CULTURAL HERITAGE REPORT:
EXISTING CONDITIONS AND PRELIMINARY IMPACT ASSESSMENT

LAKESHORE TRANSPORTATION STUDIES
NEW CREDIT RIVER ACTIVE TRANSPORTATION (AT) BRIDGE STUDY

CITY OF MISSISSAUGA
REGION OF PEEL, ONTARIO

FINAL REPORT

Prepared for:

HDR
100 York Boulevard, Suite 300
Richmond Hill, ON L4B 1J8

ASI File: 20CH-198

June 2021 (Updated November 2021, June and November 2022 and January 2023)

ASI Providing Archaeological & Cultural Heritage Services
528 Bathurst Street Toronto, ONTARIO M5S 2P9
416-966-1069 F 416-966-9723 asiheritage.ca

CULTURAL HERITAGE REPORT:
EXISTING CONDITIONS AND PRELIMINARY IMPACT ASSESSMENT

LAKESHORE TRANSPORTATION STUDIES
NEW CREDIT RIVER ACTIVE TRANSPORTATION (AT) BRIDGE STUDY

CITY OF MISSISSAUGA
REGION OF PEEL, ONTARIO

EXECUTIVE SUMMARY

ASI was contracted by HDR, on behalf of the City of Mississauga, to conduct a Cultural Heritage Report for the Lakeshore Transportation Studies: New Credit River Active Transportation (AT) Bridge Study. This is part of a larger Lakeshore Transportation Studies in the City of Mississauga. The New Credit River AT Bridge Study project study area (hereafter called the study area) consists of the proposed bridge crossing location from Stavebank Road in the north and Front Street North in the south and is generally bound by the rail corridor, recreational, and residential properties.

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

The results of background historical research and a review of secondary source material, including historical mapping, indicate a study area with a suburban land use history dating back to the early nineteenth century. A review of federal, provincial, and municipal registers, inventories, and databases revealed that there are six known BHRs and three known CHLs within the study area. No additional BHRs or CHLs were identified during field review.

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

1. Construction activities and staging should be suitably planned and undertaken to avoid unintended negative impacts to the identified BHRs and CHLs. Avoidance measures may include, but are not limited to: erecting temporary fencing, establishing buffer zones, issuing instructions to construction crews to avoid identified cultural heritage resources, etc. When construction staging and lay down areas are determined during the detailed design phase, the identified BHRs should be reviewed by a qualified heritage professional to assess impacts and confirm recommended conservation and/or mitigation measures.

2. Indirect impacts to the Port Credit Railway Bridge (BHR 1), 35 Front Street North (BHR 2), the Mississauga Road Railway Bridge (BHR 5), the Old Port Credit CHL (CHL 1), the Credit River Corridor CHL (CHL 2), and the Mississauga Road Scenic Route CHL (CHL 3) are anticipated as a result of their location adjacent to the proposed alignment. To ensure these properties are not

adversely impacted during construction, a baseline vibration assessment should be undertaken during detailed design. Should this advance monitoring assessment conclude that the structure(s) on these properties will be subject to vibrations, prepare and implement a vibration monitoring plan as part of the detailed design phase of the project to lessen vibration impacts related to construction.

3. Indirect impacts due to the construction of the AT bridge adjacent to BHR 1 (Port Credit Railway Bridge) are anticipated to include impacts to the views of the Port Credit Railway Bridge. As the Port Credit Railway Bridge is a Provincial Heritage Property of Provincial Significance and there are indirect impacts anticipated due to construction adjacent the subject resource, a resource-specific heritage impact assessment (HIA) is required as per the *Standards and Guidelines for Conservation of Provincial Heritage Properties* (Ministry of Citizenship and Multiculturalism, 2010). This HIA should be completed by a qualified cultural heritage professional with recent and relevant experience in railway bridges as early in detailed design as possible, and be submitted to the City of Mississauga, Metrolinx, and the Ministry of Citizenship and Multiculturalism (MCM) for review, and to any other local heritage stakeholders that may have an interest in this project.
    a. This HIA should consider and address the views to and from the Port Credit Railway Bridge, the scale and massing of the AT bridge, as well as AT bridge finishes and palettes, grading plans, and post-construction landscaping plans. Consideration should be given to using materials, colours, and finishes that will make the AT bridge physically and visually compatible with, subordinate to, and distinguishable from the surrounding landscape and the Port Credit Railway Bridge.

4. As the property at 35 Front Street North (BHR 2) is listed by the City of Mississauga and there are indirect impacts anticipated due to encroachment on to the property, property acquisition, reconfiguration of the parking lot, and construction onto the subject property, including AT bridge approaches, a resource-specific HIA is required as per the City of Mississauga Official Plan clause 7.4.1.10. However, given that no structures or apparent landscape features of significant CHVI are anticipated to be impacted on the property, it is recommended that the City of Mississauga consider waiving the requirement of a HIA in this case in favour of suitable mitigation measures including post-construction rehabilitation which could include sympathetic plantings where required. Consultation should be completed by the proponent with the Royal Canadian Legion Branch 82 to ensure appropriate parking requirements and access is maintained.

5. Indirect impacts to CHL 2 (Credit River Corridor CHL) are anticipated to include grading, the installation of a cycling path, pedestrian sidewalk, the reconfiguration of the parking lot at 35 Front Street North (BHR 2), the construction of a parking lot on the east side of the river at 22 Stavebank Road, the removal of some vegetation, and construction of the AT bridge across the Credit River, and property acquisition within the CHL. The construction of the AT bridge is also

anticipated to impact view of the Credit River corridor from the surrounding area. The scenic and visual quality of the corridor is one of the identified heritage attributes of the Credit River Corridor CHL. As there are properties within the Credit River Corridor CHL listed by the City of Mississauga and there are indirect impacts anticipated due to construction, a resource-specific HIA should be completed as per the City of Mississauga Official Plan clause 7.4.1.10. In order to reduce indirect impacts to the Credit River Corridor, a resource-specific HIA should be conducted to help inform subsequent design stages.

a. Such a study should consider and address the views of the Credit River Corridor CHL, the scale and massing of the AT bridge, as well as AT bridge finishes and palettes, grading plans, and post-construction landscaping plans. Consideration should be given to using materials, colours, and finishes that will make the AT bridge physically and visually compatible with, subordinate to, and distinguishable from the surrounding landscape.

6. As the properties within the Old Port Credit CHL (CHL 1) and the Mississauga Road Scenic Route CHL (CHL 3) are listed by the City of Mississauga and there are indirect impacts anticipated, a resource-specific HIA may be required as per the City of Mississauga Official Plan clause 7.4.1.10. However, given that no structures or apparent landscape features of significant CHVI are anticipated to be impacted on any of the properties, it is recommended that the City of Mississauga consider waiving the requirement of a HIA in these cases in favour of suitable mitigation measures including post-construction rehabilitation which could include sympathetic plantings where required.

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

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

PROJECT PERSONNEL

Senior Project Manager:	Lindsay Graves, MA, CAHP Senior Cultural Heritage Specialist |Assistant Manager - Cultural Heritage Division
Project Coordinator:	Katrina Thach, Hon. BA Associate Archaeologist | Project Coordinator - Environmental Assessment Division
Project Manager:	John Sleath, MA Cultural Heritage Specialist | Project Manager - Cultural Heritage Division
Field Review:	Kirstyn Allam, BA (Hon), Advanced Diploma in Applied Museum Studies Cultural Heritage Technician | Technical Writer and Researcher - Cultural Heritage Division
Report Production:	Kirstyn Allam
Graphics Production:	Peter Bikoulis, PhD Archaeologist | GIS Technician – Operations Division
	Robin Latour, MPhil, PDip Associate Archaeologist | Geomatics Specialist – Operations Division
	Carolyn Nettleton, BA Archaeologist | GIS Technician – Operations Division
Report Reviewer(s):	John Sleath
	Lindsay Graves

QUALIFIED PERSONS INVOLVED IN THE PROJECT

Lindsay Graves, MA, CAHP
Senior Cultural Heritage Specialist |Assistant Manager - Cultural Heritage Division

The Senior Project Manager for this Cultural Heritage Report is **Lindsay Graves** (MA, Heritage Conservation), Senior Cultural Heritage Specialist and the Environmental Assessment Coordinator for the Cultural Heritage Division at ASI. She was responsible for: overall project scoping and approach; development and confirmation of technical findings and study recommendations; application of relevant standards, guidelines and regulations; and implementation of quality control procedures. Lindsay is academically trained in the fields of heritage conservation, cultural anthropology, archaeology, and collections management and has over 15 years of experience in the field of cultural heritage resource management. This work has focused on the assessment, evaluation, and protection of above ground cultural heritage resources. Lindsay has extensive experience undertaking archival research, heritage survey work, heritage evaluation and heritage impact assessment. She has also contributed to cultural heritage landscape studies and heritage conservation plans, led heritage commemoration and interpretive programs, and worked collaboratively with multidisciplinary teams to sensitively plan interventions at historic sites/places. In addition, she is a leader in the completion of heritage studies required to fulfill Class EA processes and has served as Project Manager for over 100 heritage assessments during her time at ASI. Lindsay is a member of the Canadian Association of Heritage Professionals.

John Sleath, MA
Cultural Heritage Specialist | Project Manager - Cultural Heritage Division

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

Kirstyn Allam, BA (Hon), Advanced Diploma in Applied Museum Studies
Cultural Heritage Technician | Technical Writer and Researcher - Cultural Heritage Division

The Cultural Heritage Technician for this project is **Kirstyn Allam** (BA (Hon), Advanced Diploma in Applied Museum Studies), who is a Cultural Heritage Technician and Technical Writer and Researcher within the Cultural Heritage Division with ASI. She was responsible for preparing and contributing to research and technical reporting. Kirstyn Allam's education and experience in cultural heritage, historical research, archaeology, and collections management has provided her with a deep knowledge and strong understanding of the issues facing the cultural heritage industry and best practices in the field. Kirstyn has experience in heritage conservation principles and practices in cultural resource management, including three years experience as a member of the Heritage Whitby Advisory Committee. Kirstyn also has experience being involved with Stage 1-4 archaeological excavations in the Province of Ontario.

GLOSSARY

Term	Definition
Adjacent	"contiguous properties as well as properties that are separated from a heritage property by narrow strip of land used as a public or private road, highway, street, lane, trail, right-of-way, walkway, green space, park, and/or easement or as otherwise defined in the municipal official plan" (Ministry of Citizenship and Multiculturalism, 2010).
Built Heritage Resource (BHR)	"…a building, structure, monument, installation or any manufactured remnant that contributes to a property's cultural heritage value or interest as identified by a community, including an Indigenous community. built heritage resources are located on property that may be designated under Parts IV or V of the *Ontario Heritage Act*, or that may be included on local, provincial, federal and/or international registers" (Ministry of Municipal Affairs and Housing, 2020, p. 41).
Cultural Heritage Landscape (CHL)	"…a defined geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including an Indigenous community. The area may include features such as buildings, structures, spaces, views, archaeological sites or natural elements that are valued together for their interrelationship, meaning or association. Cultural heritage landscapes may be properties that have been determined to have cultural heritage value or interest under the *Ontario Heritage Act*, or have been included on federal and/or international registers, and/or protected through official plan, zoning by-law, or other land use planning mechanisms" (Ministry of Municipal Affairs and Housing, 2020, p. 42).
Cultural Heritage Resource	Includes above-ground resources such as built heritage resources and cultural heritage landscapes, and built or natural features below-ground including archaeological resources (Ministry of Municipal Affairs and Housing, 2020).
Cultural Heritage Value or Interest (CHVI)	"A property is evaluated for its CHVI on the basis of direct evidence that supports the determination of CHVI and the level of significance. This includes the assessment of the integrity of a property, the strength of its physical features or attributes and its historic context. Determination of its level of significance is related to the ability of the property to meet at least one of the criteria of O. Reg. 9/06 or O. Reg. 10/06" (Ministry of Tourism, Culture and Sport, 2014, p. 13).
Known Built Heritage Resource or Cultural Heritage Landscape	A known built heritage resource or cultural heritage landscape is a property that has recognized cultural heritage value or interest. This can include a property listed on a Municipal Heritage Register, designated under Part IV or V of the *Ontario Heritage Act*, or protected by a heritage agreement, covenant or easement, protected by the *Heritage Railway Stations Protection Act or the Heritage Lighthouse Protection Act*, identified as a Federal Heritage Building, or located within a U.N.E.S.C.O. World Heritage Site (Ministry of Tourism, Culture and Sport, 2016).

Impact	Includes negative and positive, direct and indirect effects to an identified cultural heritage resource. Direct impacts include destruction of any, or part of any, significant heritage attributes or features and/or unsympathetic or incompatible alterations to an identified resource. Indirect impacts include, but are not limited to, creation of shadows, isolation of heritage attributes, direct or indirect obstruction of significant views, change in land use, land disturbances (Ministry of Citizenship and Multiculturalism, 2006). Indirect impacts also include potential vibration impacts (See Section 2.5 for complete definition and discussion of potential impacts).
Mitigation	Mitigation is the process of lessening or negating anticipated adverse impacts to cultural heritage resources and may include, but are not limited to, such actions as avoidance, monitoring, protection, relocation, remedial landscaping, and documentation of the cultural heritage landscape and/or built heritage resource if to be demolished or relocated.
Potential Cultural Heritage Resource	A potential built heritage resource or cultural heritage landscape is a property that has the potential for cultural heritage value or interest. This can include properties/project area that contain a parcel of land that is the subject of a commemorative or interpretive plaque, is adjacent to a known burial site and/or cemetery, is in a Canadian Heritage River Watershed, or contains buildings or structures that are 40 or more years old (Ministry of Tourism, Culture and Sport, 2016).
Significant	With regard to cultural heritage and archaeology resources, significant means “resources that have been determined to have cultural heritage value or interest. Processes and criteria for determining cultural heritage value or interest are established by the Province under the authority of the *Ontario Heritage Act.* While some significant resources may already be identified and inventoried by official sources, the significance of others can only be determined after evaluation” (Ministry of Municipal Affairs and Housing, 2020, p. 51).
Vibration Zone of Influence	Area within a 50 m buffer of construction-related activities in which there is potential to affect an identified cultural heritage resource. A 50 m buffer is applied in the absence of a project-specific defined vibration zone of influence based on existing secondary source literature and direction (Carman et al., 2012; Crispino & D’Apuzzo, 2001; P. Ellis, 1987; Rainer, 1982; Wiss, 1981). This buffer accommodates the additional threat from collisions with heavy machinery or subsidence (Randl, 2001).

TABLE OF CONTENTS

List of Tables

List of Figures

List of Plates

1.0 INTRODUCTION

1.1 Report Purpose

ASI was contracted by HDR, on behalf of the City of Mississauga, to conduct a Cultural Heritage Report for the Lakeshore Transportation Studies: New Credit River Active Transportation (AT) Bridge Study. The purpose of this report is to present an inventory of known and potential built heritage resources (BHRs) and cultural heritage landscapes (CHLs), identify existing conditions of the project study area, provide a preliminary impact assessment, and propose appropriate mitigation measures.

