



Metrolinx/City of Mississauga

Errata to the Final Environmental Project Report

Dundas Bus Rapid Transit Mississauga East

Date: March 2022



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Authors

Report Prepared By:



Paul Cech, B.E.S., C.Tech
Environmental Planner

Report Reviewed By:



Joanne Wang, M.E.S., MCIP, RPP
Senior Environmental Planner

Approved By:



Nicole (Cooke) Peroff, MES
Senior Environmental Planner

Introduction

In 2020, Metrolinx completed the Dundas Bus Rapid Transit Initial Business Case, which recommends a preferred Bus Rapid Transit alignment, and supportive service concept along Dundas Street between Kipling Station in the City of Toronto, through the City of Mississauga and Halton Region, to Highway 6 in the City of Hamilton. AECOM Canada Limited (AECOM) was retained by Metrolinx and the City of Mississauga to evaluate the proposed 48-kilometre transit corridor. The evaluation involves the completion of the Preliminary Design, Preliminary Design Business Case and Transit Project Assessment Process.

In 2018, the Dundas Connects Master Plan (Dundas Connects) was completed by the City of Mississauga. It guides future development and intensification along the Dundas Street Corridor in the City of Mississauga. Bus Rapid Transit, cycling infrastructure, and an enhanced public realm for pedestrians were among the recommendations in Dundas Connects. Recommendations from Dundas Connects are being implemented through various studies and initiatives, including this Transit Project Assessment Process.

The Dundas Bus Rapid Transit Mississauga East Project (the Project) includes the planning and design of a 7-kilometre Bus Rapid Transit corridor from Confederation Parkway to the City of Toronto boundary at Etobicoke Creek, within the City of Mississauga. An Environmental Project Report has been prepared to support the Project, and a final draft version of the report was made available for public review between February 23, 2022 and March 25, 2022.

The purpose of this Errata sheet is to document changes that have been made to the Environmental Project Report after it was made available for review during the public review period. These changes have all been incorporated into the final version of the report and are recorded below for reference. Additions that have been made to the report are denoted in underlined text that is highlighted in yellow, while redactions are denoted in ~~text with a strike through~~.

Executive Summary

~~Note to draft: the Stage 1 Archaeological Assessment findings and recommendations are preliminary until the assessment is finalized. They will be updated once the report has been accepted by the Ministry of Heritage, Sport, Tourism and Culture Industries.~~

ES 4. Existing Conditions

Archaeology

A Stage 1 Archaeological Assessment was completed in October 2021 by AECOM. The archaeological assessment report ~~(currently with the Ministry of Heritage, Sport, Tourism and Culture Industries for review)~~ has identified areas with the likelihood for recovery of archaeological resources. The Study Area has high potential for the recovery of Indigenous and Euro-Canadian archaeological resources. Stage 2 Archaeological Assessment is recommended for all areas identified as retaining archaeological potential.

There is one registered archaeological site located within the Study Area that has been recommended for further work. The latitude and longitude of the site provided in the Archaeological Sites Database places the site right on the boundaries of the Study Area, within an area of documented previous extensive disturbance. ~~Refer to Supplementary Documentation in Appendix D for more details.~~

Three cemeteries are also located within the Study Area: Dixie Union Cemetery, St. John's Dixie Cemetery & Crematorium, and the remains of the Dundas-Dixie Cemetery.

ES 5. Potential Impacts, Mitigation Measures and Monitoring Activities

Cultural Environment

Built Heritage Resources and Cultural Heritage Landscapes

The Cultural Heritage Report identified potential impacts and recommended preliminary mitigation measures as follows:

- Construction activities and staging areas should be suitably planned in detailed design to avoid any direct, adverse impacts to the identified known and potential built heritage resources and cultural heritage landscapes.
- Should a Cultural Heritage Evaluation Report, which has been completed as part of this Project for six properties, conclude that a property meets one or more of the criteria outlined in the Ontario Regulation 9/06 and/or Ontario Regulation 10/06 of the Ontario Heritage Act, then a Heritage Impact Assessment should be completed by a qualified person during detailed design

to assess direct adverse impacts of the construction activities related to the Project on the identified heritage attributes of a resource.

