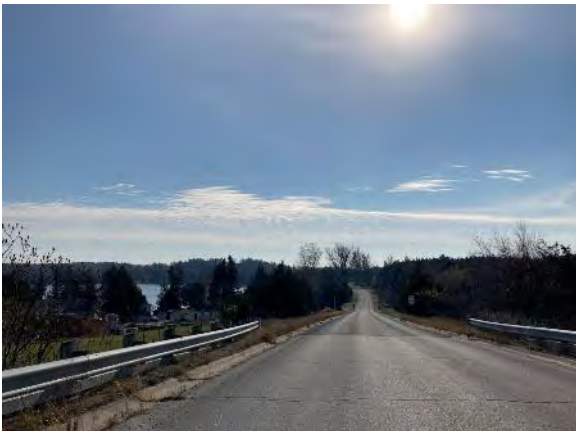


Image 22: View looking south down Lake Road from Lake Road Underpass



Image 23: View of Lake Road Underpass looking north, note metal post and panel railings



Image 24: View of Lake Road Underpass, looking east from Highway 401

5.1.7 MCDONALD ROAD

McDonald Road is a narrow, single-lane, gravel road accessed from the east side of Lake Road aligned roughly east-west (Images 27 to 31). It travels around the northwest side of Little Lake and terminates before Trenear Road begins in the west. McDonald Road travels parallel to the south side of Highway 401 in close proximity to the highway corridor. McDonald Road is set below the elevation of Highway 401 (Image 31). The passing highway traffic is visible from the roadway looking north.

The east side of McDonald Road is lined with densely packed modest cottages on small, narrow lots fronting Little Lake. Many of the cottages appear to date to the first half of the twentieth century. The properties on the west side of McDonald Road include larger, narrow lots and a mixture of more contemporary cottages and residences. A majority of the northern portion of McDonald Road was marked as private property, as such a visual inspection and photo documentation was not possible.



Image 25: View of McDonald Road, looking northeast from Lake Road



Image 26: View of McDonald Road, looking southwest towards Lake Road



Image 27: View of private portion of McDonald Road, looking northeast



Image 28: View of McDonald Road looking southwest to east side of road



Image 29: View of McDonald Road, note proximity of Highway 401 to north (right)

5.1.8 TELEPHONE ROAD

Telephone Road is an east-west, narrow, two-lane, paved road with gravel shoulders. Telephone Road travels parallel to the north side of Highway 401 from Boyce Road to County Road 30, crosses the highway at County Road 30, and then travels west on the south side of Highway 401. Telephone Road travels parallel, and in very close proximity, to the south side of Highway 401 from west of County Road 26 to approximately Scriver Road. The highway is visible from the roadway looking north.

On the north side of Highway 401, Telephone Road is dominated by agricultural properties, some with nineteenth century farmhouses and barns, contemporary large-lot rural residential properties, and some heavily wooded areas that screen the road (Images 32 and 33). Four properties listed on the Brighton Municipal Heritage Register Index are located on the south side of the road (14835 Telephone Road, 15064 Telephone Road, 15120 Telephone Road and 15154 Telephone Road), as is a former nineteenth century schoolhouse (14281 Telephone Road). Telephone Road passes through the historic former settlement of Edville at the intersection of Lake Road. The roadscape is rolling, providing views to the surrounding agricultural landscapes as well as Highway 401 near County Road 30.

The County Road 30 interchange carpool lot is located on the north side of Telephone Road, east of County Road 30 and south of Highway 401 (Image 34). The lot is surrounded by open land with a service centre to the south.

On the south side of Highway 401 within the study area, Telephone Road crosses County Road 26 and is dominated by wood lots until west of Bauer Road where the streetscape is characterized by contemporary large-lot rural residential properties set on heavily wooded lots that screen the residences from the road (Images 35 to 37). A number of narrow, two-lane paved concession roads begin at Telephone Road and travel south. The following concession roads were observed within the study area from east to west: Bauer Road, Scriver Road, Middle Ridge Road, and Bullis Road. Further east along Telephone Road more agricultural properties, some with historic farmhouses and barns, were observed with a limited setback from the road.



Image 30: View of Telephone Road looking east, north side of Highway 401



Image 31: View of Telephone Road looking west, north side of Highway 401



Image 32: View of County Road 30 carpool lot looking north from Telephone Road



Image 33: View of Telephone Road looking east toward County Road 26



Image 34: Telephone Road looking east near Bauer Road, note proximity of Highway 401 (left)



Image 35: View of Telephone Road looking east to Scriver Road

5.1.9 COUNTY ROAD 26

County Road 26 is a meandering, roughly north-south two-lane asphalt county road with gravel shoulders that provides access over Highway 401 via the Highway 401/County Road 26 Underpass (Images 38 to 40). The underpass is a three-span reinforced concrete voided (rectangular) slab bridge. The structure carries two lanes of traffic and concrete barrier walls.

The grade of the road in the study area is rolling, with the higher elevation in the south providing panoramic views to the agricultural landscapes on the north side of Highway 401. County Road 26 is characterized by nineteenth century agricultural farmsteads with actively cultivated fields, as well as large-lot nineteenth century and contemporary rural residential properties.

First Avenue, a narrow and unmaintained road is accessed from County Road 26 in the north end of the study area and provides entry to the Brighton Provincial Wildlife Area, which spans east to the east end of the study area near Christiani Road. It was not possible to access 1st Avenue to complete a visual inspection or photo documentation.



Image 36: View of County Road 26 Underpass, looking north



Image 37: View of County Road 26 looking north from Highway 401 underpass



Image 38: View of County Road 26 Underpass, looking east

6 CONSULTATION

As part of the consultation process, Northumberland County, Hastings County, the Township of Cramahe, the Municipality of Brighton, and the City of Quinte-West were contacted on September 18, 2020 to inquire about listed and designated heritage properties and any heritage interests located within their respective municipalities.

A Planner for Hastings County responded on September 21, 2020 and indicated that heritage planning matters are addressed by the lower-tier municipality, the City of Quinte-West.

A Planner for the City of Quinte-West responded on September 21, 2020 and indicated that there are no properties designated under Part IV or V of the OHA or listed as a non-designated property on the Municipal Heritage Register located within or adjacent to the City of Quinte-West portion of the study area. The planner also indicated that they were not aware of any intention to designate a property within the study area at this time, and that the City did not have any cultural heritage concerns related to properties within the study area.

Northumberland County's Manager of Planning and Community Development responded on September 24, 2020 reporting that from a land use perspective, the lands within the study area consist primarily of rural and agricultural uses along the Highway 401 corridor in the Township of Cramahe and the Municipality of Brighton. Following a County Records and Archival Services search of the County's historical maps and resources, no cultural heritage concerns were identified within or adjacent to the study area. The County also indicated that there were no cultural heritage assessments found in their records for properties within the study area.

The Manager of Planning and Development for the Township of Cramahe responded on September 26, 2020 and reported that the Township had no cultural heritage interests in the immediate vicinity of the Highway 401 corridor.

A follow-up email was sent to the Municipality of Brighton on October 20, 2020. To date, a response has not been received. The Brighton Municipal Heritage Register Index was reviewed, and it was noted that four listed properties are located on Telephone Road within (14835 Telephone Road and 15154 Telephone Road) and adjacent (15064 Telephone Road and 15120 Telephone Road) to the Highway 401 EA study area (Municipality of Brighton, 2017).

The MHSTCI's list of heritage conservation districts was reviewed and no designated districts were found to be located within the study area (MHSTCI, 2019). The OHT plaque database was searched, as was the Federal Canadian Heritage Database. No properties were identified that have been commemorated with an OHT plaque nor recognized with a federal heritage designation. It also does not appear that any subject properties within or adjacent to the study area have been subject to an OHT conservation easement.

7 IDENTIFIED CULTURAL HERITAGE RESOURCES

Based on the results of the background research and field review, 26 CHLs and 11 BHRs with the potential to possess CHVI were identified within or adjacent to the study area. A detailed inventory of these CHLs and BHRs is presented in Appendix B and mapping of these features are included in Figures 5a-i to 5d-iii in Appendix A.

Table 1: Summary of CHLs and BHRs in the study area

RESOURCE	TYPE	ADDRESS/LOCATION	RECOGNITION
CHL 1	Roadscape	Highway 401	Identified during field review
CHL 2	Roadscape	Purdy Road	Identified during field review
CHL 3	Farm Complex	478 Purdy Road	Identified during field review
CHL 4	Farm Complex	856 Purdy Road	Identified during field review
CHL 5	Roadscape	Durham Road/Herley Road	Identified during field review
CHL 6	Roadscape	Honey Road	Identified during field review
CHL 7	Farm Complex	297 Honey Road	Identified during field review
CHL 8	Farm Complex	148 Samis Road	Identified during field review
CHL 9	Roadscape	Crandall Road	Identified during field review
CHL 10	Farm Complex	426 Crandall Road	Identified during field review
CHL 11	Farm Complex	439 Crandall Road	Identified during field review
CHL 12	Roadscape	Telephone Road	Identified during field review
CHL 13	Farm Complex	13711 Telephone Road	Identified during field review
CHL 14	Roadscape	Lake Road	Identified during field review
CHL 15	Roadscape	McDonald Road	Identified during field review
CHL 16	Recreational/Residential	Little Lake	Identified during field review
CHL 17	Farm Complex	14764 Little Lake Road	Identified during field review
CHL 18	Farm Complex	14287 Telephone Road	Identified during field review
CHL 19	Farm Complex	14393 Telephone Road	Identified during field review
CHL 20	Farm Complex	14511 Telephone Road	Identified during field review
CHL 21	Farm Complex	15064 Telephone Road	Listed on the Brighton Municipal Heritage Register Index
CHL 22	Farm Complex	15120 Telephone Road	Listed on the Brighton Municipal Heritage Register Index

RESOURCE	TYPE	ADDRESS/LOCATION	RECOGNITION
CHL 23	Farm Complex	15154 Telephone Road	Listed on the Brighton Municipal Heritage Register Index
CHL 24	Roadscape	County Road 26	Identified during field review
CHL 25	Farm Complex	638 County Road 26	Identified during field review
CHL 26	Farm Complex	16536 Telephone Road	Identified during field review
BHR 1	Farmhouse	296 Purdy Road	Identified during field review
BHR 2	House	449 Purdy Road	Identified during field review
BHR 3	Farmhouse	740 Purdy Road	Identified during field review
BHR 4	Barns	756 Purdy Road	Identified during field review
BHR 5	Farmhouse	356 Honey Road	Identified during field review
BHR 6	House	204 Crandall Road	Identified during field review
BHR 7	House	377 Crandall Road	Identified during field review
BHR 8	Barn	389 Crandall Road	Identified during field review
BHR 9	House	318 Lake Road	Identified during field review
BHR 10	Farmhouse	14835 Telephone Road	Listed on the Brighton Municipal Heritage Register Index
BHR 11	Farmhouse	15097 Telephone Road	Identified during field review

8 SCREENING FOR POTENTIAL IMPACTS

8.1 DESCRIPTION OF PROPOSED UNDERTAKING

This CHRAR is being undertaken as part of the Planning, Preliminary Design and Class EA Study on Highway 401 for the replacement / rehabilitation of bridges and structural culverts, establishing the future Highway 401 footprint for an interim six lanes and ultimate eight lanes to address current and future transportation needs, and commuter parking lot improvements from 0.8 km east of Percy Street to 0.4 km west of Christiani Road (Figure 1, Appendix A). The Class EA involves the rehabilitation or replacement of seven bridges and culverts, and commuter parking lot improvements at County Road 30.

To arrive at the Preferred Plan, seven short-listed alternatives are being explored for the future widening of Highway 401. These alternatives were developed based on the presence of a median, erosion potential of the soil and site conditions. Given the length of the study area, the alternatives are organized by sections, as described below in Table 2. Each alternative is presented in Table 3. Table 4 details the associated alternatives developed for the crossing road bridge replacements for each crossing road location (Herley Road, Lake Road, and County Road 26). The footprint of each alternative is illustrated on Figures 5a-i to 5d-iii in Appendix A.

Table 2: Summary of Study Area Sections

SECTION	DESCRIPTION
1	From west study limit to 1.6 km west of Lake Road
2	From 1.6 km west of Lake Road to 0.4 km west of Lake Road
3	From 0.4 km west of Lake Road to 1.3 km east of Lake Road
4	From 1.3 km east of Lake Road to 2.8 km east of Lake Road
5	From 2.8 km east of Lake Road to County Road 30 west study limit
6	From County Road 30 east study limit to 1.1 km east of County Road 26
7	From 1.1 km east of County Road 26 to east study limit

Table 3: Summary of Highway 401 Widening Short-List Alternatives

SECTION	ALTERNATIVE #	DESCRIPTION	SUB-ALTERNATIVES
1	2	Widen inside in the interim (six-lane) and widen outside in the ultimate (eight-lane)	N/A
2	1	Widen inside only	N/A
2	2	Widen inside in the interim (six-lane) and widen outside in the ultimate (eight-lane)	N/A
2	3	Widen to the north	N/A

SECTION	ALTERNATIVE #	DESCRIPTION	SUB-ALTERNATIVES
3	1	Widen outside only and widen median shoulders (maintain existing alignment)	Crandall Road Alternative 1 Crandall Road Alternative 3
3	2	Widen outside only and realign using two 1200 m radius curves	Crandall Road Alternative 2 Crandall Road Alternative 3
3	3	Widen outside only and realign using two 1700 m radius curves	Crandall Road Alternative 2 Crandall Road Alternative 3
4	1	Widen outside only and maintain existing shoulders in the interim (six-lane) and ultimate (eight-lane)	N/A
5	3	Widen to the south	N/A
5	4	Widen inside in the interim (six-lane) and widen outside in the ultimate (eight-lane)	N/A
6	1	Widen outside only and maintain existing shoulders in the interim (six-lane) and ultimate (eight-lane)	N/A
7	2	Widen inside in the interim (six-lane) and widen outside in the ultimate (eight-lane)	N/A
7	4	Hybrid of Alternative 2 and Alternative 1	N/A
7	5	Hybrid of Alternative 2 and Alternative 3	N/A

Table 4: Summary of Highway 401 Crossing Roads Short-List Alternatives

SECTION	ALTERNATIVE #	DESCRIPTION	SUB-ALTERNATIVES
Herley Road	1	Replace bridge to the west	N/A
Herley Road	2	Replace bridge to the east	N/A
Herley Road	3	Replace bridge on existing alignment (temporary road closure)	N/A
Lake Road	3	Replace bridge on existing alignment (temporary road closure)	N/A
County Road 26	2	Replace bridge to the west (intermediate)	Telephone Road realigned
County Road 26	6	Replace bridge on existing alignment (temporary closure)	Telephone Road existing alignment
County Road 26	7	Replace bridge on existing alignment (temporary single-lane traffic control)	

8.2 POTENTIAL IMPACTS

Table 5 considers the impacts of each Highway 401 widening and crossing road bridge replacement design alternative on the identified CHLs and BHRs based on the MHSTCI's *Information Bulletin 3* (2017). The table also provides mitigation strategies.

Table 5: Potential impacts to CHLs and BHRs based on Design Alternatives

RESOURCE	ADDRESS/ LOCATION	IMPACTING ALTERNATIVE	DISCUSSION OF IMPACT	MITIGATION STRATEGIES
CHL 1	Highway 401	All alternatives	Potential impact. Rationale: The portion of Highway 401 that comprises the study area will be impacted by the future widening and crossing road bridge replacements. The <i>Standards & Guidelines</i> does not apply to roadways in the provincial highway network. As such, a detailed discussion of impacts and mitigation strategies is not necessary.	n/a
CHL 2	Purdy Road	Section 1 Alternative 2 Herley Road Alternative 1 Herley Road Alternative 2 Herley Road Alternative 3	Potential indirect impact. Rationale: Herley Road Alternatives 1 to 3 propose to replace the existing bridge and reconstruct and potentially realign the southern approach of Durham Road beginning at Purdy Road. This change will not directly impact the overall Purdy Road roadscape, however the proximity of construction work to the intersection of Purdy Road and Durham Road may result in direct impacts resulting from regrading at the intersection.	Storage and construction staging areas should be located away from the Purdy Road corridor where possible and other heritage resources identified in the study area.
CHL 3	478 Purdy Road	Section 1 Alternative 2	Potential impact. Rationale: The Highway 401 widening proposed in Section 1 Alternative 1 may result in minor property acquisition along the north edge of 478 Purdy Road. It does not appear that the property taking will	Where feasible, the Preferred Plan should be designed in a manner requiring as little property acquisition as possible. Storage and construction staging areas should be located as close to the grading limits as possible.

RESOURCE	ADDRESS/ LOCATION	IMPACTING ALTERNATIVE	DISCUSSION OF IMPACT	MITIGATION STRATEGIES
			result in any impacts to built heritage resources or significant landscape features. Although this intervention will not significantly alter the landscape, it will result in direct impacts to the property parcel.	Where construction is anticipated to result in grading impacts and tree removal along the north side of the property limits, post-construction landscaping with native tree species should be employed to mitigate visual impacts and restore the property as close as possible to an as-found condition.
CHL 4	856 Purdy Road	Section 1 Alternative 2	Potential impact. Rationale: The Highway 401 widening proposed in Section 1 Alternative 2 may result in minor property acquisition along the north edge of 856 Purdy Road. It does not appear that the property taking will result in any impacts to built heritage resources or significant landscape features. Although this intervention will not significantly alter the landscape, it will result in direct impacts to the property parcel.	Where feasible, the Preferred Plan should be designed in a manner requiring as little property acquisition as possible. Storage and construction staging areas should be located as close to the grading limits as possible. Where construction is anticipated to result in grading impacts and tree removal along the north side of the property limits, post-construction landscaping with native tree species should be employed to mitigate visual impacts and restore the property as close as possible to an as-found condition.
CHL 5	Durham Road/Herley Road	Section 1 Alternative 2 Herley Road Alternative 1 Herley Road Alternative 2 Herley Road Alternative 3	Potential impact. Rationale: Within the study area, Herley Road Alternatives 1 to 3 propose to replace the existing bridge and reconstruct and potentially realign the bridge approaches from Durham Road in the south and Herley Road in the north. This intervention may directly impact the Durham Road/Herley Road roadscape through the construction of a replacement bridge and regrading of the ROW.	Storage and construction staging areas should be limited to the extents of the Durham Road/Herley Road project location to minimize impacts to the adjacent road corridor and other heritage resources identified in the study area. The rural cross-section of Durham Road/Herley Road should be maintained to ensure the new construction is consistent with the rural character of the roadscape. Where construction is

RESOURCE	ADDRESS/ LOCATION	IMPACTING ALTERNATIVE	DISCUSSION OF IMPACT	MITIGATION STRATEGIES
				anticipated to result in grading impacts and tree removal along the Durham Road/ Herley Road corridor, post-construction landscaping with native tree species should be employed to mitigate visual impacts to the roadscape.
CHL 6	Honey Road	Herley Road Alternative 1 Herley Road Alternative 2 Herley Road Alternative 3	Potential impact. Rationale: Herley Road Alternatives 1 to 3 propose to replace the existing bridge and reconstruct and potentially realign the northern approach of Herley Road, including the intersection at Honey Road. Although limited to the Honey Road intersection, this intervention may result in direct impacts to the roadscape through regrading.	Storage and construction staging areas should be located away from the Honey Road corridor where possible and other heritage resources identified in the study area. The rural cross-section of Honey Road should be maintained to ensure the new construction is consistent with the rural character of the roadscape.
CHL 7	297 Honey Road	Section 1 Alternative 2	Potential impact. Rationale: The Highway 401 widening proposed in Section 1 Alternative 2 may result in minor property acquisition along the south edge of 297 Honey Road. It does not appear that the property taking will result in any impacts to built heritage resources or significant landscape features. Although this intervention will not significantly alter the landscape, it will result in direct impacts to the property parcel as a result of property taking.	Where feasible, the Preferred Plan should be designed in a manner requiring as little property acquisition as possible. Storage and construction staging areas should be located as close to the grading limits as possible. Where construction is anticipated to result in grading impacts and tree removal along the south side of the property limits, post-construction landscaping with native tree species should be employed to mitigate visual impacts and restore the property as close as possible to an as-found condition.
CHL 8	148 Samis Road	None	No impact. Rationale: No work is proposed on or adjacent to the property at 148 Samis Road as part of this	n/a

RESOURCE	ADDRESS/ LOCATION	IMPACTING ALTERNATIVE	DISCUSSION OF IMPACT	MITIGATION STRATEGIES
			EA.	
CHL 9	Crandall Road	Section 3 Alternative 1 – Crandall Road Alternative 1 Section 3 Alternative 1 – Crandall Road Alternative 3 Section 3 Alternative 1 Lake Road Alternative 3	Potential impact. Rationale: The realignment of the east end of Crandall Road proposed through Section 3 Alternative 1 – Crandall Road Alternatives 1 and 3 and the introduction of a replacement bridge at Lake Road through Lake Road Alternative 3 will result in a direct impact to the Crandall Road roadscape.	Where feasible, the Preferred Plan for Crandall Road should be designed in a manner resulting in as few property impacts as possible. Storage and construction staging areas should be located close to the grading limits to avoid impacts to the roadscape and other heritage resources identified in the study area. The rural cross-section of the realigned portion of Crandall Road should be maintained to ensure the new construction is consistent with the rural character of the roadscape. Where construction is anticipated to result in grading impacts and tree removal along the Crandall Road corridor, post-construction landscaping with native tree species should be employed to mitigate visual impacts to the roadscape.
CHL 10	426 Crandall Road	None	No impact. Rationale: No work is proposed on or adjacent to the property at 426 Crandall Road as part of this EA.	n/a
CHL 11	439 Crandall Road	Section 2 Alternative 1 Section 2 Alternative 2 Section 2 Alternative 3	Potential impact. Rationale: The proposed Section 2 Alternatives 1 to 3 will pass through the south side of the property in proximity to potential built heritage resources, directly impacting the agricultural landscape.	A CHER is recommended to be completed prior to selection of the Preferred Plan to determine whether the property possesses CHVI. If the property has CHVI, an HIA should also be completed to evaluate alternatives, assess potential impacts to the resource, and recommend appropriate mitigation measures.

RESOURCE	ADDRESS/ LOCATION	IMPACTING ALTERNATIVE	DISCUSSION OF IMPACT	MITIGATION STRATEGIES
CHL 12	Telephone Road	Section 6 Alternative 1 Section 7 Alternative 2 County Road 26 Alternative 2 County Road 26 Alternative 6 and 7	Potential impact. Rationale: The realignment of Telephone Road at the County Road 26 intersection proposed through Section 6 Alternative 1, Section 7 Alternative 2, and the introduction of a replacement bridge at County Road 26 through County Road 26 Alternatives 2, 6 and 7 will result in a direct impact to the Telephone Road roadscape.	Where feasible, the Preferred Plan for Telephone Road should be designed in a manner resulting in as few property impacts as possible. Storage and construction staging areas should be located close to the grading limits to avoid impacts to the roadscape and other heritage resources identified in the study area. The rural cross-section of the realigned portion of Telephone Road should be maintained to ensure the new construction is consistent with the rural character of the roadscape. Where construction is anticipated to result in grading impacts and tree removal along the Telephone Road corridor, post-construction landscaping with native tree species should be employed to mitigate visual impacts to the roadscape.
CHL 13	13711 Telephone Road	None	No impact. Rationale: No work is proposed on or adjacent to the property at 13711 Telephone Road as part of this EA.	n/a
CHL 14	Lake Road	Section 3 Alternative 1 – Crandall Road Alternative 1 Section 3 Alternative 1 – Crandall Road Alternative 3 Section 3 Alternative 2 – Crandall Road	Potential impact. Rationale: Within the study area, Lake Road Alternative 3 proposes to replace the existing bridge, reconstruct and potentially realign the bridge approaches and the intersection at Crandall Road as per Section 3 Alternative 1 – Crandall Road Alternatives 1 and 3, Section 3 Alternative 2 – Crandall Road Alternatives 2 and 3, and	Where feasible, the Preferred Plan for Lake Road and the bridge replacement should be designed in a manner resulting in as few property impacts as possible. Storage and construction staging areas should be located close to the grading limits to avoid impacts to the roadscape and other heritage resources identified in the study area.