1.2 Project Overview

The City of Mississauga developed the *Our Future Mississauga Strategic Plan* (2009) with a key pillar being the development of a transit-oriented City and the *Lakeshore Road Transportation Master Plan (TMP) and Implementation Strategy* (2019) continued to build upon this vision. This study will continue the vision developed through the *Lakeshore Road TMP and Implementation Strategy* (2019) to recognize and accommodate the infrastructure and transportation needs of the corridor while protecting the established and proposed residential communities within the study area. The TMP (2019) identified the preferred alternative for an active transportation bridge crossing the Credit River linking the east and west side of the river south of the existing railway crossing generally to connect the Front Street and Queen Street rights-of-way.

This report includes the New Credit River AT Bridge Study which is part of the larger Lakeshore Transportation Studies. The New Credit River AT Bridge Study project study area (hereafter called the study area) consists of the proposed bridge crossing location from Stavebank Road in the north and Front Street North in the south and is generally bound by the rail corridor, recreational, and residential properties.

1.3 Description of Study Area

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

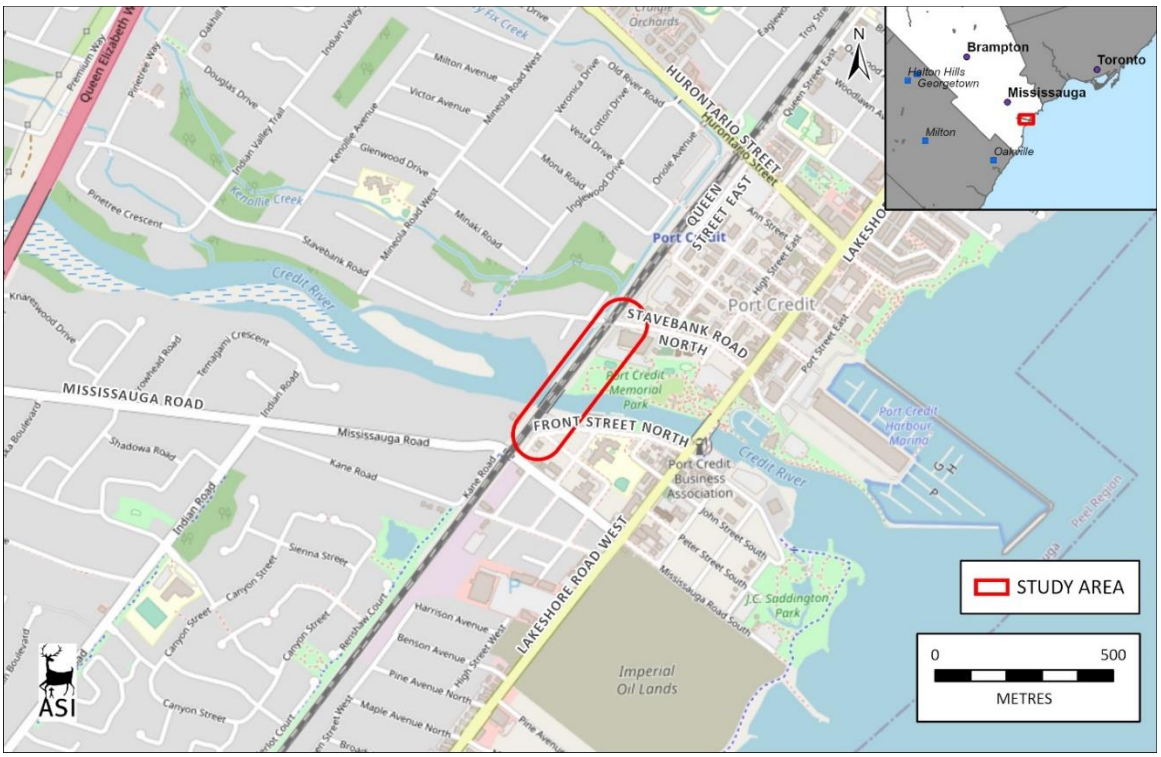


Figure 1: Location of the study area

2.0 METHODOLOGY

2.1 Regulatory Requirements

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

- The *Planning Act* (Planning Act, R.S.O. 1990, c. P.13, 1990), which states that "conservation of features of significant architectural, cultural, historical, archaeological or scientific interest" (cultural heritage resources) is a "matter of provincial interest". The Provincial Policy Statement (Ministry of Municipal Affairs and Housing, 2020), issued under the *Planning Act*, links heritage conservation to long-term economic prosperity and requires municipalities and the Crown to conserve significant cultural heritage resources.
- The *Environmental Assessment Act* (Environmental Assessment Act, R.S.O., 1990), which defines "environment" to include cultural conditions that influence the life of humans or a community. Cultural heritage resources, which includes archaeological resources, built heritage resources and cultural heritage landscapes, are important components of those cultural conditions.

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

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

2.2 Municipal/Regional Heritage Policies

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

- *City of Mississauga Official Plan* (2020a)
- *Peel Region Official Plan* (Office Consolidation 2018)
- *Lakeshore Road Transportation Master Plan and Implementation Strategy* (City of Mississauga & HDR, 2019)
- *Port Credit Local Area Plan* (City of Mississauga, 2020b)
- *Our Future Mississauga Strategic Plan* (City of Mississauga, 2009)
- *2019 Culture Master Plan* (City of Mississauga, 2019)
- *The Living City Policies for Planning and Development in the Watersheds of the Toronto and Region Conservation Authority* (Toronto and Region Conservation Authority, 2014)
- *A Place to Grow: Growth Plan for the Greater Golden Horseshoe* (Government of Ontario, 2020)

2.3 Identification of Built Heritage Resources and Cultural Heritage Landscapes

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

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

Background historical research, which includes consultation of primary and secondary source research and historical mapping, is undertaken to identify early settlement patterns and broad agents or themes of change in a study area. This stage in the data collection process enables the researcher to determine the presence of sensitive heritage areas that correspond to nineteenth- and twentieth-century settlement and development patterns. To augment data collected during this stage of the research process, federal, provincial, and municipal databases and/or agencies are consulted to obtain information about specific properties that have been previously identified and/or designated as having cultural heritage value. Typically, resources identified during these stages of the research process are reflective of particular architectural styles or construction methods, associated with an important person, place, or event, and contribute to the contextual facets of a particular place, neighbourhood, or intersection.

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

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

2.4 Background Information Review

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

2.4.1 Review of Existing Heritage Inventories

A number of resources were consulted in order to identify previously identified BHRs and CHLs within the study area. These resources, reviewed on 10, 11, and 14 June, 2021, include:

- The *Heritage Register for Mississauga* (City of Mississauga, 2018);
- *Cultural Landscape Inventory* (The Landplan Collaborative Ltd., 2005);
- The *Ontario Heritage Act Register* (Ontario Heritage Trust, n.d.b);

- The *Places of Worship Inventory* (Ontario Heritage Trust, n.d.c);
- The inventory of Ontario Heritage Trust easements (Ontario Heritage Trust, n.d.a);
- The Ontario Heritage Trust's *An Inventory of Provincial Plaques Across Ontario*: a PDF of Ontario Heritage Trust Plaques and their locations (Ontario Heritage Trust, 2018);
- Inventory of known cemeteries/burial sites in the Ontario Genealogical Society's online databases (Ontario Genealogical Society, n.d.);
- Canada's Historic Places website: available online, the searchable register provides information on historic places recognized for their heritage value at the local, provincial, territorial, and national levels (Parks Canada, n.d.a);
- 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 (Parks Canada, n.d.b);
- Canadian Heritage River System: a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage (Canadian Heritage Rivers Board and Technical Planning Committee, n.d.); and,
- United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Sites (U.N.E.S.C.O. World Heritage Centre, n.d.).

2.4.2 Review of Previous Heritage Reporting

Additional cultural heritage studies undertaken within parts of the study area were also reviewed. These include:

- *GO Rail Network Electrification TPAP, Final Cultural Heritage Screening Report* ((Archaeological Services Inc.) ASI, 2017)
- *Cultural Heritage Evaluation Report: Credit River Bridge, Mile 13.27 Lakeshore West Rail Corridor, GO Rail Network Electrification TPAP City of Mississauga, Ontario* ((Archaeological Services Inc.) ASI, 2016)
- *OnCorr Due Diligence Project, Cultural Heritage Gap Analysis: Lakeshore West Corridor* ((Archaeological Services Inc.) ASI, 2019)
- *Cultural Heritage Evaluation Report: Applewood Creek Culvert (Mile 10.3), Cooksville Creek Bridge (Mile 11.8), and the Mississauga Road Bridge (Mile 13.39) Lakeshore West Rail Corridor, Oakville Subdivision City of Mississauga, Ontario* (Archaeological Services Inc., 2020)
- *2019 Culture Master Plan* (City of Mississauga, 2019)
- *1135 Mississauga Road Madigan House (Ward 2)* (City of Mississauga Community Services, 2006)
- *Additions to the Heritage Inventory* (City of Mississauga Community Services, 1999)

2.4.3 Stakeholder Data Collection

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

- Paula Wubbenhorst, Senior Heritage Coordinator, City of Mississauga (email communication 18 and 23 June 2021). Email correspondence confirmed the location of previously identified cultural heritage resources. Staff also provided a listing report for 1135 Mississauga Road, an article on the Royal Canadian Legion Branch 82, and a 1999 report on additions to the *Heritage Register*.
- The MCM (email communication 18 and 22 June 2021). Email correspondence confirmed that there are no additional previously identified heritage resources or concerns regarding the study area.
- The Ontario Heritage Trust (email communications 18 and 23 June 2021). A response indicated that there are no conservation easements or Trust-owned properties within the study area.

2.5 Preliminary Impact Assessment Methodology

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

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

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

Several additional factors are also considered when evaluating potential impacts on identified BHRs and CHLs. These are outlined in a document set out by the Ministry of Culture and Communications (now

MCM) and the Ministry of the Environment entitled *Guideline for Preparing the Cultural Heritage Resource Component of Environmental Assessments* (1992) and include:

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

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

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

3.0 SUMMARY OF HISTORICAL DEVELOPMENT WITHIN THE STUDY AREA

This section provides a brief summary of historical research. A review of available primary and secondary source material was undertaken to produce a contextual overview of the study area, including a general description of physiography, Indigenous land use, and Euro-Canadian settlement.

3.1 Physiography

The study area is situated within the Iroquois Plain physiographic region of southern Ontario which is a lowland region bordering Lake Ontario. This region is characteristically flat, and formed by lacustrine deposits laid down by the inundation of Lake Iroquois, a body of water that existed during the late Pleistocene. This region extends from the Trent River, around the western part of Lake Ontario, to the Niagara River, spanning a distance of 300 kilometres. The old shorelines of Lake Iroquois include cliffs, bars, beaches and boulder pavements. The old sandbars in this region are good aquifers that supply water to farms and villages. The gravel bars are quarried for road and building material, while the clays of the old lake bed have been used for the manufacture of bricks (Chapman & Putnam, 1984).

Between Hamilton and Toronto, along the north edge of the Iroquois plain physiographic region the ancient Lake Iroquois shoreline creates a distinct bluff of varying rocks and shales commonly known as the escarpment. The land between the ancient shoreline and the modern shoreline, which was the former bed of Lake Iroquois, is comprised of sandy soil in the Clarkson area as well as neighbouring

communities from Aldershot to Humber Bay. These sandy soils were preferred over the adjoining areas which have clay and combined with being protected from frost because of the proximity to Lake Ontario and having good road and railway facilities, this two mile width of land became important for horticulture. The season was shorter in this area than on the south side of Lake Ontario which distinguished the crops grown which included apples, pears, bush fruits, strawberries and vegetables (Chapman and Putnam 1984).

After almost 100 years of farming, the physiography of this area supported its impressive and quick change to residential, commercial and industrial uses, replacing the more than 15,000 acres of farms that existed in 1941 so that by the 1980s the whole of the Iroquois plain between Hamilton and Toronto was built up. The gravels were used for construction, the sand plains are excellent housing sites and the flat lake plain with bedrock is good for industrial uses which were established south of the study area. This can be seen in the area of Clarkson which was once highly agricultural and is now residential, commercial, and industrial in use (Chapman and Putnam 1984).

3.2 Summary of Early Indigenous History in Southern Ontario

Southern Ontario has been occupied by human populations since the retreat of the Laurentide glacier approximately 13,000 years ago, or 11,000 Before the Common Era (B.C.E.) (Ferris, 2013).[1] During the Paleo period (c. 11,000 B.C.E. to 9,000 B.C.E.), groups tended to be small, nomadic, and non-stratified. The population relied on hunting, fishing, and gathering for sustenance, though their lives went far beyond subsistence strategies to include cultural practices including but not limited to art and astronomy. Fluted points, beaked scrapers, and gravers are among the most important artifacts to have been found at various sites throughout southern Ontario, and particularly along the shorelines of former glacial lakes. Given the low regional population levels at this time, evidence concerning Paleo-Indian period groups is very limited (C. J. Ellis & Deller, 1990).

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

The Woodland period (c. 1,000 B.C.E. to 1650 C.E.) saw several trends and aspects of life remain consistent with previous generations. Among the more notable changes, however, was the introduction of pottery, the establishment of larger occupations and territorial settlements, incipient horticulture, more stratified societies, and more elaborate burials. Later in this period, settlement patterns, foods,

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

and the socio-political system continued to change. A major shift to agriculture occurred in some regions, and the ability to grow vegetables and legumes such as corn, beans, and squash ensured long-term settlement occupation and less dependence upon hunting and fishing. This development contributed to population growth as well as the emergence of permanent villages and special purpose sites supporting those villages. Furthermore, the socio-political system shifted from one which was strongly kinship based to one that involved tribal differentiation as well as political alliances across and between regions (Birch & Williamson, 2013; Dodd et al., 1990; C. J. Ellis & Deller, 1990; Williamson, 1990).

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

The study area is within Treaty 13a, signed on August 2, 1805 by the Mississaugas and the British Crown in Port Credit at the Government Inn. A provisional agreement was reached with the Crown on August 2, 1805, in which the Mississaugas ceded 70,784 acres of land bounded by the Toronto Purchase of 1787 in the east, the Brant Tract in the west, and a northern boundary that ran six miles back from the shoreline of Lake Ontario. The Mississaugas also reserved the sole right of fishing at the Credit River and were to retain a one-mile strip of land on each of its banks, which became the Credit Indian Reserve. On September 5, 1806, the signing of Treaty 14 confirmed the Head of the Lake Purchase between the Mississaugas of the Credit and the Crown (Mississauga of the New Credit First Nation, 2001; Mississaugas of the Credit First Nation, 2017).

3.3 Historical Euro-Canadian Township Survey and Settlement

The first Europeans to arrive in the area were transient merchants and traders from France and England, who followed Indigenous pathways and set up trading posts at strategic locations along the well-traveled river routes. All of these occupations occurred at sites that afforded both natural landfalls and convenient access, by means of the various waterways and overland trails, into the hinterlands. Early transportation routes followed existing Indigenous trails that typically followed the highlands adjacent to various creeks and rivers (Archaeological Services Inc., 2006). Mississauga Road (CHL 3) at the west side of the study area is an example of a former Indigenous hunting and fishing trail being used by Euro-Canadian settlers first as a footpath and later as a roadway (Archaeological Services Inc. ASI, 2022, p. 149). Early European settlements occupied similar locations as Indigenous settlements as they were generally accessible by trail or water routes and would have been in locations with good soil and suitable topography to ensure adequate drainage.