- Six properties were subject to a CHER, and the following properties were determined to have cultural heritage value or interest and therefore will require a Heritage Impact Assessment: ~~For the six properties that a Cultural Heritage Evaluation Report has been completed, the following properties will require a Heritage Impact Assessment:~~ Built Heritage Resource 1 - 202 Dundas Street West, Built Heritage Resource 4 - 51, 55-57 Dundas Street West, Built Heritage Resource 5 - 47 Dundas Street West and Built Heritage Resource 7 - 14 Dundas Street East.
- There are three plaques within the Study Area. It is recommended to monitor the protection of the plaque throughout construction to ensure the integrity of the plaque is maintained. Post construction, the enclosure will be removed and the condition of the plaque will be confirmed to ensure it meets pre-construction conditions.
- Given that built heritage resources and cultural heritage landscapes are within the Study Area it is anticipated that in some locations vibrations limits will be exceeded and therefore, the mitigation measures for vibration impacts should be implemented. Construction and post-construction monitoring may be required for historic buildings that were determined subject to vibration damage.

Refer to Appendix C of the Cultural Heritage Report (available in **Appendix D** of this Environmental Project Report) for additional details on Preliminary Potential Project-Specific Impacts and Proposed Mitigation Measures.

Archaeology

~~A Stage 1 Archaeological Assessment was completed in October 2021 by AECOM. The report is currently with the Ministry of Heritage, Sport, Tourism and Culture Industries for review.~~ The Stage 1 Archaeological Assessment completed for the Project resulted in the finding that there is high potential for pre- and post-contact Indigenous and 19th century Euro-Canadian archaeological resources and human burials to be present within the Study Area. Based on the results of background studies and a review of the City of Mississauga Official Plan, it has been determined that archaeological potential still exists within some small portions of the Study Area. In light of these results, prior to any ground disturbing activities, a Stage 2 Archaeological Assessment is recommended for all land identified as retaining archaeological potential.

There is one registered archaeological site located within the current Study Area boundaries, the Cherry Hill site (AjGv-18), that has been recommended for further work. However, the latitude and longitude of the site provided in the Archaeological Sites

Database places the site right on the boundaries of the current Study Area, within an area of documented previous extensive disturbance. Once the land to be impacted by infrastructure improvements has been identified, should proposed construction activities impact any of the archaeological sites within an area that has not been subject to extensive disturbance, further Archaeological Assessment must be completed prior to ground disturbing activities.

Given the sparse details provided in the Archaeological Sites Database, it is not clear from the previous Archaeological Assessment what further work is required or whether there is potential for deeply buried remains. Therefore, the Stage 2 Archaeological Assessment requirements will be applied in the area to determine the level of disturbance present. If an undisturbed area in the vicinity of the coordinates provided in the Archaeological Sites Database is found and determined to be impacted by the Project, further archaeological work will be required in an attempt to relocate the site and assess for the potential of deeply buried remains is required.

Special consideration must be made for the cemeteries located within the Study Area: Dixie Union Cemetery, St. John's Dixie Cemetery & Crematorium, and the remains of the Dundas-Dixie Cemetery (CHL 4).

Dixie Union Cemetery and St. John's Dixie Cemetery and Crematorium:

- It was determined that there is no potential for unmarked burials associated with the Dixie Union Cemetery to be located outside the current fenceline. As a result, no further Archaeological Assessment is required within the Dundas Street or Cawthra Road rights of- way that are part of this Project.

Dundas-Dixie Cemetery:

- The existence of the Dundas-Dixie Cemetery is largely unknown, and it is unclear if any grave shafts exist below the current commercial structures on the property.
- It is unlikely that any intact archaeological resources exist beneath the land alterations along Dundas Street adjacent to the property.
- Therefore, because the cemetery is illustrated on historic mapping, and any relating documentation may have been destroyed, it is recommended that should any development impacts to the property outside of the Dundas Street right-of-way be proposed, additional Stage 2 and Stage 3 cemetery investigation is required to confirm the level of disturbance.

The current Study Area also crosses a number of 19th century settlement areas, including Summerville, Sydenham (later Dixie), and Cooksville. While we have not identified any areas where deeply buried potential remains, there is a possibility that structural remains could exist beneath the surface that could require further archaeological work.

Should Indigenous Nations express interest in participating in the Stage 2 Archaeological Assessment as part of the Dundas Bus Rapid Transit Project, an invitation should be

extended by the proponent for representatives of the Indigenous Nations to join the archaeological team during fieldwork. Additionally, the Stage 2 report should be made available to the Indigenous Nations for review prior to submission of the report to the Ministry of Heritage, Sport, Tourism and Culture Industries. Further, as unmarked Indigenous burials have been referenced in previous historical records, local Indigenous Nations should be engaged in any impacts within the boundaries of the Dixie Union Cemetery/St. John's Dixie Cemetery & Crematorium.