RESOURCE	ADDRESS/ LOCATION	IMPACTING ALTERNATIVE	DISCUSSION OF IMPACT	MITIGATION STRATEGIES
		<p>Alternatives 2 and 3</p> <p>Section 3 Alternative 3 – Crandall Road Alternatives 2 and 3</p> <p>Section 3 Alternative 1</p> <p>Section 3 Alternative 2</p> <p>Section 3 Alternative 3</p> <p>Lake Road Alternative 3</p>	<p>Section 3 Alternative 3 – Crandall Road Alternatives 2 and 3. This change will result in a direct impact the Lake Road roadscape.</p>	<p>The rural cross-section of Lake Road should be maintained to ensure the new construction is consistent with the rural character of the roadscape.</p> <p>Where construction is anticipated to result in grading impacts and tree removal along the Lake Road corridor, post-construction landscaping with native tree species should be employed to mitigate visual impacts to the roadscape.</p>
CHL 15	McDonald Road	<p>Section 3 Alternative 1</p> <p>Section 3 Alternative 2</p> <p>Section 3 Alternative 3</p> <p>Lake Road Alternative 3</p>	<p>Potential impact.</p> <p>Rationale: The Highway 401 widening proposed through Section 3 Alternatives 1 to 3 may result in direct impacts to McDonald Road through the encroachment on the roadscape at the point where it runs directly adjacent to the Highway 401 ROW. The replacement of the bridge through Lake Road Alternative 3 may result in direct impacts to the roadscape as a result of regrading, primarily at the intersection of Lake Road and McDonald Road.</p>	<p>Where feasible, the Preferred Plan for the Lake Road bridge replacement and associated McDonald Road intersection reconstruction should be designed in a manner resulting in as few property impacts as possible. Storage and construction staging areas should be located close to the grading limits to avoid impacts to the roadscape and other heritage resources identified in the study area.</p> <p>The rural cross-section of McDonald Road should be maintained to ensure the new construction is consistent with the rural character of the roadscape.</p> <p>Where construction is anticipated to result in grading impacts and tree removal around the intersection of Lake Road and McDonald Road and the north side of McDonald, post-construction landscaping with native tree species should be employed to mitigate visual impacts to the</p>

RESOURCE	ADDRESS/ LOCATION	IMPACTING ALTERNATIVE	DISCUSSION OF IMPACT	MITIGATION STRATEGIES
				roadscape.
CHL 16	Little Lake	Section 3 Alternative 1 Section 3 Alternative 2 Section 3 Alternative 3 Lake Road Alternative 3	<p>Potential impact.</p> <p>Rationale: The Highway 401 widening proposed through Section 3 Alternatives 1 to 3 may cause direct impacts resulting from property acquisitions on the north edge of the lots fronting McDonald Road adjacent to Highway 401. Additional direct impacts may result from the potential introduction of a toe wall and/or noise barrier wall along the boundary of the future MTO property requirement.</p> <p>The replacement of the bridge through Lake Road Alternative 3 may result in direct impacts to properties adjacent to the east side of Lake Road at McDonald Road, as well as on the north and south sides of McDonald Road adjacent to Lake Road.</p> <p>There is an existing structural culvert (Culvert 21-471C) crossing Highway 401 adjacent to the east extent of CHL 16. Presence of the culvert may result in an additional bump-out in the property requirement beyond the existing MTO ROW to facilitate construction for replacement of the structural culvert and/or potential realignment of the watercourse. This portion of the landscape is forested and impacts to built heritage resources or significant landscape features are not anticipated. Although this intervention will not significantly alter the landscape, it may result in direct impacts to the property parcel.</p>	<p>As a result of potential direct impacts to the properties on the north side of the lots fronting McDonald Road adjacent to Highway 401 and the potential introduction of a toe wall and/or noise barrier wall along the boundary of the future MTO property requirement, a CHER is recommended to be completed for 12 McDonald Road prior to selection of the Preferred Plan to determine if the potentially impacted property over 40 years old possesses CHVI. If the property has CHVI, an HIA should also be completed to evaluate alternatives, assess potential impacts to the resource, and recommend appropriate mitigation measures.</p> <p>A Preferred Plan should be selected that maintains as great an offset as possible between the Highway 401 widening and the Lake Road Bridge replacement grading and the properties lining McDonald Road along the northwest shores of Little Lake. Given the immediate adjacency of these properties to the grading limits, mitigation measures should be undertaken during construction planning to ensure that indirect impacts, such as vibrations, or the proximity of construction equipment, do not damage the buildings. Staging and construction activities should be appropriately located and/or planned to avoid impacting the properties. If</p>

RESOURCE	ADDRESS/ LOCATION	IMPACTING ALTERNATIVE	DISCUSSION OF IMPACT	MITIGATION STRATEGIES
				<p>necessary, construction fencing should be erected around property boundaries to ensure they are not damaged by any construction machinery or vehicles.</p> <p>The rural cross-section of McDonald Road should be maintained to ensure the new construction is consistent with the rural character of the roadscape.</p> <p>Where construction is anticipated to result in grading impacts and tree removal, post-construction landscaping with native tree species should be employed to mitigate visual impacts to the landscape.</p>
CHL 17	14764 Little Lake Road	None	<p>No impact.</p> <p>Rationale: No work is proposed on or adjacent to the property at 14764 Little Lake Road as part of this EA.</p>	n/a
CHL 18	14287 Telephone Road	<p>Section 3 Alternative 1</p> <p>Section 3 Alternative 2</p> <p>Section 3 Alternative 3</p>	<p>Potential impact.</p> <p>Rationale: The Highway 401 widening proposed in Section 3 Alternatives 1 to 3 may result in minor property acquisition along the south edge of 14287 Telephone Road.</p> <p>There is an existing structural culvert (Culvert 21-471C) crossing Highway 401 adjacent to the property. Presence of the culvert may result in an additional bump-out in the property requirement beyond the existing MTO ROW to facilitate construction for replacement of the structural culvert and/or potential realignment of the watercourse.</p> <p>It does not appear that the</p>	<p>Where feasible, the Preferred Plan should be designed in a manner requiring as little property acquisition as possible. Storage and construction staging areas should be located as close to the grading limits as possible.</p> <p>Where construction is anticipated to result in grading impacts and tree removal along the south side of the property limits, post-construction landscaping with native tree species should be employed to mitigate visual impacts and restore the property as close as possible to an as-found condition.</p>

RESOURCE	ADDRESS/ LOCATION	IMPACTING ALTERNATIVE	DISCUSSION OF IMPACT	MITIGATION STRATEGIES
			property taking will result in any impacts to built heritage resources or significant landscape features. Although this intervention will not significantly alter the landscape, it will result in direct impacts to the property parcel.	
CHL 19	14393 Telephone Road	Section 3 Alternative 1 Section 3 Alternative 2 Section 3 Alternative 3 Section 4 Alternative 1	Potential impact. Rationale: The Highway 401 widening proposed in Section 3 Alternatives 1 to 3 and Section 4 Alternative 1 may result in minor property acquisition along the south edge of 14393 Telephone Road. It does not appear that the property taking will result in any impacts to built heritage resources or significant landscape features. Although this intervention will not significantly alter the landscape, it will result in direct impacts to the property parcel.	Where feasible, the Preferred Plan should be designed in a manner requiring as little property acquisition as possible. Storage and construction staging areas should be located as close to the grading limits as possible. Where construction is anticipated to result in grading impacts and tree removal along the south side of the property limits, post-construction landscaping with native tree species should be employed to mitigate visual impacts and restore the property as close as possible to an as-found condition.
CHL 20	14511 Telephone Road	None	No impact. Rationale: No work is proposed on or adjacent to the property at 14511 Telephone Road as part of this EA.	n/a
CHL 21	15064 Telephone Road	None	No impact. Rationale: No work is proposed on or adjacent to the property at 15064 Telephone Road as part of this EA.	n/a
CHL 22	15120 Telephone Road	None	No impact. Rationale: No work is proposed on or adjacent to the property at 15120 Telephone Road as part of this EA.	n/a

RESOURCE	ADDRESS/ LOCATION	IMPACTING ALTERNATIVE	DISCUSSION OF IMPACT	MITIGATION STRATEGIES
CHL 23	15154 Telephone Road	Section 5 Alternative 3 Section 5 Alternative 4	<p>Potential impact.</p> <p>Rationale: The Highway 401 widening proposed in Section 5 Alternatives 3 and 4 may result in minor property acquisition along the south edge of 15154 Telephone Road. It does not appear that the property taking will result in any impacts to built heritage resources or significant landscape features. Although this intervention will not significantly alter the landscape, it will result in direct impacts to the property parcel.</p>	<p>Where feasible, the Preferred Plan should be designed in a manner requiring as little property acquisition as possible. Storage and construction staging areas should be located as close to the grading limits as possible.</p> <p>Where construction is anticipated to result in grading impacts and tree removal along the southeast side of the property limits, post-construction landscaping with native tree species should be employed to mitigate visual impacts and restore the property as close as possible to an as-found condition.</p>
CHL 24	County Road 26	Section 6 Alternative 1 County Road 26 Alternative 2 County Road 26 Alternative 6 and 7	<p>Potential impact.</p> <p>Rationale: The widening of Highway 401 and the introduction of a replacement bridge proposed through Section 6 Alternative 1, and County Road 26 Alternatives 2, 6 and 7 will result in a direct impact to the current alignment, grading, and ROW of the County Road 26 roadscape.</p>	<p>Where feasible, the Preferred Plan for County Road 26 should be designed in a manner resulting in as few property impacts as possible. Storage and construction staging areas should be located close to the grading limits to avoid impacts to the roadscape and other heritage resources identified in the study area.</p> <p>The rural cross-section of the realigned portion of County Road 26 should be maintained to ensure the new construction is consistent with the rural character of the roadscape.</p> <p>Where construction is anticipated to result in grading impacts and tree removal along the County Road 26 corridor, post-construction landscaping with native tree species should be employed to mitigate visual impacts to the roadscape.</p>

RESOURCE	ADDRESS/ LOCATION	IMPACTING ALTERNATIVE	DISCUSSION OF IMPACT	MITIGATION STRATEGIES
CHL 25	638 County Road 26	Section 6 Alternative 1 County Road 26 Alternative 2 County Road 26 Alternative 6 and 7	Potential impact. Rationale: The proposed Section 6 Alternative 1 and County Road 26 Alternatives 2, 6 and 7 will pass through the south side of the property, directly impacting the collection of potential built heritage resources that comprise the agricultural landscape, notably the farmhouse.	A CHER is recommended to be completed prior to selection of the Preferred Plan to determine whether the property possesses CHVI. If the property has CHVI, an HIA should also be completed to evaluate alternatives, assess potential impacts to the resource, and recommend appropriate mitigation measures.
CHL 26	16536 Telephone Road	Section 7 Alternative 2 Section 7 Alternative 5	Potential impact. Rationale: The Highway 401 widening proposed in Section 7 Alternatives 2 and 5 may result in minor property acquisition along the north edge of 16536 Telephone Road. It does not appear that the property taking will result in any impacts to built heritage resources or significant landscape features. Although this intervention will not significantly alter the landscape, it will result in direct impacts to the property parcel.	Where feasible, the Preferred Plan should be designed in a manner requiring as little property acquisition as possible. Storage and construction staging areas should be located as close to the grading limits as possible. Where construction is anticipated to result in grading impacts and tree removal along the north side of the property limits, post-construction landscaping with native tree species should be employed to mitigate visual impacts and restore the property as close as possible to an as-found condition.
BHR 1	296 Purdy Road	None	No impact. Rationale: No work is proposed on or adjacent to the property at 296 Purdy Road as part of this EA. The widening alternatives being explored are proposed to begin one lot further to the east.	n/a
BHR 2	449 Purdy Road	Herley Road Alternative 1 Herley Road Alternative 2 Herley Road	Potential indirect impact. Rationale: Herley Road Alternatives 1 to 3 propose to replace the existing bridge and reconstruct and potentially realign the southern approach of	Given the immediate adjacency of 449 Purdy Road to the grading limits, mitigation measures should be undertaken during construction planning to

RESOURCE	ADDRESS/ LOCATION	IMPACTING ALTERNATIVE	DISCUSSION OF IMPACT	MITIGATION STRATEGIES
		Alternative 3	Durham Street beginning at Purdy Road. This intervention will not directly impact 449 Purdy Road, however the proximity of construction work may have indirect impacts.	<p>ensure that indirect impacts, such as vibrations, or the proximity of construction equipment, do not damage the building. Staging and construction activities should be appropriately located and/or planned to avoid impacting the property. If necessary, construction fencing should be erected around the north and west property boundaries to ensure it is not damaged by any construction machinery or vehicles.</p> <p>Where construction is anticipated to result in tree removal along the north and west property boundaries, post-construction landscaping with native tree species should be employed to mitigate visual impacts.</p>
BHR 3	740 Purdy Road	None	<p>No impact.</p> <p>Rationale: No work is proposed on or adjacent to the property at 740 Purdy Road as part of this EA.</p>	n/a
BHR 4	756 Purdy Road	Section 1 Alternative 2	<p>Potential impact.</p> <p>Rationale: The Highway 401 widening proposed in Section 1 Alternative 2 may result in minor property acquisition along the north edge of 756 Purdy Road. It does not appear that the property taking will result in any impacts to built heritage resources or significant landscape features. Although this intervention will not significantly alter the landscape, it will result in direct impacts to the property parcel.</p>	Where feasible, the Preferred Plan should be designed in a manner requiring as little property acquisition as possible. Storage and construction staging areas should be located as close to the grading limits as possible.

RESOURCE	ADDRESS/ LOCATION	IMPACTING ALTERNATIVE	DISCUSSION OF IMPACT	MITIGATION STRATEGIES
BHR 5	356 Honey Road	None	No impact. Rationale: No work is proposed on or adjacent to the property at 356 Honey Road as part of this EA.	n/a
BHR 6	204 Crandall Road	None	No impact. Rationale: No work is proposed on or adjacent to the property at 204 Crandall Road as part of this EA.	n/a
BHR 7	377 Crandall Road	Section 1 Alternative 2 Section 2 Alternative 1 Section 2 Alternative 3	Potential impact. Rationale: The Highway 401 widening proposed in Section 1 Alternative 2 and Section 2 Alternatives 1 and 3 may result in minor property acquisition along the south edge of 377 Crandall Road. It does not appear that the property taking will result in any impacts to built heritage resources or significant landscape features. Although this intervention will not significantly alter the landscape, it will result in direct impacts to the property parcel as a result of minor property acquisition.	Where feasible, the Preferred Plan should be designed in a manner requiring as little property acquisition as possible. Storage and construction staging areas should be located as close to the grading limits as possible.
BHR 8	389 Crandall Road	Section 1 Alternative 2 Section 2 Alternative 1 Section 2 Alternative 2 Section 2 Alternative 3	Potential impact. Rationale: The proposed Section 1 Alternative 2 and Section 2 Alternatives 1 to 3 will pass through the south side of the property in proximity to a potential built heritage resource (barn), directly impacting the agricultural landscape.	A CHER is recommended to be completed prior to selection of the Preferred Plan to determine whether the property possesses CHVI. If the property has CHVI, an HIA should also be completed to evaluate alternatives, assess potential impacts to the resource, and recommend appropriate mitigation measures.
BHR 9	318 Lake Road	Section 3 Alternative 1 –	Potential impact. Rationale: The proposed	A CHER is recommended to be completed prior to

RESOURCE	ADDRESS/ LOCATION	IMPACTING ALTERNATIVE	DISCUSSION OF IMPACT	MITIGATION STRATEGIES
		<p>Crandall Road Alternative 1</p> <p>Section 3 Alternative 1 – Crandall Road Alternative 3</p> <p>Section 3 Alternative 2 – Crandall Road Alternatives 2 and 3</p> <p>Section 3 Alternative 3 – Crandall Road Alternatives 2 and 3</p> <p>Lake Road Alternative 3</p>	<p>Section 3 Alternative 1 – Crandall Road Alternatives 1 and 3, Section 3 Alternative 2 – Crandall Road Alternatives 2 and 3, Section 3 Alternative 3 – Crandall Road Alternatives 2 and 3, and Lake Road Alternative 3 will pass directly through the potential built heritage resource (residence) at 318 Lake Road, resulting in a direct impact to the agricultural landscape.</p>	<p>selection of the Preferred Plan to determine whether the property possesses CHVI. If the property has CHVI, an HIA should also be completed to evaluate alternatives, assess potential impacts to the resource, and recommend appropriate mitigation measures.</p>
BHR 10	14835 Telephone Road	<p>Section 5 Alternative 3</p> <p>Section 5 Alternative 4</p>	<p>Potential impact.</p> <p>Rationale: The Highway 401 widening proposed in Section 5 Alternatives 3 and 4 may result in minor property acquisition along the south edge of 14835 Telephone Road. It does not appear that the property taking will result in any impacts to built heritage resources or significant landscape features. Although this intervention will not significantly alter the landscape, it will result in direct impacts to the property parcel.</p>	<p>Where feasible, the Preferred Plan should be designed in a manner requiring as little property acquisition as possible. Storage and construction staging areas should be located as close to the grading limits as possible.</p> <p>Where construction is anticipated to result in grading impacts and tree removal along the south side of the property limits, post-construction landscaping with native tree species should be employed to mitigate visual impacts and restore the property as close as possible to an as-found condition.</p>
BHR 11	15097 Telephone Road	None	<p>No impact.</p> <p>Rationale: No work is proposed on or adjacent to the property at 15097 Telephone Road as part of this EA.</p>	n/a

9 CONCLUSIONS

The results of the background historical research and a review of the secondary source material, including historic mapping, revealed that the Highway 401 EA study area consists of lands that have been shaped by early township and agricultural settlement as well as the introduction of Highway 401.

The following provides a summary of the assessment results:

- A total of 26 CHLs and 11 BHRs were identified within and/or adjacent to the study area for the Preliminary Design and Class EA for the Highway 401 Colborne to Brighton project;
- Of these, four are listed on the Brighton Municipal Heritage Register Index as non-designated cultural heritage resources (CHL 21, CHL 22, CHL 23 and BHR 10), and the remainder were identified during field review;
- The identified potential CHLs and BHRs primarily represent residential and agricultural land uses and reflect early nineteenth century township and agricultural settlement, mid-to-late twentieth century rural residential development, and nineteenth and twentieth century road and highway construction; and
- Following an evaluation of potential impacts resulting from each Highway 401 widening and crossing road bridge replacement short-listed design alternative, 18 CHLs and five BHRs are anticipated to be directly impacted (CHL 1, CHL 3 to CHL 7, CHL 9, CHL 11, CHL 12, CHL 14 to CHL 16, CHL 18, CHL 19, CHL 23 to CHL 26, BHR 4, and BHR 7 to 10), one CHL and one BHR are anticipated to be indirectly impacted (CHL 2 and BHR 2), and seven CHLs and five BHRs are not anticipated to experience any impacts and require no further heritage reporting (CHL 8, CHL 10, CHL 13, CHL 17, CHL 20 to CHL 22, BHR 1, BHR 3, BHR 5, BHR 6, and BHR 11).

10 RECOMMENDATIONS

Based on the results of the background data collection and assessment of impacts to the study area for the Planning, Preliminary Design and Class EA Study on Highway 401 for the replacement / rehabilitation of bridges and structural culverts, establishing the future Highway 401 footprint for an interim six lanes and ultimate eight lanes to address current and future transportation needs, and commuter parking lot improvements at County Road 30, it has been determined that there will be potential direct and indirect impacts to the BHRs and CHLs.

Based on the results of this assessment, 18 CHLs and five BHRs will be directly impacted by the proposed seven short-listed alternatives for the Highway 401 Preliminary Design and Class EA. In addition, there may be indirect impacts to one CHL and one BHR given the proximity of construction activities. As such, the recommendations are as follows:

- 1) When determining the Preferred Plan, consideration should be given to a design that directly and indirectly impacts as few BHRs and CHLs as is feasible. Alternatives should be selected that require as little property acquisition as possible.
- 2) Storage and construction staging areas should be appropriately located and/or planned to avoid impacting any of the identified BHRs and CHLs.
- 3) A CHER should be completed for CHL 11, CHL 16 (12 McDonald Road), CHL 25, BHR 8, and BHR 9 prior to the determination of the Preferred Plan as an appropriate mitigation measure to establish whether the properties possess CHVI. If a property is found to possess CHVI, an HIA should also be completed during Preliminary Design to determine appropriate alternatives or mitigation measures early in the project.
- 4) Given the immediate adjacency of CHL 16 and BHR 2 to the grading limits, mitigation measures should be undertaken during construction planning to ensure that indirect impacts, such as vibrations, or the proximity of construction equipment, do not damage the properties. If necessary, construction fencing should be erected around property boundaries to ensure they are not damaged by any construction machinery or vehicles.
- 5) The rural cross-sections of CHL 5, CHL 6, CHL 9, CHL 12, CHL 14, CHL 15, and CHL 24 should be maintained to ensure new construction is consistent with the rural character of the roadscapes.
- 6) Where construction is anticipated to result in grading impacts and tree removal, post-construction landscaping with native tree species should be employed to mitigate visual impacts to CHL 3 to CHL 5, CHL 7, CHL 9, CHL 12, CHL 14, CHL 15, CHL 16, CHL 18, CHL 19, CHL 23, CHL 24, BHR 2 and BHR 10.
- 7) Should future work require an expansion or alteration of the study area, the additional area or change should be studied by a qualified heritage professional to confirm the impacts of the proposed work on potential BHRs and CHLs.

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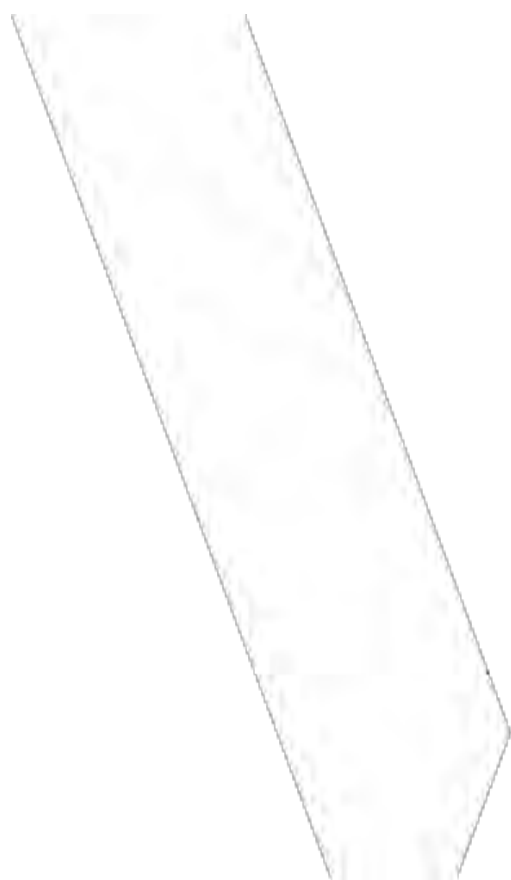
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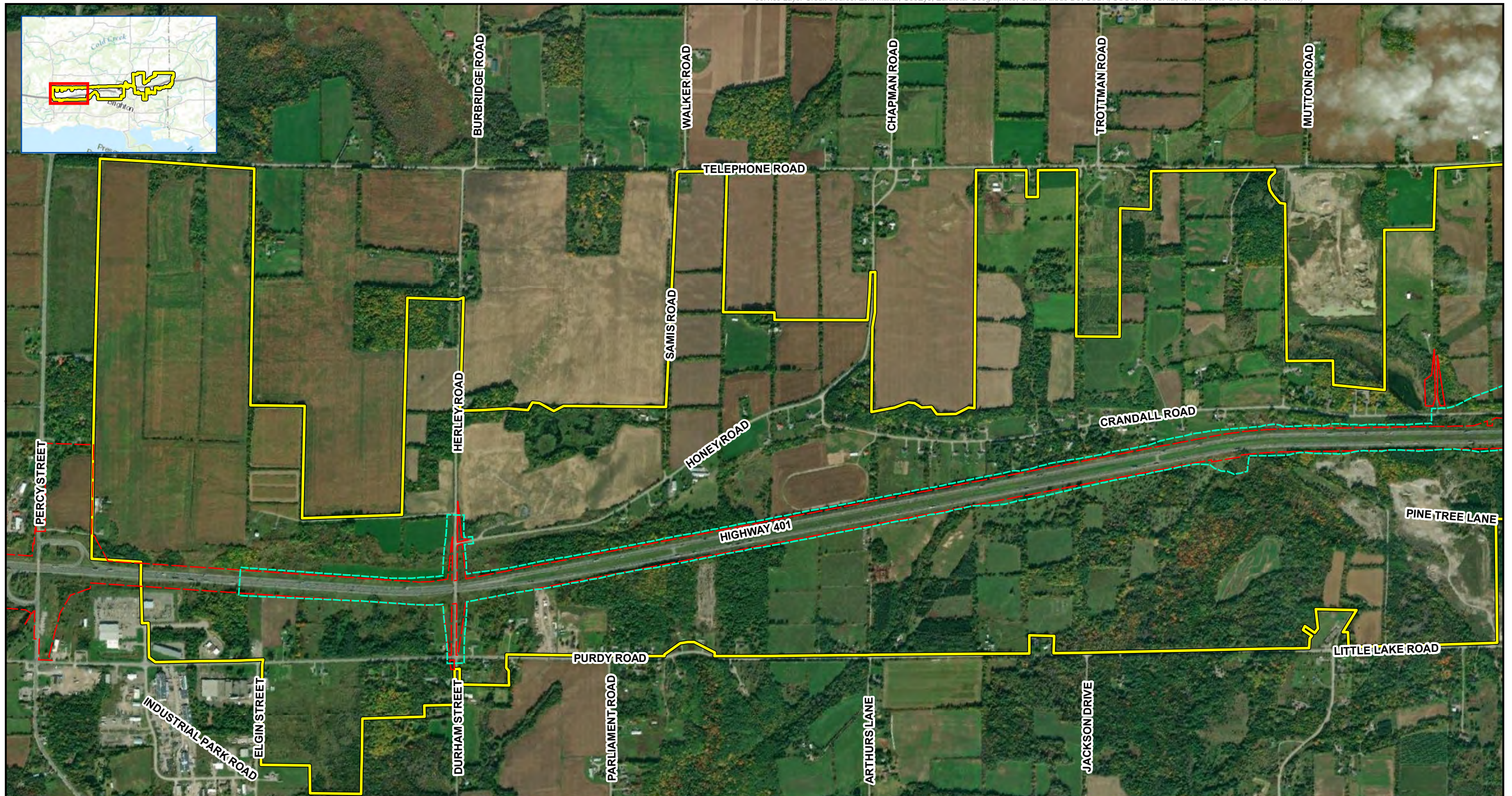
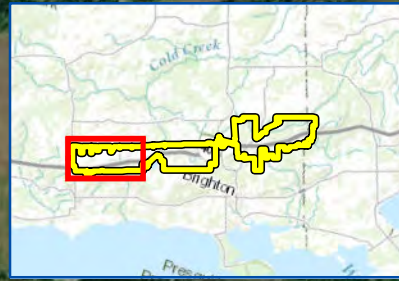
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A FIGURES

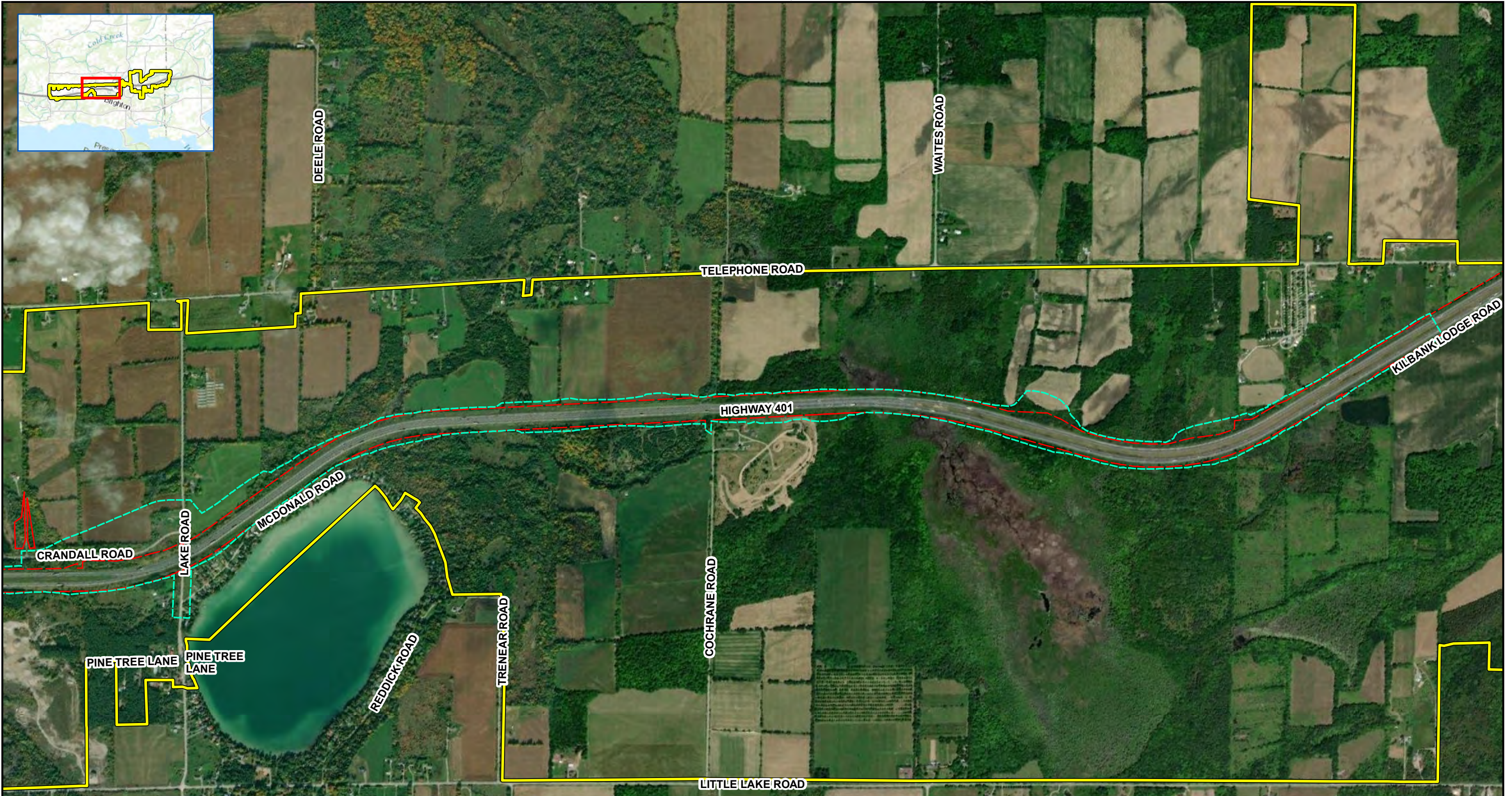




LEGEND

- Study Area
- Existing ROW
- Future Property Requirement

TITLE: FIGURE 1a-: PROJECT LOCATION	SCALE: 1:15,000	PROJECT NO: 17M-01712-11	DATE: JUNE 2021
	DRAWN BY: JAS	CLIENT: MTO - EASTERN REGION	
PROJECT: HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT		CREDITS: LAND INFORMATION ONTARIO	
0 100 200 400 600 m			



LEGEND

- Study Area
- Existing ROW
- Future Property Requirement

TITLE:

FIGURE 1b-: PROJECT LOCATION

PROJECT:

HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT

SCALE:
1:15,000

PROJECT NO:
17M-01712-11

DATE:
JUNE 2021

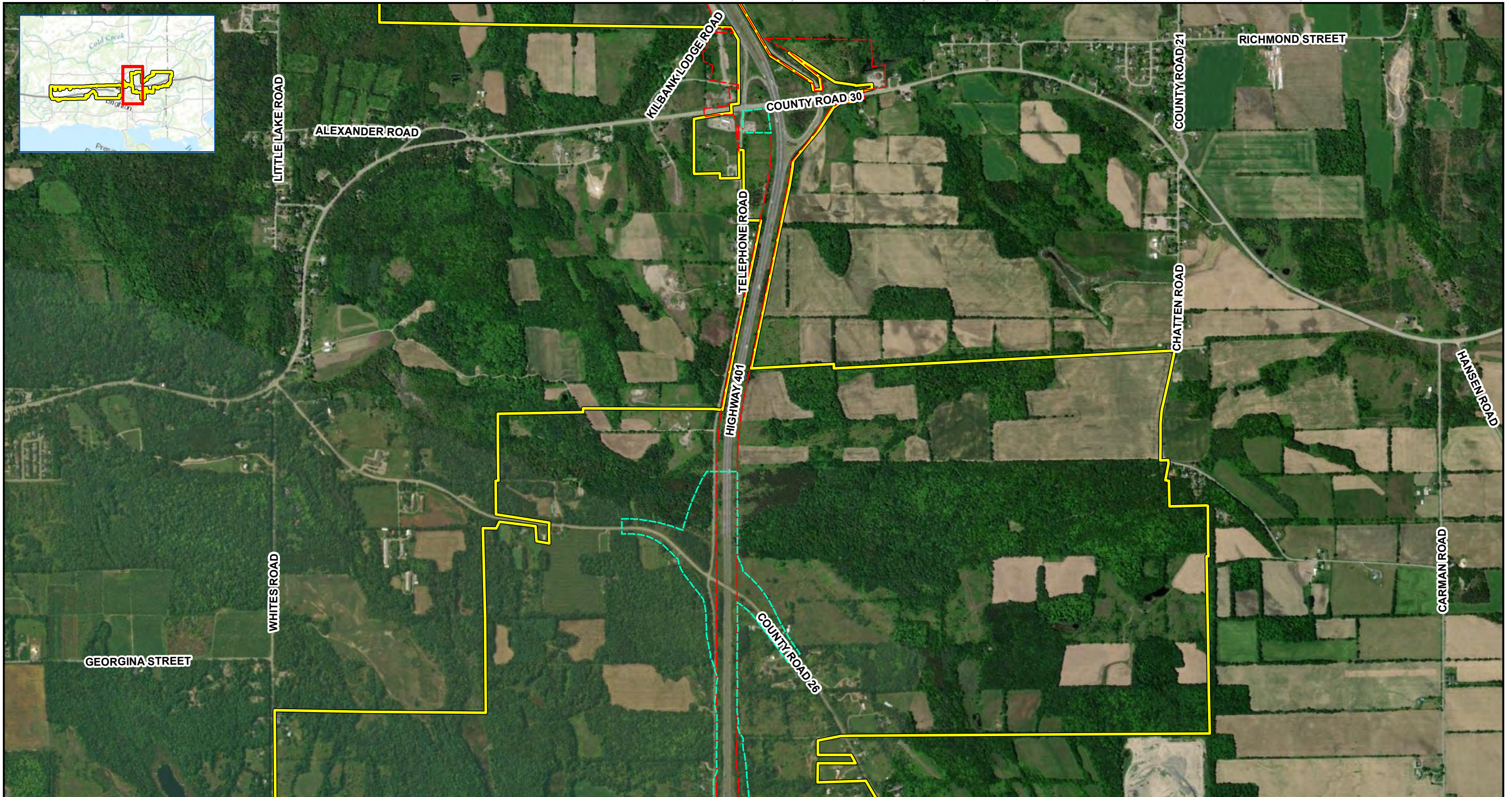
DRAWN BY:
JAS

CLIENT:
MTO - EASTERN REGION

CREDITS:

LAND INFORMATION ONTARIO





LEGEND

- Study Area
- Existing ROW
- Future Property Requirement

TITLE:

FIGURE 1c-: PROJECT LOCATION

SCALE:
1:17,000

PROJECT NO:
17M-01712-11

DATE:
JUNE 2021

DRAWN BY:
JAS

CLIENT:
MTO - EASTERN REGION

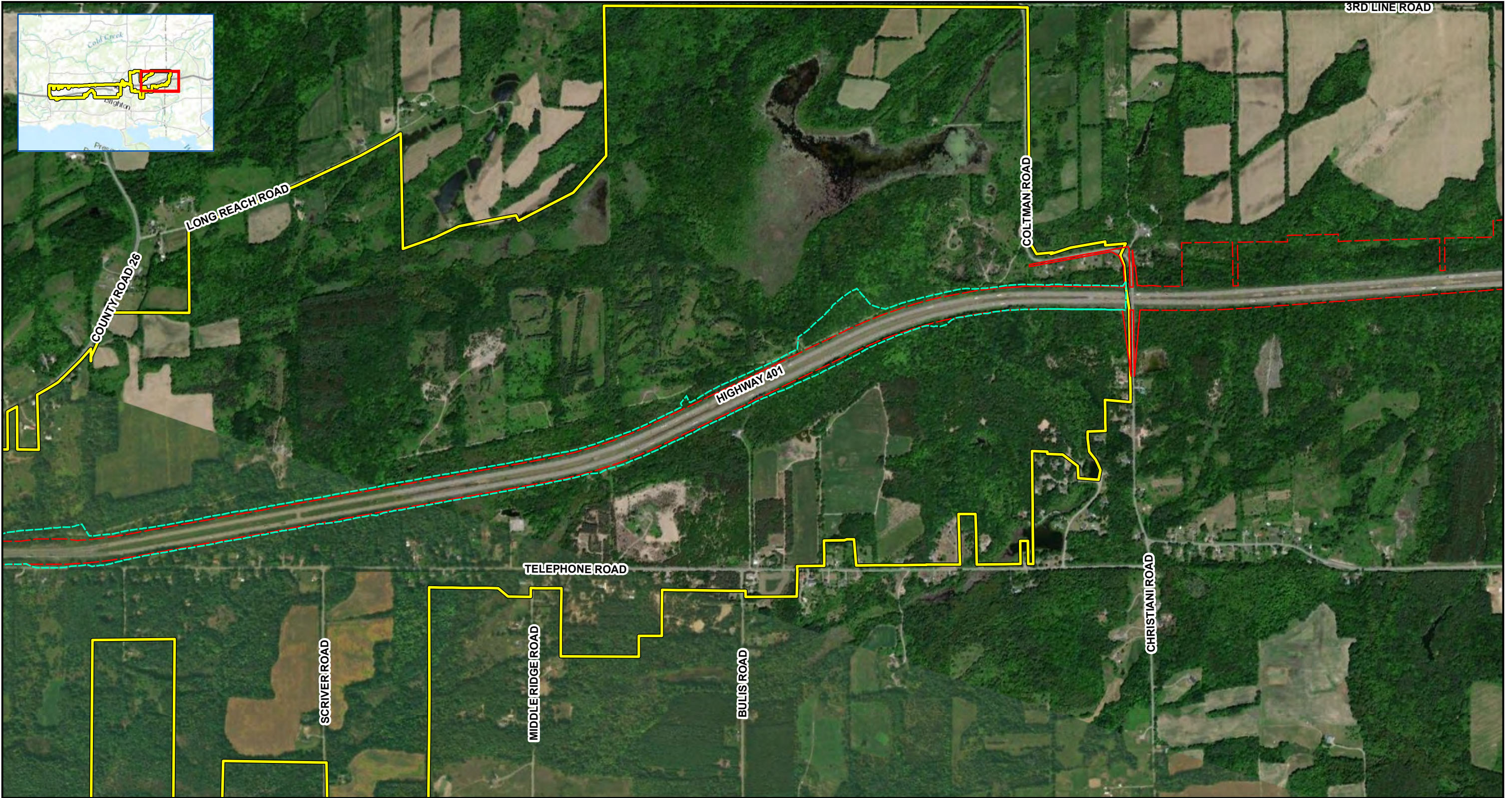
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HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT

CREDITS:

LAND INFORMATION ONTARIO





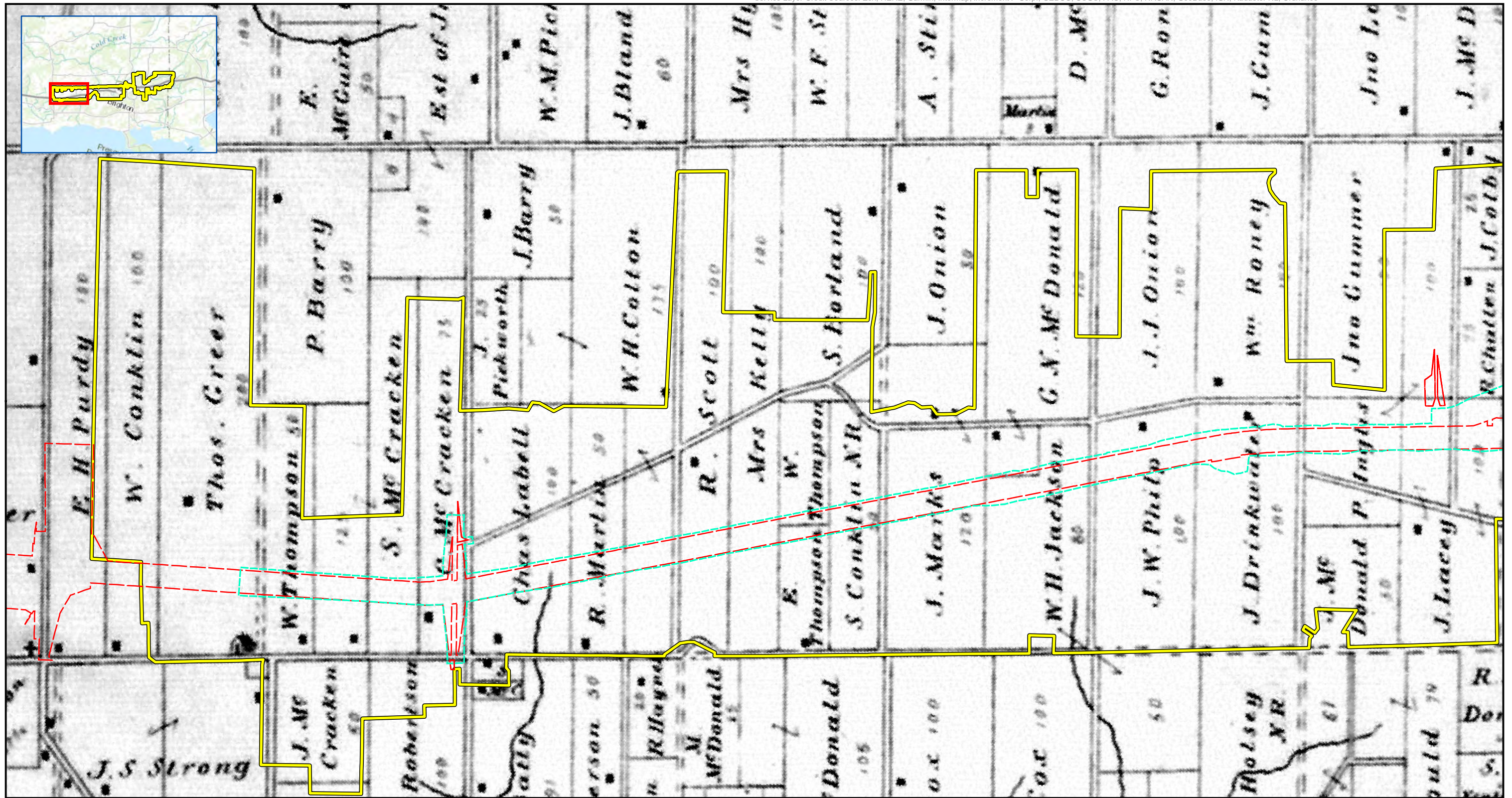
LEGEND
 [Yellow Outline] Study Area
 [Red Dashed Line] Existing ROW
 [Cyan Dashed Line] Future Property Requirement

TITLE:
 FIGURE 1d-: PROJECT LOCATION




PROJECT:
 HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT

0 100 200 400 600 m

SCALE: 1:15,000	PROJECT NO: 17M-01712-11	DATE: JUNE 2021
DRAWN BY: JAS	CLIENT: MTO - EASTERN REGION	
CREDITS: LAND INFORMATION ONTARIO		



LEGEND

-  Study Area
-  Existing ROW
-  Future Property Requirement

TITLE:

FIGURE 2a: HISTORICAL MAPPING (1878)

SCALE:
1:15,000

PROJECT NO:
17M-01712-11

DATE:
JUNE 2021

DRAWN BY:
JAS

CLIENT:
MTO - EASTERN REGION

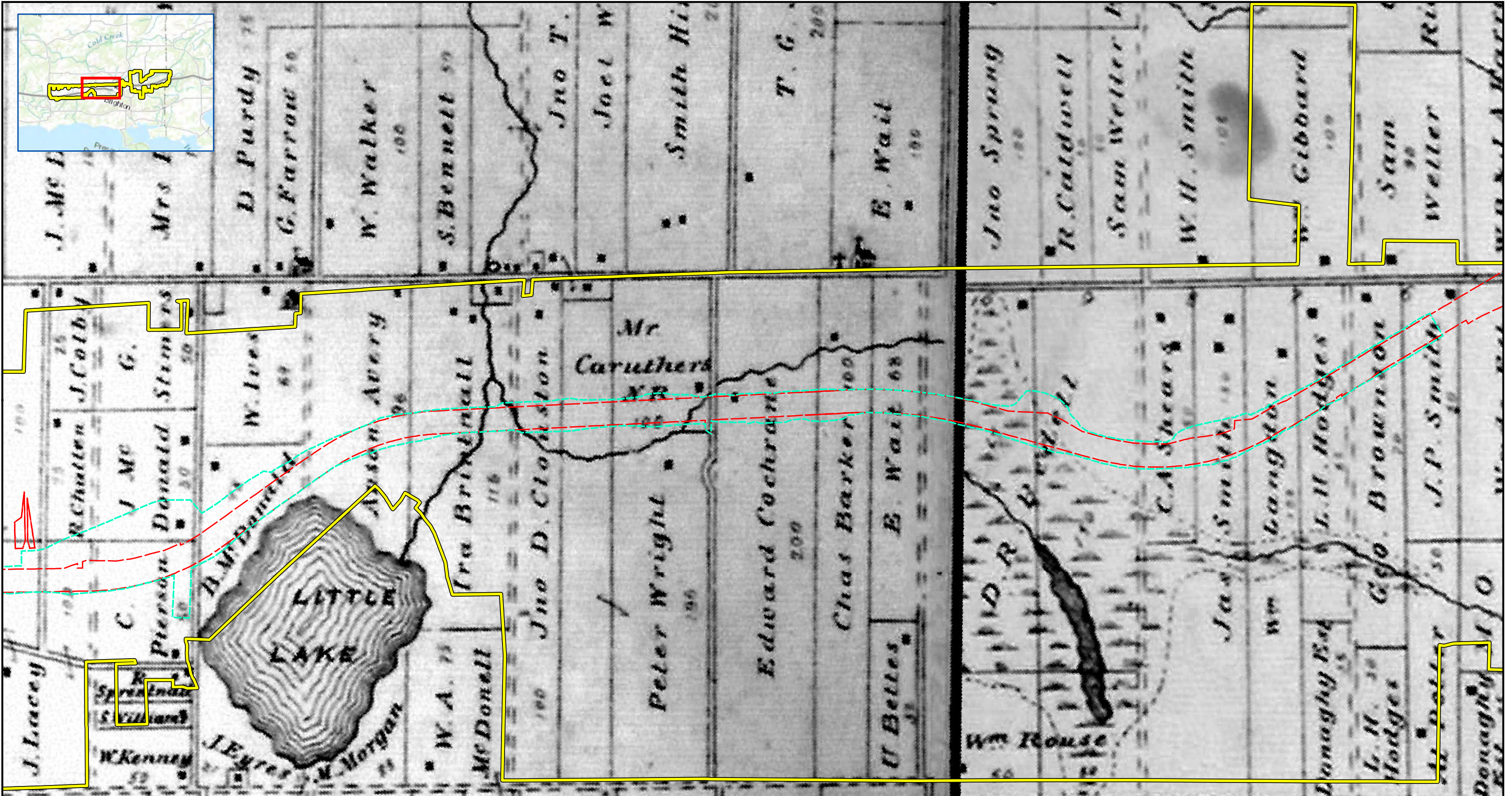
PROJECT:

HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL
HERITAGE RESOURCE ASSESSMENT REPORT

CREDITS:

ILLUSTRATED HISTORICAL ATLAS OF
THE COUNTIES OF NORTHUMBERLAND
AND DURHAM, ONTARIO
(H.BELDEN & CO., 1878)





LEGEND

- Study Area
- Existing ROW
- Future Property Requirement

TITLE:
FIGURE 2b: HISTORICAL MAPPING (1878)

SCALE: 1:15,000	PROJECT NO: 17M-01712-11	DATE: JUNE 2021
DRAWN BY: JAS	CLIENT: MTO - EASTERN REGION	

PROJECT:
HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL
HERITAGE RESOURCE ASSESSMENT REPORT

CREDITS:
ILLUSTRATED HISTORICAL ATLAS OF
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AND DURHAM, ONTARIO
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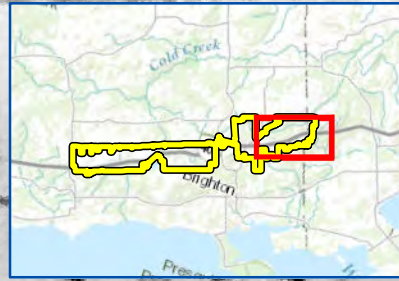




LEGEND

- Study Area
- Existing ROW
- Future Property Requirement

TITLE: FIGURE 2c: HISTORICAL MAPPING (1878)	SCALE: 1:17,000	PROJECT NO: 17M-01712-11	DATE: JUNE 2021
PROJECT: HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT	DRAWN BY: JAS	CLIENT: MTO - EASTERN REGION	CREDITS: ILLUSTRATED HISTORICAL ATLAS OF THE COUNTIES OF NORTHUMBERLAND AND DURHAM, ONTARIO (H.BELDEN & CO., 1878)
0 100 200 400 600 m			



LEGEND

- Study Area
- Existing ROW
- Future Property Requirement

TITLE:
FIGURE 2d: HISTORICAL MAPPING (1878)

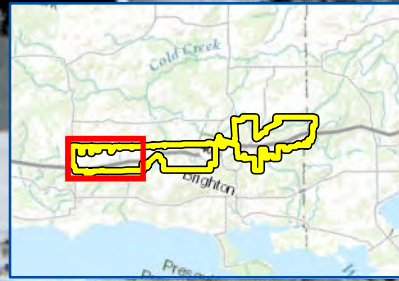
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DRAWN BY: JAS	CLIENT: MTO - EASTERN REGION
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PROJECT:
HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL
HERITAGE RESOURCE ASSESSMENT REPORT

CREDITS:
ILLUSTRATED HISTORICAL ATLAS OF
THE COUNTIES OF NORTHUMBERLAND
AND DURHAM, ONTARIO
(H.BELDEN & CO., 1878)





LEGEND

-  Study Area
-  Existing ROW
-  Future Property Requirement

TITLE:

FIGURE 3a: AERIAL IMAGERY (1954)

SCALE:

1:15,000

PROJECT NO:

17M-01712-11

DATE:

JUNE 2021

DRAWN BY:

JAS

CLIENT:

MTO - EASTERN REGION

PROJECT:

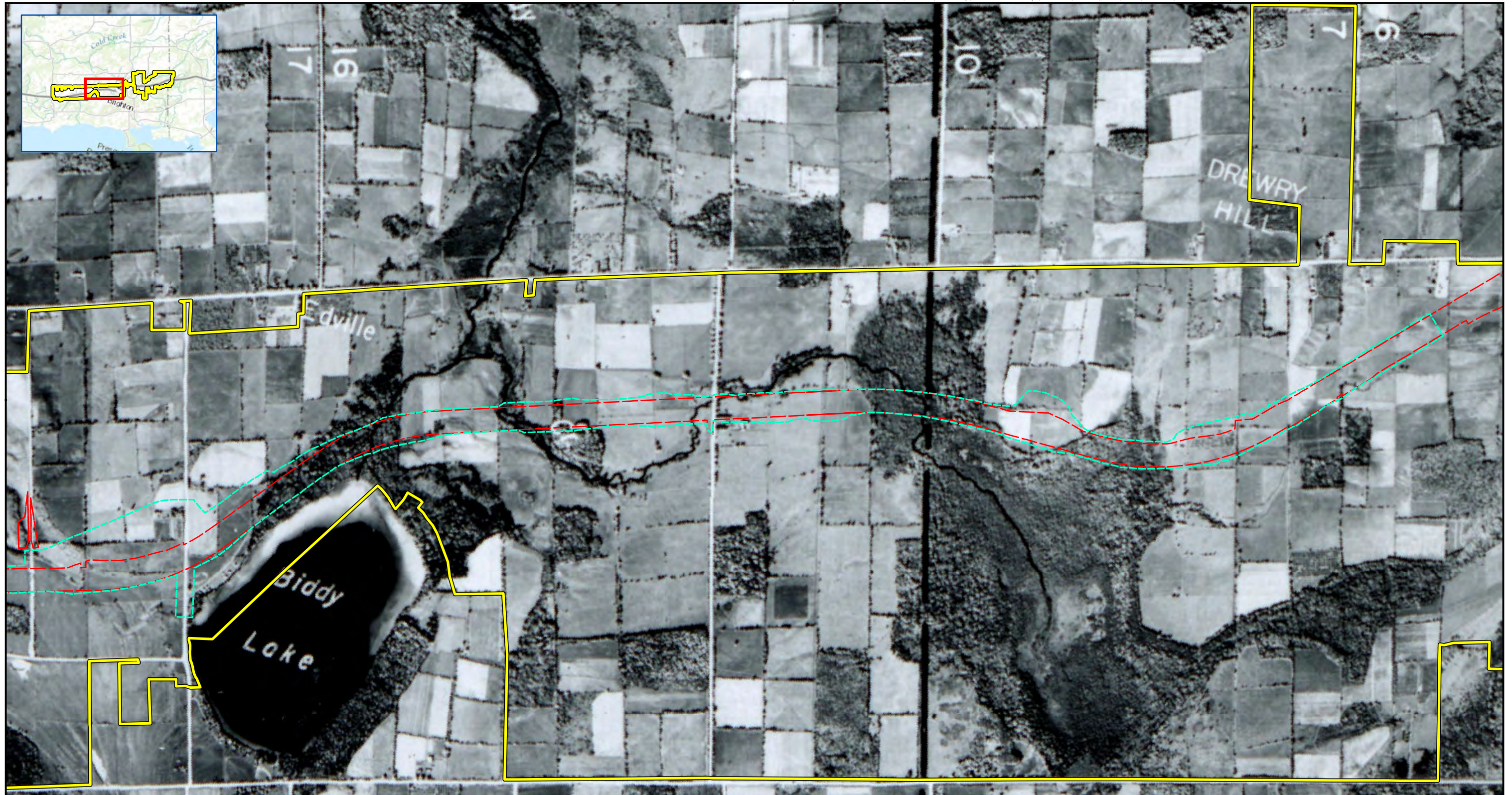
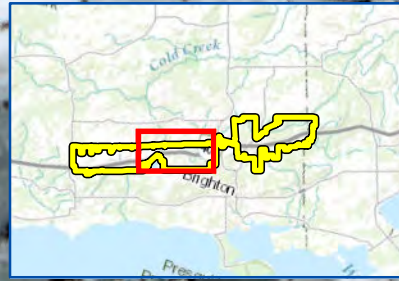
HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT

CREDITS:

UNIVERSITY OF TORONTO
MAP AND DATA LIBRARY
441.773 & 441.774

0 100 200 400 600 m





LEGEND

- Study Area
- Existing ROW
- Future Property Requirement

TITLE:
FIGURE 3b: AERIAL IMAGERY (1954)

SCALE:
1:15,000

PROJECT NO:
17M-01712-11

DATE:
JUNE 2021

PROJECT:
HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL
HERITAGE RESOURCE ASSESSMENT REPORT

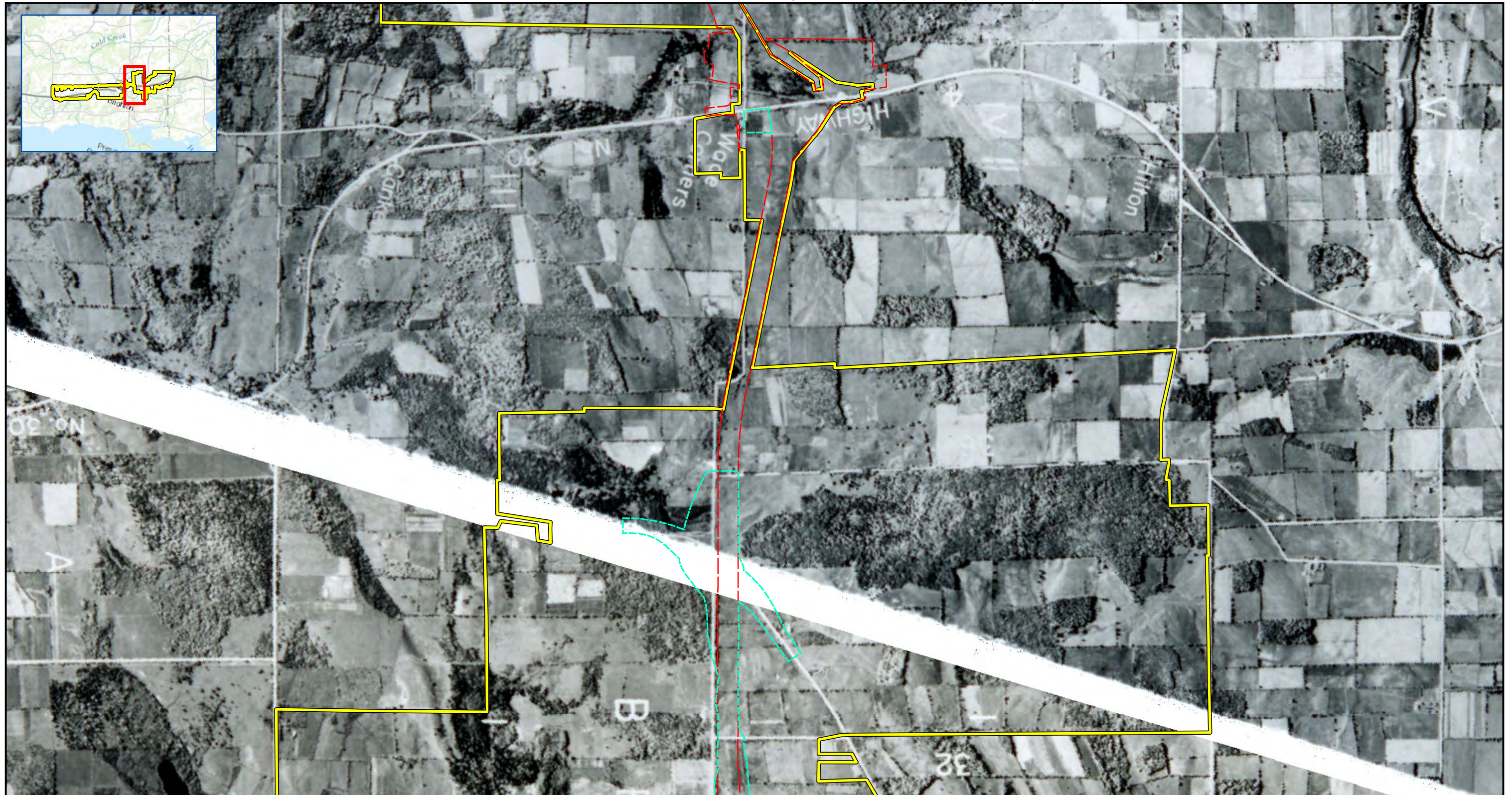
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CLIENT:
MTO - EASTERN REGION