Historically, the study area is located in the former Toronto Township, County of Peel in part of Lots 5 – 7, Range I, Credit River I.R.; and within the Port Credit community between the historic Stavebank and Mississauga Roads, and north of Park Street East and West.

3.3.1 Toronto Township and the City of Mississauga

The City of Mississauga is comprised of the historical communities of Clarkson, Cooksville, Dixie, Erindale, Lakeview, Lorne Park, Malton, Meadowvale Village, Port Credit and Streetsville, which formed part of the Township of Toronto.

The Township of Toronto was originally surveyed in 1806 and 1807 by Samuel Wilmot, the Deputy Surveyor of Upper Canada. The first settler in this Township was Colonel Thomas Ingersoll. Philip Cody was an early settler who opened an in Sydenham, later known as Fonthill and then as Dixie. The whole population of the Township in 1808 consisted of seven families, scattered along Dundas Street. The number of inhabitants gradually increased until the War of 1812 broke out, which gave considerable check to its progress. When the war was over, the Township's growth revived. The Credit River and numerous creeks provided for the establishment of saw and grist mills. Communities began to emerge, usually along the river or at crossroads along Dundas Street, which developed into the villages of Clarkson, Cooksville, Dixie, Erindale, Malton, Meadowvale Village, Port Credit and Streetsville, as well as the hamlet of Lakeview and numerous other settlements which later disappeared. In 1821 the township's population was 803. By 1851 over 7,500 people lived in the township and more than 36,000 acres were being farmed to produce barley, wheat, oats, vegetables and fruit. Small industries were located throughout the township, manufacturing products ranging from hosiery to ploughshares (Archaeological Services Inc., 2020).

During the second half of the nineteenth century, railways were built and the markets shifted. Water-powered industries in the rural areas could no longer compete with those in larger centres which were run by electricity. By 1901 the township's population had dropped considerably to 4,690. The economy did not recover until the 1950s, when new industries moved into the township and spurred massive growth. When the Township of Toronto became the Town of Mississauga in 1968, it had a population of 107,000 and covered 70,598 acres. It grew very quickly and the rural township transformed into an urban area, with over 1,200 industries locating in Mississauga by the 1970s. In 1974 the towns of Port Credit, Streetsville and Mississauga were amalgamated to become the City of Mississauga (Mika & Mika, 1981).

The southeastern corner of Toronto Township appears to have become known as Lakeview in the 1920s (Hicks, 2005). During the nineteenth century it was farmland. Early settlers included the Caven, Duck, Lynd and Ogden families. The paving of Lakeshore Road in 1915 and the proximity to the GTR made Lakeview an attractive place for Toronto commuters to live. During World War II, Lakeview became an important centre for the production of small arms for Allied forces. In 1962, Ontario's largest electric generating station was completed just east of Lakeshore Road and Cawthra Road. It closed in 2005 (Heritage Mississauga, no date).

3.3.2 Port Credit

The study area is located within the Port Credit community. Around 1804, Col. Ingersoll, the first settler, built a trading store. At around the same time, a Government Inn was established on the east bank of the river to accommodate and direct new settlers. Port Credit was officially surveyed and established as a village in 1834. The land on the west side of the Credit River was the first to be surveyed and

developed. However, a disastrous fire in 1855 halted its growth. In 1856, a survey of the land on the east side of the river was undertaken, and surveyed lots between the lakefront and the railway were quickly occupied. Port Credit attained status as a police village by 1909, and in 1961, it was incorporated as a town. In 1974, Port Credit amalgamated with the City of Mississauga (Gibson, 2002; Hicks, 2007).

3.3.3 The Credit River

The study area crosses the Credit River. The Credit River itself was named "*Mis.sin.ni.he*" or "*Mazinigae-zeebi*" by the Mississaugas. The surveyor Augustus Jones said that this signified "the trusting creek," although a better translation is "to write or give and make credit." This is said to refer to the fur trading period, when the French or British would meet with the Indigenous peoples here "extending credit for supplies until the following spring if the Indians did not have sufficient furs to pay in full." It is said that the French military engineer, Chaussegros de Lery, suggested that a trading post be established at the Credit in 1749. The French name for this place, when the river was first mapped in 1757, was "*Riviere au Credit*" (Gibson, 2002; Jameson, 1923; Rayburn, 1997; Robb et al., 2003; Scott, 1997; Smith, 1987).

Lieutenant Governor Simcoe and his wife, Elizabeth, stopped at the mouth of the Credit River on June 16, 1796. The Simcoes walked along the Credit, and explored the river by canoe about as far upstream as Streetsville. Mrs. Simcoe noted that "the banks were high one side covered with pines & pretty piece of open rocky country on the other." She also wrote that the river provided a multitude of salmon. Mrs. Simcoe sketched and painted the first known view of the Credit at this time (Gibson, 2002; Robertson, 1911).

3.3.4 Lakeshore West Rail Corridor and the Credit River Railway Bridge

The study area follows the Lakeshore West rail corridor and the Credit River Railway Bridge across the Credit River. The Lakeshore West rail corridor follows the tracks initially laid in the mid 1850s from Toronto to Hamilton by the Great Western Railway (GWR), who were leasing the land from the Hamilton & Toronto Railway Company (H&TRC). The H&TRC was established by Sir Allan MacNab and a number of other investors, with additional financial support from England, and a charter was granted in 1852. Construction on the line began in 1853 and it was completed in 1855. The line was initially leased to the GWR, who in turn supplied railway stations along the corridor and constructed the GWR branch between Hamilton and Toronto. Given that the GWR was headquartered in Hamilton, mileage started in Hamilton. Extending from Hamilton, the first train stations were as follows (Reynolds, 2011):

- Hamilton, Stuart St. (Mile 0.00);
- Bronte (Mile 13.33);
- Oakville (Mile 17.57);
- Clarkson (Mile 22.82);
- Lorne Park (Mile 23.89)
- Port Credit (Mile 25.84);
- Mimico (Mile 32.26); and
- Sunnyside (Mile 35.18).

In Port Credit, local teamsters were hired by the railway as labourers to build the rail bridge spanning the Credit River, to clear the land, build and level the roadbed, and lay the track through this part of the township. The first train to come through Port Credit Station, which at that time was located on the east side of Stavebank Road, took place on December 3, 1855. The first bridge at the Credit River was a wooden trestle bridge mounted on red brick piers (Clarkson, 1967; Hicks, 2007). It is reported that this trestle dipped lower than the mainline, which caused accidents where rail cars being switched off at Port Credit could roll back down the track towards the bridge (Reynolds, 2011). Unfortunately, no images of this bridge are known to exist.

The establishment of the railway through Port Credit brought great change to the village. Prior to the 1850s, much of Port Credit's prosperity was reliant on the Credit River as the village served primarily as a shipping port. Mills and farms to the north used the Credit River to access the port at Port Credit, though the arrival of the railroad and the construction of the trestle bridge, ended easy access to the port (Reynolds, 2011). The village continued to prosper, however, as it shifted to an emphasis on the railway which linked Port Credit to larger economic centres, brought daily mail, provided more efficient transportation, and attracted people, business and industry to the village.

By the 1870s, there were five trains running daily between Toronto and Hamilton (Hicks, 2007). Locomotives were now powered by coal rather than wood and air brakes had been developed which allowed for trains to attain greater speeds. By 1872, iron rails were being replaced by the more resilient steel rails, greatly improving safety standards and reducing expenses. It was also around this time that the H&TR was absorbed into the GWR and the single track between Hamilton and Toronto became known as the Toronto Branch. Other lines constructed by, or purchased by, the GWR included: the Galt & Guelph Railway; the London & Port Sarnia Railway; and the Canada Air Line Railway (Reynolds, 2011).

In 1882, the Grand Trunk Railway (GTR) merged with the GWR. Track mileage was reversed at this time, with Union Station in Toronto now at Mile 0.00. In the 1880s and 1890s, a plan was developed by the GTR to fix the 'Dip' at the Credit River, in which the tracks would be raised by 12 feet. At the same time, the Toronto Branch rail corridor was doubled and to accommodate the new track and the raised roadbed, the old wooden trestle spanning the Credit River was replaced by the existing metal bridge in 1903. In about 1900, the location of the Port Credit GTR Station (Mile 12.81) was moved from Stavebank Road easterly, closer to Hurontario Street near the present GO Station (Clarkson, 1967; Reynolds, 2011).

Due to financial difficulty, control of the GTR was assumed by the Canadian Government in 1919 and by 1923, the GTR was amalgamated with Canadian National Railways (CNR) (Andreae, 1997). The CNR continued to operate freight and passenger trains along the Lakeshore West rail corridor on a regular basis, making this one of the busiest rail corridors in Canada. By the 1950s, automobiles and highways were replacing trains and railways as the preferred mode of transportation, which meant that it was becoming economically unviable for the CNR to continue passenger services. The following decades saw the introduction of GO Transit commuter rail service and the creation of VIA Rail Canada by the federal government to ensure the continuity of intercity passenger train services (VIA Rail, n.d.).

GO Transit service began in May 1967, and the old train station at Port Credit was demolished to make way for parking for the new GO station.

In the early 2000s, increase rail traffic on the Lakeshore West rail corridor necessitated the addition of a third track. Triple tracking was completed by 2008 and consisted of more than 29 miles (48 kilometres) of new track, 15 interlockings, and 25 bridges (AECOM, n.d.). Work on a new bridge to carry the third track over the Credit River, on the north side of the existing bridge, began in 2007. Metrolinx acquired this section of rail corridor between Toronto and Oakville in 2012 after purchasing it from the CNR (The Canadian Press, 2012).

3.4 Review of Historical Mapping

The 1859 *Map of the County of Peel* (Tremaine, 1859), and the 1877 *Illustrated Historical Atlas of the County of Peel* (Pope, 1877), were examined to determine the presence of historical features within the study area during the nineteenth century (Figure 2 and Figure 3). Historically, the study area is located in part of Lots 5 – 7, Range I, Credit River I.R.; and within the Port Credit community between the historic Stavebank and Mississauga Roads, and north of Park Street East and West in the former Toronto Township, County of Peel.

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

The 1859 *Tremaine's Map of the County of Peel* (Figure 2) depicts the study area as crossing the Credit River immediately south of the H&TR at the northern limits of the settlement of Port Credit. A rail depot is depicted to the east of the study area adjacent to the rail line. No individual property owners are noted within the study area, however the surveyed roads and shading within Port Credit indicate that the area was densely settled at the time. A bridge would have been required to carry the railway over the river, however no bridge is depicted. The 1877 *Illustrated Historical Atlas of the County of Peel* (Figure 3) depicts the study area in a similar context adjacent to the railway, now labelled as the GWR. The settlement of Port Credit is depicted to have similar boundaries as earlier mapping, and the study area is still located in the northern limits of the settlement.

In addition to nineteenth-century mapping, historical topographic mapping and aerial photographs from the twentieth century were examined. This report presents maps and aerial photographs from 1909, 1954, 1974, and 1994 (Figure 4 to Figure 7).

The 1909 topographical map (Figure 4) depicts the study area in a similar context to nineteenth-century mapping, with the study area crossing the Credit River in the north of Port Credit adjacent to the railway, now labelled the GTR. The width of the river is narrower in the 1909 mapping than previously depicted, suggesting that the area south of the rail line was subject to infill and channel modifications. The GTR bridge within the study area is depicted as an iron structure, and is assumed to be the extant

three-span bridge with central inverse bowstring deck truss with steel beam approach spans ((Archaeological Services Inc.) ASI, 2016) at the crossing. The 1954 aerial photograph (Figure 5) depicts the study in a similar context north of Port Credit adjacent to the railway, now labelled as the Canadian National. Residential development within Port Credit is demonstrated to have accelerated in the mid-twentieth century, with significant residential constructions noted south and northeast of the study area. The alignment of the Credit River is noted to be fairly straight to the south of the railroad in the area of infill on the east banks in the location of Port Credit Memorial Park. The 1974 and 1994 mapping (Figure 6 and Figure 7) depict continued residential development in the study area vicinity with the railroad and river in a similar alignment as described earlier and a large park and arena in the southeast portion of the study area.

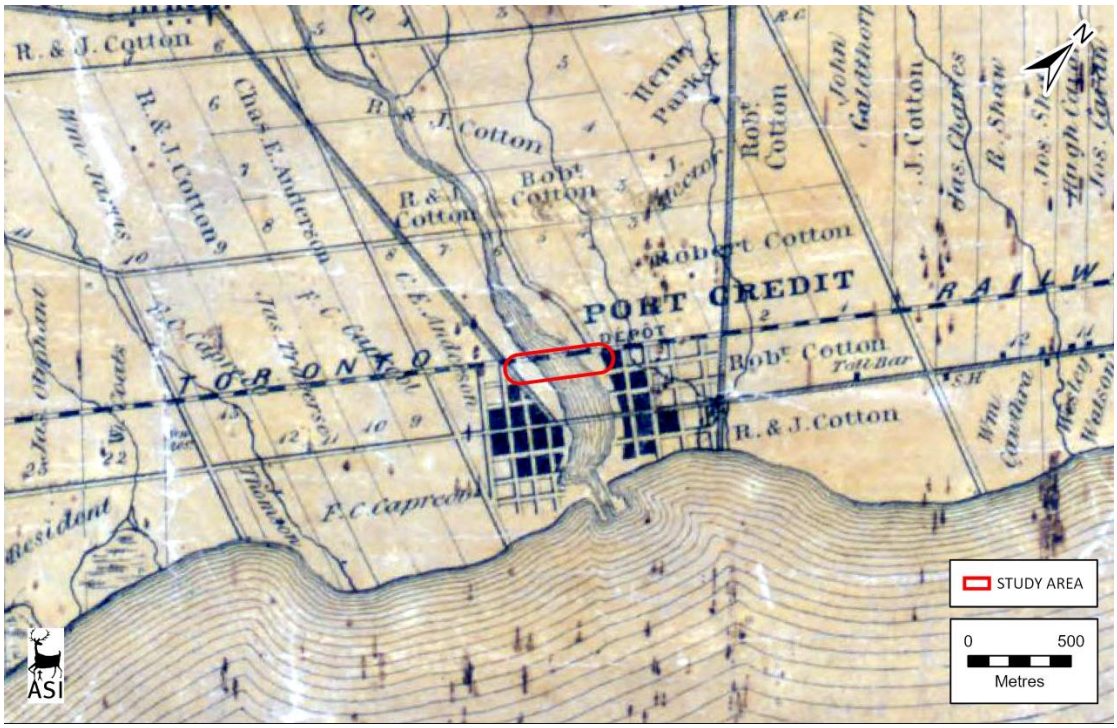


Figure 2: The study area overlaid on the 1859 Tremaine's Map of the County of Peel
Base Map: (Tremaine, 1859)