The archaeological assessment report has identified areas with the likelihood for recovery of archaeological resources. A Stage 2 Archaeological Assessment is recommended for all areas identified as having archaeological potential. A Stage 2 (and further stages of archaeological assessments, as recommended) will be undertaken by an archaeologist licenced under the Ontario Heritage Act. Archaeological assessments will be undertaken as early as possible during detailed design and prior to any ground disturbing activities.

There is one registered archaeological site located within the Study Area boundaries, Cherry Hill (AjGv-18), that has been recommended for further work. Based on limited geographic references, it appears to be within an area of documented previous extensive disturbance. Should proposed construction activities impact any of the archaeological sites within an area that has not been subject to extensive disturbance, further archaeological assessment must be completed prior to ground disturbing activities.

Special consideration must be made for the two cemeteries located within the Study Area, St. John's Dixie Cemetery & Crematorium/Dixie Union Cemetery, and the remains of the Dundas-Dixie Cemetery. Due to expansion northward, any unmarked graves are unlikely to exist within the Dundas Street right-of-way at St. John the Baptist Anglican Cemetery or St. John's Dixie Cemetery, but a cemetery investigation may be required should impacts be proposed on the property within the marked cemetery limits.

Although unlikely, it is unclear if any grave shafts exist below the current commercial structures on the property of the former Dundas-Dixie Cemetery. However, it is recommended that should any development impacts to the property outside of the right-of-way be proposed as part of the Project, additional Stage 2 Archaeological Assessment for deeply buried archaeological materials will be undertaken.

ES 9. Future Studies

Built Heritage Resources and Cultural Heritage Landscapes

- ~~Cultural Heritage Evaluation Reports will be prepared by a qualified person and in consultation with the City of Mississauga Heritage Planning staff for properties that are identified with known or potential cultural heritage value or interest and could be directly adversely impacted by the Project. Metrolinx will continue to follow its internal approach to completing Cultural Heritage Evaluation Reports.~~
- Six built heritage resources, listed in **Table 5-8**, are anticipated to be directly, adversely impacted by the Project. Cultural Heritage Evaluation Reports have been completed by a qualified person, in consultation with the City of Mississauga Heritage Planning staff, and incorporated into the Environmental Project Report, to determine if the properties meet the criteria of Ontario Regulation 9/06 or Ontario Regulation 10/06 of the Ontario Heritage Act.
- Should a Cultural Heritage Evaluation Report conclude that a property meets one or more of the criteria outlined in the Ontario Regulation 9/06 and/or Ontario Regulation 10/06 of the Ontario Heritage Act, then a Heritage Impact Assessment should be completed by a qualified person during detailed design to assess direct adverse impacts of the construction activities related to the Project on the identified heritage attributes of a resource.
- Six properties were subject to a CHER, and the following properties were determined to have cultural heritage value or interest and therefore will require a Heritage Impact Assessment: Built Heritage Resource 1 - 202 Dundas Street West, Built Heritage Resource 4 - 51, 55-57 Dundas Street West, Built Heritage Resource 5 - 47 Dundas Street West and Built Heritage Resource 7 - 14 Dundas Street East.

Table E-2: Summary of Environmental Concerns, Mitigation Measures and Commitments during Construction

~~Note to draft: the Stage 1 Archaeological Assessment findings and recommendations are preliminary until the assessment is finalized. They will be updated once the report has been accepted by the Ministry of Heritage, Sport, Tourism and Culture Industries.~~