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LEGEND

- Study Area
- Existing ROW
- Future Property Requirement

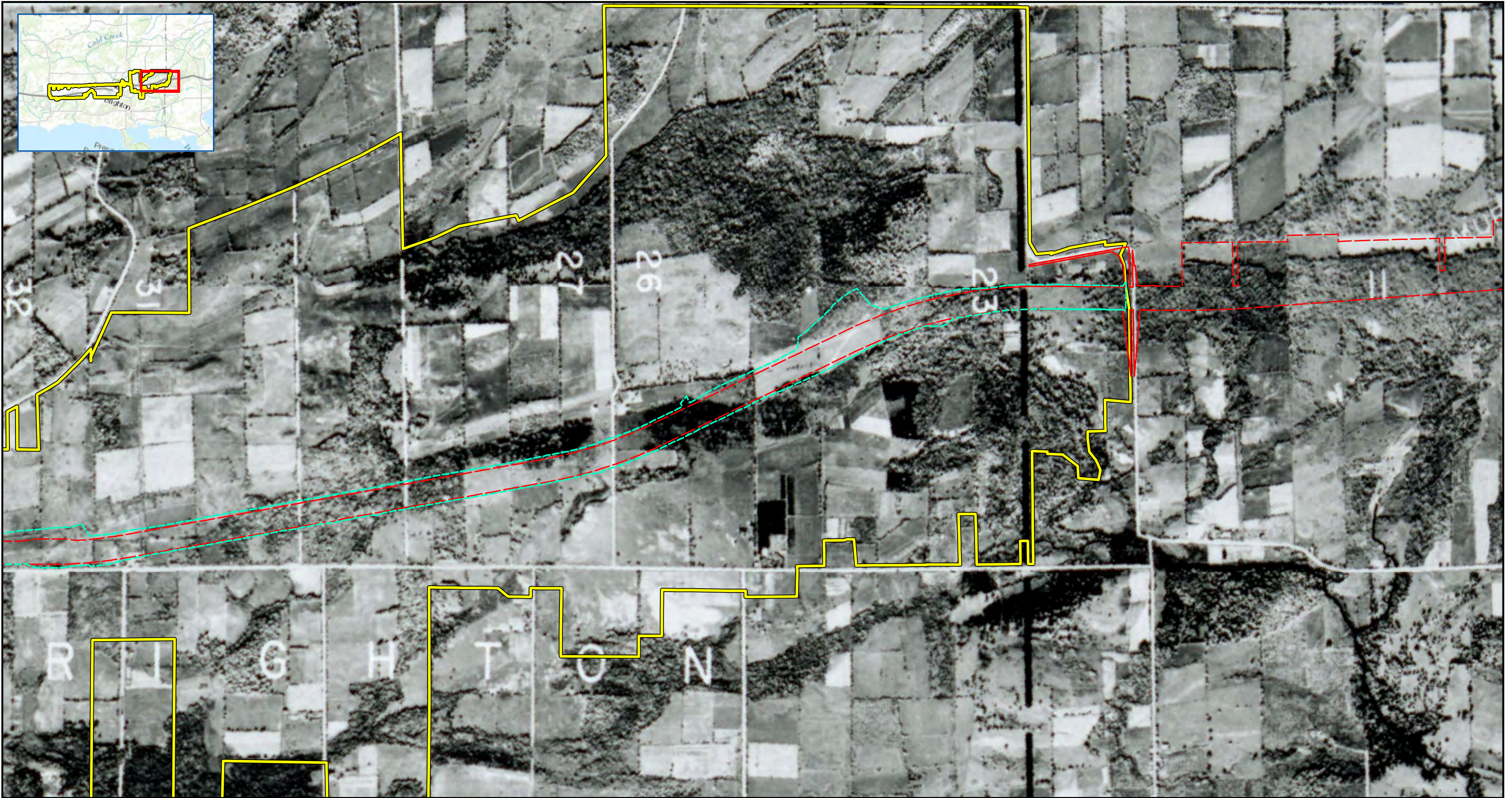
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FIGURE 3c: AERIAL IMAGERY (1954)

SCALE: 1:17,000	PROJECT NO: 17M-01712-11	DATE: JUNE 2021
DRAWN BY: JAS	CLIENT: MTO - EASTERN REGION	

PROJECT:
HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL
HERITAGE RESOURCE ASSESSMENT REPORT

CREDITS:
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MAP AND DATA LIBRARY
441.773 & 441.774





LEGEND

- Study Area
- Existing ROW
- Future Property Requirement

TITLE:

FIGURE 3d: AERIAL IMAGERY (1954)

SCALE:
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PROJECT NO:
17M-01712-11

DATE:
JUNE 2021

DRAWN BY:
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CLIENT:
MTO - EASTERN REGION

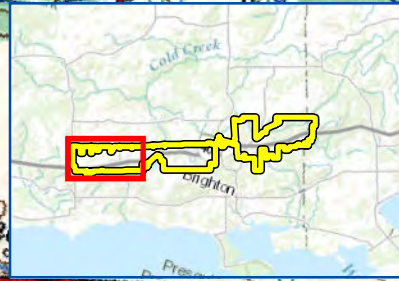
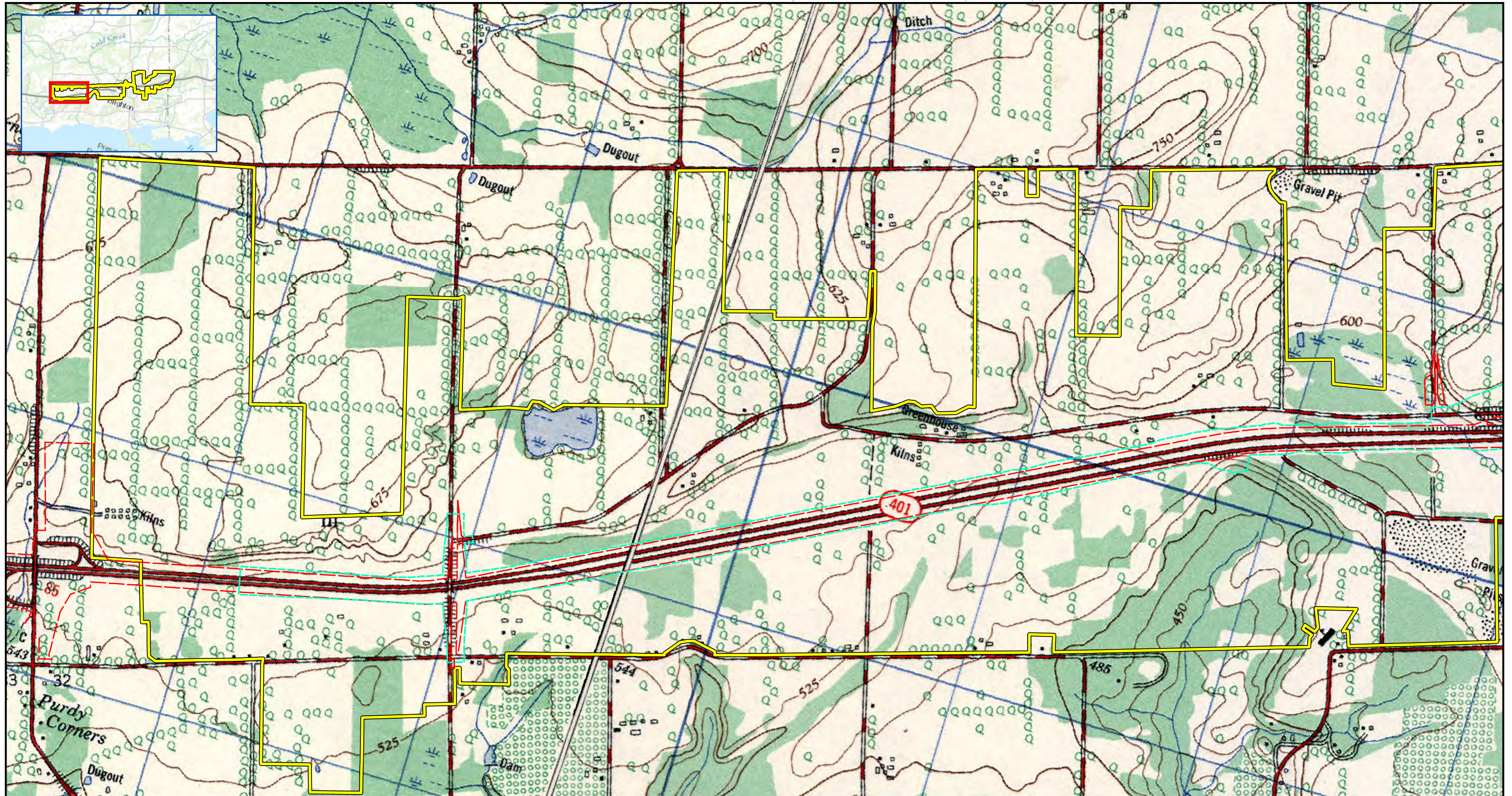
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HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL
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MAP AND DATA LIBRARY
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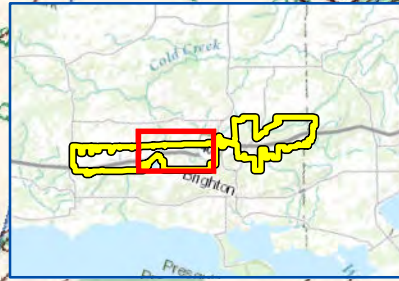
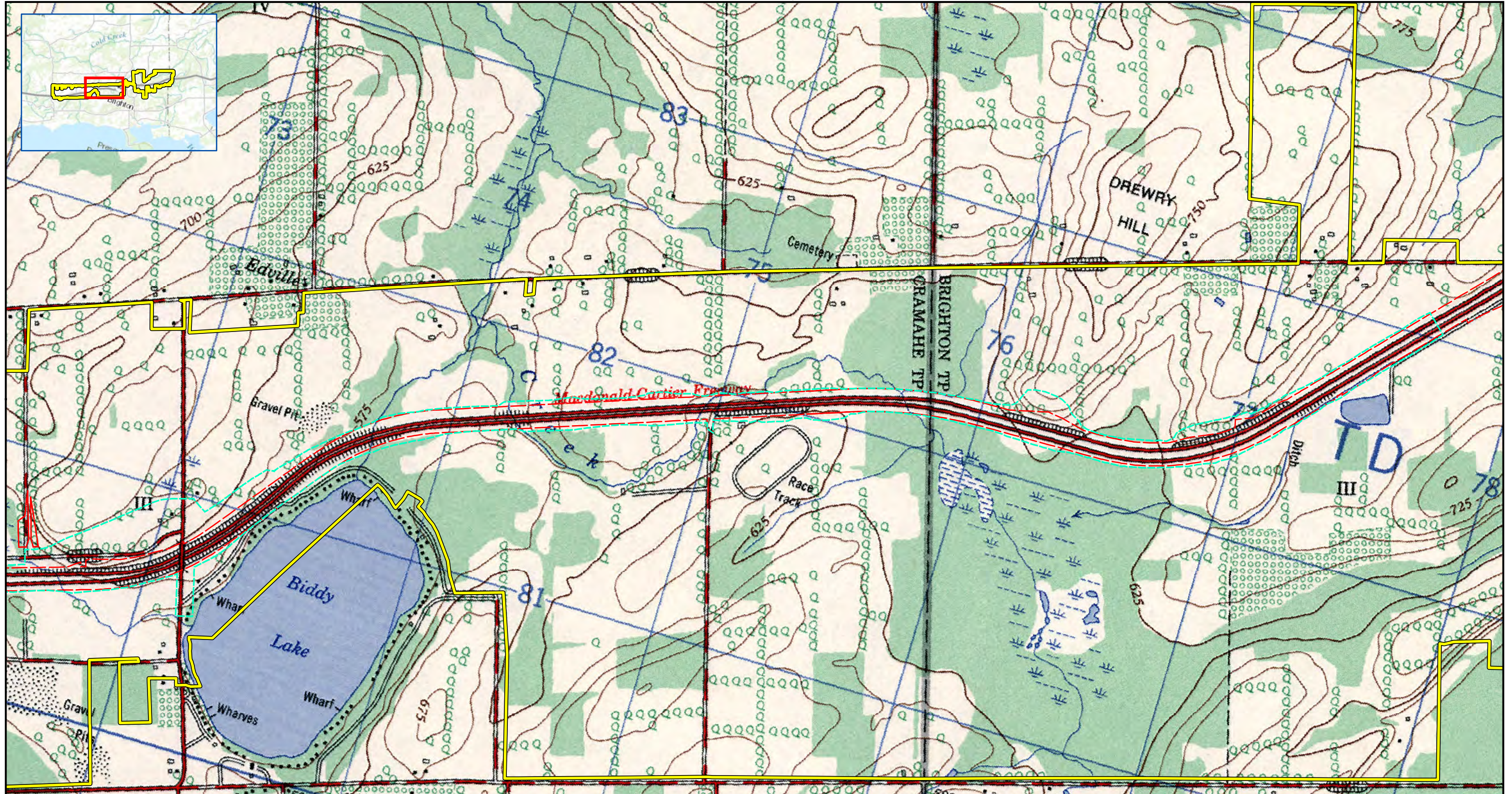




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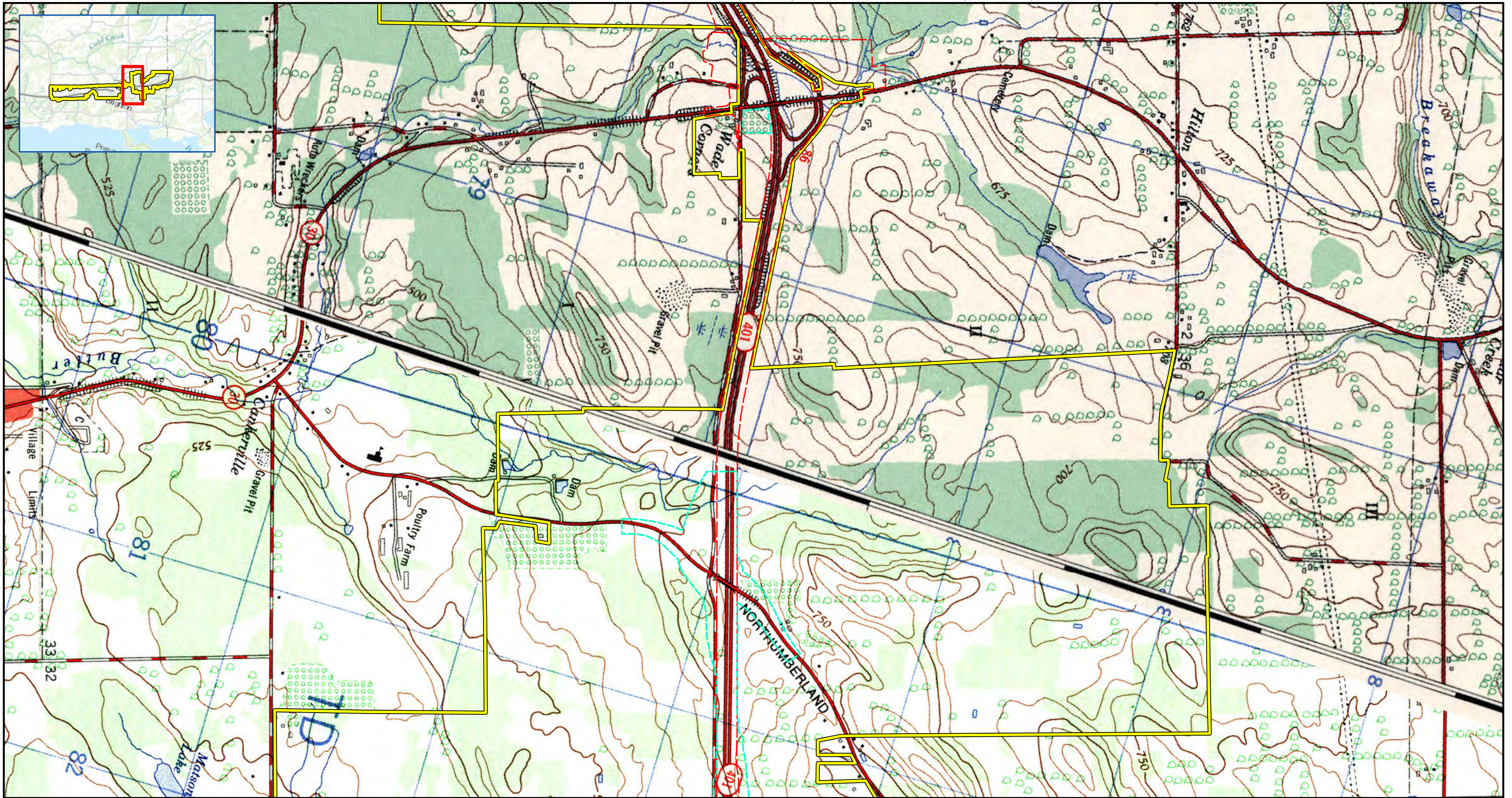
- Study Area
- Existing ROW
- Future Property Requirement

TITLE:	SCALE: 1:15,000	PROJECT NO: 17M-01712-11	DATE: JUNE 2021
FIGURE 4a: HISTORICAL TOPOGRAPHIC MAP (1970)	DRAWN BY: JAS	CLIENT: MTO - EASTERN REGION	
PROJECT: HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT	CREDITS: CASTLETON, ONTARIO. 1:25,000. MAP SHEET 031C04D, BRIGHTON, ONTARIO. 1:25,000. MAP SHEET 031C04B, HILTON, ONTARIO. 1:25,000. MAP SHEET 031C04C ED.1, 1970		
0 100 200 400 600 m			



- LEGEND**
- Study Area
 - Existing ROW
 - Future Property Requirement

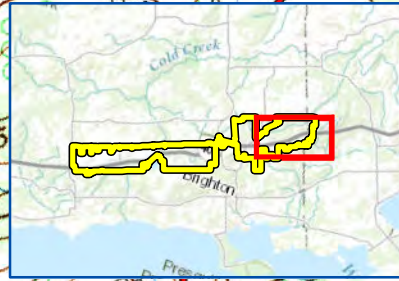
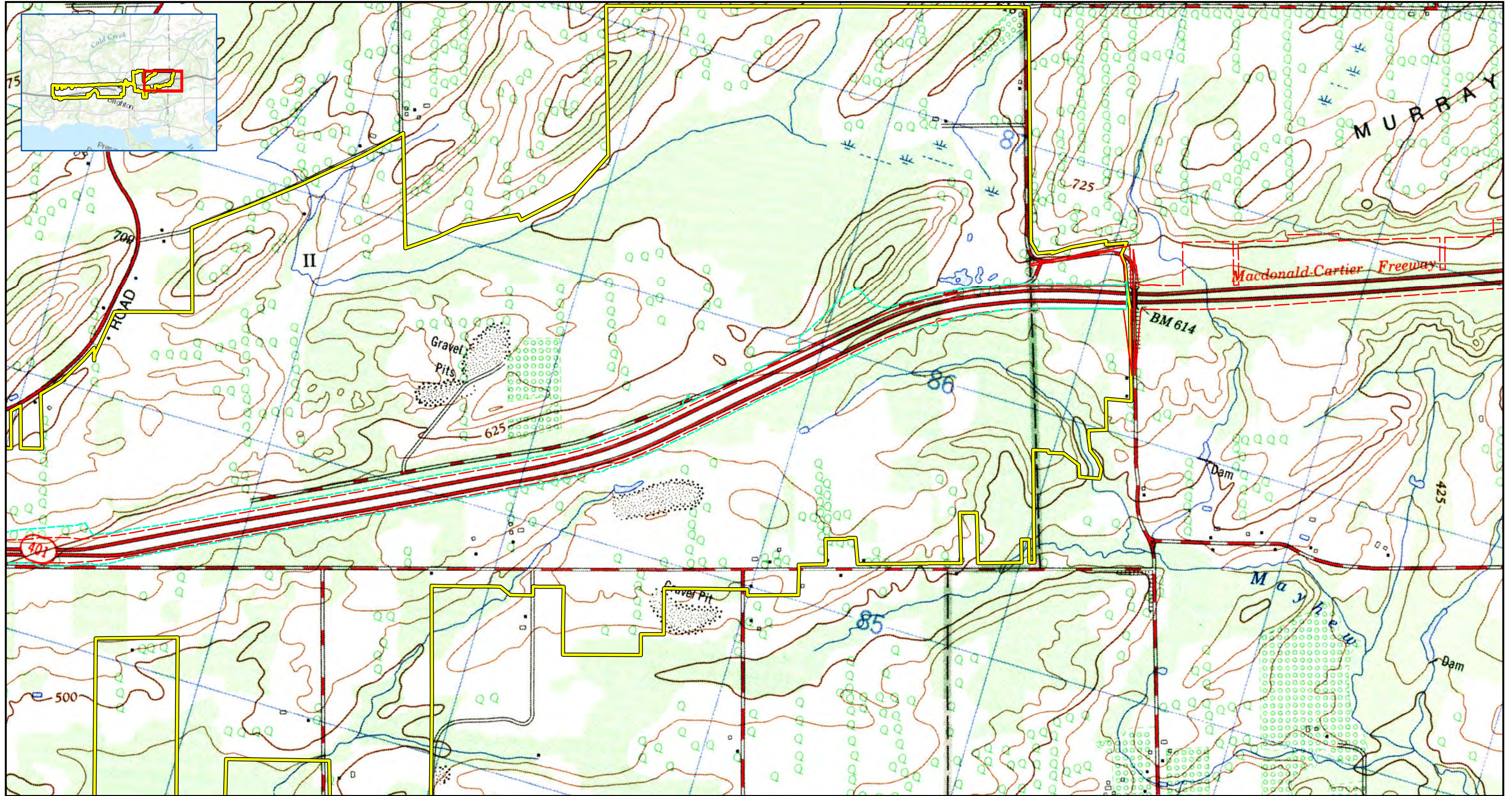
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FIGURE 4b: HISTORICAL TOPOGRAPHIC MAP (1970)	DRAWN BY: JAS	CLIENT: MTO - EASTERN REGION	
PROJECT: HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT	CREDITS: CASTLETON, ONTARIO. 1:25,000. MAP SHEET 031C04D, BRIGHTON, ONTARIO. 1:25,000. MAP SHEET 031C04B, HILTON, ONTARIO. 1:25,000. MAP SHEET 031C04C ED.1, 1970		
0 100 200 400 600 m			



LEGEND

- Study Area
- Existing ROW
- Future Property Requirement

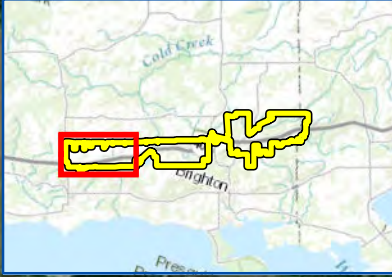
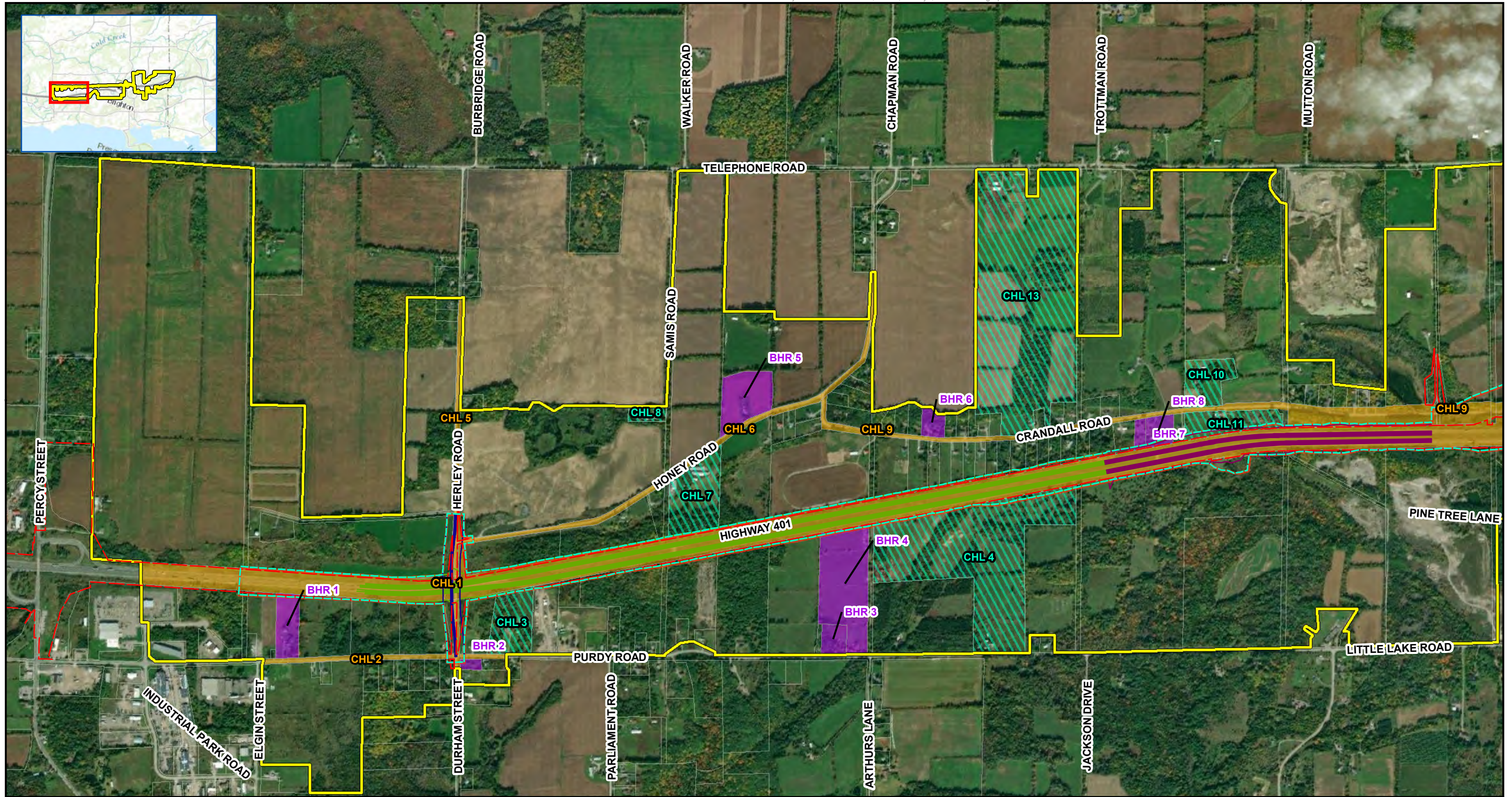
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FIGURE 4c: HISTORICAL TOPOGRAPHIC MAP (1970)	DRAWN BY: JAS	CLIENT: MTO - EASTERN REGION	
PROJECT: HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT	CREDITS: CASTLETON, ONTARIO. 1:25,000. MAP SHEET 031C04D, BRIGHTON, ONTARIO. 1:25,000. MAP SHEET 031C04B, HILTON, ONTARIO. 1:25,000. MAP SHEET 031C04C ED.1, 1970		
0 100 200 400 600 m			



LEGEND

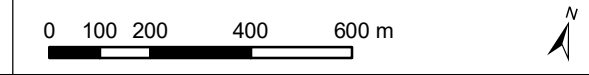
- Study Area
- Existing ROW
- Future Property Requirement