Figure 3: The study area overlaid on the 1877 Historical Atlas of the County of Peel
Base Map: (Pope, 1877)

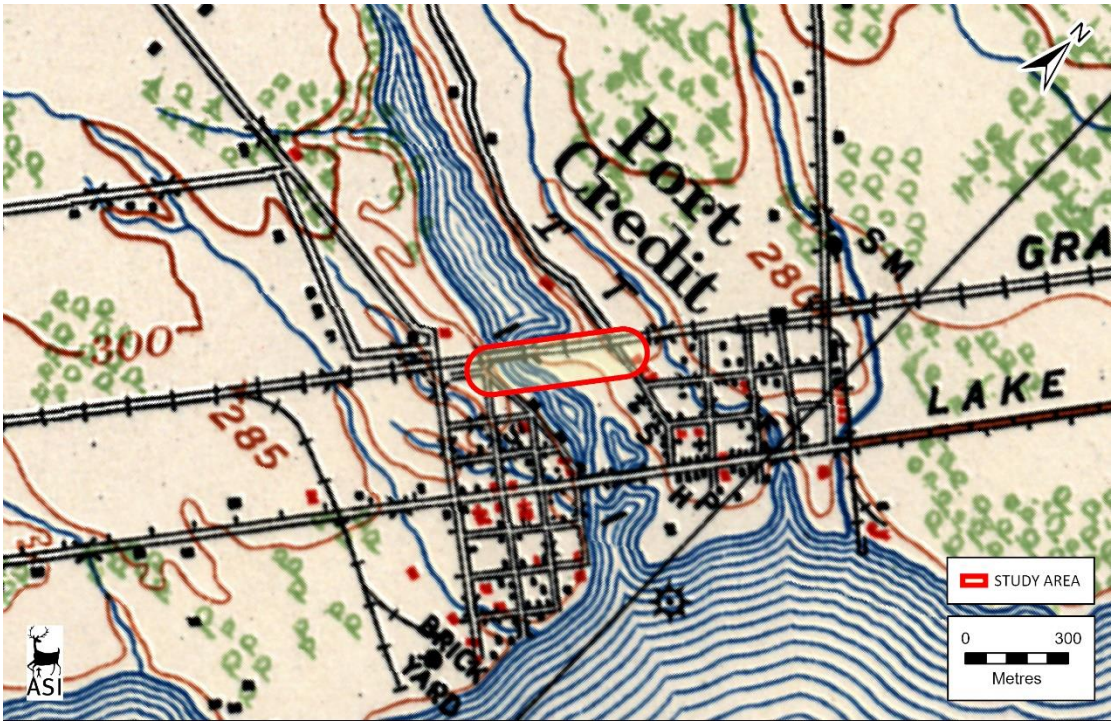


Figure 4: The study area overlaid on the 1909 topographic map of Brampton
Base Map: Brampton Sheet No. 35 (Department of Militia and Defence, 1909)

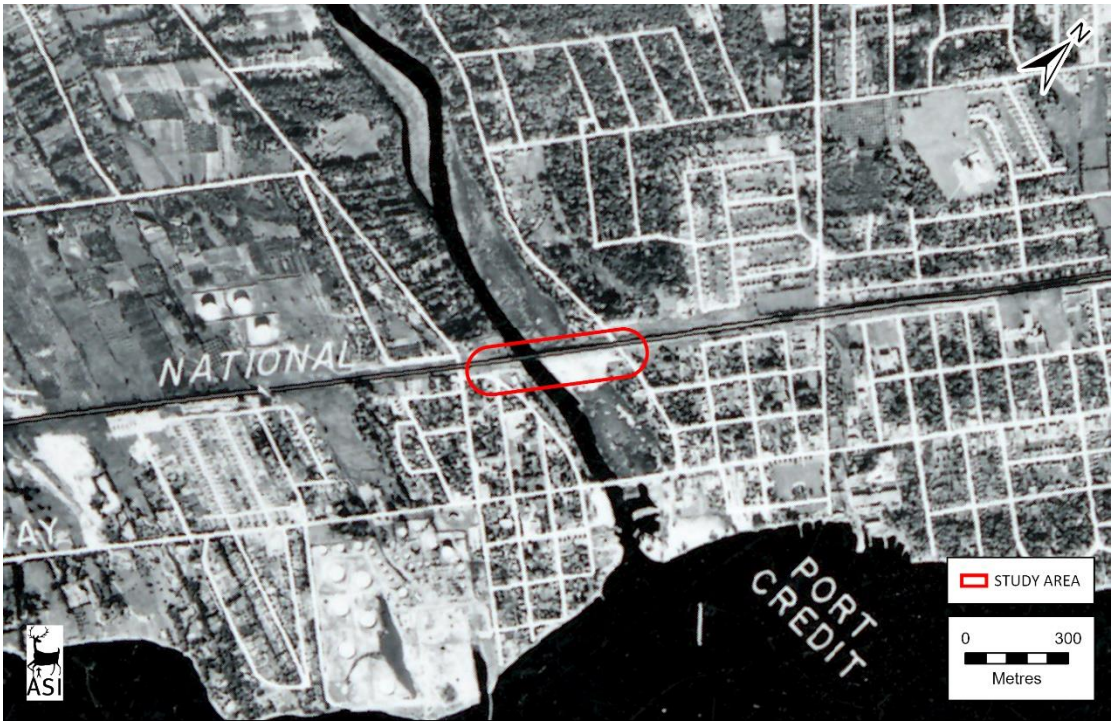


Figure 5: The study area overlaid on the 1954 aerial photograph of Peel
Base Map: Plate 435.793 (Hunting Survey Corporation Limited, 1954)

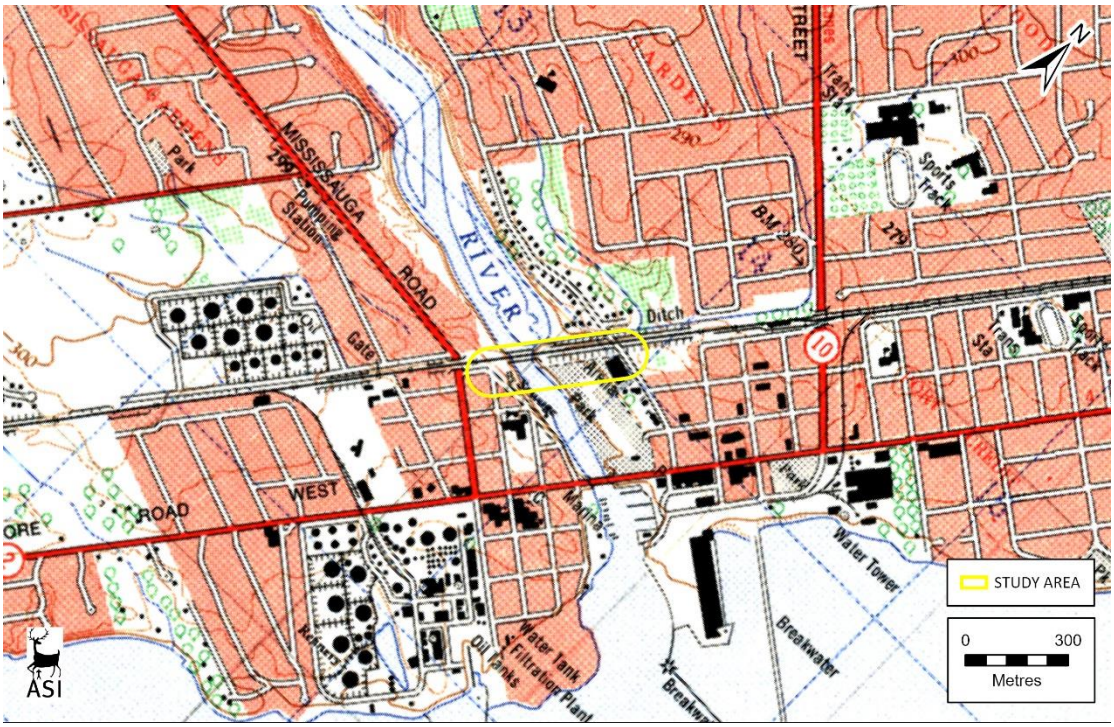


Figure 6: The study area overlaid on the 1974 topographic map of Port Credit
Base Map: Port Credit Sheet 30M/12a (Department of Energy, Mines and Resources, 1974)

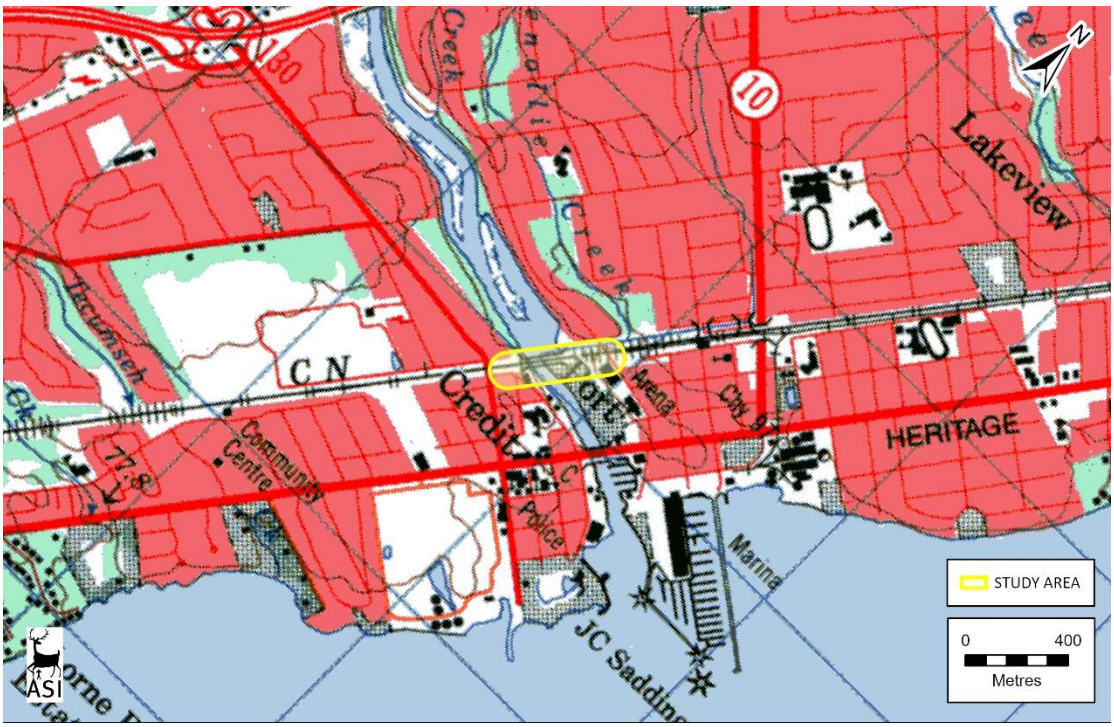


Figure 7: The study area overlaid on the 1994 NTS map of Brampton
Base Map: Brampton Sheet 30M/12(Department of Energy, Mines and Resources, 1994)

4.0 EXISTING CONDITIONS

4.1 Description of Field Review

A field review of the study area was undertaken by Kirstyn Allam of ASI, on 17 June 2021 to document the existing conditions of the study area from existing rights-of-way. The existing conditions of the study area are described below and captured in Plate 1 to Plate 8.

The study area is in the City of Mississauga and is focused on the proposed location for an active transportation bridge crossing over the Credit River north of Lakeshore Road and south of the Lakeshore West rail corridor. The study area consists of the proposed bridge crossing location from Stavebank Road in the north and Front Street North in the south and is generally bound by the rail corridor, recreational, and residential properties.

The Port Credit Memorial Arena and Memorial Park are located north of the Credit River within the study area. The Royal Canadian Legion Branch 82 and the Mississauga Canoe Club are location to the south of the Credit River within the study area. The Lakeshore West rail corridor is in a general northeast-southwest alignment through the study area with the parking lot for the Port Credit GO Station at the northern terminus of the study area. The remainder of the study area and the area surrounding is primarily residential in nature.

The study area transects the Credit River which flows in a general northwest-southeast alignment. The Lakeshore West rail corridor is carried over the Credit River by a three-span bridge, known as the Credit

River Bridge, which features a central inverted bowstring arch deck truss with steel beam approach spans on either side. The Credit River Bridge is a Provincial Heritage Property of Provincial Significance.

Plate 1: View northeast towards the Port Credit GO Station parking lot.

Plate 2: View southwest to the parking lot of the Port Credit Memorial Arena.

Plate 3: View west towards the Lakeshore West rail corridor.

Plate 4: Looking northeast from the pathway in Memorial Park to the northern portion of the study area.

Plate 5: View of Memorial Park, looking southwest from within the study area.

Plate 6: Looking southwest across the Credit River.

Plate 7: View north- northeast to the parking lot at the rear of the Canadian Legion Branch 82.

Plate 8: View southwest along Front Street North to the southern terminus of the study area.

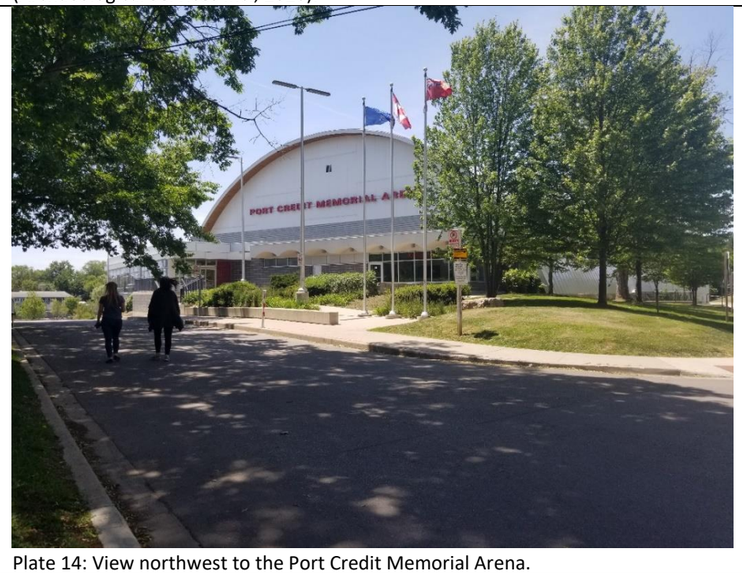
4.2 Identification of Known and Potential Built Heritage Resources and Cultural Heritage Landscapes

Based on the results of the background research and field review, six BHRs and three CHLs were identified within the study area. There are six known BHRs and three known CHLs, these include: one property designated under Part IV of the OHA, three properties listed in the *Heritage Register for Mississauga* (City of Mississauga, 2018), three landscapes identified in the *Cultural Landscape Inventory* (The Landplan Collaborative Ltd., 2005), one Provincial Heritage Property, and one Provincial Heritage Property of Provincial Significance. No additional BHRs or CHLs were identified during field review. A detailed inventory of known and potential BHRs and CHLs within the study area is presented in Table 1. See Figure 8 for mapping showing the location of identified BHRs and CHLs.