Environment	Environmental Component	Potential Impacts	Mitigation Measures(s)	Monitoring Activities
Built Heritage Resources and Cultural Heritage Landscapes		<ul style="list-style-type: none">■ Direct impacts to the heritage attribute(s) of a known or potential Provincial Heritage Property or Provincial Heritage Properties of Provincial Significance due to installation of new/modified infrastructure	<ul style="list-style-type: none">■ <u>The following directly impacted properties were subject to a CHER and determined to have cultural heritage value or interest and therefore will require a Heritage Impact Assessment:</u><ul style="list-style-type: none">○ Built Heritage Resource 1 - 202 Dundas Street West,○ Built Heritage Resource 4 - 51, 55-57 Dundas Street West,○ Built Heritage Resource 5 - 47 Dundas Street West, and○ Built Heritage Resource 7 - 14 Dundas Street East.■ Should a Cultural Heritage Evaluation Report conclude that a property meets one or more of the criteria outlined in the Ontario Regulation 9/06 and/or Ontario Regulation 10/06 of the Ontario Heritage Act, then a Heritage Impact Assessment should be completed by a qualified person during detailed design to assess direct adverse impacts of the construction activities related to the Project on the identified heritage attributes of a resource.■ Given the importance and location of some Cultural Heritage Resources, consultation with Municipal heritage staff and other jurisdictions will be undertaken as appropriate to determine if proposed infrastructure will be subject to specific policies within heritage districts or conservation areas (including parks).	<ul style="list-style-type: none">■ Implement and comply with monitoring requirements and commitments pertaining to Cultural Heritage Resources/properties as per previously completed Metrolinx and/or City of Mississauga Environmental Project Reports and the recommendations contained in any/all of the following documents: Cultural Heritage Reports, Heritage Impact Assessments.
Archaeology	Archaeological Resources	<ul style="list-style-type: none">■ Potential for the disturbance of unassessed or documented archaeological resources	<ul style="list-style-type: none">■ Prior to construction, Proponent to develop and implement an Archaeological Risk Management Plan. The Archaeological Risk Management Plan will address any recommendations resulting from archaeological assessments and documents all protocols for the discovery of human remains and undocumented archaeological resources. The Archaeological Risk Management Plan shall be amended to incorporate any additional actions required resulting from subsequent Archaeological Assessment Reports.■ All work shall be performed in accordance with Applicable Law, including but not limited to the <i>Ontario Heritage Act</i>, the Ministry of Heritage, Sport, Tourism and Culture Industries, formerly the Ministry of Tourism, Culture and Sport (MTCS) <i>Standards and Guidelines for Consultant Archaeologists</i> (2011), and the Ministry of Heritage, Sport, Tourism and Culture Industries document, <i>Engaging Aboriginal Communities in Archaeology: A Draft Bulletin for Consultant Archaeologists in Ontario</i> (2011).■ In the event that archaeological resources are encountered or suspected of being encountered during construction, all work will cease. The location of the findspot should be protected from impact by employing a buffer in accordance with requirements of the Ministry of Heritage, Sport, Tourism and Culture Industries. A professionally licensed archaeologist will be consulted to complete the assessment. If resources are confirmed to possess cultural heritage value/interest then they will be reported to the Ministry of Heritage, Sport, Tourism and Culture Industries, and further archaeological assessment of the resources may be required. If it is determined that there is a potential for Indigenous artifacts, Metrolinx/City of Mississauga should be contacted, and Applicable Law and/or any specific agreement between Metrolinx and Indigenous Nations will be followed.	<ul style="list-style-type: none">■ Performance of the work will occur within land previously subject to an archaeological assessment.■ Any site personnel responsible for carrying out or overseeing land-disturbing activities will be informed of their responsibilities in the event that an archaeological resource is encountered.■ Further archaeological assessment may identify the need for monitoring during construction.