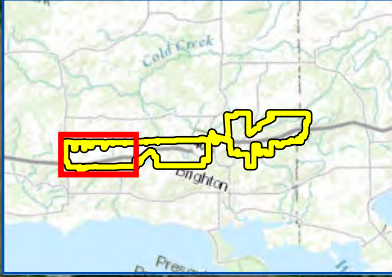
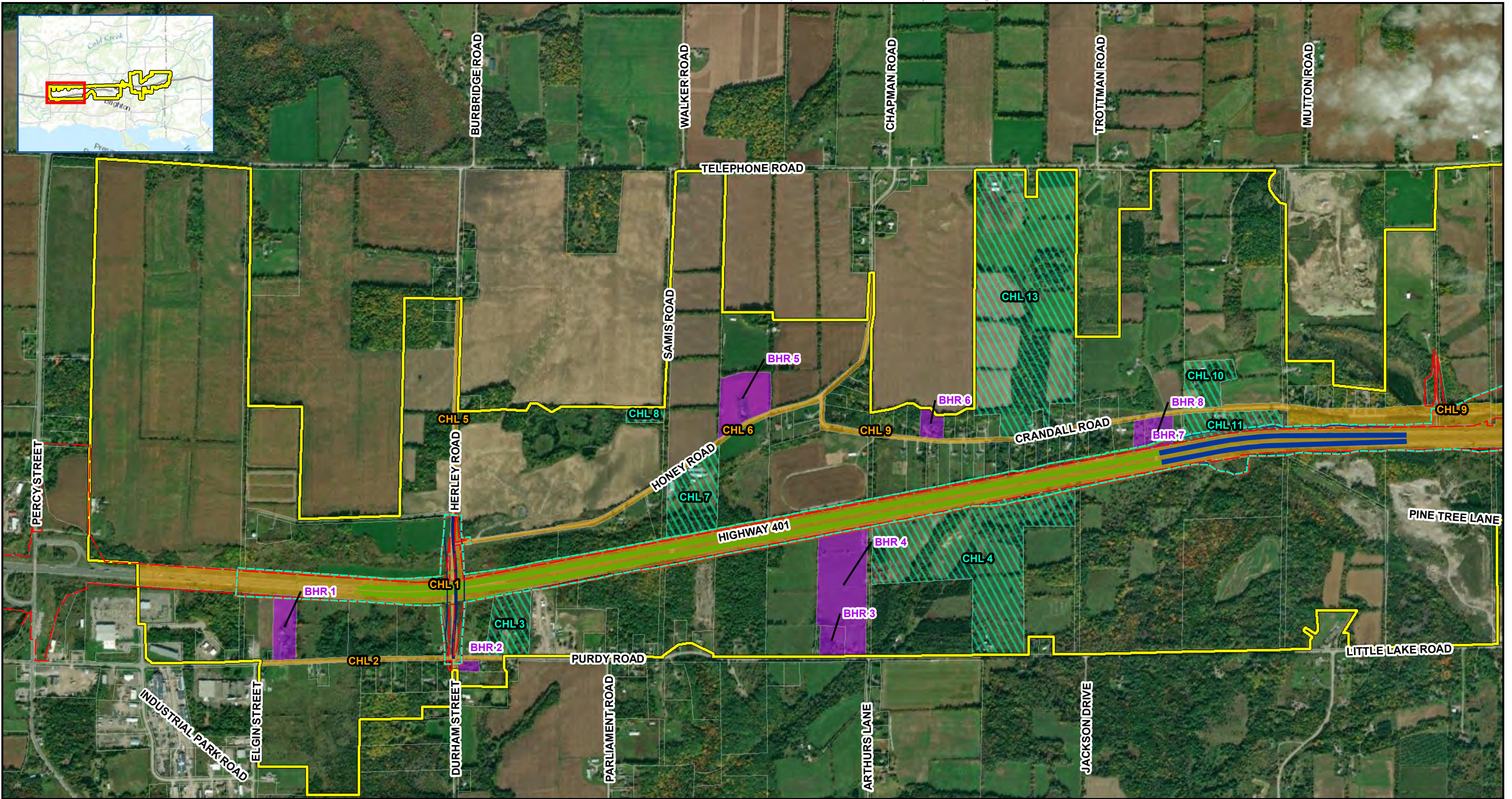
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LEGEND	
Study Area	Future Property Requirement
Property Parcel	Grading Limits
Built Heritage Resource	Herley Road Alt 1
Cultural Heritage Landscape - Property	Section 2 Alternative 1
Cultural Heritage Landscape - Roadscape	Section 1 Alternative 2
Existing ROW	

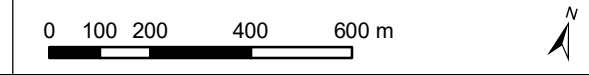
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PROJECT: HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT	DRAWN BY: JAS	CLIENT: MTO - EASTERN REGION	
CREDITS: LAND INFORMATION ONTARIO			

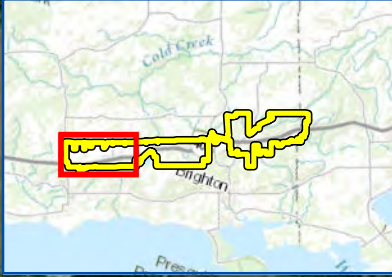
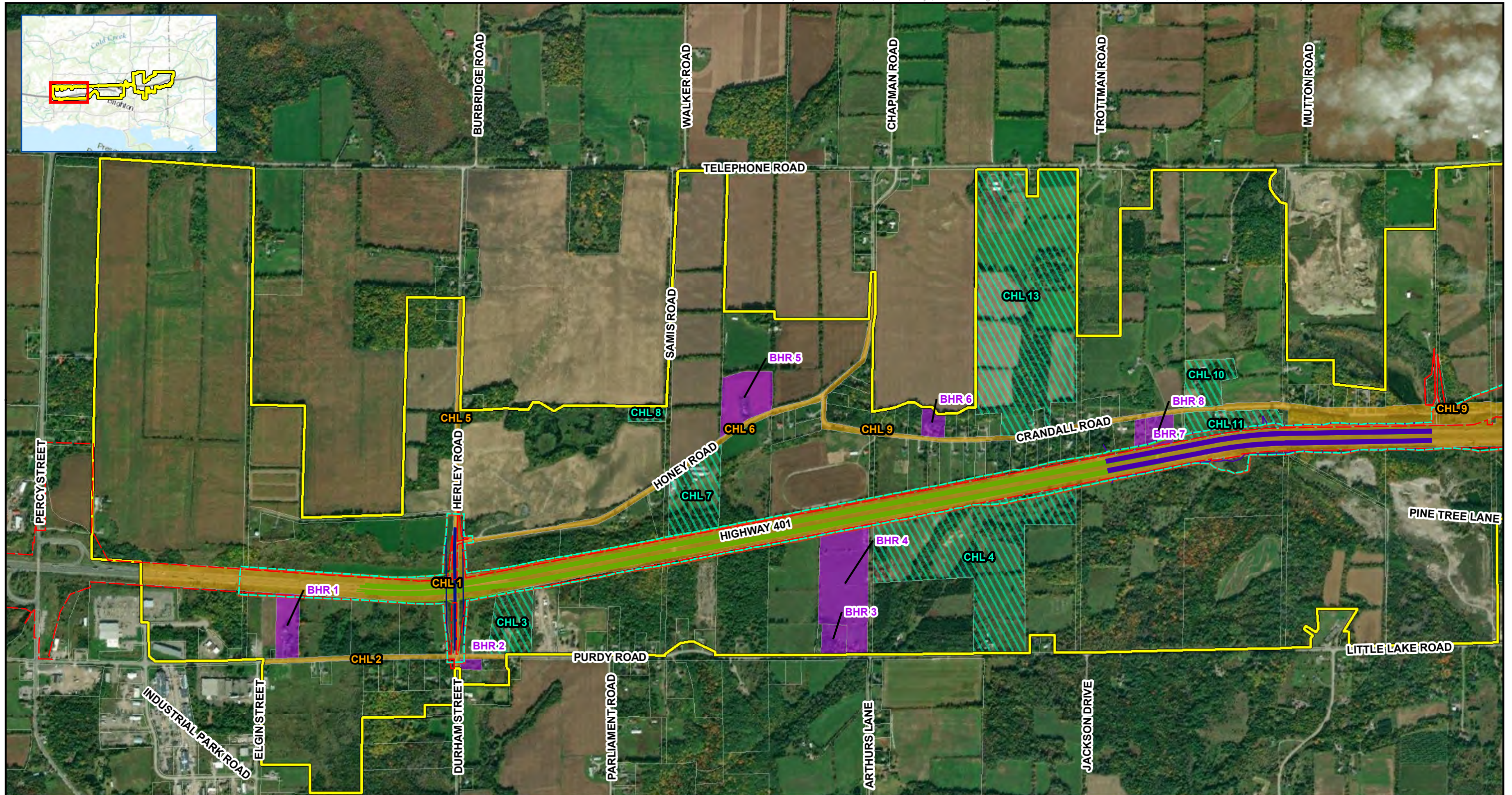




LEGEND	
Study Area	Future Property Requirement
Property Parcel	Grading Limits
Built Heritage Resource	Herley Road Alt 2
Cultural Heritage Landscape - Property	Section 2 Alternative 2
Cultural Heritage Landscape - Roadscape	Section 1 Alternative 2
Existing ROW	

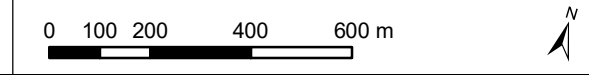
TITLE: FIGURE 5a-ii: PROPERTIES SCREENED FOR CHVI	SCALE: 1:15,000	PROJECT NO: 17M-01712-11	DATE: JUNE 2021
PROJECT: HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT	DRAWN BY: JAS	CLIENT: MTO - EASTERN REGION	
CREDITS: LAND INFORMATION ONTARIO			

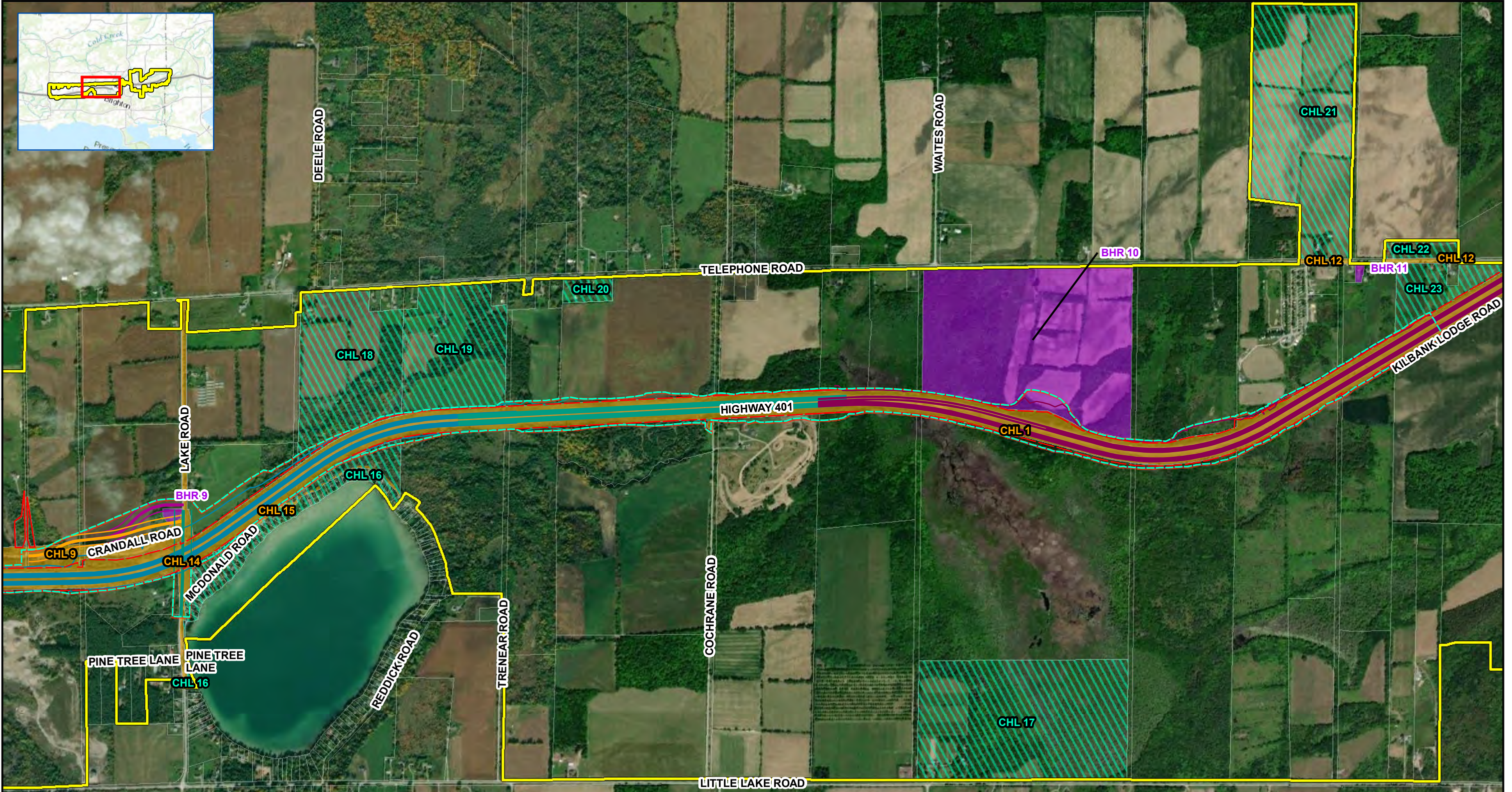




LEGEND	
Study Area	Future Property Requirement
Property Parcel	Grading Limits
Built Heritage Resource	Herley Road Alt 3
Cultural Heritage Landscape - Property	Section 2 Alternative 3
Cultural Heritage Landscape - Roadscape	Section 1 Alternative 2
Existing ROW	

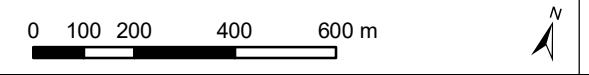
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PROJECT: HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT	DRAWN BY: JAS	CLIENT: MTO - EASTERN REGION	
CREDITS: LAND INFORMATION ONTARIO			

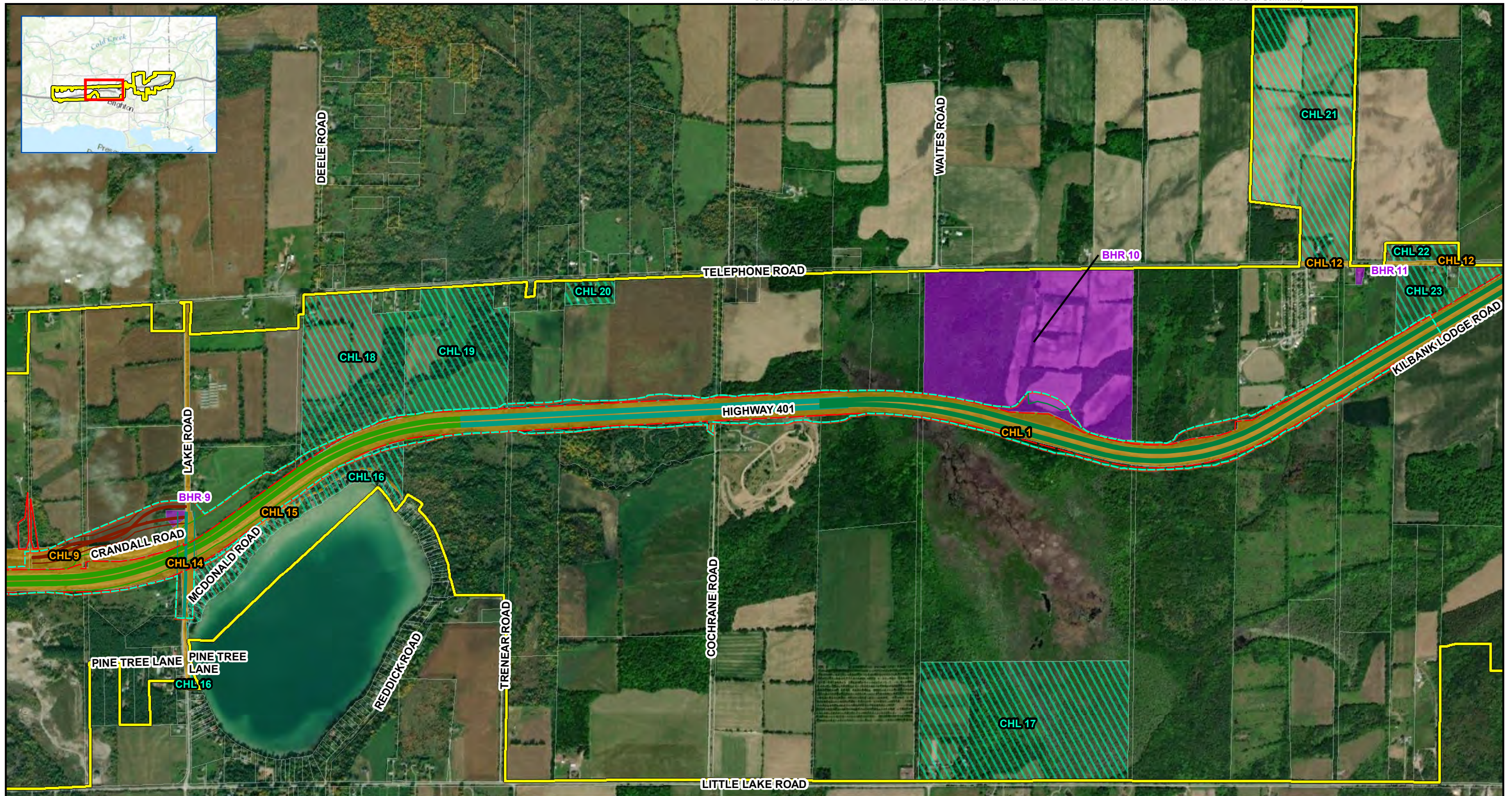
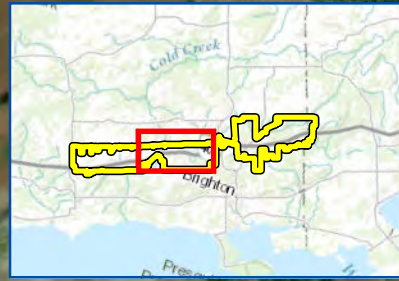




LEGEND	
Study Area	Future Property Requirement
Property Parcel	Grading Limits
Built Heritage Resource	Lake Road Alt 3
Cultural Heritage Landscape - Property	Section 5 Alternative 3
Cultural Heritage Landscape - Roadscape	Section 4 Alternative 1
Existing ROW	Section 3 Alternative 1 Crandall Road Alt 3
	Section 3 Alternative 1 - Crandall Road Alt 1
	Section 3 Alternative 1

TITLE:	FIGURE 5b-i: PROPERTIES SCREENED FOR CHVI	
PROJECT:	HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT	
SCALE:	1:15,000	PROJECT NO: 17M-01712-11
DRAWN BY:	JAS	DATE: JUNE 2021
CREDITS:	CLIENT: MTO - EASTERN REGION	
	LAND INFORMATION ONTARIO	





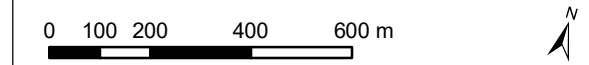
LEGEND

- Study Area
- Property Parcel
- Built Heritage Resource
- Cultural Heritage Landscape - Property
- Cultural Heritage Landscape - Roadscape
- Existing ROW
- Future Property Requirement
- Grading Limits
- Lake Road Alt 3
- Section 5 Alternative 4
- Section 4 Alternative 1
- Section 3 Alternative 2 Crandall Road Alt 2 & 3
- Section 3 Alternative 2

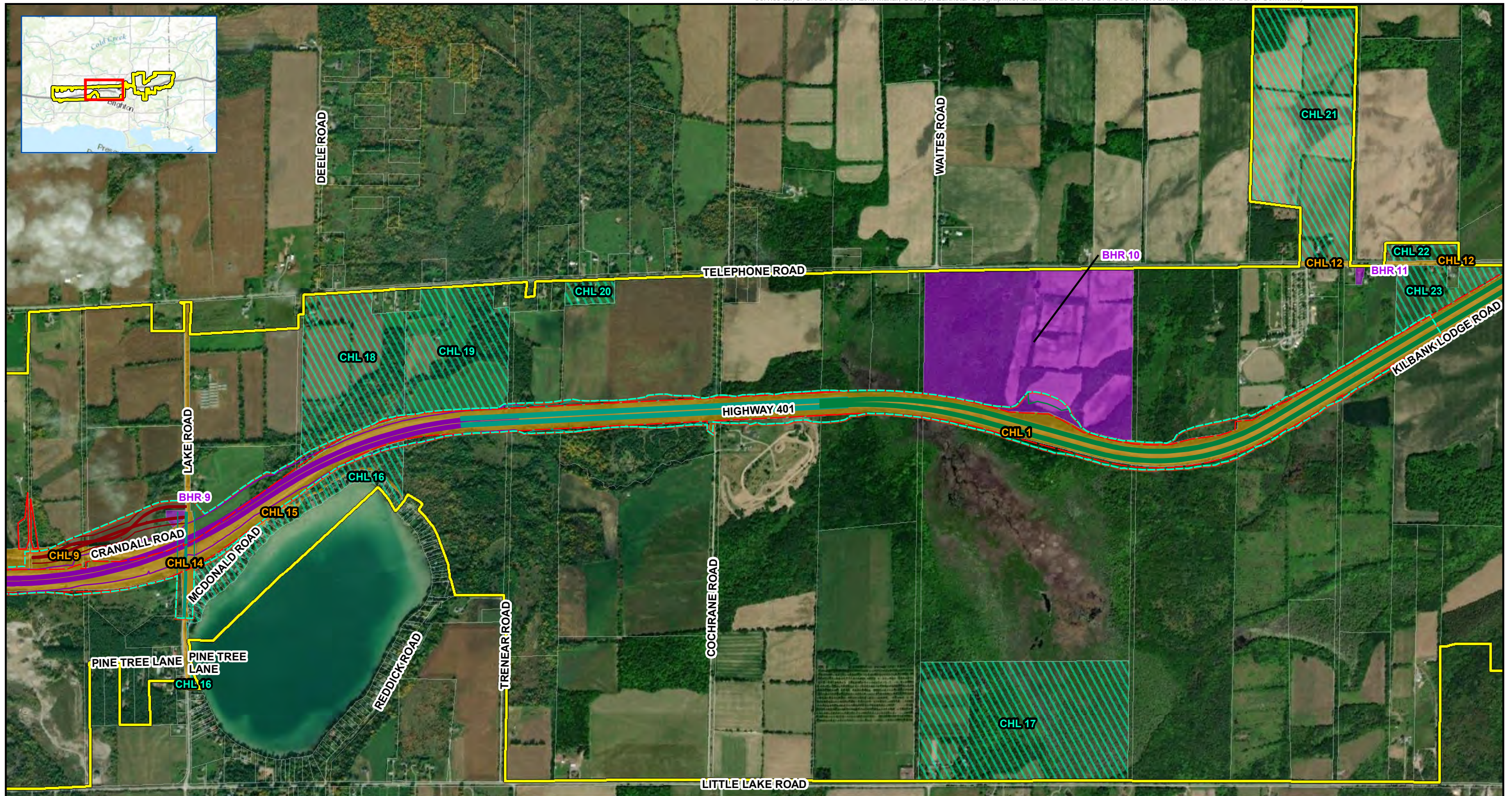
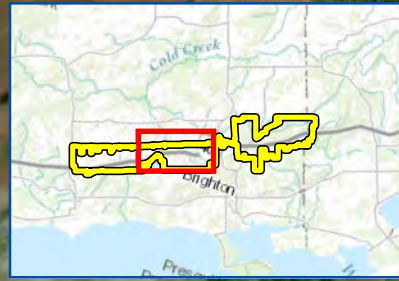
TITLE:
 FIGURE 5b-ii: PROPERTIES SCREENED FOR CHVI

PROJECT:
 HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT

SCALE: 1:15,000	PROJECT NO: 17M-01712-11	DATE: JUNE 2021
DRAWN BY: JAS	CLIENT: MTO - EASTERN REGION	

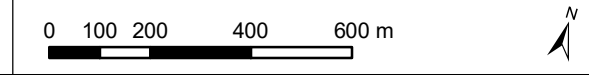


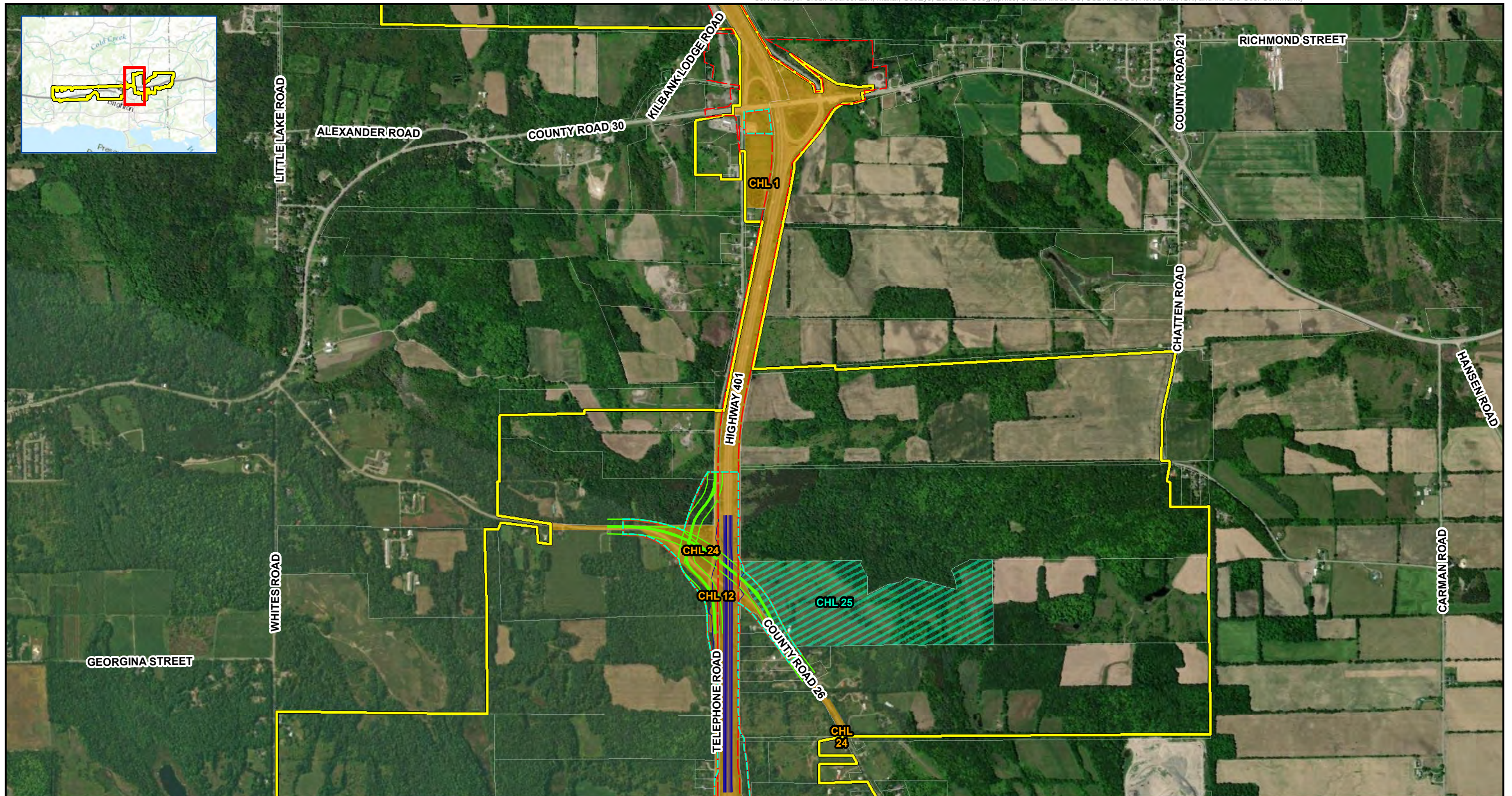
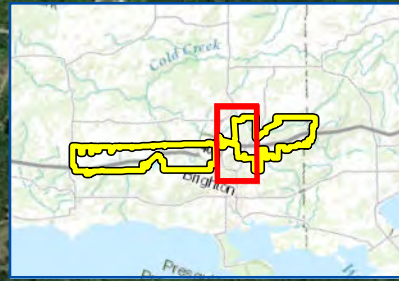
CREDITS:
 LAND INFORMATION ONTARIO