Table 1: Inventory of Known and Potential Built Heritage Resources and Cultural Heritage Landscapes within the Study Area

Feature ID	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential CHVI	Photographs/ Digital Image
BHR 1	Bridge	Port Credit Railway Bridge	Known BHR – Provincial Heritage Property of Provincial Significance	The Port Credit Railway Bridge is located at Mile 13.27 of the Lakeshore West rail corridor, crossing the Credit River between Stavebank Road and Mississauga Road. The known heritage attributes include the three-span railway bridge with a central inverted bowstring arch deck truss with steel beam approach spans on either side, constructed in 1903. The 1909 topographic map (Figure 4) depicts an iron bridge crossing the Credit River in the location of the extant structure. For additional information, please see the Metrolinx Heritage Committee Decision Form and the Metrolinx Interim Heritage Committee – Statement of Cultural Heritage Value in Appendix A.	 Plate 9: View of the southern elevation of the Port Credit Railway Bridge ((Archaeological Services Inc.) ASI, 2016).
BHR 2	Institutional	35 Front Street North	Known BHR – Listed in the *Heritage Register for Mississauga*	The Royal Canadian Legion Branch 82 building is located on the north side of Front Street North, northeast of the Front Street North and Peter Street North intersection. The known heritage attributes include the multi-storey building designed by Denis Bowman and built by Milton Townsend contractors in 1966 (Anonymous, 1966), sits on the banks of the Credit River. The 1974 topographic map (Figure 6) depicts the location of the building in a developed context.	 Plate 10: View of the Royal Canadian Legion Branch 82 at 35 Front Street North.

Feature ID	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential CHVI	Photographs/ Digital Image
BHR 3	Residence	1135 Mississauga Road	Known BHR – Listed in the *Heritage Register for Mississauga*	The residence is located northeast of the Mississauga Road and Kane Road intersection. The known heritage attributes include the one-and-a-half storey red brick house constructed circa 1850 by James Madigan (City of Mississauga Community Services, 2006). The 1909 topographic map (Figure 4) depicts a stone or brick residence in the vicinity of the extant residence.	 Plate 11: View of the residence at 1135 Mississauga Road (City of Mississauga Community Services, 2006).
BHR 4	Recreational	33 Front Street North	Known BHR – Listed in the *Heritage Register for Mississauga*	The Mississauga Canoe Club building is located on the north side of Front Street North, north of the Front Street North and Park Street West intersection. The known heritage attributes include the club building which houses an indoor paddling pool and other training spaces on the banks of the Credit River. The Mississauga Canoe Club was established in 1958 by Bert Oldershaw (Mississauga Canoe Club, 2021). The 1974 topographic map (Figure 6) depicts the location of the building in a developed context.	 Plate 12: View of the Mississauga Canoe Club building at 33 Front Street North (Courtesy of Google Streetview 2020).

Feature ID	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential CHVI	Photographs/ Digital Image
BHR 5	Bridge	Mississauga Road Railway Bridge	Known BHR – Provincial Heritage Property	The Mississauga Road Railway Bridge is located southeast of the Mississauga Road and Kane Road intersection. The known heritage attributes include the single-span steel beam bridge constructed in 1923 with cut stone abutments (Archaeological Services Inc., 2020). The Mississauga Road Railway Bridge also forms part of the Mississauga Road Scenic Route CHL. The 1954 aerial photograph (Figure 5) depicts the rail corridor carried over Mississauga Road. For additional information, please see the Metrolinx Heritage Committee Decision Form in Appendix A.	 Plate 13: View of the southern elevation of the Mississauga Road Railway Bridge (Archaeological Services Inc., 2020).
BHR 6	Arena	40 Stavebank Road	Known BHR - Designated under Part IV of the OHA (By-law # 0040-2011)	The Port Credit Memorial Arena is located southeast of the intersection of Stavebank Road and the Lakeshore West rail corridor. The known heritage attributes include the Quonset hut-shaped indoor ice rink facility that is the first public and oldest surviving arena in Mississauga (City of Mississauga, 2011). The 1974 topographic map (Figure 6) depicts an arena in the location of the extant structure. For additional information, please see the by-law available via this link.	 Plate 14: View northwest to the Port Credit Memorial Arena.

Feature ID	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential CHVI	Photographs/ Digital Image
CHL 1	Historical Settlement	Old Port Credit CHL	Known CHL – Identified in the 2005 *Cultural Landscape Inventory*	The Old Port Credit CHL is generally located south of the Lakeshore West rail corridor and is generally bound by Hurontario Street to the east, Lake Ontario to the south, and Harrison Avenue and Mississauga Road South to the west. The known heritage attributes of the CHL include the variety of architectural style of the houses, the grid-pattern of the streetscape, and its association with the development of the harbour from the 1830s (The Landplan Collaborative Ltd., 2005). The 1859 map (Figure 2) depicts the Port Credit community at the mouth of the Credit River.	 Plate 15: View northwest on the west side of the Credit River to the Old Port Credit community sign, the parkland beside the river, and Front Street North.
CHL 2	Natural Landscape	Credit River Corridor CHL	Known CHL – Identified in the 2005 *Cultural Landscape Inventory*	The Credit River Corridor CHL is 58 miles (93.34 km) in length and meanders through the City of Mississauga, beginning at the border with Brampton and draining in Lake Ontario. The known heritage attributes include the river's role as a transportation corridor, as a hunting, fishing, and gathering area, and for influencing settlement patterns by Indigenous peoples for thousands of years. Euro-Canadian settlers used the river for similar purposes, and also used it for milling and development and for its recreational opportunities. According to the *Cultural Landscape Inventory*, the Credit River is the most significant natural feature remaining in the City of Mississauga and it was identified in part for its scenic and visual quality (The Landplan Collaborative Ltd., 2005). The 1859 map (Figure 2) depicts the Credit River as a wider watercourse, with evidence of landfilling activities and modifications to the banks of the watercourse completed in the early twentieth century. Within this CHL, the following property is protected under the OHA: - Port Credit Railway Bridge (Provincial Heritage Property of Provincial Significance) (BHR 1) - 1139 Mississauga Road, listed in the *Heritage Register for Mississauga* as part of the Credit River Corridor CHL	 Plate 16: View northwest of the Credit River and the Port Credit Railway Bridge.

Feature ID	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential CHVI	Photographs/ Digital Image
CHL 3	Transportation Corridor	Mississauga Road Scenic Route CHL	Known CHL – Identified in the 2005 *Cultural Landscape Inventory*	The Mississauga Road Scenic Route CHL follows Mississauga Road from Britannia Road in the north to Lakeshore West rail corridor, then follows Front Street North to Lakeshore Road West in the south. Mississauga Road is one of Mississauga's oldest throughfares and follows a former Indigenous hunting and fishing trail (Archaeological Services Inc. ASI, 2022, p. 149) The known heritage attributes include the alignment of Mississauga Road, the topography the road traverses, its role as a historic road, and its scenic quality and interest (The Landplan Collaborative Ltd., 2005). The 1859 map (Figure 2) depicts the Mississauga Road corridor.	 Plate 17: View of the Lakeshore West rail corridor bridge with "Mississauga Road Scenic Route" (Courtesy of Google Streetview 2020).

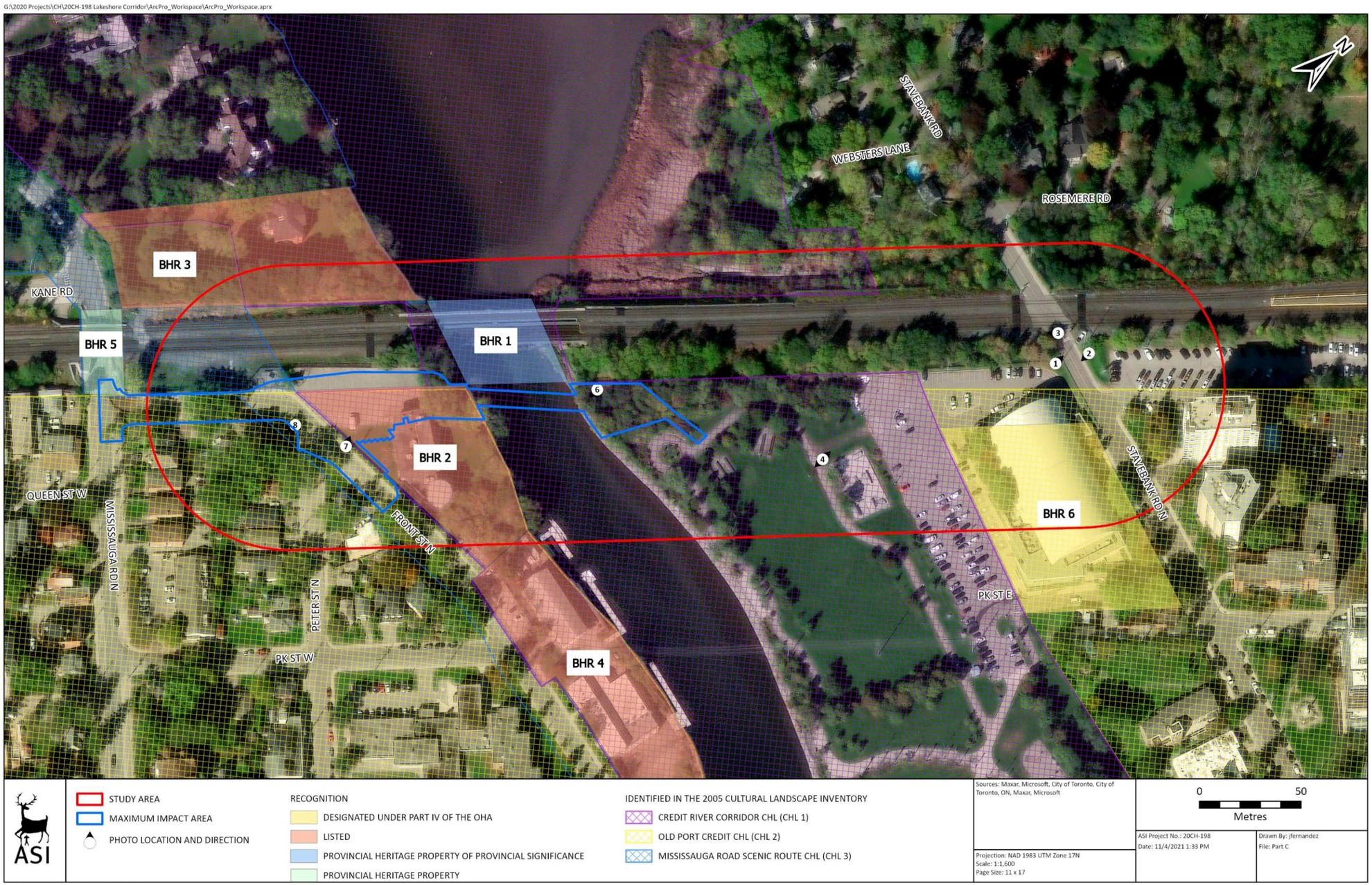


Figure 8: Location of Identified Built Heritage Resources and Cultural Heritage Landscapes in the Study Area

5.0 PRELIMINARY IMPACT ASSESSMENT

5.1 Description of Proposed Undertaking

The proposed undertaking for the study area involves the construction of an active transportation bridge crossing the Credit River linking the east and west sides of the river south of the existing rail crossing generally to connect the Front Street and Queen Street rights-of-way. The project will also involve the construction of a proposed cycling path and pedestrian sidewalk on both sides of the river, with two branches of the cycling path and pedestrian sidewalk along the west side of the river that separate and come together again before the bridge crossing. The project will also involve the construction of a parking lot on the east side of the river at 22 Stavebank Road, part of the Port Credit Memorial Park, to the north of the skatepark. The proposed designs involve the reconfiguration of the parking lot at 35 Front Street North (BHR 2). Mapping of the proposed maximum impact area and study area showing photography plate locations and the location of the identified BHRs and CHLs is provided in Figure 8 in Section 4.2. The full designs are available in Appendix B.

5.2 Analysis of Potential Impacts

Table 2 outlines the potential impacts on all identified BHRs and CHLs within the study area.

Table 2: Preliminary Impact Assessment and Recommended Mitigation Measures

Feature ID	Location/Name	Type and Description of Potential/Anticipated Impact	Mitigation Strategies
BHR 1	Port Credit Railway Bridge	The construction of the AT bridge adjacent to BHR 1 is anticipated to impact views of the Port Credit Railway Bridge, which is a Provincial Heritage Property of Provincial Significance and a landmark in Port Credit that contributes to the scenic character of the river and the community. Indirect adverse impacts due to construction related vibration are possible as the structure sits within 50 m from the proposed work. No direct impacts to the structure or landscape features of known CHVI are anticipated.	Where feasible, the proposed alignment should be designed in a manner that avoids all impacts to BHR 1. As the Port Credit Railway Bridge is a Provincial Heritage Property of Provincial Significance and there are indirect impacts anticipated due to construction adjacent to the subject property, a resource-specific HIA is required as per the *Standards and Guidelines for Conservation of Provincial Heritage Properties* (Ministry of Citizenship and Multiculturalism, 2010). This HIA should be completed by a qualified cultural heritage professional with recent and relevant experience in railway bridges as early in detailed design as possible. The report should be submitted to the City of Mississauga, Metrolinx, and the Ministry of Citizenship and Multiculturalism (MCM) for review, and to any other local heritage stakeholders that may have an interest in this project.

Feature ID	Location/Name	Type and Description of Potential/Anticipated Impact	Mitigation Strategies
			This HIA should be conducted to help inform subsequent design stages and should consider and address potential impacts to the views to and from the Port Credit Railway Bridge, the scale and massing of the AT bridge, as well as AT bridge finishes and palettes, grading plans, and post-construction landscaping plans. Consideration should be given to using materials, colours, and finishes that will make the AT bridge physically and visually compatible with, subordinate to, and distinguishable from the surrounding landscape and the Port Credit Railway Bridge. To address the potential for indirect impacts due to construction related vibration, undertake a baseline vibration assessment during detail design to determine potential vibration impacts.

Feature ID	Location/Name	Type and Description of Potential/Anticipated Impact	Mitigation Strategies
BHR 2	35 Front Street North	Indirect impacts are anticipated to BHR 2; however, the impacts are not considered to be adverse. The impacts anticipated include encroachment on to the north part of this property, property acquisition, the installation of a cycling path, pedestrian sidewalk, the removal of vegetation, the reconfiguration of the parking lot, and construction of the AT bridge across the river adjacent to the property. Indirect adverse impacts due to construction related vibration are possible as the structure sits within 50 m from the proposed work. No direct impacts to the structure or landscape features of known CHVI are anticipated.	Where feasible, the proposed alignment, including the grading limits and the elevations of the AT bridge approaches should be reviewed and designed in a manner that avoids all negative impacts to BHR 2. Consultation should be completed by the proponent with the Royal Canadian Legion Branch 82 regarding the proposed impacts to the parking lot to ensure appropriate parking requirements and access is maintained. As the property at 35 Front Street North is listed by the City of Mississauga and there are indirect impacts anticipated due to encroachment on to the property, property acquisition, and construction onto the subject property, including AT bridge approaches, a resource-specific HIA is required as per the City of Mississauga Official Plan clause 7.4.1.10. Given that no structures or apparent landscape features of significant CHVI within the property are anticipated to be impacted, it is recommended that the City of Mississauga consider waiving the requirement for a HIA in this case if suitable mitigation measures including post construction rehabilitation with sympathetic plantings can be implemented. To address the potential for indirect impacts due to construction related vibration, undertake a baseline vibration assessment during detail design to determine potential vibration impacts.