Environment	Environmental Component	Potential Impacts	Mitigation Measures(s)	Monitoring Activities
			<ul style="list-style-type: none"> ■ If final limits of the Project footprint are altered and fall outside of the assessed Study Area, additional archaeological assessments will be conducted by a professionally licensed archaeologist prior to disturbance and prior to construction activities. This will include completing all required archaeological assessments resulting from the Stage 1 Archaeological Assessment (Stage 2, Stage 3 and Stage 4, as required) as early as possible, prior to the completion of design, and in advance of any ground disturbance. ■ For areas determined to have archaeological potential or contain archaeological resources that will be impacted by project activities, additional archaeological assessment will be conducted by a professionally licensed archaeologist prior to disturbance. ■ If human remains are encountered or suspected of being encountered during project work, all activities must cease immediately and the local police/coroner as well as the Bereavement Authority of Ontario on behalf of the Ministry of Government and Consumer Services and <u>the Ministry of Heritage, Sport, Tourism and Culture Industries</u> must be contacted. Archaeological investigations of human remains will not proceed until police have confirmed the remains are not subject to forensic investigation. Once human remains have been cleared of police concern, the Ministry of Heritage, Sport, Tourism and Culture Industries will also be notified to ensure that the site is not subject to unlicensed alterations which would be a contravention of the <i>Ontario Heritage Act</i>. If the human remains are determined to be of Indigenous origin, Metrolinx/City of Mississauga should be contacted and all Applicable Law and/or any specific agreement between Metrolinx and Indigenous Nations must be adhered to. ■ All archaeological assessment findings will be shared with Indigenous Nations, as per Metrolinx's <i>Guide to Engaging with Indigenous Communities</i> (2020). ■ <u>Should Indigenous Nations express interest in participating in the Stage 2 Archaeological Assessment, an invitation should be extended by the proponent for representatives of the Indigenous Nations to join the archaeological team during fieldwork. Additionally, the Stage 2 report should be made available to the Indigenous Nations for review prior to submission of the report to the Ministry of Heritage, Sport, Tourism and Culture Industries.</u> 	
Archaeology	Dundas-Dixie Cemetery	<ul style="list-style-type: none"> ■ Ground disturbing activities 	<ul style="list-style-type: none"> ■ <u>Should any development impacts to the property outside of the Dundas Street right-of-way be proposed, additional Stage 2 and Stage 3 cemetery investigation is</u> ■ <u>If any archeological sites including cultural features are encountered, they must undergo assessment and documentation according to the 2011 Standards and Guidelines:-</u> ■ <u>Given that the Bereavement Authority of Ontario is unaware of the possibility of a cemetery in this location, and it is not a formal licensed cemetery, a Cemetery Investigation Authorization may not be required. Consultation with the Ministry of Heritage, Sport, Tourism and Culture Industries and the Bereavement Authority of Ontario should occur prior to any ground disturbance; and</u> ■ <u>A Stage 3 Cemetery Investigation report must be completed detailing the results of the investigation for each cemetery and submitted to the Ministry of Heritage, Sport, Tourism and Culture Industries for review and acceptance into the Ontario Public Register of Archaeological Reports.</u> ■ Should any development impacts to the property outside of the right-of-way be proposed as part of the Project, additional Stage 2 Archaeological Assessment for 	<ul style="list-style-type: none"> ■ N/A

Environment	Environmental Component	Potential Impacts	Mitigation Measures(s)	Monitoring Activities
			deeply buried archaeological materials following Section 2.1.7 of the Standards and Guidelines for Consultant Archaeologists will be undertaken.	
Archaeology	Area of Archaeological Potential	■ Potential to impact cemetery located in proximity to the Project footprint.	■ Work in proximity to known cemeteries requires completion of an archaeological assessment prior to any proposed ground disturbance in accordance with the Ministry of Heritage, Sport, Tourism and Culture Industries' Standards and Guidelines for Consultant Archaeologists (2011) and the Funeral, Burial, and Cremation Services Act and regulations under that Act.	■ Further archaeological assessment may identify the need for monitoring during construction.
Archaeology	St. John's Dixie Cemetery & Crematorium/Dixie Union Cemetery)	■ Ground disturbing activities	<div>■ There are currently no plans to impact the cemetery lands A cemetery investigation may will be required should impacts the design change and result in be proposed impacts to on the property within the marked cemetery limits.</div> <div>■ Consultation with the Bereavement Authority of Ontario as outlined below will be required prior to any work within the cemetery limits.</div>	■ N/A
Archaeology	Human Remains	■ Ground disturbing activities	<div>■ If human remains are encountered during construction, work must cease immediately, the police or Regional Coroner should be contacted, as well as the Registrar of the Cemeteries Regulation Unit of the Ministry of Consumer Services, the Bereavement Authority of Ontario, and the Ministry of Heritage, Sport, Tourism and Culture Industries. If the remains are not determined to be of forensic interest, a Burials Site Investigation under the Funeral, Burial and Cremation Services Act, 2002 may be ordered;</div> <div>■ If human remains are encountered during construction, work must cease immediately and the police or Regional Coroner should be contacted, in addition to the Registrar of the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services and the Bereavement Authority of Ontario</div>	■ N/A
Archaeology	Dundas-Dixie Cemetery	■ Ground disturbing activities	<div>■ Should any development impacts to the property outside of the Dundas Street right-of-way be proposed, additional Stage 2 and Stage 3 cemetery investigation is required</div> <div>■ If any archeological sites including cultural features are encountered, they must undergo assessment and documentation according to the 2011 Standards and Guidelines;</div> <div>■ Given that the Bereavement Authority of Ontario is unaware of the possibility of a cemetery in this location, and it is not a formal licensed cemetery, a Cemetery Investigation Authorization may not be required. Consultation with the Ministry of Heritage, Sport, Tourism and Culture Industries and the Bereavement Authority of Ontario should occur prior to any ground disturbance; and</div> <div>■ A Stage 3 Cemetery Investigation report must be completed detailing the results of the investigation for each cemetery and submitted to the Ministry of Heritage, Sport, Tourism and Culture Industries for review and acceptance into the Ontario Public Register of Archaeological Reports</div>	■ N/A

Table of Contents

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1. Introduction

No changes made to Chapter 1.