LEGEND					
	Study Area		Future Property Requirement		Section 3 Alternative 3
	Property Parcel		Grading Limits		Lake Road Alt 3
	Built Heritage Resource		Section 5 Alternative 4		Section 4 Alternative 1
	Cultural Heritage Landscape - Property		Section 3 Alternative 3 Crandall Road Alt 2 & 3		
	Cultural Heritage Landscape - Roadscape				
	Existing ROW				

TITLE:	FIGURE 5b-iii: PROPERTIES SCREENED FOR CHVI				
SCALE:	1:15,000	PROJECT NO:	17M-01712-11	DATE:	JUNE 2021
DRAWN BY:	JAS	CLIENT:	MTO - EASTERN REGION		
PROJECT:	HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT				
CREDITS:			LAND INFORMATION ONTARIO		





LEGEND

- Study Area
- Property Parcel
- Cultural Heritage Landscape - Property
- Cultural Heritage Landscape - Roadscape
- Existing ROW
- Future Property Requirement
- Grading Limits
- County Road 26 Alt 2
- Section 6 Alternative 1

TITLE:
FIGURE 5c-i: PROPERTIES SCREENED FOR CHVI

SCALE:
1:17,000

PROJECT NO:
17M-01712-11

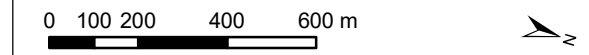
DATE:
JUNE 2021

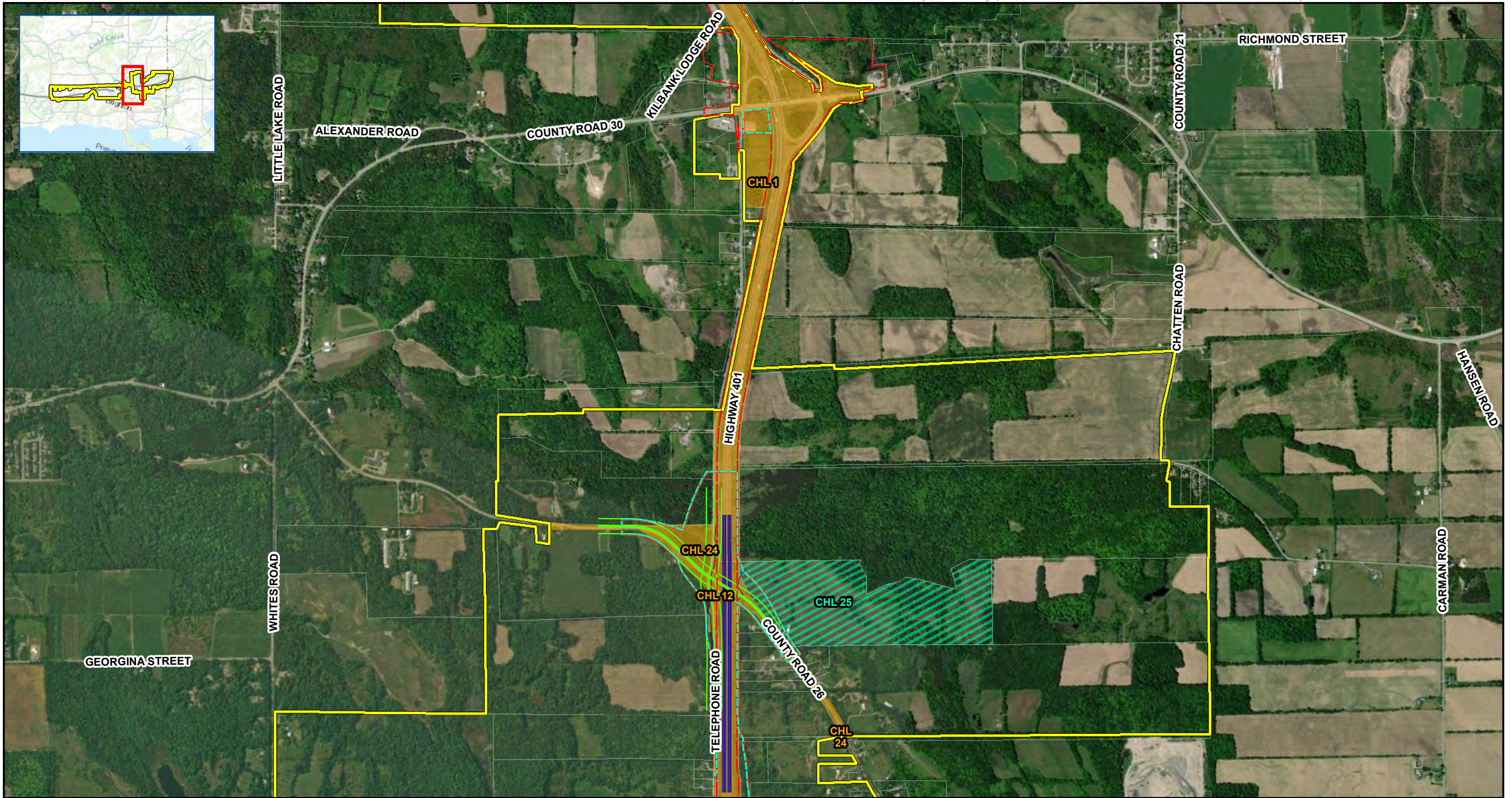
DRAWN BY:
JAS

CLIENT:
MTO - EASTERN REGION

PROJECT:
HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL
HERITAGE RESOURCE ASSESSMENT REPORT

CREDITS:
LAND INFORMATION ONTARIO



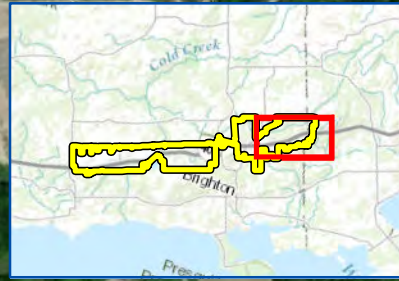
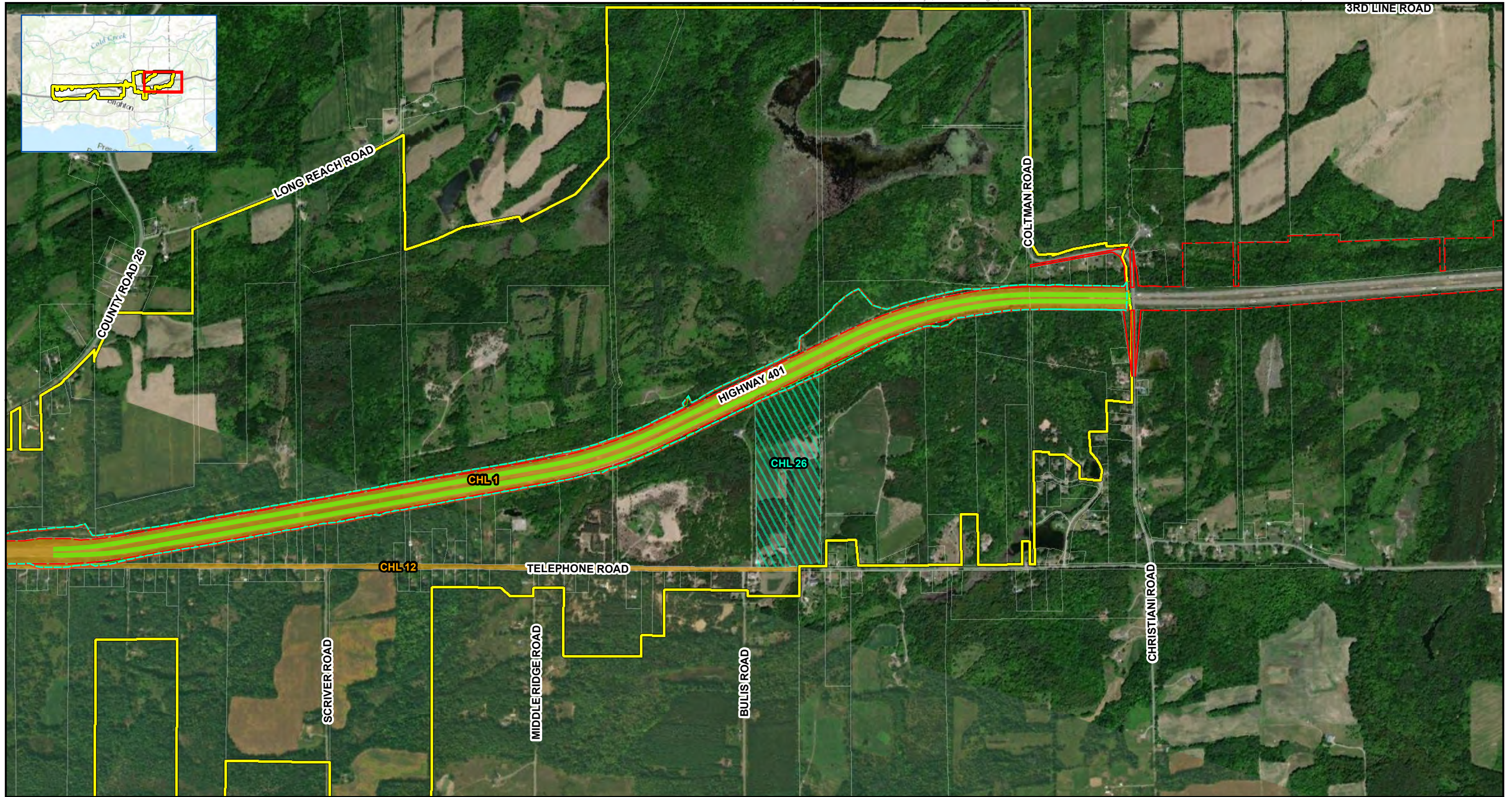


LEGEND

- Study Area
- Property Parcel
- Cultural Heritage Landscape - Property
- Cultural Heritage Landscape - Roadscape
- Existing ROW
- Future Property Requirement
- Grading Limits
- County Road 26 Alt 6 & 7
- Section 6 Alternative 1



<p>TITLE: FIGURE 5c-ii: PROPERTIES SCREENED FOR CHVI</p> <p>PROJECT: HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT</p>	<p>SCALE: 1:17,000</p> <p>DRAWN BY: JAS</p>	<p>PROJECT NO: 17M-01712-11</p> <p>CLIENT: MTO - EASTERN REGION</p>
<p>0 100 200 400 600 m</p>		
<p>CREDITS: LAND INFORMATION ONTARIO</p>		



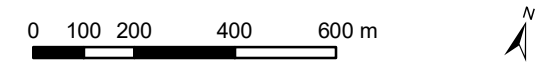
3RD LINE ROAD

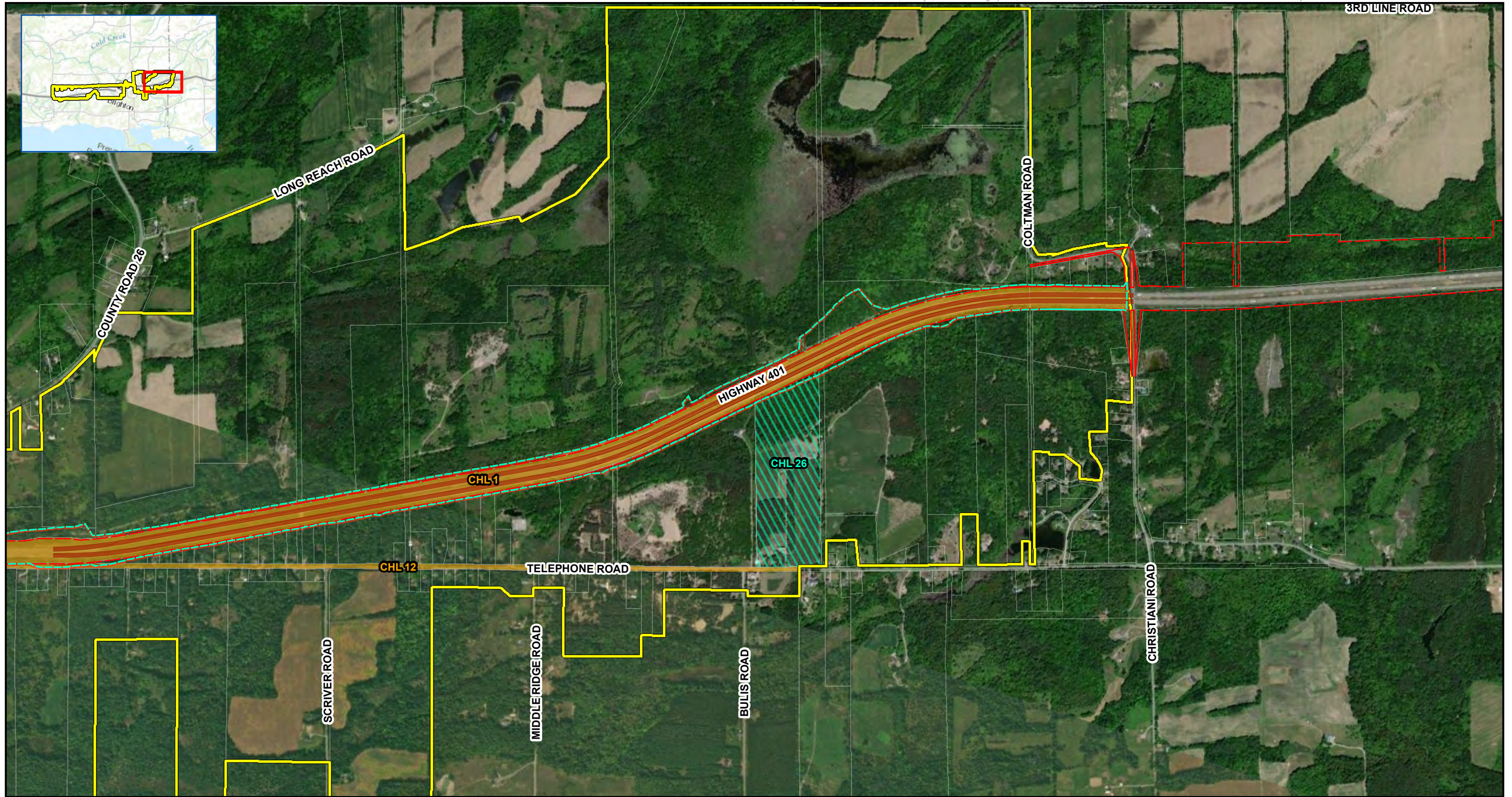
LEGEND

- Study Area
- Property Parcel
- Cultural Heritage Landscape - Property
- Cultural Heritage Landscape - Roadscape
- Existing ROW
- Future Property Requirement
- Grading Limits
- Section 7 Alternative 2



TITLE: FIGURE 5d-i: PROPERTIES SCREENED FOR CHVI	SCALE: 1:15,000	PROJECT NO: 17M-01712-11	DATE: JUNE 2021
PROJECT: HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT	DRAWN BY: JAS	CLIENT: MTO - EASTERN REGION	
CREDITS: LAND INFORMATION ONTARIO			





LEGEND

- Study Area
- Property Parcel
- Cultural Heritage Landscape - Property
- Cultural Heritage Landscape - Roadscape
- Existing ROW
- Future Property Requirement
- Grading Limits
- Section 7 Alternative 4

TITLE:
FIGURE 5d-ii: PROPERTIES SCREENED FOR CHVI

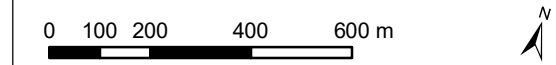
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DATE: JUNE 2021

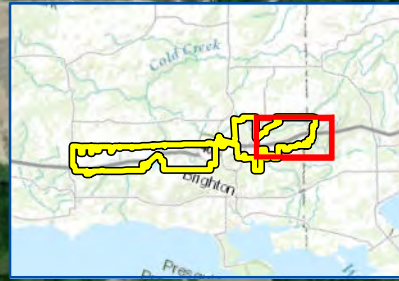
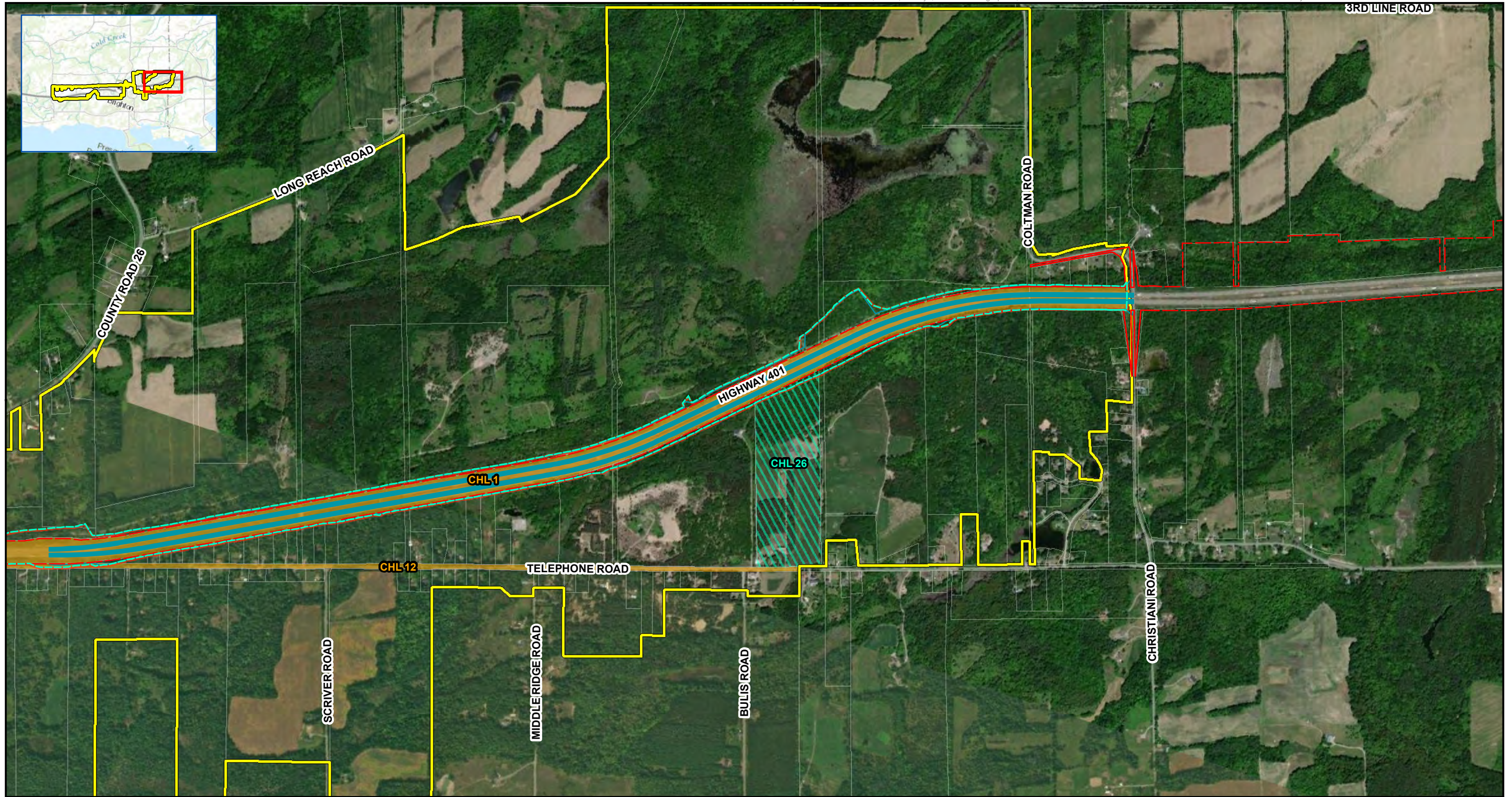
DRAWN BY: JAS

CLIENT: MTO - EASTERN REGION

PROJECT:
HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT

CREDITS:
LAND INFORMATION ONTARIO

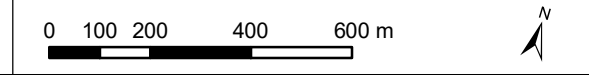




LEGEND	
	Study Area
	Property Parcel
	Cultural Heritage Landscape - Property
	Cultural Heritage Landscape - Roadscape
	Existing ROW
	Future Property Requirement
	Grading Limits
	Section 7 Alternative 5

TITLE:	FIGURE 5d-iii: PROPERTIES SCREENED FOR CHVI	
SCALE:	1:15,000	PROJECT NO:
DRAWN BY:	JAS	DATE:
PROJECT:	HIGHWAY 401 COLBORNE TO BRIGHTON CULTURAL HERITAGE RESOURCE ASSESSMENT REPORT	
CREDITS:	LAND INFORMATION ONTARIO	

PROJECT NO:	17M-01712-11	DATE:	JUNE 2021
CLIENT:	MTO - EASTERN REGION		



B

CULTURAL
HERITAGE
RESOURCE
FORMS

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

Cultural Heritage

Landscape No. 1

Address: Highway 401

Municipality: Township of Cramahe;
Municipality of Brighton; City of Quinte West

County/R.M.: Northumberland County;
Hastings County

Landscape Category:

Provincial Highway Roadscape

Landscape Features: Two paved lanes of traffic in both the east and west direction divided by concrete medians or grassed boulevards. The grade of the highway varies between flat and rolling, and both sides have paved shoulders. The portion of the highway within the study area includes six culverts and three, three-span underpasses that provide access to local roads. The immediate ROW on either side of the highway consists of bush lots and cultivated farmland. Highway 401 bends around Little Lake, a small oblong lake. In some portions of the study area, the highway travels parallel and in close proximity to smaller regional roads like Crandall Road, McDonald Road and Telephone Road.

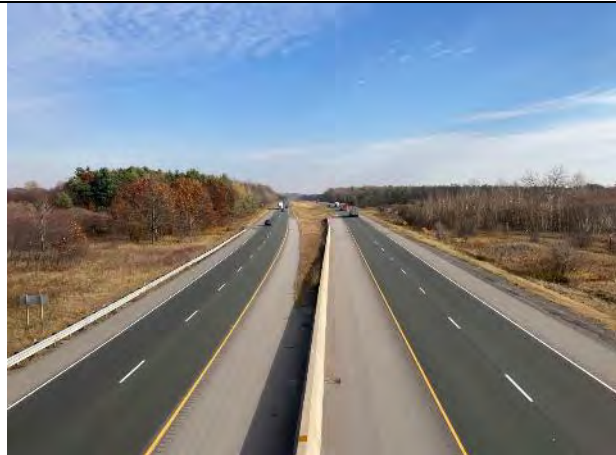
Current Use: Provincial Highway

Integrity: Good

Alterations: The alignment and four-lane width of Highway 401 through the study area has changed little since it was completed in the 1960s. The highway has been improved to contain wide paved shoulders.

Comments: None

History: The first portion of the highway was completed in 1947 and the route number was changed to Highway 401 in 1952. Early construction efforts were focused around the City of Toronto. The portion of the highway within the study area was completed in the 1960s. The final section was finished between Gananoque and Brockville in 1968, completing an 818 km controlled-access freeway across the southern half of Ontario. The highway was rededicated as the Macdonald-Cartier Freeway in 1965 in commemoration of two of Canada's Fathers of Confederation, Sir John A. Macdonald and Sir George Etienne Cartier. On August 24, 2007, Transportation Minister Donna Cansfield announced that Highway 401 from Trenton to Toronto would be dedicated as the "Highway of Heroes," with the intent to commemorate Canada's fallen soldiers who died while serving in Afghanistan.



View of Highway 401 looking east from Herley Road (above) and looking west from Christiani Road (below)

Association/Themes:

- Twentieth century highway construction
- Twentieth century economic development

Landmark: Yes**Associated BHR/CHL:** CHL 5; CHL 14; CHL 23; CHL 26**Statement of Significance:** N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

Cultural Heritage

Landscape No.: 2

Address: Purdy Road

Municipality:

Township of Cramahe

County/R.M.:

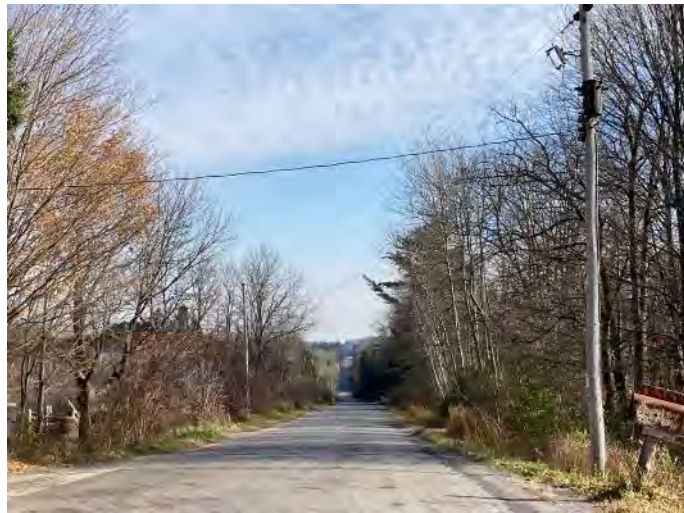
Northumberland County

Landscape Category:

Rural Streetscape

Landscape Features: Two lanes; asphalt; narrow gravel shoulders; tree-lined portions; adjacent agricultural fields; historic farmsteads; and residences.

Current Use: Regional Road



View of Purdy Road looking east from west extent of study area (above) and looking east from west of Jackson Drive (below)

Integrity: Good

Alterations: Unknown

Comments: Runs parallel to the south side of Highway 401.

History: Historical rural road.

Association/Themes:

- Township settlement
- Agricultural settlement

Landmark: No

Associated BHR/CHL: CHL 3; CHL 4; BHR 1 to BHR 4

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

**Cultural Heritage
Landscape No.:** 3

Address: 478 Purdy Road

Municipality:
Township of Cramahe

County/R.M.:
Northumberland County

Landscape Category:
Farm Complex

Landscape Features: One-storey fieldstone house; two barns; one large outbuilding; and agricultural fields.

Current Use:
Residential/Agricultural



View of 478 Purdy Road, looking north

Integrity: Good

Alterations: It appears that a one-storey addition has been added to the north elevation of the residence.

Comments: None

History: Late nineteenth or early twentieth century farm landscape.

Association/Themes:

- Agricultural settlement
- Township settlement

Landmark: No

Associated BHR/CHL: CHL 2

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

Cultural Heritage

Landscape No.: 4

Address: 856 Purdy Road

Municipality:

Township of Cramahe

County/R.M.:

Northumberland County

Landscape Category:

Farm Complex

Landscape Features: One-and-a-half storey Gothic Revival farmhouse clad in insulbrick; two barns with gambrel roofs; numerous outbuildings; split rail fences; and agricultural fields.

Current Use:

Residential/Agricultural



View of residence at 856 Purdy Road (above) and barn (below), looking north

Integrity: Fair

Alterations: It appears that a one-storey addition has been added to the east side of the residence's north elevation, and that over the years a number of small outbuildings have been added to the property near Purdy Road.

Comments: None

History: Nineteenth century farm landscape.

Association/Themes:

- Agricultural settlement
- Township settlement

Landmark: No

Associated BHR/CHL: CHL 2

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

**Cultural Heritage
Landscape No.: 5**

Address: Durham Road / Herley Road

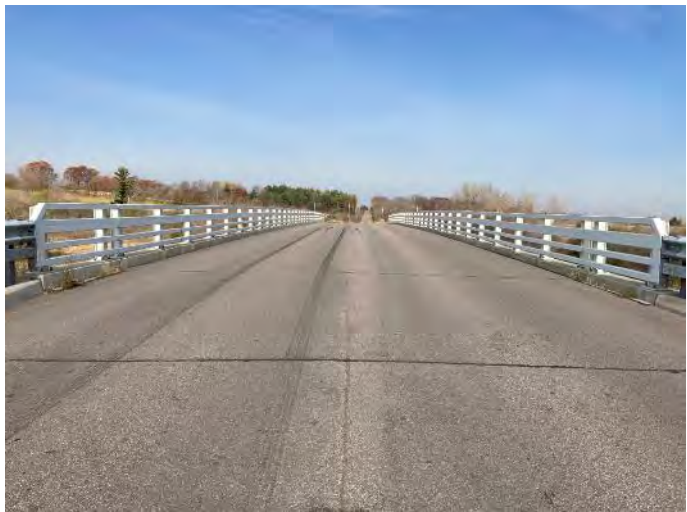
Municipality:
Township of Cramahe

County/R.M.:
Northumberland County

Landscape Category:
Rural Streetscape

Landscape Features: Two lanes; asphalt; narrow gravel shoulders; Highway 401 overpass; tree-lined portions; and adjacent agricultural fields, historic farmsteads and residences.