Feature ID	Location/Name	Type and Description of Potential/Anticipated Impact	Mitigation Strategies
BHR 3	1135 Mississauga Road	The property for BHR 3 is located on the north side of the rail tracks from where the proposed work will be undertaken. No direct adverse impacts to this property are anticipated. As the proposed work is located more than 50 m from the structure, no vibration-related impacts are anticipated.	No further work required.
BHR 4	33 Front Street North	It is understood that the limits of the proposed alignment will be confined to the adjacent property. No direct adverse impacts to this property are anticipated. As the proposed work is located more than 50 m from the structure, no vibration-related impacts are anticipated.	No further work required.
BHR 5	Mississauga Road Railway Bridge	It is understood that the limits of the proposed alignment will be confined to the existing ROW. No direct adverse impacts to this property are anticipated. Indirect adverse impacts due to construction related vibration are possible as the structure sits within 50 m from the proposed work.	Where feasible, the proposed alignment should be designed in a manner that avoids all impacts to BHR 5. To address the potential for indirect impacts due to construction related vibration, undertake a baseline vibration assessment during detail design to determine potential vibration impacts.
BHR 6	40 Stavebank Road	It is understood that the limits of the proposed alignment will be confined to the adjacent property. No direct adverse impacts to this property are anticipated. As the proposed work is located more than 50 m from the structure, no vibration-related impacts are anticipated.	No further work required.

Feature ID	Location/Name	Type and Description of Potential/Anticipated Impact	Mitigation Strategies
CHL 1	Old Port Credit CHL	Indirect impacts to CHL 1 are anticipated to include grading, the installation of cycling paths and pedestrian sidewalks, reconfiguration of the parking lot at 35 Front Street North (BHR 2), construction of the AT bridge adjacent to the CHL, removal of vegetation, and property acquisition within the CHL. Indirect adverse impacts due to construction related vibration are possible as there are structures within the CHL that sit within 50 m from the proposed work.	Where feasible, the proposed alignment should be designed in a manner that avoids all impacts to CHL 1. As there are properties within the Old Port Credit CHL listed by the City of Mississauga and there are indirect impacts anticipated due to construction, a resource-specific HIA may be required as per the City of Mississauga Official Plan clause 7.4.1.10. Given that no structures or apparent landscape features of significant CHVI within the Old Port Credit CHL are anticipated to be impacted, it is recommended that the City of Mississauga consider waiving the requirement for a HIA in this case if suitable mitigation measures including post construction rehabilitation with sympathetic plantings can be implemented. To address the potential for indirect impacts due to construction related vibration, undertake a baseline vibration assessment during detail design to determine potential vibration impacts.

Feature ID	Location/Name	Type and Description of Potential/Anticipated Impact	Mitigation Strategies
CHL 2	Credit River Corridor CHL	Indirect impacts to CHL 2 are anticipated to include grading, the installation of cycling paths and pedestrian sidewalks, reconfiguration of the parking lot at 35 Front Street North (BHR 2), construction of a new parking lot on the east side of the river at 22 Stavebank Road, construction of the AT bridge, removal of vegetation, and property acquisition within the CHL. The construction of the AT bridge within CHL 2 is anticipated to impact views of the Credit River corridor from the surrounding area. The scenic and visual quality of the corridor is one of the identified heritage attributes of the Credit River Corridor CHL. Indirect adverse impacts due to construction related vibration are possible as there are structures within the CHL that sit within 50 m from the proposed work.	Where feasible, the proposed alignment should be designed in a manner that avoids all impacts to CHL 2. As there are properties within the Credit River Corridor CHL listed by the City of Mississauga and there are indirect impacts anticipated due to construction, a resource-specific HIA should be completed as per the City of Mississauga Official Plan clause 7.4.1.10. This HIA should be completed by a qualified cultural heritage professional with recent and relevant experience as early in detailed design as possible. In order to reduce indirect impacts to the Credit River Corridor, a resource-specific HIA should be conducted to help inform subsequent design stages. This HIA should consider and address the views of the Credit River Corridor CHL, the scale and massing of the AT bridge, as well as AT bridge finishes and palettes, grading plans, and post-construction landscaping plans. Consideration should be given to using materials, colours, and finishes that will make the AT bridge physically and visually compatible with, subordinate to, and distinguishable from the surrounding landscape. To address the potential for indirect impacts due to construction related vibration, undertake a baseline vibration assessment during detail design to determine potential vibration impacts.

Feature ID	Location/Name	Type and Description of Potential/Anticipated Impact	Mitigation Strategies
CHL 3	Mississauga Road Scenic Route CHL	Indirect impacts to CHL 3 are anticipated to include grading, the installation of cycling paths and pedestrian sidewalks, reconfiguration of the parking lot at 35 Front Street North (BHR 2), construction of the AT bridge, removal of vegetation, and property acquisition within the CHL. Indirect adverse impacts due to construction related vibration are possible as there are structures within the CHL that sit within 50 m from the proposed work.	Where feasible, the proposed alignment should be designed in a manner that avoids all impacts to CHL 3. As there are properties within the Mississauga Road Scenic Route CHL listed by the City of Mississauga and there are indirect impacts anticipated due to construction, a resource-specific HIA may be required as per the City of Mississauga Official Plan clause 7.4.1.10. Given that no structures or apparent landscape features of significant CHVI within the Mississauga Road Scenic Route CHL are anticipated to be impacted, it is recommended that the City of Mississauga consider waiving the requirement for a HIA in this case if suitable mitigation measures including post construction rehabilitation with sympathetic plantings can be implemented. To address the potential for indirect impacts due to construction related vibration, undertake a baseline vibration assessment during detail design to determine potential vibration impacts.

No direct impacts to the identified BHRs and CHLs are anticipated as a result of the proposed alignment.

Where feasible, the proposed alignment should be designed to avoid indirect impacts to these BHRs and CHLs. To ensure the structures on these properties are not adversely impacted, construction and staging for the AT bridge should be suitably planned to avoid all impacts to these properties. Suitable mitigation measures could include the establishment of no-go zones with fencing and issuing instructions to construction crews to avoid the BHRs and CHLs.

Indirect impacts due to the construction of the AT bridge adjacent to BHR 1 (Port Credit Railway Bridge) are anticipated to include impacts to the views of the Port Credit Railway Bridge. As the Port Credit Railway Bridge is a Provincial Heritage Property of Provincial Significance and there are indirect impacts anticipated due to construction adjacent the subject resource, a resource-specific HIA is required as per the *Standards and Guidelines for Conservation of Provincial Heritage Properties* (Ministry of Citizenship and Multiculturalism, 2010). This HIA should be completed by a qualified cultural heritage professional with recent and relevant experience in railway bridges as early in detailed design as possible, be submitted to the City of Mississauga, Metrolinx, and the MCM for review, and to any other local heritage stakeholders that may have an interest in this project. This HIA should be conducted to help

inform subsequent design stages and should consider and address the views to and from the Port Credit Railway Bridge, the scale and massing of the AT bridge, as well as AT bridge finishes and palettes, grading plans, and post-construction landscaping plans. Consideration should be given to using materials, colours, and finishes that will make the AT bridge physically and visually compatible with, subordinate to, and distinguishable from the surrounding landscape and the Port Credit Railway Bridge.

As the property at 35 Front Street North (BHR 2) is listed by the City of Mississauga and there are indirect impacts anticipated due to encroachment on to the property, property acquisition, reconfiguration of the parking lot, and construction onto the subject property, including AT bridge approaches, a resource-specific HIA is required as per the City of Mississauga Official Plan clause 7.4.1.10. However, given that no structures or apparent landscape features of significant CHVI are anticipated to be impacted on the property, it is recommended that the City of Mississauga consider waiving the requirement of a HIA in this case in favour of suitable mitigation measures including post-construction rehabilitation which could include sympathetic plantings where required. In regard to the redesign of the parking lot, consultation should be completed by the proponent with the Royal Canadian Legion Branch 82 to ensure appropriate parking requirements and access is maintained.

Indirect impacts to CHL 2 (Credit River Corridor CHL) are anticipated to include grading, the installation of a cycling path, pedestrian sidewalk, the construction of a parking lot on the east side of the river at 22 Stavebank Road, part of the Port Credit Memorial Park, is planned to the north of the skatepark, the removal of vegetation, and construction of the AT bridge across the Credit River, and property acquisition within the CHL. The construction of the AT bridge is also anticipated to impact view of the Credit River corridor from the surrounding area. The scenic and visual quality of the corridor is one of the identified heritage attributes of the Credit River Corridor CHL. As there are properties within the Credit River Corridor CHL listed by the City of Mississauga and there are indirect impacts anticipated due to construction, a resource-specific HIA should be completed as per the City of Mississauga Official Plan clause 7.4.1.10 to reduce indirect impacts to the Credit River Corridor and to help inform subsequent design stages. Such a study should consider and address the views of the Credit River Corridor CHL, the scale and massing of the AT bridge, as well as AT bridge finishes and palettes, grading plans, and post-construction landscaping plans. Consideration should be given to using materials, colours, and finishes that will make the AT bridge physically and visually compatible with, subordinate to, and distinguishable from the surrounding landscape.

Indirect impacts to CHL 1 (Old Port Credit CHL) and CHL 3 (Mississauga Road Scenic Route CHL) are anticipated to include encroachment to these properties, property acquisition, the installation of a cycling path, pedestrian sidewalk, reconfiguration of the parking lot at 35 Front Street North (BHR 2), the removal of vegetation, and construction of the AT bridge across the Credit River. No adverse impacts to any structures or landscape features of known CHVI are anticipated.

As the properties within the Old Port Credit CHL (CHL 1) and the Mississauga Road Scenic Route CHL (CHL 3) are listed by the City of Mississauga and there are indirect impacts anticipated, a resource-specific HIA may be required as per the City of Mississauga Official Plan clause 7.4.1.10. However, given that no structures or apparent landscape features of significant CHVI are anticipated to be impacted on any of the properties, it is recommended that the City of Mississauga consider waiving the requirement of a HIA in these cases in favour of suitable mitigation measures including post-construction rehabilitation which could include sympathetic plantings where required.

Vibrations during construction activities may impact BHR 1 – BHR 2, BHR 5, and CHL 1 – CHL 3 as a result of their location in close proximity to the proposed alignment. To ensure the structures on the properties at the Port Credit Railway Bridge (BHR 1), 35 Front Street North (BHR 2), Mississauga Road Railway Bridge (BHR 5), Old Port Credit CHL (CHL 1), Credit River Corridor CHL (CHL 2), and Mississauga Road Scenic Route CHL (CHL 3) are not adversely impacted during construction, a baseline vibration assessment should be undertaken during detailed design. Should this advance assessment conclude that the any structures will be subject to vibrations, a vibration monitoring plan should be prepared and implemented as part of the detailed design phase of the project to lessen vibration impacts related to construction. Indirect impacts due to vibrations are not anticipated for BHR 3 (1135 Mississauga Road), BHR 4 (33 Front Street North), and BHR 6 (40 Stavebank Road) as the proposed alignment is located on adjacent properties or the existing right-of-way and is more than 50 m from structures on the properties.

6.0 RESULTS AND MITIGATION RECOMMENDATIONS

The results of background historical research and a review of secondary source material, including historical mapping, indicate a study area with a suburban land use history dating back to the early nineteenth century. A review of federal, provincial, and municipal registers, inventories, and databases revealed that there are six known BHRs and three known CHLs within the study area. No additional BHRs or CHLs were identified during field review.

6.1 Key Findings

- A total of six known BHRs and three known CHLs were identified within the study area.
- Of the BHRs and CHLs identified within the study area there are: one property designated under Part IV of the OHA (BHR 6), three properties listed in the *Heritage Register for Mississauga* (BHR 2, BHR 3, BHR 4), three landscaped identified in the *Cultural Landscape Inventory* (CHL 1, CHL 2, CHL 3), one bridge identified as a Provincial Heritage Property (BHR 5), and one bridge identified as a Provincial Heritage Property of Provincial Significance (BHR 1).
- Identified cultural heritage resources are historically, architecturally, and contextually associated with land use patterns in the City of Mississauga and more specifically representative of the settlement of the Port Credit.

6.2 Results of Preliminary Impact Assessment

- No direct impacts to any BHRs or CHLs are anticipated as a result of the proposed alignment.
- Potential indirect impacts to the views of the Port Credit Railway Bridge (BHR 1) and the Credit River Corridor CHL (CHL 2) are anticipated as a result of the proposed alignment.

- The proposed alignment may result in indirect impacts to one known BHR and three known CHLs due to encroachment to these properties, property acquisition, the installation of a cycling path, pedestrian sidewalk, reconfiguration of the parking lot at 35 Front Street North (BHR 2), the construction of a parking lot on the east side of the river at 22 Stavebank Road, the removal of some vegetation, and construction of the AT bridge across the river:
    - 35 Front Street North (BHR 2);
    - Old Port Credit CHL (CHL 1);
    - Credit River Corridor CHL (CHL 2); and,
    - Mississauga Road Scenic Route CHL (CHL 3).

- Potential vibration impacts as a result of the proposed alignment are anticipated to result in indirect impacts to three known BHRs and three known CHLs:
    - Port Credit Railway Bridge (BHR 1);
    - 35 Front Street North (BHR 2);
    - Mississauga Road Railway Bridge (BHR 5);
    - Old Port Credit CHL (CHL 1);
    - Credit River Corridor CHL (CHL 2); and,
    - Mississauga Road Scenic Route CHL (CHL 3).

- No direct or indirect impacts are anticipated to three known BHRs (BHR 3, BHR 4, and BHR 6).

6.3 Recommendations

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

1. Construction activities and staging should be suitably planned and undertaken to avoid unintended negative impacts to the identified BHRs and CHLs. Avoidance measures may include, but are not limited to: erecting temporary fencing, establishing buffer zones, issuing instructions to construction crews to avoid identified cultural heritage resources, etc. When construction staging and lay down areas are determined during the detailed design phase, the identified BHRs should be reviewed by a qualified heritage professional to assess impacts and confirm recommended conservation and/or mitigation measures.

2. Indirect impacts to the Port Credit Railway Bridge (BHR 1), 35 Front Street North (BHR 2), the Mississauga Road Railway Bridge (BHR 5), the Old Port Credit CHL (CHL 1), the Credit River Corridor CHL (CHL 2), and the Mississauga Road Scenic Route CHL (CHL 3) are anticipated as a result of their location adjacent to the proposed alignment. To ensure these properties are not adversely impacted during construction, a baseline vibration assessment should be undertaken during detailed design. Should this advance monitoring assessment conclude that the structure(s) on these properties will be subject to vibrations, prepare and implement a vibration monitoring plan as part of the detailed design phase of the project to lessen vibration impacts related to construction.