2. Study Process

No changes made to Chapter 2.

3. Project Description

No changes made to Chapter 3.

4. Existing Conditions

1.1 Archaeology

A Stage 1 Archaeological Assessment was completed in October 2021 by Samantha Markham, MES (P438) for the Project. ~~Currently the report is with the Ministry of Heritage, Sport, Tourism and Culture Industries for review.~~ A Stage 1 Archaeological Assessment consists of a review of geographic, land use and historical information for the property and the relevant surrounding area, a property visit to inspect its current condition and

contacting TCI to find out whether, or not, there are any known archaeological sites on or near the property. Its purpose is to identify areas of archaeological potential and further archaeological assessment (e.g. Stage 2- 4) as necessary. The Stage 1 Archaeological Assessment is included in **Appendix D**.

There is one registered archaeological site located within the current Study Area boundaries, the Cherry Hill site (AjGv-18), that has been recommended for further work. However, the latitude and longitude of the site provided in the Archaeological Sites Database places the site right on the boundaries of the current Study Area, within an area of documented previous extensive disturbance. Once the land to be impacted by infrastructure improvements has been identified, should proposed construction activities impact any of the archaeological sites within an area that has not been subject to extensive disturbance, further Archaeological Assessment must be completed prior to ground disturbing activities.

Special consideration must be made for the cemeteries located within the Study Area: Dixie Union Cemetery, St. John's Dixie Cemetery & Crematorium, and the remains of the Dundas-Dixie Cemetery (CHL 4).

Based on the background research, plot mapping, and conversations with the cemetery operator, it is reasonable to believe that the fenceline represents the cemetery limits and it has been determined that there is no potential for unmarked burials associated with the Dixie Union Cemetery to be located outside the current fenceline. It has also been determined that all expansion of the cemetery has occurred to the north with the expansion of the St. John's Dixie Cemetery and any unmarked graves are unlikely to exist within the Dundas Street right-of-way. Additionally, there is a large, modern concrete retaining wall to the west along the Cawthra Road underpass that is not anticipated to be impacted by the Project. As a result, no further Archaeological Assessment is required within the Dundas Street or Cawthra Road rights-of-way as part of this Project.

The existence of the Dundas-Dixie Cemetery is largely unknown, and it is unclear if any grave shafts exist below the current commercial structures on the property. It is also unlikely that any intact archaeological resources exist beneath the land alterations along Dundas Street adjacent to the property.

There is one registered archaeological site located within the current Study Area boundaries, Cherry Hill (AjGv-18), that has been recommended for further work. However, the latitude and longitude of the site provided in the Archaeological Sites Database places the site right on the boundaries of the current Study Area, within an area of documented previous extensive disturbance. Should proposed construction activities impact any of the archaeological sites within an area that has not been subject to

~~extensive disturbance, further archaeological assessment must be completed prior to ground disturbing activities.~~

~~Special consideration must be made for the two cemeteries located within the Study Area, St. John's Dixie Cemetery & Crematorium/Dixie Union Cemetery, and the remains of the Dundas-Dixie Cemetery (CHL 4). Based on the background research and the plot mapping illustrating where the burials are located in relation to the fenceline, it is reasonable to believe that the fenceline represents the cemetery limits and that there is no potential for unmarked burials associated with the cemetery to be located outside the current marked boundaries. It has been determined that all expansion of the cemetery has occurred to the north with the expansion of the St. John the Baptist Anglican Cemetery or St. John's Dixie Cemetery and any unmarked graves are unlikely to exist within the Dundas Street right-of-way. Additionally, there is a large retaining wall to the west along the Cawthra Road underpass that is not anticipated to be impacted by the Project. Therefore, a cemetery investigation may be required should impacts be proposed on the property within the marked cemetery limits. Consultation with the Bereavement Authority of Ontario as outlined below will be required prior to any work within the cemetery limits. As such, once detail design is complete and the scope of construction activities has been determined, only those areas of potentially undisturbed lands that will be affected by this Project will require Stage 2 Archaeological Assessment.~~