Current Use:
Regional Road



View of Durham Road looking south (above) and view to Herley Road looking north (below)

Integrity: Good

Alterations: Unknown

Comments: Durham Road runs north-south and transitions to Herley Road when it crosses Highway 401 to the north.

History: Historical rural road.

Association/Themes:

- Twentieth century highway construction
- Township settlement
- Agricultural settlement

Landmark: No

Associated BHR/CHL: CHL 1

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

**Cultural Heritage
Landscape No.:** 6

Address: Honey Road

Municipality:
Township of Cramahe

County/R.M.:
Northumberland County

Landscape Category:
Rural Streetscape

Landscape Features: Two lanes; asphalt; narrow grass/gravel shoulders; curves to the northeast; tree-lined portions; adjacent agricultural fields, historic farmsteads and residences.

Current Use: Regional Road



View of Honey Road looking northwest toward Samis Road

Integrity: Good

Alterations: Unknown

Comments: Runs parallel to the north side of Highway 401 until Crandall Road, where it curves north.

History: Historical rural road.

Association/Themes:

- Agricultural settlement
- Township settlement

Landmark: No

Associated BHR/CHL: CHL 7; BHR 5

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

**Cultural Heritage
Landscape No.:** 7

Address: 297 Honey Road

Municipality:
Township of Cramahe

County/R.M.:
Northumberland County

Landscape Category:
Farm Complex

Landscape Features: One-and-a-half storey nineteenth century Ontario Gothic Cottage farmhouse; barns and outbuildings; agricultural fields

Current Use:
Residential/Agricultural



View to 297 Honey Road looking south

Integrity: Good

Alterations: It appears that a one-and-a-half storey addition has been constructed on the east side of the residence.

Comments: None

History: Nineteenth century farm landscape.

Association/Themes:

- Agricultural settlement
- Township settlement

Landmark: No

Associated BHR/CHL: CHL 6

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

**Cultural Heritage
Landscape No. 8**

Address: 148 Samis Road

Municipality:
Township of Cramahe

County/R.M.:
Northumberland County

Landscape Category:
Farm Complex

Landscape Features:
Nineteenth century vernacular
cottage and two barns.

Current Use:
Residential/Agricultural



View to 148 Samis Road looking west

Integrity: Good

Alterations: Unknown

Comments: None

History: Nineteenth century farm landscape.

Association/Themes:

- Agricultural settlement
- Township settlement

Landmark: No

Associated BHR/CHL: None

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

Cultural Heritage

Landscape No.: 9

Address: Crandall Road

Municipality:

Township of Cramahe

County/R.M.:

Northumberland County

Landscape Category:

Rural Streetscape

Landscape Features: Two lanes; asphalt; narrow grass/gravel shoulders; tree-lined portions, lined with primarily late twentieth century large lot residences, as well as some adjacent agricultural fields, historic farmsteads and wood lots.

Current Use: Regional Road



View of Crandall Road looking east near Honey Road (above) and looking west from Lake Road (below)

Integrity: Good

Alterations: Crandall Road has been severed from modern-day Quarry Road, Pine Tree Lane and Lake Road. It has also been extended east to Little Lake

Comments: Runs parallel to the north side of Highway 401 between Honey Road in the west and Lake Road in the east.

History: Historical rural road.

Association/Themes:

- Agricultural settlement
- Township settlement

Landmark: No

Associated BHR/CHL: CHL 10; CHL 11; BHR 6 to 8

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

**Cultural Heritage
Landscape No. 10**

Address: 426 Crandall Road

Municipality:
Township of Cramahe

County/R.M.:
Northumberland County

Landscape Category:
Farm Complex

Landscape Features: One-and-a-half storey nineteenth century Gothic Revival farmhouse; one large barn; outbuildings; and agricultural fields.

Current Use:
Residential/Agricultural



View to 426 Crandall Road looking northwest

Integrity: Good

Alterations: It appears that a one-storey addition has been constructed on the north side of the farmhouse.

Comments: None

History: Nineteenth century farm landscape.

- Association/Themes:**
- Agricultural settlement
 - Township settlement

Landmark: No

Associated BHR/CHL: CHL 9

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

Cultural Heritage
Landscape No. 11

Address: 439 Crandall Road

Municipality:
Township of Cramahe

County/R.M.:
Northumberland County

Landscape Category:
Farm Complex

Landscape Features:
Nineteenth century vernacular
farmhouse; barn; grain bins; outbuildings;
and agricultural fields.

Current Use:
Residential/Agricultural



View of the farmhouse (above) and barn and grain bins (below) at 439 Crandall Road

Integrity: Good

Alterations: A one-storey addition has been constructed on the east side of the farmhouse.

Comments: None

History: Nineteenth century farm landscape.

Association/Themes:

- Agricultural settlement
- Township settlement

Landmark: No

Associated BHR/CHL: CHL 9

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

**Cultural Heritage
Landscape No. 12**

Address: Telephone Road

Municipality:
Township of Cramahe;
Municipality of Brighton

County/R.M.:
Northumberland County

Landscape Category:
Rural Streetscape

Landscape Features: Two lanes; asphalt; gravel shoulders; rolling topography; treed portions; lined with late twentieth century large lot residences, agricultural fields, historic farmsteads and wood lots.

Current Use: Regional Road



View of Telephone Road looking east toward County Road 30 (above) and looking east toward County Road 26 (below)

Integrity: Good

Alterations: Telephone road has been realigned at the Highway 401 interchange at County Road 30 at Wade Corners.

Comments: In the east side of the study area, Telephone Road travels parallel to the south side of Highway 401 from west of County Road 26 to approximately Scriver Road and is located very close to the highway corridor.

History: Historical rural road.

- Association/Themes:**
- Agricultural settlement
 - Township settlement
 - Rural village settlement

Landmark: No

Associated BHR/CHL: CHL 13; CHL 18 to CHL 22; CHL 25; BHR 10; BHR 11

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

**Cultural Heritage
Landscape No. 13**

Address: 13711 Telephone Road

Municipality:
Township of Cramahe

County/R.M.:
Northumberland County

Landscape Category:
Farm Complex

Landscape Features:
Late nineteenth or early twentieth century one-storey dwelling; large barn; outbuildings; and agricultural fields.

Current Use:
Residential/Agricultural



View of the property at 13711 Telephone Road looking south

Integrity: Good

Alterations: It appears that one-storey additions have been constructed on the north and south elevations of the farmhouse.

Comments: None

History: Nineteenth century farm landscape.

Association/Themes:

- Agricultural settlement
- Township settlement

Landmark: No

Associated BHR/CHL: CHL 12

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

Cultural Heritage
Landscape No. 14

Address: Lake Road

Municipality:
Township of Cramahe

County/R.M.:
Northumberland County

Landscape Category:
Rural Streetscape

Landscape Features: Two lanes; asphalt; narrow gravel shoulders; Highway 401 overpass; travels along the west shore of Little Lake; tree-lined portions; adjacent agricultural fields, historic farmsteads and residences.

Current Use:
Regional Road



View of Lake Road looking south (above) and looking north (below)

Integrity: Good

Alterations: Unknown

Comments: Lake Road runs north-south and crosses Highway 401.

History: Historical rural road.

- Association/Themes:**
- Twentieth century highway construction
 - Agricultural settlement
 - Township settlement
 - Rural recreational development

Landmark: No

Associated BHR/CHL: CHL 1; CHL 16; CHL 17; BHR 9

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

Cultural Heritage
Landscape No.: 15

Address: McDonald Road

Municipality:
Township of Cramahe

County/R.M.:
Northumberland County

Landscape Category:
Rural Streetscape

Landscape Features: Narrow, single-lane gravel laneway traveling around the shores of Little Lake providing access to early to late twentieth century cottages and residences on both sides of the road; lined with grassed lawns, trees and vegetation in some portions.

Current Use:
Rural laneway



View of McDonald Road looking west toward Lake Road (above) and looking west from the beginning of the private portion of the road (below)

Integrity: Good

Alterations: Unknown

Comments: McDonald Road travels parallel to the south side of Highway 401 in close proximity to the highway corridor.

History: Early twentieth century cottage landscape.

Association/Themes:
- Rural recreational development

Landmark: No

Associated BHR/CHL: CHL 16

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

**Cultural Heritage
Landscape No.:** 16

Address: Little Lake

Municipality:
Township of Cramahe

County/R.M.:
Northumberland County

Landscape Category:
Recreational/Residential

Landscape Features: Small, oblong lake lined with early to late nineteenth century frame cottages and residences set on narrow, grassed lots, many with detached garages; single-lane gravel laneways travel around the perimeter of the lake providing access to the cottages and residences; a public beach and boat launch is accessed from Lake Road, north of Pine Tree Lane; mature trees line the shoreline and portions of McDonald Road.

Current Use:
Recreational/Residential



Panoramic view of Little Lake from Lake Road looking east (above); View to cottages at 3 McDonald Road (middle) and 41 McDonald Road (below)

Integrity: Good

Alterations: Construction of cottages and residences lining the shores of Little Lake beginning in the twentieth century, and the introduction of Highway 401 along the north side of the lake in the 1960s.

Comments: The northwest shores of Little Lake and the collection of cottages are positioned parallel to the south side of Highway 401. A noise berm is located between the rear of the cottages lining McDonald Road and Highway 401.

History: Referred to as Bidy Lake prior to 1954; early twentieth century cottage landscape.

Association/Themes:

- Rural recreational development

Landmark: Yes

Associated BHR/CHL: CHL 14; CHL 15

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

**Cultural Heritage
Landscape No.: 17**

Address: 14764 Little Lake Road

Municipality:
Municipality of Brighton

County/R.M.:
Northumberland County

Landscape Category:
Farm Complex

Landscape Features: Late twentieth century dwelling set on a historic agricultural landscape with one bank barn, numerous outbuildings, split rail fences, agricultural fields, wood lots, and a tree-lined laneway traveling north-south on the property.

Current Use:
Residential/ Agricultural



View of the barn at 14764 Little Lake Road, looking northeast

Integrity: Good

Alterations: The original farmhouse appears to have been removed and driveways have been added. Cedar hedges have been planted around the perimeter of the field that contains the bank barn.

Comments: None

History: Nineteenth century farm landscape.

Association/Themes:

- Agricultural settlement
- Township settlement

Landmark: No.

Associated BHR/CHL: None

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

Cultural Heritage
Landscape No.: 18

Address: 14287 Telephone Road

Municipality:
Township of Cramahe

County/R.M.:
Northumberland County

Landscape Category:
Farm Complex

Landscape Features: Nineteenth century Ontario Gothic Cottage farmhouse; contemporary barn; outbuildings; split rail fences; mature trees; agricultural fields; and wood lots.

Current Use:
Residential/ Agricultural



View of the landscape (above) and the dwelling (below) at 14287 Telephone Road

Integrity: Good

Alterations: Addition to the west side of the residence and construction of a contemporary barn.

Comments: None

History: Nineteenth century farm landscape.

Association/Themes:

- Agricultural settlement
- Township settlement

Landmark: No

Associated BHR/CHL: CHL 12

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

Cultural Heritage

Landscape No.: 19

Address: 14393 Telephone Road

Municipality:

Township of Cramahe

County/R.M.:

Northumberland County

Landscape Category:

Farm Complex

Landscape Features:

Nineteenth century farmhouse;
barn; agricultural fields; and
wood lots.

Current Use:

Residential/ Agricultural



View of the property at 14393 Telephone Road, looking south

Integrity: Unknown

Alterations: Unknown

Comments: None

History: Nineteenth century farm landscape.

Association/Themes:

- Agricultural settlement
- Township settlement

Landmark: No

Associated BHR/CHL: CHL 12

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

**Cultural Heritage
Landscape No.: 20**

Address: 14511 Telephone Road

Municipality:
Township of Cramahe

County/R.M.:
Northumberland County

Landscape Category:
Farm Complex

Landscape Features: Nineteenth century Gothic Revival farmhouse; two barns; agricultural fields; and mature trees.

Current Use:
Residential/ Agricultural



View of the dwelling at 14511 Telephone Road, looking south

Integrity: Good

Alterations: It appears that an addition has been added to the south side of the farmhouse.

Comments: None

History: Nineteenth century farm landscape.

Association/Themes:

- Agricultural settlement
- Township settlement

Landmark: No

Associated BHR/CHL: CHL 12

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

**Cultural Heritage
Landscape No.:** 21

Address: 15064 Telephone Road

Municipality:
Municipality of Brighton

County/R.M.:
Northumberland County

Landscape Category:
Farm Complex

Landscape Features:
Nineteenth century vernacular farmhouse; barn; outbuildings; mature trees; and agricultural fields.

Current Use:
Residential/ Agricultural



View of the farmhouse at 15064 Telephone Road, looking north

Integrity: Good

Alterations: It appears that an addition has been added to the north side of the farmhouse.

Comments: None

History: Nineteenth century farm landscape associated with the Gibbard family.

Association/Themes:

- Agricultural settlement
- Township settlement

Landmark: No

Associated BHR/CHL: CHL 12

Statement of Significance: The property, commonly known as the Gibbard Farmhouse, was built in 1870. The property is listed on the Brighton Municipal Heritage Register Index.

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

**Cultural Heritage
Landscape No.:** 22

Address: 15120 Telephone Road

Municipality:
Municipality of Brighton

County/R.M.:
Northumberland County

Landscape Category:
Farm Complex

Landscape Features:
Nineteenth century Ontario Gothic
Cottage farmhouse; two barns;
agricultural fields; and rolling landscape.

Current Use:
Residential/ Agricultural



View of the property at 15120 Telephone Road,
looking north (above) and northwest (below)

Integrity: Good

Alterations: It appears that a one-storey addition has been added to the north side of the farmhouse.

Comments: None

History: Nineteenth century farm landscape.

Association/Themes:

- Agricultural settlement
- Township settlement

Landmark: No

Associated BHR/CHL: CHL 12

Statement of Significance: The Ontario Gothic Cottage on the property was built in 1883, and the property is listed on the Brighton Municipal Heritage Register Index.

CULTURAL HERITAGE RESOURCE FORM
CULTURAL HERITAGE LANDSCAPES (CHL)

Cultural Heritage

Landscape No.: 23

Address: 15154 Telephone Road

Municipality:

Municipality of Brighton

County/R.M.:

Northumberland County

Landscape Category:

Farm Complex

Landscape Features: Ontario Gothic Cottage farmhouse; bank barn; and agricultural fields.

Current Use:

Residential/ Agricultural



View to the farmhouse at 15154 Telephone Road (above) and the barn (below), looking south

Integrity: Good

Alterations: A rear addition has been constructed projecting from the south elevation of the farmhouse.

Comments: None

History: Nineteenth century farmhouse built in 1875 and associated with J.P. Smith.

Association/Themes:

- Agricultural settlement
- Township settlement

Landmark: No

Group Value/CHL Association: CHL 12

Statement of Significance: The Ontario Gothic Cottage farmhouse on the property was built in 1875, and the property is listed on the Brighton Municipal Heritage Register Index.

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

Cultural Heritage
Landscape No.: 24

Address: County Road 26

Municipality:
Municipality of Brighton

County/R.M.:
Northumberland County

Landscape Category:
Rural Streetscape

Landscape Features: Two lanes; asphalt; gravel shoulders; Highway 401 overpass; travels roughly north-south along the rolling topography; adjacent agricultural fields, historic farmsteads and large-lot contemporary residences.

Current Use: County Road

Integrity: Good

Alterations: County Road 26 appears to have been recently improved.

Comments: County Road 26 runs roughly north-south and crosses Highway 401.

History: Historical county road.

- Association/Themes:**
- Twentieth century highway construction
 - Agricultural settlement
 - Township settlement

Landmark: No

Associated BHR/CHL: CHL 1; CHL 25

Statement of Significance: N/A



View of County Road 26, looking north from the Highway 401 overpass

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

Cultural Heritage
Landscape No.: 25

Address: 638 County Road 26

Municipality:
Municipality of Brighton

County/R.M.:
Northumberland County

Landscape Category:
Farm Complex

Landscape Features: Nineteenth century Gothic Revival farmhouse; barn; outbuildings; and agricultural fields.

Current Use:
Residential/ Agricultural



View to the property at 638 County Road 26 (above) and to the property's barn (below), looking north

Integrity: Good

Alterations: Unknown

Comments: None

History: Nineteenth century farm landscape.

Association/Themes:

- Agricultural settlement
- Township settlement

Landmark: No

Associated BHR/CHL: CHL 24

Statement of Significance: N/A

**CULTURAL HERITAGE RESOURCE FORM:
CULTURAL HERITAGE LANDSCAPES (CHL)**

Cultural Heritage
Landscape No.: 26

Address: 16536 Telephone Road

Municipality:
Municipality of Brighton

County/R.M.:
Northumberland County

Landscape Category:
Farm Complex

Landscape Features: Nineteenth century vernacular farmhouse; two barns; outbuildings; woodlots; and agricultural fields.

Current Use:
Residential/ Agricultural



View of the farmhouse at 16536 Telephone Road (above) and the barn (below), looking north

Integrity: Fair

Alterations: A one-storey garage addition has been constructed projecting from the east elevation of the farmhouse.

Comments: None

History: Nineteenth century farm landscape.

Association/Themes:

- Agricultural settlement
- Township settlement


Landmark: No

Associated BHR/CHL: CHL 12


Statement of Significance: N/A

CULTURAL HERITAGE RESOURCE FORM

BUILT HERITAGE RESOURCE (BHR)


Built Heritage Resource No. 1		
Address: 296 Purdy Road		
Municipality: Township of Cramahe		
County/R.M.: Northumberland County		
Resource Category: Residential		
Resource Type: Dwelling		
Current Use: Residential	View to 296 Purdy Road, looking north	
Architecture/Engineering: Not associated with any known architect or engineer.		
Construction Period: Prior to 1878		
Storeys: One-and-a-half		
Structural Material: Frame	Cladding: Vinyl siding	
Roof Type: Gable roof	Roof Material: Asphalt shingles	
Style/ Design: Vernacular farmhouse		
Notable Features: Rectangular plan of original portion of house; two gable windows.		
Historical Associations: May be a nineteenth century farmhouse associated with W. Thompson.		
Landmark: No		
Group Value/CHL Association: CHL 2		
Statement of Significance: N/A		

CULTURAL HERITAGE RESOURCE FORM
BUILT HERITAGE RESOURCE (BHR)



Built Heritage Resource No. 2		
Address: 449 Purdy Road		
Municipality: Township of Cramahe		
County/R.M.: Northumberland County		
Resource Category: Residential		
Resource Type: Dwelling		
Current Use: Residential		
Architecture/Engineering: Not associated with any known architect or engineer.		
Construction Period: Prior to 1878		
Storeys: Two		
Structural Material: Unknown	Cladding: Vinyl siding	
Roof Type: Hip roof	Roof Material: Asphalt shingles	
Style/Design: Vernacular with Italianate influences		
Notable Features: Rectangular plan; fenestration; hip roof; overhanging eaves.		
Historical Associations: None known		
Landmark: No		
Group Value/CHL Association: CHL 2		
Statement of Significance: N/A		

View to 449 Purdy Road, looking south

CULTURAL HERITAGE RESOURCE FORM
BUILT HERITAGE RESOURCE (BHR)

Built Heritage Resource No. 3		
Address: 740 Purdy Road		
Municipality: Township of Cramahe		
County/R.M.: Northumberland County		
Resource Category: Residential		
Resource Type: Dwelling		
Current Use: Residential		
Architecture/Engineering: Not associated with any known architect or engineer.		
Construction Period: Prior to 1878		
Storeys: One-and-a-half		
Structural Material: Unknown	Cladding: Stucco	
Roof Type: Side Gable	Roof Material: Asphalt shingles	
Style/ Design: Ontario Gothic Cottage		
Notable Features: Front gable peak with window; rectangular plan; multipaned windows.		
Historical Associations: May be a nineteenth century farmhouse associated with E. Thompson.		
Landmark: No		
Group Value/CHL Association: CHL 2		
Statement of Significance: N/A		


CULTURAL HERITAGE RESOURCE FORM
BUILT HERITAGE RESOURCE (BHR)

Built Heritage Resource No. 4	
Address: 756 Purdy Road	
Municipality: Township of Cramahe	
County/R.M.: Northumberland County	
Resource Category: Agricultural	
Resource Type: Barns	
Current Use: Barns	
<p>View to the barns at 756 Purdy Road, looking northeast (above) and north (below)</p>	
Architecture/Engineering: Not associated with any known architect or engineer.	
Construction Period: Prior to 1900	
Storeys: Two storeys; one-and-a-half storeys	
Structural Material: Frame	Cladding: Pressed metal sheets; barn board
Roof Type: Gambrel	Roof Material: Sheet metal
Style/ Design: Dutch Gambrel Notable Features: Rectangular plans; Dutch Gambrel roofs; massing, pressed metal cladding, fieldstone foundation, and lightning rods of the larger barn.	
Historical Associations: None known	
Landmark: No	
Group Value/CHL Association: CHL 2	
Statement of Significance: N/A	


CULTURAL HERITAGE RESOURCE FORM
BUILT HERITAGE RESOURCE (BHR)

Built Heritage Resource No. 5		
Address: 356 Honey Road		
Municipality: Township of Cramahe		
County/R.M.: Northumberland County		
Resource Category: Residential		
Resource Type: Dwelling		
Current Use: Residential		
Architecture/Engineering: Not associated with any known architect or engineer.		
Construction Period: Prior to 1878		
Storeys: One-and-a-half		
Structural Material: Wood Frame	Cladding: Vinyl siding	
Roof Type: Side gable	Roof Material: Asphalt shingles	
Style/Design: Ontario Gothic Cottage		
Notable Features: Rectangular plan; front gable peak with window; side gable roof; and symmetrical façade.		
Historical Associations: May be a nineteenth century farmhouse associated with W.H. Colton.		
Landmark: No		
Group Value/CHL Association: CHL 6		
Statement of Significance: N/A		


CULTURAL HERITAGE RESOURCE FORM
BUILT HERITAGE RESOURCE (BHR)

Built Heritage Resource No. 6		
Address: 204 Crandall Road		
Municipality: Township of Cramahe		
County/R.M.: Northumberland County		
Resource Category: Residential		
Resource Type: Dwelling		
Current Use: Residential		
Architecture/Engineering: Not associated with any known architect or engineer.		
Construction Period: Prior to 1878		
Storeys: Two		
Structural Material: Unknown	Cladding: Vinyl siding	
Roof Type: Side Gable	Roof Material: Asphalt shingles	
Style/ Design: Vernacular Notable Features: Rectangular plan; side gable roof; fenestration in original portion of the house.		
Historical Associations: May be a nineteenth century farmhouse associated with J. Marks.		
Landmark: No		
Group Value/CHL Association: CHL 9		
Statement of Significance: N/A		

CULTURAL HERITAGE RESOURCE FORM
BUILT HERITAGE RESOURCE (BHR)


Built Heritage		
Resource No. 7		
Address: 377 Crandall Road		
Municipality: Township of Cramahe		
County/R.M.: Northumberland County		
Resource Category: Residential		
Resource Type: Dwelling		
Current Use: Residential		View to 377 Crandall Road, looking south
Architecture/Engineering: Not associated with any known architect or engineer.		
Construction Period: Prior to 1878		
Storeys: One-and-a-half		
Structural Material: Unknown	Cladding: Vinyl siding	
Roof Type: Side gable	Roof Material: Asphalt shingles	
Style/ Design: Vernacular		
Notable Features: Rectangular plan; side gable roof; and windows in gable.		
Historical Associations: May be a nineteenth century farmhouse associated with J.W. Philp.		
Landmark: No		
Group Value/CHL Association: CHL 9		
Statement of Significance: N/A		

CULTURAL HERITAGE RESOURCE FORM
BUILT HERITAGE RESOURCE (BHR)

Built Heritage Resource No. 8		
Address: 389 Crandall Road		
Municipality: Township of Cramahe		
County/R.M.: Northumberland County		
Resource Category: Agricultural		
Resource Type: Barn		
Current Use: Barn		
<p>View to the barn at 389 Crandall Road, looking south</p>		
Architecture/Engineering: Not associated with any known architect or engineer.		
Construction Period: Prior to 1900		
Storeys: One		
Structural Material: Frame	Cladding: Barn board	
Roof Type: Side gable	Roof Material: Sheet metal	
Style/ Design: Vernacular		
Notable Features: Rectangular plan; side gable roof; and barn board cladding.		
Historical Associations: May be associated with the property that historically belonged to J.W. Philp.		
Landmark: No		
Group Value/CHL Association: CHL 9		
Statement of Significance: N/A		

CULTURAL HERITAGE RESOURCE FORM

BUILT HERITAGE RESOURCE (BHR)

Built Heritage Resource No. 9	
Address: 318 Lake Road	
Municipality: Township of Cramahe	
County/R.M.: Northumberland County	
Resource Category: Residential	
Resource Type: Dwelling	
Current Use: Residential	
Architecture/Engineering: Not associated with any known architect or engineer.	
Construction Period: Prior to 1970	
Storeys: One	
Structural Material: Unknown	Cladding: Red brick
Roof Type: Gable	Roof Material: Asphalt shingles
Style/ Design: Vernacular	
Notable Features: Square plan; low-sloped gable roof with overhanging eaves and exposed rafter tails; and large windows in the façade.	
Historical Associations: None known	
Landmark: No	
Group Value/CHL Association: CHL 14	
Statement of Significance: N/A	


View to 318 Lake Road, looking west

CULTURAL HERITAGE RESOURCE FORM
BUILT HERITAGE RESOURCE (BHR)

Built Heritage Resource No. 10	
Address: 14835 Telephone Road	
Municipality: Municipality of Brighton	
County/R.M.: Northumberland County	
Resource Category: Residential	
Resource Type: Dwelling	
Current Use: Residential	
Architecture/Engineering: Not associated with any known architect or engineer.	
Construction Period: 1870	
Storeys: One-and-a-half	
Structural Material: Unknown	Cladding: Red brick
Roof Type: Side Gable	Roof Material: Steel
Style/ Design: Gothic Revival	
Notable Features: Rectangular plan; steeply pitched gable peaks with windows; round headed windows; circular window in gable; front door with sidelights and transom; red brick cladding; and finials.	
Historical Associations: Nineteenth century farmhouse commonly referred to as Cedar Grove. May be associated with historic landowner D.R. Urdell.	
Landmark: No	
Group Value/CHL Association: CHL 12	
Statement of Significance: Listed on the Brighton Municipal Heritage Register Index.	

View to 14835 Telephone Road, looking south

CULTURAL HERITAGE RESOURCE FORM
BUILT HERITAGE RESOURCE (BHR)

Built Heritage Resource No. 11		
Address: 15097 Telephone Road		
Municipality: Municipality of Brighton		
County/R.M.: Northumberland County		
Resource Category: Residential		
Resource Type: Dwelling		
Current Use: Residential		
Architecture/Engineering: Not associated with any known architect or engineer.		
Construction Period: Prior to 1878		
Storeys: One-and-a-half		
Structural Material: Unknown	Cladding: Vinyl Siding	
Roof Type: Gambrel	Roof Material: Steel	
Style/ Design: Vernacular		
Notable Features: Rectangular plan; central front entrance flanked by windows; and gambrel roof.		
Historical Associations: May be associated with historic landowner George Brownson.		
Landmark: No		
Group Value/CHL Association: CHL 12		
Statement of Significance: N/A		

C MTO INTERNAL HERITAGE SCREENING FOR BRIDGES AND CULVERTS



MEMO

TO: Muhammad Waseem, P. Eng., MTO Project Manager

FROM: Joel Konrad, PhD, CAHP, Cultural Heritage Lead – Ontario;
Lindsay Benjamin, MAES, MCIP, RPP, CAHP, Cultural Heritage Specialist

SUBJECT: Highway 401 Planning Study from Colborne to Brighton – Preliminary Design and Class Environmental Assessment Study (GWP 4054-17-00) Cultural Heritage Resource Assessment Report – Internal MTO Bridge and Culvert Cultural Heritage Screening Summary Memo

DATE: February 28, 2022

BACKGROUND

WSP was retained by the Ontario Ministry of Transportation (MTO), Eastern Region to undertake the Planning, Preliminary Design and Class Environmental Assessment (Class EA) Study on Highway 401 for the replacement / rehabilitation of bridges and structural culverts, establishing the future Highway 401 footprint for an interim six lanes and ultimate eight lanes to address current and future transportation needs, and commuter parking lot improvements from 0.8 km east of Percy Street to 0.4 km west of Christiani Road.