3. Indirect impacts due to the construction of the AT bridge adjacent to BHR 1 (Port Credit Railway Bridge) are anticipated to include impacts to the views of the Port Credit Railway Bridge. As the Port Credit Railway Bridge is a Provincial Heritage Property of Provincial

Significance and there are indirect impacts anticipated due to construction adjacent the subject resource, a resource-specific heritage impact assessment (HIA) is required as per the *Standards and Guidelines for Conservation of Provincial Heritage Properties* (Ministry of Citizenship and Multiculturalism, 2010). This HIA should be completed by a qualified cultural heritage professional with recent and relevant experience in railway bridges as early in detailed design as possible, and be submitted to the City of Mississauga, Metrolinx, and the Ministry of Citizenship and Multiculturalism (MCM) for review, and to any other local heritage stakeholders that may have an interest in this project.

a. This HIA should consider and address the views to and from the Port Credit Railway Bridge, the scale and massing of the AT bridge, as well as AT bridge finishes and palettes, grading plans, and post-construction landscaping plans. Consideration should be given to using materials, colours, and finishes that will make the AT bridge physically and visually compatible with, subordinate to, and distinguishable from the surrounding landscape and the Port Credit Railway Bridge.

4. As the property at 35 Front Street North (BHR 2) is listed by the City of Mississauga and there are indirect impacts anticipated due to encroachment on to the property, property acquisition, reconfiguration of the parking lot, and construction onto the subject property, including AT bridge approaches, a resource-specific HIA is required as per the City of Mississauga Official Plan clause 7.4.1.10. However, given that no structures or apparent landscape features of significant CHVI are anticipated to be impacted on the property, it is recommended that the City of Mississauga consider waiving the requirement of a HIA in this case in favour of suitable mitigation measures including post-construction rehabilitation which could include sympathetic plantings where required. Consultation should be completed by the proponent with the Royal Canadian Legion Branch 82 to ensure appropriate parking requirements and access is maintained.

5. Indirect impacts to CHL 2 (Credit River Corridor CHL) are anticipated to include grading, the installation of a cycling path, pedestrian sidewalk, the reconfiguration of the parking lot at 35 Front Street North (BHR 2), the construction of a parking lot on the east side of the river at 22 Stavebank Road, the removal of some vegetation, and construction of the AT bridge across the Credit River, and property acquisition within the CHL. The construction of the AT bridge is also anticipated to impact view of the Credit River corridor from the surrounding area. The scenic and visual quality of the corridor is one of the identified heritage attributes of the Credit River Corridor CHL. As there are properties within the Credit River Corridor CHL listed by the City of Mississauga and there are indirect impacts anticipated due to construction, a resource-specific HIA should be completed as per the City of Mississauga Official Plan clause 7.4.1.10. In order to reduce indirect impacts to the Credit River Corridor, a resource-specific HIA should be conducted to help inform subsequent design stages.

a. Such a study should consider and address the views of the Credit River Corridor CHL, the scale and massing of the AT bridge, as well as AT bridge finishes and palettes, grading plans, and post-construction landscaping plans. Consideration should be given to using materials, colours, and finishes that will make the AT bridge physically and visually compatible with, subordinate to, and distinguishable from the surrounding landscape.

6. As the properties within the Old Port Credit CHL (CHL 1) and the Mississauga Road Scenic Route CHL (CHL 3) are listed by the City of Mississauga and there are indirect impacts

anticipated, a resource-specific HIA may be required as per the City of Mississauga Official Plan clause 7.4.1.10. However, given that no structures or apparent landscape features of significant CHVI are anticipated to be impacted on any of the properties, it is recommended that the City of Mississauga consider waiving the requirement of a HIA in these cases in favour of suitable mitigation measures including post-construction rehabilitation which could include sympathetic plantings where required.

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

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

7.0 REFERENCES

AECOM. (n.d.). *CN Triple Tracking for GO TRIP*. Aecom.Ca. https://www.aecom.com/projects/cn-triple-tracking-go-trip/

Andreae, C. (1997). *Lines of Country: An Atlas of Railway and Waterway History in Canada*. Boston Mills Press.

Anonymous. (1966). *Officially Open New Legion Building Sunday*.

Archaeological Services Inc. (2006). *Historical Overview and Assessment of Archaeological Potential Don River Watershed, City of Toronto*. Report on file with the Ontario Ministry of Citizenship and Multiculturalism.

Archaeological Services Inc. (2020). *Cultural Heritage Evaluation Report: Applewood Creek Culvert (Mile 10.3), Cooksville Creek Bridge (Mile 11.8), Mississauga Road Bridge (Mile 13.39) Lakeshore West Rail Corridor, Oakville Subdivision City of Mississauga, Ontario*.

ASI, (Archaeological Services Inc.). (2016). *Cultural Heritage Evaluation Report: Credit River Bridge, Mile 13.27, Lakeshore West Rail Corridor, GO Rail Network Electrification TPAP, City of Mississauga, Ontario*. Report on file with the Ontario Ministry of Citizenship and Multiculturalism.

ASI, (Archaeological Services Inc.). (2017). *GO Rail Network Electrification TPAP Cultural Heritage Screening Report*. Report on file with the Ontario Ministry of Citizenship and Multiculturalism.

ASI, (Archaeological Services Inc.). (2019). *Final OnCorr Due Diligence—Cultural Heritage Gap Analysis: Lakeshore West Corridor*.

ASI, (Archaeological Services Inc. (2022). *Conserving Heritage Landscapes: Cultural Heritage Landscape Project—Volume 3* (CHL Inventory No. 18CH-022).

Birch, J., & Williamson, R. F. (2013). *The Mantle Site: An Archaeological History of an Ancestral Wendat Community*. Rowman & Littlefield Publishers, Inc.

Canadian Heritage Rivers Board and Technical Planning Committee. (n.d.). *The Rivers – Canadian Heritage Rivers System Canada's National River Conservation Program*. Canadian Heritage Rivers System. http://chrs.ca/en/rivers/

Carman, R. A., Buehler, D., Mikesell, S., & Searls, C. L. (2012). *Current Practices to Address Construction Vibration and Potential Effects to Historic Buildings Adjacent to Transportation Projects*. Wilson, Ihrig and Associates, ICF International, and Simpson, Gumpertz and Heger, Incorporated for the American Association of State Highway and Transportation Officials (AASHTO).

Chapman, L. J., & Putnam, F. (1984). *The Physiography of Southern Ontario* (Vol. 2). Ontario Ministry of Natural Resources.

City of Mississauga. (2009). *Our Future Mississauga Strategic Plan*. https://www.mississauga.ca/file/COM/StrategicPlan_Web_04_22_2009.pdf

City of Mississauga. (2011). *By-law Number 0040-2011. A By-law to designate the Port Credit Memorial Arena located at 40 Stavebank Road as being of cultural heritage value or interest*.

City of Mississauga. (2018). *Heritage Register for Mississauga*. https://www7.mississauga.ca/documents/culture/heritage/2018-07-01_Mississauga_Heritage_Register_Web.pdf

City of Mississauga. (2019). *Culture Master Plan*. http://www7.mississauga.ca/Departments/Rec/future-directions/pdf/2019-plans/2019%20Culture%20Master%20Plan_FINAL.pdf

City of Mississauga. (2020a). *Mississauga Official Plan*. http://www.mississauga.ca/portal/residents/mississaugaofficialplan

City of Mississauga. (2020b). *Port Credit Local Area Plan*. http://www6.mississauga.ca/onlinemaps/planbldg/MOP/PortCredit-LAP-September3,2020.pdf

City of Mississauga Community Services. (1999). *Additions to the Heritage Inventory*.

City of Mississauga Community Services. (2006). *1135 Mississauga Road Madigan House (Ward 2)*.

City of Mississauga, & HDR. (2019). *Lakeshore Road Transportation Master Plan and Implementation Strategy*. http://www7.mississauga.ca/Departments/Marketing/lakeshore-connecting-communities/Lakeshore%20Connecting%20Communities%20Transportation%20Master%20Plan%20-%20Draft%20Final%20Report.pdf

Clarkson, B. (1967). *Credit Valley Gateway: The Story of Port Credit*. Port Credit Public Library Board.

Crispino, M., & D'Apuzzo, M. (2001). Measurement and Prediction of Traffic-induced Vibrations in a Heritage Building. *Journal of Sound and Vibration*, *246*(2), 319–335.

Department of Energy, Mines and Resources. (1974). *Port Credit, Sheet 30M/11d & 30M/12a* [Map].

Department of Energy, Mines and Resources. (1994). *Brampton Sheet 30M/12* [Map].

Department of Militia and Defence. (1909). *Brampton Sheet No. 35* [Map].

Dodd, C. F., Poulton, D. R., Lennox, P. A., Smith, D. G., & Warrick, G. A. (1990). The Middle Ontario Iroquoian Stage. In C. J. Ellis & N. Ferris (Eds.), *The Archaeology of Southern Ontario to A.D. 1650* (pp. 321–360). Ontario Archaeological Society Inc.

Ellis, C. J., & Deller, D. B. (1990). Paleo-Indians. In C. J. Ellis & N. Ferris (Eds.), *The Archaeology of Southern Ontario to A.D. 1650* (pp. 37–64). Ontario Archaeological Society Inc.

Ellis, C. J., Timmins, P. A., & Martelle, H. (2009). At the Crossroads and Periphery: The Archaic Archaeological Record of Southern Ontario. In T. D. Emerson, D. L. McElrath, & A. C. Fortier

(Eds.), *Archaic Societies: Diversity and Complexity across the Midcontinent.* (pp. 787–837). State University of New York Press.

Ellis, P. (1987). Effects of Traffic Vibration on Historic Buildings. *The Science of the Total Environment*, *59*, 37–45.

Ferris, N. (2013). Place, Space, and Dwelling in the Late Woodland. In M. K. Munson & S. M. Jamieson (Eds.), *Before Ontario: The Archaeology of a Province* (pp. 99–111). McGill-Queen's University Press. http://www.jstor.org/stable/j.ctt32b7n5.15

Gibson, M. M. (2002). Changes at the River's Mouth: The Port Credit Community. In *Mississauga: The First Ten Thousand Years* (F.A. Dieterman). Eastend Books.

Government of Ontario. (2020). *A Place to Grow: Growth Plan for the Greater Golden Horseshoe*. https://files.ontario.ca/mmah-greater-golden-horseshoe-place-to-grow-english-15may2019.pdf

Heritage Mississauga. (no date). *Lakeview*. Heritage Mississauga. http://heritagemississauga.com/lakeview/

Hicks, K. (2005). *Cooksville: Country to City*. Friends of the Mississauga Library System.

Hicks, K. (2007). *Port Credit: Past to Present*. Mississauga Library System.

Hunting Survey Corporation Limited. (1954). *Digital Aerial Photographs, Southern Ontario 1954*. http://maps.library.utoronto.ca/data/on/AP_1954/index.html

Jameson, A. (1923). *Winter Studies and Summer Rambles in Canada*. McClelland & Stewart.

Mika, N., & Mika, H. (1981). *Places In Ontario: Their Name Origins and History, Part II, F-M* (Vol. 2). Mika Publishing Company.

Ministry of Citizenship and Multiculturalism. (2010). *Standards and Guidelines for Conservation of Provincial Heritage Properties: Standards & Guidelines*.

Ministry of Citizenship and Multiculturalism, M. T. C. S. (2006). *InfoSheet #5: Heritage Impact Assessments and Conservation Plans*.

Ministry of Culture. (1990). *Ontario Heritage Act, R.S.O. 1990, c.O.18 [as Amended in 2019]*.

Ministry of Culture. (2006). *Ontario Heritage Tool Kit*.

Ministry of Culture and Communications, & Ministry of the Environment. (1992). *Guideline for Preparing the Cultural Heritage Resource Component of Environmental Assessments*.

Planning Act, R.S.O. 1990, c. P.13, (1990).

Ministry of Municipal Affairs and Housing. (2020). *Provincial Policy Statement, 2020, Under the Planning Act*. Queen's Printer for Ontario.

Environmental Assessment Act, R.S.O., (1990).

Ministry of Tourism, Culture and Sport. (2014). *Standards & Guidelines for Conservation of Provincial Heritage Properties: Ministry of Tourism, Culture and Sport Heritage Identification & Evaluation Process*.

Ministry of Tourism, Culture and Sport. (2016). *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes, A Checklist for the Non-Specialist*. http://www.mtc.gov.on.ca/en/heritage/tools.shtml

Mississauga Canoe Club. (2021). *About*. Mississauga Canoe Club. https://mississaugacanoeclub.ca/about/

Mississauga of the New Credit First Nation. (2001). *Toronto Purchase Specific Claim: Arriving at an Agreement*.

Mississaugas of the Credit First Nation. (2017). *Treaty Lands and Territory*. http://mncfn.ca/category/treaty-lands-and-territory/

Ontario Genealogical Society. (n.d.). *OGS Cemeteries*. Digitals Collections & Library Catalogue. http://vitacollections.ca/ogscollections/2818487/data

Ontario Heritage Trust. (2018). *An Inventory of Provincial Plaques Across Ontario*. https://www.heritagetrust.on.ca/user_assets/documents/Inventory-of-provincial-plaques-ENG.pdf

Ontario Heritage Trust. (n.d.a). *Easement Properties*. Ontario Heritage Trust. https://www.heritagetrust.on.ca/en/property-types/easement-properties

Ontario Heritage Trust. (n.d.b). *Ontario Heritage Act Register*. https://www.heritagetrust.on.ca/en/pages/tools/ontario-heritage-act-register

Ontario Heritage Trust. (n.d.c). *Places of Worship Inventory*. Ontario Heritage Trust. https://www.heritagetrust.on.ca/en/places-of-worship/places-of-worship-database

Parks Canada. (n.d.a). *Canada's Historic Places*. www.historicplaces.ca

Parks Canada. (n.d.b). *Directory of Federal Heritage Designations*. https://www.pc.gc.ca/apps/dfhd/search-recherche_eng.aspx

Pope, J. H. (1877). *Illustrated Historical Atlas of the County of Peel, Ont.* [Map]. Walker and Miles.

Rainer, J. H. (1982). Effect of Vibrations on Historic Buildings. *The Association for Preservation Technology Bulletin*, *XIV*(1), 2–10.

Randl, C. (2001). *Preservation Tech Notes: Protecting a Historic Structure during Adjacent Construction*. U.S. Department of the Interior National Park Service. https://www.nps.gov/tps/how-to-preserve/tech-notes/Tech-Notes-Protection03.pdf

Rayburn, A. (1997). *Place Names of Ontario*. University of Toronto Press.

Region of Peel. (2018). *Peel Region Official Plan*. https://www.peelregion.ca/planning/officialplan/download.htm

Reynolds, B. (2011). *Port Credit and the Railway*. Self Published.