5. Potential Impacts, Mitigation Measures and Monitoring Activities

5.1.1 Archaeology

Refer to Figure 18 in the Stage 1 Archaeology Assessment Report (available in **Appendix D**) for areas of archaeological potential. ~~The Stage 1 Archaeology Assessment Report is currently with the Ministry of Heritage, Sport, Tourism and Culture Industries for review.~~

1.1.1.1 Construction

The Stage 1 Archaeological Assessment resulted in the finding that there is high potential for pre- and post-contact Indigenous and 19th century Euro-Canadian archaeological resources to be present within the Study Area. Based on the results of background studies and a review of the City of Mississauga Official Plan, it has been determined that archaeological potential still exists within some small portions of the

Study Area. In light of these results, prior to any ground disturbing activities, a Stage 2 Archaeological Assessment is recommended for all land identified as retaining archaeological potential.

The Stage 2 Archaeological Assessment for areas retaining archaeological potential must be conducted by a licensed archaeologist and must follow the requirements set out in the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario, 2011).

There is one registered archaeological site located within the current Study Area boundaries, the Cherry Hill site (AjGv-18), that has been recommended for further work. However, the latitude and longitude of the site provided in the Archaeological Sites Database places the site right on the boundaries of the current Study Area, within an area of documented previous extensive disturbance. Once the land to be impacted by infrastructure improvements has been identified, should proposed construction activities impact any of the archaeological sites within an area that has not been subject to extensive disturbance, further Archaeological Assessment must be completed prior to ground disturbing activities.

Given the sparse details provided in the Archaeological Sites Database, it is not clear from the previous archaeological assessment what further work is required or whether there is potential for deeply buried remains. Therefore, the Stage 2 Archaeological Assessment requirements will be applied in the area to determine the level of disturbance present. ~~If an undisturbed area in the vicinity of the coordinates provided in the Archaeological Sites Database will be impacted by the Project, Stage 2 testing of the area in an attempt to relocate the site is required.~~ The Stage 2 must follow the requirements set out in the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario, 2011) as outlined above. If an undisturbed area in the vicinity of the coordinates provided in the Archaeological Sites Database is found and determined to be impacted by the Project, further archaeological work will be required in an attempt to relocate the site and assess for the potential. ~~Once the area of project impacts has been determined, only the land that will be impacted by this project will require Stage 2 Archaeological Assessment.~~

The existence of the Dundas-Dixie Cemetery is largely unknown, and it is unclear if any grave shafts exist below the current commercial structures on the property. It is also unlikely that any intact archaeological resources exist beneath the land alterations along Dundas Street adjacent to the property. Therefore, because the cemetery is illustrated on historic mapping, and any relating documentation may have been destroyed, it is recommended that should any development impacts to the property outside of the Dundas Street right-of-way be proposed, additional Stage 2 and Stage 3 cemetery investigation is required to confirm the level of disturbance, following Section 2.1.7 of the *Standards and Guidelines for Consultant Archaeologists*.

- must undergo assessment and documentation according to the 2011 Standards and Guidelines;
- If human remains are encountered during construction, work must cease immediately, the police or Regional Coroner should be contacted, as well as the Registrar of the Cemeteries Regulation Unit of the Ministry of Consumer Services, the Bereavement Authority of Ontario, and the Ministry of Heritage, Sport, Tourism and Culture Industries. If the remains are not determined to be of forensic interest, a Burials Site Investigation under the Funeral, Burial and Cremation Services Act, 2002 may be ordered;
- Given that the Bereavement Authority of Ontario is unaware of the possibility of a cemetery in this location, and it is not a formal licensed cemetery, a Cemetery Investigation Authorization may not be required. Consultation with the Ministry of Heritage, Sport, Tourism and Culture Industries and the Bereavement Authority of Ontario should occur prior to any ground disturbance; and
- A Stage 3 Cemetery Investigation report must be completed detailing the results of the investigation for each cemetery and submitted to the Ministry of Heritage, Sport, Tourism and Culture Industries for review and acceptance into the Ontario Public Register of Archaeological Reports.
- ~~• Given that the area cannot be test pitted by hand, mechanically excavate trenches at maximum intervals of 10 metres to verify the presence of and to assess deeply buried archaeological resources and/or the extent of disturbance is required;~~
- ~~• Mechanical excavations using a backhoe with a straight-edged ditching bucket are to occur within the core of the planned development area and over any areas of archaeological potential; and~~
- ~~• Should an archaeological site or material possessing cultural heritage value or interest is uncovered, further archaeological documentation will be required.~~