The Class EA involves the rehabilitation or replacement of seven bridges and culverts. The structures within the project limits are approaching the end of their service life and need to be replaced. The existing Highway 401 platform cannot accommodate the traffic staging required to rehabilitate or replace the bridges and structural culverts. The new wider structures will provide sufficient room for traffic staging for future rehabilitation projects. The study will establish the footprints of future six and eight lanes so that the structures can be designed efficiently.

A Cultural Heritage Resource Assessment Report (CHRAR) is required for the EA process and has been completed by WSP as part of Work Item Order GWP 4054-17-00 to identify existing and potential built heritage resources and cultural heritage landscapes within the Highway 401 EA study area.

Also as part of Work Item Order GWP 4054-17-00, WSP was required to develop this memo summarizing results received from MTO's internal screening of the cultural heritage potential of the seven structures proposed for rehabilitation or replacement within the Highway 401 EA study area.

SCREENING SUMMARY

The following structures located within the Highway 401 EA study area have been screened for heritage potential by George Collins, P. Eng. of the MTO Structural Section, and have been determined to have low potential cultural heritage value or interest and are not recommended for further heritage evaluation or consideration:

- Hwy 401 County Road 26 Underpass (Site No. 21.297)
- Hwy 401 Herley Road Underpass (Site No. 21-294)
- Hwy 401 Lake Road Underpass (Site No. 21-295)
- Culvert, 5 km west of County Road 30 (Site No. 21-471/C)
- Culvert, 4.5 km west of County Road 30 (Site No. 21-472/C)
- Culvert, 4 km west of County Road 30 (Site No. 21-473/C)
- Culvert, 3 km west of County Road 30 (Site No. 21-474/C)

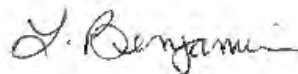
The CHRAR prepared by WSP has documented built heritage resources and cultural heritage landscapes within the study area with the exception of the structural culverts and structures identified above. The screening forms are included as attachments 1 to 7 of this memo.

It is hoped that this memo is helpful in summarizing the internal MTO heritage screening of bridges and culverts in the study area.

WSP Canada Inc.



Joel Konrad, PhD, CAHP
Cultural Heritage Lead, Ontario



Lindsay Benjamin, MAES, MCIP, RPP, CAHP
Cultural Heritage Specialist

Attachments:

- 1 – Hwy 401 County Road 26 Underpass (Site No. 21.297) Heritage Screening Form
- 2 – Hwy 401 Herley Road Underpass (Site No. 21-294) Heritage Screening Form
- 3 – Hwy 401 Lake Road Underpass (Site No. 21-295) Heritage Screening Form
- 4 – Culvert, 5 km west of County Road 30 (Site No. 21-471/C) Heritage Screening Form
- 5 – Culvert, 4.5 km west of County Road 30 (Site No. 21-472/C) Heritage Screening Form
- 6 – Culvert, 4 km west of County Road 30 (Site No. 21-473/C) Heritage Screening Form
- 7 – Culvert, 3 km west of County Road 30 (Site No. 21-474/C) Heritage Screening Form



**ATTACHMENT 1 – HWY 401 COUNTY ROAD 26 UNDERPASS (SITE NO. 21.297)
HERITAGE SCREENING FORM**

Appendix A: Criteria for Evaluating Potential Heritage Bridges Screening Form

Many important heritage bridges have not been identified or formally recognized, and therefore will not be included in any heritage registers. This checklist is a tool to determine if a more technical Cultural Heritage Evaluation by a Qualified Person(s) is required.

This Screening Form is to be completed by the MTO's Regional Structural Section Engineers who are familiar with the bridge. Assistance can be sought from MTO's Heritage Bridge Committee, Cultural Heritage Specialist and/or Environmental Section as required.

If uncertain about the answer to one or more of the questions below, a Cultural Heritage Evaluation Report (CHER) is recommended to ensure additional research is obtained. Completing a CHER ensures that heritage bridges are appropriately identified, evaluated and conserved which will minimize potential delays and risks to an MTO project.

Please refer to Instructions when completing this form.

MTO Bridge Name: COUNTY ROAD #26 UNDERPASS		
Bridge Location: Brighton, Ontario		
MTO Site # 21X-0297/B0		Year/Decade Built: 1965
Form Completed By: George Collins P. Eng.	Office: Structural, East Region	Date: 2-8-2022
Screening Questions		
1. Is the bridge known to be:	Yes	No
a. Identified as a Heritage Bridge in the Heritage Bridge List?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. A National Historic Site (or part thereof)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Subject of a municipal, provincial or federal commemorative or interpretive plaque (based on site investigation)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2. Has the bridge been screened (and has it been confirmed that the information therein contained is still accurate) as a potential heritage bridge;	Yes	No
a. In the Heritage Bridges: Identification and Assessment Guide Ontario, 1945-1965 (Heritage Resources Centre, University of Waterloo) study?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. By another comprehensive screening study (describe the nature of the screening study)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Is the bridge known to:	Yes	No
a. Have a unique or complex design feature(s) that demonstrates a high degree of technical merit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have significant Aesthetic value with elements demonstrating a high degree of craftsmanship?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Have landmark value in the local community or contains features that are important in defining the character of the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Have a special association with a community, person, historical event, or cultural heritage landscape?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Sit within a Canadian Heritage River watershed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>If Yes to one or more of the Screening Questions, there is potential for cultural heritage value or interest for the bridge. A Qualified Person shall undertake:</p> <ul style="list-style-type: none"> • a Cultural Heritage Evaluation Report (CHER) <p>If the bridge is determined to have cultural heritage value or interest and alterations are proposed on or adjacent the property, then a Qualified Person shall undertake:</p> <ul style="list-style-type: none"> • a Heritage Impact Assessment (HIA) 		
<p>If No to all of the above questions, there is low potential cultural heritage value or interest for the bridge. In instances where all answers are “no” but the Regional Structural Section Engineer believes a CHER should be completed for the bridge, they will provide a justification for their recommendation summarized below.</p>		
<p>The Regional Structural Section Engineer shall:</p> <ul style="list-style-type: none"> • summarize the Screening Recommendation in the section provided • add any supporting information or documentation if available 		

Supporting Information (show bridge photos and drawings and comparative table to ascertain design (size, age, etc.).

Figure 1: Bridge Elevation



Figure 2: Bridge Along Roadway





**ATTACHMENT 2 – HWY 401 HERLEY ROAD UNDERPASS (SITE NO. 21-294) HERITAGE
SCREENING FORM**

Appendix A: Criteria for Evaluating Potential Heritage Bridges Screening Form

Many important heritage bridges have not been identified or formally recognized, and therefore will not be included in any heritage registers. This checklist is a tool to determine if a more technical Cultural Heritage Evaluation by a Qualified Person(s) is required.

This Screening Form is to be completed by the MTO's Regional Structural Section Engineers who are familiar with the bridge. Assistance can be sought from MTO's Heritage Bridge Committee, Cultural Heritage Specialist and/or Environmental Section as required.

If uncertain about the answer to one or more of the questions below, a Cultural Heritage Evaluation Report (CHER) is recommended to ensure additional research is obtained. Completing a CHER ensures that heritage bridges are appropriately identified, evaluated and conserved which will minimize potential delays and risks to an MTO project.

Please refer to Instructions when completing this form.

MTO Bridge Name: HERLEY RD U'PASS		
Bridge Location: Colborne, Ontario		
MTO Site # 21X-0294/B0		Year/Decade Built: 1959
Form Completed By: George Collins P. Eng.	Office: Structural, East Region	Date: 2-8-2022
Screening Questions		
1. Is the bridge known to be:	Yes	No
a. Identified as a Heritage Bridge in the Heritage Bridge List?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. A National Historic Site (or part thereof)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Subject of a municipal, provincial or federal commemorative or interpretive plaque (based on site investigation)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2. Has the bridge been screened (and has it been confirmed that the information therein contained is still accurate) as a potential heritage bridge;	Yes	No
a. In the Heritage Bridges: Identification and Assessment Guide Ontario, 1945-1965 (Heritage Resources Centre, University of Waterloo) study?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. By another comprehensive screening study (describe the nature of the screening study)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Is the bridge known to:	Yes	No
a. Have a unique or complex design feature(s) that demonstrates a high degree of technical merit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have significant Aesthetic value with elements demonstrating a high degree of craftsmanship?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Have landmark value in the local community or contains features that are important in defining the character of the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Have a special association with a community, person, historical event, or cultural heritage landscape?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Sit within a Canadian Heritage River watershed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>If Yes to one or more of the Screening Questions, there is potential for cultural heritage value or interest for the bridge. A Qualified Person shall undertake:</p> <ul style="list-style-type: none"> • a Cultural Heritage Evaluation Report (CHER) <p>If the bridge is determined to have cultural heritage value or interest and alterations are proposed on or adjacent the property, then a Qualified Person shall undertake:</p> <ul style="list-style-type: none"> • a Heritage Impact Assessment (HIA) 		
<p>If No to all of the above questions, there is low potential cultural heritage value or interest for the bridge. In instances where all answers are “no” but the Regional Structural Section Engineer believes a CHER should be completed for the bridge, they will provide a justification for their recommendation summarized below.</p>		
<p>The Regional Structural Section Engineer shall:</p> <ul style="list-style-type: none"> • summarize the Screening Recommendation in the section provided • add any supporting information or documentation if available 		

Supporting Information (show bridge photos and drawings and comparative table to ascertain design (size, age, etc.).

Figure 1: Bridge Elevation



Figure 2: Bridge Along Roadway





**ATTACHMENT 3 – HWY 401 LAKE ROAD UNDERPASS (SITE NO. 21-295) HERITAGE
SCREENING FORM**

Appendix A: Criteria for Evaluating Potential Heritage Bridges Screening Form

Many important heritage bridges have not been identified or formally recognized, and therefore will not be included in any heritage registers. This checklist is a tool to determine if a more technical Cultural Heritage Evaluation by a Qualified Person(s) is required.

This Screening Form is to be completed by the MTO's Regional Structural Section Engineers who are familiar with the bridge. Assistance can be sought from MTO's Heritage Bridge Committee, Cultural Heritage Specialist and/or Environmental Section as required.

If uncertain about the answer to one or more of the questions below, a Cultural Heritage Evaluation Report (CHER) is recommended to ensure additional research is obtained. Completing a CHER ensures that heritage bridges are appropriately identified, evaluated and conserved which will minimize potential delays and risks to an MTO project.

Please refer to Instructions when completing this form.

MTO Bridge Name: LAKE ROAD UP		
Bridge Location: Brighton, Ontario		
MTO Site # 21X-0295/B0		Year/Decade Built: 1959
Form Completed By: George Collins P. Eng.	Office: Structural, East Region	Date: 2-8-2022
Screening Questions		
1. Is the bridge known to be:	Yes	No
a. Identified as a Heritage Bridge in the Heritage Bridge List?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. A National Historic Site (or part thereof)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Subject of a municipal, provincial or federal commemorative or interpretive plaque (based on site investigation)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2. Has the bridge been screened (and has it been confirmed that the information therein contained is still accurate) as a potential heritage bridge;	Yes	No
a. In the Heritage Bridges: Identification and Assessment Guide Ontario, 1945-1965 (Heritage Resources Centre, University of Waterloo) study?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. By another comprehensive screening study (describe the nature of the screening study)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Is the bridge known to:	Yes	No
a. Have a unique or complex design feature(s) that demonstrates a high degree of technical merit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have significant Aesthetic value with elements demonstrating a high degree of craftsmanship?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Have landmark value in the local community or contains features that are important in defining the character of the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Have a special association with a community, person, historical event, or cultural heritage landscape?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Sit within a Canadian Heritage River watershed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>If Yes to one or more of the Screening Questions, there is potential for cultural heritage value or interest for the bridge. A Qualified Person shall undertake:</p> <ul style="list-style-type: none"> • a Cultural Heritage Evaluation Report (CHER) <p>If the bridge is determined to have cultural heritage value or interest and alterations are proposed on or adjacent the property, then a Qualified Person shall undertake:</p> <ul style="list-style-type: none"> • a Heritage Impact Assessment (HIA) 		
<p>If No to all of the above questions, there is low potential cultural heritage value or interest for the bridge. In instances where all answers are “no” but the Regional Structural Section Engineer believes a CHER should be completed for the bridge, they will provide a justification for their recommendation summarized below.</p>		
<p>The Regional Structural Section Engineer shall:</p> <ul style="list-style-type: none"> • summarize the Screening Recommendation in the section provided • add any supporting information or documentation if available 		

Supporting Information (show bridge photos and drawings and comparative table to ascertain design (size, age, etc.).

Figure 1: Bridge Elevation





Figure 2: Bridge Along Roadway





**ATTACHMENT 4 – CULVERT, 5 KM WEST OF COUNTY ROAD 30 (SITE NO. 21-471/C)
HERITAGE SCREENING FORM**

Appendix B: MTO Structural Culvert Heritage Screening Form

Structure Name: Culvert (5km west of County Rd 30)				
Structure Location: Brighton, Ontario				
MTO Site #: 21X-0471/C0		Year/Decade Built: 1958		
Form Completed By: George Collins P. Eng.		Office: Structural, East Region	Date: 02/09/2022	
 <p>Figure 1: Culvert Elevation</p>		 <p>Figure 2: Culvert Along Roadway</p>		
Screening Questions			Yes	No
1. Is the culvert known to be:				
a. Identified as a Heritage Bridge in the Heritage Bridge List (from Ministry of Culture Website – still under development, or from OHBG)?			<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. A National Historic Site (or part thereof) (http://www.pc.gc.ca/eng/progs/lhn-nhs/index.aspx)?			<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Subject of a municipal, provincial or federal commemorative or interpretive plaque (based on site investigation)?			<input type="checkbox"/>	<input checked="" type="checkbox"/>



<p>If YES to any of the questions in #1, a CHER <u>is</u> required (Go to question #5)</p>	<p>If NO, continue to Question 2.</p>	
<p>2. Has the culvert been considered and screened out as having no, or minimal, potential heritage value in one of the following, where the results of those studies are still valid:</p>		
<p>a. The 1945 – 1965 (Shipley) Study?</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>b. The MTO Heritage Screening Report for Structural Culverts?</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>c. By another comprehensive screening study? (Describe nature of screening study).</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>If YES to questions in #2, a CHER is <u>not</u> required (Go to question #5)</p>	<p>If NO, continue to Question 3.</p>	
<p>3. As an indication that the culvert is based on a standard design, is the culvert:</p>	<p>Yes</p>	<p>No</p>
<p>a. A single cell open footing rectangular concrete culvert with individual spans less than or equal to 6.1m, and constructed after 1920.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>b. A 1, 2, and 3 cell concrete culverts with individual spans less than or equal to 6.1m, and constructed after 1930.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>c. A concrete arch culvert with span less than or equal to 9.1m, and constructed after 1930.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>d. A CSP or Multi-Plate steel culvert with individual spans less than or equal to 6.1m.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>e. A single or multi-cell timber culvert with spans less than or equal to 2.4m.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>If YES to any of the questions in #3, a CHER is <u>not</u> required (Go to question #5)</p>	<p>If NO, continue to Question 4.</p>	
<p>4. Is the culvert known to:</p>		

a. Have a unique or complex design feature(s) that demonstrate a high degree of technical merit (i.e. complex or unique technical designs, one-of-a-kind structure in the Region, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Have significant aesthetic value with elements demonstrating a high degree of craftsmanship (i.e. prominent keystone, embossment, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Have a special direct association with a community, person, historical event, or cultural heritage landscape (i.e. prominent designer, significant event, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Have landmark value in the local community or contains features that are important in defining the character of the area (i.e. is structure featured locally – literature, monuments, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If YES to any of questions in #4, a CHER <u>is</u> required.	If NO , a CHER is <u>not</u> required	Yes	No
5. Based on above questions, is a CHER likely required? <i>Pending results of CHER, process for Heritage Structures outlined in the Ontario Heritage Bridge Guidelines (OHBG) may be required, including completion of a Heritage Impact Assessment (HIA).</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If Yes, Approval of Manager of Engineering required	Signature:	Date:	
<p>If the above screening concludes that a CHER is not required, there is low potential for built heritage or cultural heritage landscape value of the culvert. This form, and any supporting documentation demonstrating how the conclusions were arrived at, shall be maintained on file.</p> <p>If a CHER is required, it means that further investigation into potential Heritage value is required. It does not mean that it is a Heritage Property.</p>			
Other Supporting Information (comments, age and size comparisons, etc.):			



**ATTACHMENT 5 – CULVERT, 4.5 KM WEST OF COUNTY ROAD 30 (SITE NO. 21-472/C)
HERITAGE SCREENING FORM**

Appendix B: MTO Structural Culvert Heritage Screening Form

Structure Name: Culvert (4.5km west of County Rd 30)				
Structure Location: Brighton, Ontario				
MTO Site #: 21X-0472/C0		Year/Decade Built: 1958		
Form Completed By: George Collins P. Eng.		Office: Structural, East Region	Date: 02/09/2022	
 <p>08/20/2019 11:32</p>		 <p>08/20/2019 11:34</p>		
Figure 1: Culvert Elevation		Figure 2: Culvert Along Roadway		
Screening Questions			Yes	No
1. Is the culvert known to be:				
a. Identified as a Heritage Bridge in the Heritage Bridge List (from Ministry of Culture Website – still under development, or from OHBG)?			<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. A National Historic Site (or part thereof) (http://www.pc.gc.ca/eng/progs/lhn-nhs/index.aspx)?			<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Subject of a municipal, provincial or federal commemorative or interpretive plaque (based on site investigation)?			<input type="checkbox"/>	<input checked="" type="checkbox"/>



If YES to any of the questions in #1, a CHER <u>is</u> required (Go to question #5)	If NO , continue to Question 2.	
2. Has the culvert been considered and screened out as having no, or minimal, potential heritage value in one of the following, where the results of those studies are still valid:		
a. The 1945 – 1965 (Shiple) Study?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. The MTO Heritage Screening Report for Structural Culverts?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. By another comprehensive screening study? (Describe nature of screening study).	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If YES to questions in #2, a CHER is <u>not</u> required (Go to question #5)	If NO , continue to Question 3.	
3. As an indication that the culvert is based on a standard design, is the culvert:	Yes	No
a. A single cell open footing rectangular concrete culvert with individual spans less than or equal to 6.1m, and constructed after 1920.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. A 1, 2, and 3 cell concrete culverts with individual spans less than or equal to 6.1m, and constructed after 1930.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. A concrete arch culvert with span less than or equal to 9.1m, and constructed after 1930.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. A CSP or Multi-Plate steel culvert with individual spans less than or equal to 6.1m.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. A single or multi-cell timber culvert with spans less than or equal to 2.4m.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If YES to any of the questions in #3, a CHER is <u>not</u> required (Go to question #5)	If NO , continue to Question 4.	
4. Is the culvert known to:		

a. Have a unique or complex design feature(s) that demonstrate a high degree of technical merit (i.e. complex or unique technical designs, one-of-a-kind structure in the Region, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Have significant aesthetic value with elements demonstrating a high degree of craftsmanship (i.e. prominent keystone, embossment, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Have a special direct association with a community, person, historical event, or cultural heritage landscape (i.e. prominent designer, significant event, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Have landmark value in the local community or contains features that are important in defining the character of the area (i.e. is structure featured locally – literature, monuments, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If YES to any of questions in #4, a CHER <u>is</u> required.	If NO , a CHER is <u>not</u> required	Yes	No
5. Based on above questions, is a CHER likely required? <i>Pending results of CHER, process for Heritage Structures outlined in the Ontario Heritage Bridge Guidelines (OHBG) may be required, including completion of a Heritage Impact Assessment (HIA).</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If Yes, Approval of Manager of Engineering required	Signature:	Date:	
<p>If the above screening concludes that a CHER is not required, there is low potential for built heritage or cultural heritage landscape value of the culvert. This form, and any supporting documentation demonstrating how the conclusions were arrived at, shall be maintained on file.</p> <p>If a CHER is required, it means that further investigation into potential Heritage value is required. It does not mean that it is a Heritage Property.</p>			
Other Supporting Information (comments, age and size comparisons, etc.):			



**ATTACHMENT 6 – CULVERT, 4 KM WEST OF COUNTY ROAD 30 (SITE NO. 21-473/C)
HERITAGE SCREENING FORM**

Appendix B: MTO Structural Culvert Heritage Screening Form

Structure Name: Culvert (4km west of County Rd 30)				
Structure Location: Brighton, Ontario				
MTO Site #: 21X-0473/C0		Year/Decade Built: 1958		
Form Completed By: George Collins P. Eng.		Office: Structural, East Region	Date: 02/09/2022	
 <p>08/20/2019 11:05</p>		 <p>08/20/2019 11:10</p>		
Figure 1: Culvert Elevation		Figure 2: Culvert Along Roadway		
Screening Questions			Yes	No
1. Is the culvert known to be:				
a. Identified as a Heritage Bridge in the Heritage Bridge List (from Ministry of Culture Website – still under development, or from OHBG)?			<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. A National Historic Site (or part thereof) (http://www.pc.gc.ca/eng/progs/lhn-nhs/index.aspx)?			<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Subject of a municipal, provincial or federal commemorative or interpretive plaque (based on site investigation)?			<input type="checkbox"/>	<input checked="" type="checkbox"/>



If YES to any of the questions in #1, a CHER <u>is</u> required (Go to question #5)	If NO , continue to Question 2.	
2. Has the culvert been considered and screened out as having no, or minimal, potential heritage value in one of the following, where the results of those studies are still valid:		
a. The 1945 – 1965 (Shiple) Study?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. The MTO Heritage Screening Report for Structural Culverts?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. By another comprehensive screening study? (Describe nature of screening study).	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If YES to questions in #2, a CHER is <u>not</u> required (Go to question #5)	If NO , continue to Question 3.	
3. As an indication that the culvert is based on a standard design, is the culvert:	Yes	No
a. A single cell open footing rectangular concrete culvert with individual spans less than or equal to 6.1m, and constructed after 1920.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. A 1, 2, and 3 cell concrete culverts with individual spans less than or equal to 6.1m, and constructed after 1930.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. A concrete arch culvert with span less than or equal to 9.1m, and constructed after 1930.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. A CSP or Multi-Plate steel culvert with individual spans less than or equal to 6.1m.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. A single or multi-cell timber culvert with spans less than or equal to 2.4m.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If YES to any of the questions in #3, a CHER is <u>not</u> required (Go to question #5)	If NO , continue to Question 4.	
4. Is the culvert known to:		

a. Have a unique or complex design feature(s) that demonstrate a high degree of technical merit (i.e. complex or unique technical designs, one-of-a-kind structure in the Region, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Have significant aesthetic value with elements demonstrating a high degree of craftsmanship (i.e. prominent keystone, embossment, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Have a special direct association with a community, person, historical event, or cultural heritage landscape (i.e. prominent designer, significant event, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Have landmark value in the local community or contains features that are important in defining the character of the area (i.e. is structure featured locally – literature, monuments, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If YES to any of questions in #4, a CHER <u>is</u> required.	If NO , a CHER is <u>not</u> required	Yes	No
5. Based on above questions, is a CHER likely required? <i>Pending results of CHER, process for Heritage Structures outlined in the Ontario Heritage Bridge Guidelines (OHBG) may be required, including completion of a Heritage Impact Assessment (HIA).</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If Yes, Approval of Manager of Engineering required	Signature:	Date:	
<p>If the above screening concludes that a CHER is not required, there is low potential for built heritage or cultural heritage landscape value of the culvert. This form, and any supporting documentation demonstrating how the conclusions were arrived at, shall be maintained on file.</p> <p>If a CHER is required, it means that further investigation into potential Heritage value is required. It does not mean that it is a Heritage Property.</p>			
Other Supporting Information (comments, age and size comparisons, etc.):			



**ATTACHMENT 7 – CULVERT, 3 KM WEST OF COUNTY ROAD 30 (SITE NO. 21-474/C)
HERITAGE SCREENING FORM**

Appendix B: MTO Structural Culvert Heritage Screening Form

Structure Name: Culvert (3km west of County Rd 30)				
Structure Location: Brighton, Ontario				
MTO Site #: 21X-0474/C0		Year/Decade Built: 1958		
Form Completed By: George Collins P. Eng.		Office: Structural, East Region	Date: 02/09/2022	
				
Figure 1: Culvert Elevation		Figure 2: Culvert Along Roadway		
Screening Questions			Yes	No
1. Is the culvert known to be:				
a. Identified as a Heritage Bridge in the Heritage Bridge List (from Ministry of Culture Website – still under development, or from OHBG)?			<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. A National Historic Site (or part thereof) (http://www.pc.gc.ca/eng/progs/lhn-nhs/index.aspx)?			<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Subject of a municipal, provincial or federal commemorative or interpretive plaque (based on site investigation)?			<input type="checkbox"/>	<input checked="" type="checkbox"/>

If YES to any of the questions in #1, a CHER <u>is</u> required (Go to question #5)	If NO , continue to Question 2.	
2. Has the culvert been considered and screened out as having no, or minimal, potential heritage value in one of the following, where the results of those studies are still valid:		
a. The 1945 – 1965 (Shiple) Study?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. The MTO Heritage Screening Report for Structural Culverts?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. By another comprehensive screening study? (Describe nature of screening study).	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If YES to questions in #2, a CHER is <u>not</u> required (Go to question #5)	If NO , continue to Question 3.	
3. As an indication that the culvert is based on a standard design, is the culvert:	Yes	No
a. A single cell open footing rectangular concrete culvert with individual spans less than or equal to 6.1m, and constructed after 1920.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. A 1, 2, and 3 cell concrete culverts with individual spans less than or equal to 6.1m, and constructed after 1930.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. A concrete arch culvert with span less than or equal to 9.1m, and constructed after 1930.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. A CSP or Multi-Plate steel culvert with individual spans less than or equal to 6.1m.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. A single or multi-cell timber culvert with spans less than or equal to 2.4m.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If YES to any of the questions in #3, a CHER is <u>not</u> required (Go to question #5)	If NO , continue to Question 4.	
4. Is the culvert known to:		

a. Have a unique or complex design feature(s) that demonstrate a high degree of technical merit (i.e. complex or unique technical designs, one-of-a-kind structure in the Region, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Have significant aesthetic value with elements demonstrating a high degree of craftsmanship (i.e. prominent keystone, embossment, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Have a special direct association with a community, person, historical event, or cultural heritage landscape (i.e. prominent designer, significant event, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Have landmark value in the local community or contains features that are important in defining the character of the area (i.e. is structure featured locally – literature, monuments, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If YES to any of questions in #4, a CHER <u>is</u> required.	If NO , a CHER is <u>not</u> required	Yes	No
5. Based on above questions, is a CHER likely required? <i>Pending results of CHER, process for Heritage Structures outlined in the Ontario Heritage Bridge Guidelines (OHBG) may be required, including completion of a Heritage Impact Assessment (HIA).</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If Yes, Approval of Manager of Engineering required	Signature:	Date:	
<p>If the above screening concludes that a CHER is not required, there is low potential for built heritage or cultural heritage landscape value of the culvert. This form, and any supporting documentation demonstrating how the conclusions were arrived at, shall be maintained on file.</p> <p>If a CHER is required, it means that further investigation into potential Heritage value is required. It does not mean that it is a Heritage Property.</p>			
Other Supporting Information (comments, age and size comparisons, etc.):			