Robb, G., Dilse, P., Henderson, H., Hermsen, B., Shearer, W., & Stewart, P. (2003). *Heritage Conservation Feasibility Study of Old Port Credit Village Stage 1 Report*.

Robertson, J. R. (1911). *The Diary of Mrs. John Graves Simcoe*. William Briggs.

Scott, D. E. (1997). *Ontario Place Names. The Historical, Offbeat or Humorous Origins of More Than 1,000 Communities.* (Lone Pine Publishing).

Smith, D. B. (1987). *Sacred Feathers: The Reverend Peter Jones (Kahkewaquonaby) & the Mississauga Indians*. University of Toronto Press.

The Canadian Press. (2012). *Canadian National selling rail segments to Metrolinx*. CP24. https://www.cp24.com/canadian-national-selling-rail-segments-to-metrolinx-1.787752

The Landplan Collaborative Ltd. (2005). *Cultural Landscape Inventory*.

Toronto and Region Conservation Authority. (2014). *The Living City Policies for Planning and Development in the Watersheds of the Toronto and Region Conservation Authority*. https://drive.google.com/file/d/0BxjqkzmOuaaRYWxqSGdUaHp5UE0/view

Tremaine, G. C. (1859). *Tremaine's Map of the County of Peel* [Map]. George C. Tremaine.

U.N.E.S.C.O. World Heritage Centre. (n.d.). *World Heritage List*. U.N.E.S.C.O. World Heritage Centre. http://whc.unesco.org/en/list/

VIA Rail. (n.d.). *VIA Rail an astounding history*. Via Rail. https://corpo.viarail.ca/en/company/our-history/via-rail-astounding-history

Williamson, R. F. (1990). The Early Iroquoian Period of Southern Ontario. In C. J. Ellis & N. Ferris (Eds.), *The Archaeology of Southern Ontario to A.D. 1650* (pp. 291–320). Ontario Archaeological Society Inc.

Wiss, J. F. (1981). Construction Vibrations; State-of-the-Art. *Journal of Geotechnical Engineering*, *107*, 167–181.

APPENDIX A: METROLINX HERITAGE COMMITTEE DECISION FORMS AND METROLINX INTERM HERITAGE COMMITTEE – STATEMENT OF CULTURAL HERITAGE VALUE

Metrolinx Interim Heritage Committee Decision Form

Property Name: Mississauga Road Bridge (Mile 11.8)

The Metrolinx Heritage Committee has decided that this property:

☒is identified as a Metrolinx Heritage Property; OR

☐is identified as a Metrolinx Heritage Property of Provincial Significance; OR

☐is NOT a Metrolinx Heritage Property

Recommendations and Rationale:

- The Metrolinx Heritage Committee (MHC) agree with the consultant recommendation that the Mississauga Road Bridge (Mile 11.8) is a Metrolinx Heritage Property and meets the criteria outlined in Ontario Regulation 9/06 but not Ontario Regulation 10/06.

The boundaries of the Metrolinx Heritage Property are:

■ the same as the legal property boundaries of the Metrolinx installation; OR

□ new boundaries, as shown in the attached map.

The significant cultural heritage value(s) of the Metrolinx Heritage Property is/are:

- It was determined that the Mississauga Road Bridge (Mile 11.8) meets the criteria contained in Ontario Regulation 09/06.
- It was determined that the Mississauga Road Bridge (Mile 11.8) did not meet the criteria contained in Ontario Regulation 10/06.

The following realty assets contribute to the cultural heritage value(s) of the Metrolinx Heritage Property:

Asset Name	Land parcel
N/A	N/A

The following realty assets DO NOT contribute to the cultural heritage value(s) of the Metrolinx Heritage Property:

Asset Name	Land parcel
N/A	N/A

Attachments:

☒ a Statement of Cultural Heritage Value for the Metrolinx Heritage Property.

☐ a map showing the boundaries and contributing assets of the Metrolinx Heritage Property.

Evaluators:	
Name	**Position and Organization**
Rebecca MacDonald, Chair	**Manager, Environmental Programs & Assessment, Metrolinx**
Michael Wolczyk	**Vice President, Technical Resource Management, Office of CEO**
Chris Uchiyama	**Internal Heritage Specialist**
Dan Schneider	**External Heritage Specialist**
Date of Evaluation: June 5, 2020	

A Division of METROLINX
Une Division de METROLINX

Metrolinx Heritage Committee Decision Form

Property Name: Credit River Bridge (Lakeshore West Rail Corridor), Toronto:

The Metrolinx Heritage Committee has decided that these four properties:

- □ is identified as a Metrolinx Heritage Property; OR
- ■ is identified as a Metrolinx Heritage Property of Provincial Significance; OR
- □ is NOT a Metrolinx Heritage Property

Recommendations and Rationale:

- The Metrolinx Heritage Committee (MHC) agrees with the consultant recommendation that the Credit River Bridge is a Metrolinx Heritage Property of Provincial Significance as it satisfies the criteria outlined in both Ontario Regulation 9/06 and Ontario Regulation 10/06 (By ASI, July 2016).
- The MHC disagrees with the consultant assessment to the following Criterion in Ontario Regulation 9/06 (By ASI, July 2016).
  - Criteria 1.i: "unusual" should not be included in the analysis as it is not part of the criteria.
  - Criteria 2.iii: contradicts with Criterion 1.ii regarding craftsmanship.
- The MHC disagrees with the consultant assessment to the following Criteria in Ontario Regulation 10/06 (By ASI, July 2016).
  - Criteria 3: the analysis should delete the work "unusual" and should only include "unique". Clarify the statement about featuring both riveted work and pin connections is "unusual". Many pin connected structures used riveted members.
  - Criteria 7: Assuming the design as noted above is unique, then the design which is attributed to Hobson must reflect an association with him and the railway organization. Comparisons with the St. Clair Tunnel or the International Bridge at Fort Erie are not required by the test for this criteria and must stand on its own.

The boundaries of the Metrolinx Heritage Property are:

- ■ The same as the legal property boundaries of the Metrolinx installation; OR
- □ New boundaries, as shown in the attached map (See Statement of Cultural Heritage Value).

The significant cultural heritage value(s) of the Metrolinx Heritage Property is/are:

- It was determined that Credit River Bridge meets the criteria contained in Ontario Regulation 09/06.
- It was determined that Credit River Bridge meets the criteria contained in Ontario Regulation 10/06.

The following realty assets contribute to the cultural heritage value(s) of the Metrolinx Heritage Property:

Asset Name	Land parcel

N/A	N/A

The following realty assets DO NOT contribute to the cultural heritage value(s) of the Metrolinx Heritage Property:

Asset Name	Land parcel
N/A	N/A

Attachments:

- ■ a Statement of Cultural Heritage Value for the Metrolinx Heritage Property
- □ a map showing the boundaries and contributing assets of the Metrolinx Heritage Property.

Evaluators:

Name	Position and Organization
Michael Wolczyk, Chair	**Vice President, Corridor Infrastructure, Metrolinx**
Don Forbes	**Manager, Environmental Programs, Metrolinx**
Dan Schneider	**External Heritage Specialist**
David Cuming	**External Heritage Specialist *(electronic comments provided)***
Walter Kenedi	**Head of Bridge Management, MTO *(electronic comments provided)***

Date of Evaluation: October 13th, 2016

A Division of METROLINX
Une Division de METROLINX

Metrolinx Interim Heritage Committee – Statement of Cultural Heritage Value

Property Name: Credit River Bridge (Lakeshore West Rail Corridor), Mississauga

Description of property:

The Credit River Bridge is located at Mile 13.27 of the GO Transit Lakeshore West rail corridor, and is located in the historic village of Port Credit, in the City of Mississauga. The three-span railway bridge was built in 1903 to the designs and specifications of the Grand Trunk Railway Company, and it was constructed by the Canadian Bridge Company Limited of Walkerville, Ontario. The bridge features a central inverted bowstring arch deck truss with steel beam approach spans on either side. It was widened to the north in 2008 to accommodate a third track. The bridge carries three tracks of rail traffic in an east and west direction across the Credit River, between Stavebank Road and Mississauga Road. While rail traffic travels in an east-west direction, it should be noted that at this segment of the rail corridor, the bridge and corridor is on a northeast-southwest alignment, and the Credit River flows northwest to southeast under the bridge. The Credit River Bridge is located within Metrolinx-owned parcel PIN 13456-0580.

It is recommended that Metrolinx/GO Transit proceed with identifying the Credit River Bridge as a Provincial Heritage Property of Provincial Significance.

Cultural Heritage Value:

The Credit River Bridge spans the Credit River, listed as a cultural heritage landscape by the City of Mississauga, in the village of Port Credit. The bridge is a landmark in Port Credit and it contributes significantly to the scenic character of the river and the community. Further, given the age of the bridge, proximity to Port Credit GO Station, and the role of the railway corridor in the community, this bridge retains significant physical, functional, visual and historical links to the Credit River and to Port Credit.

The Credit River Bridge is directly associated with the GTR's program to double track its route from Montreal to Sarnia in the late nineteenth and early twentieth century. The current bridge was built to replace the original wooden railway bridge at this location. This was a significant improvement to railway infrastructure in southern Ontario that contributed to economic and population growth, particularly in the Greater Toronto Area.

The Credit River Bridge is an unusual and unique example of an inverted bowstring arch deck truss bridge and is thought to be one-of-a-kind in Ontario. The low curved chord underneath the bridge gives a sense of floating above the water as it extends over the Credit River, for an unsupported 210 ft (63 m). The unique design, combined with the span of the deck truss, demonstrates that the Credit River Bridge has a high degree of technical achievement. Distinctive features of this style of bridge construction include: combination of pin and riveted connections; heavy duty steel ten panel truss with diagonal members forming a Warren truss configuration; lower curved chord composed of lighter, less robust, steel; and massive eyebar bundles.

The Credit River Bridge was designed by Chief Engineer of the GTR, Joseph Hobson, and fabricated

by the Canadian Bridge Company Limited of Walkerville, in 1903. Given its noted craftsmanship, technical achievement, and unusual and unique design, the Credit River Bridge is considered to be a notable example of a bridge designed by Hobson, the GTR, and the Canadian Bridge Company Limited.

Heritage Attributes:

A list of heritage attributes that contribute to the cultural heritage value of the Credit River Bridge include its:

- Steel and masonry bridge design and construction;
- Stone masonry substructure;
- Three-span scale and dimension, including the 210 ft (63 m) central deck truss span and two steel beam approach spans (30 ft or 9 m each); Unique and unusual steel deck truss centre span with an inverted bowstring arch shape; and
- Combination of pin and riveted connections.

Metrolinx Heritage Property Location:

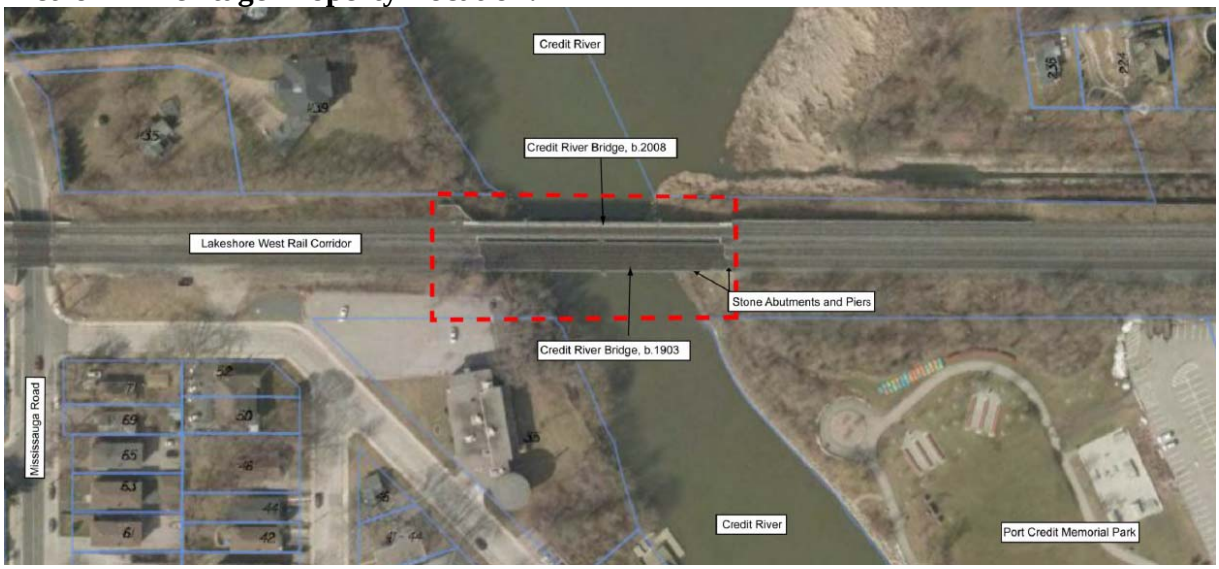
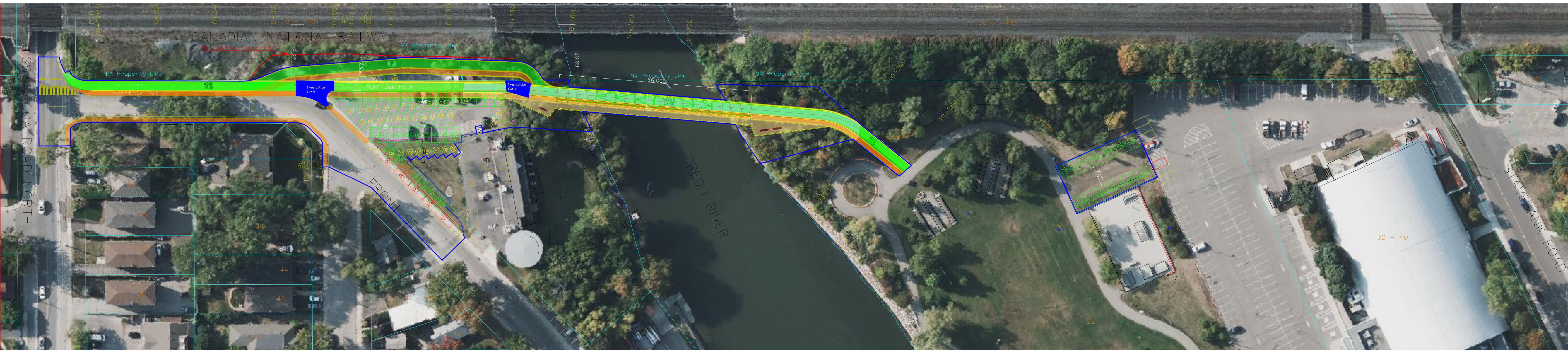


Figure showing the location of the Credit River Bridge.

APPENDIX B: PRELIMINARY DESIGNS FOR THE NEW CREDIT RIVER ACTIVE TRANSPORTATION BRIDGE



CANADIAN NATIONAL RAILWAY
MX existing fence line
MX property line
MX Property Line
Cycle Path
Pedestrian Path
Transition Zone
Multi Use Path
Transition Zone
MISSISSAUGA ROAD NORTH
FRONT ST N
CREDIT RIVER
STAVEBANK ROAD
60 - 7481
32 - 40