While there are currently no plans to impact the cemetery lands, if during detail design changes to include impacts by the Project, or any future impacts proposed within the fenced limits of the cemetery property, further Stage 1 Archaeological Assessment will be required to determine the potential to impact unmarked burials. Arrangements must be made with the cemetery owner/operator, the Bereavement Authority of Ontario and the Ministry of Heritage, Sport, Tourism and Culture Industries prior to any ground disturbing activities to determine an appropriate strategy for Stage 2 and 3 field methods within the fenced limits of this cemetery to ensure provisions under the Funeral,

Burial, Cremations Services Act (Ontario Government 2002) are addressed. Any invasive Stage 2-4 archaeological fieldwork within the cemetery limits will also require a Cemetery Investigation Authorization from the Bereavement Authority of Ontario

If human remains are encountered during construction, work must cease immediately and the police or Regional Coroner should be contacted, in addition to the Registrar of the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services, and the Bereavement Authority of Ontario, and the Ministry of Heritage, Sport, Tourism and Culture Industries. If the remains are not determined to be of forensic interest, a Burials Site Investigation under the Funeral, Burial and Cremation Services Act, 2002 may be ordered.

~~Currently, there are no proposed impacts to this property. Upon completion of the detailed design, should work for the proposed Project be required to occur within any cemetery limits or fieldwork adjacent to a cemetery where the boundaries are not clear, arrangements must be made with the Bereavement Authority of Ontario for a Cemetery Investigation Authorization prior to any ground disturbing activities. If human remains are encountered during construction, work must cease immediately and the police or Regional Coroner should be contacted, in addition to the Registrar of the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services and the Bereavement Authority of Ontario.~~

The current Study Area crosses a number of 19th century settlement areas, including Summerville, Sydenham (later Dixie), and Cooksville. Based on our detailed map and background review, we have not identified any areas where deeply buried potential remains. However, there is a possibility that structural remains could exist beneath the surface. Therefore, during construction, if historic structural remains are uncovered, a licensed archaeologist should be contacted to examine the find and determine if any documentation is required prior to its removal.

It is pertinent to note that the Study Area evaluated in this report includes additional land that may not be impacted by the Project. A large area was assessed as part of this Stage 1 Archaeological Assessment in order to accommodate areas of possible infrastructure improvements. Once detail design is complete and the scope of construction activities has been determined, only those areas of archaeological potential that will be affected by this project will require Stage 2 Archaeological Assessment.

~~Once the area of project impacts has been determined, only the land that will be impacted by this project will require Stage 2 Archaeological Assessment.~~

Should Indigenous Nations express interest in participating in the Stage 2 Archaeological Assessment as part of the Dundas Bus Rapid Transit Project, an invitation should be extended by the proponent for representatives of the Indigenous Nations to join the archaeological team during fieldwork. Additionally, the Stage 2 report should be made available to the Indigenous Nations for review prior to submission of the report to the Ministry of Heritage, Sport, Tourism and Culture Industries. Further, as unmarked Indigenous burials have been referenced in previous historical records (Ontario Genealogical Society 1997), local Indigenous Nations should be engaged in any impacts within the boundaries of the Dixie Union Cemetery/St. John's Dixie Cemetery & Crematorium.

Should additional land outside of the Study Area boundaries be included as part of the Dundas Bus Rapid Transit Project, the standard requirements for Archaeological Assessments to be conducted prior to land disturbance remain in place.

~~Should additional land outside of the Study Area boundaries reviewed by AECOM as part of the Stage 1 Archaeological Assessment be included as part of the Project, the standard requirements for archaeological assessments to be conducted prior to land disturbance remain in place.~~

1.1.1.2 Mitigation Measures

Potential for the Disturbance of Unassessed or Documented Archaeological Resources

- Prior to construction, Proponent to develop and implement an Archaeological Risk Management Plan. The Archaeological Risk Management Plan will address any recommendations resulting from archaeological assessments and documents all protocols for the discovery of human remains and undocumented archaeological resources. The Archaeological Risk Management Plan shall be amended to incorporate any additional actions required resulting from subsequent Archaeological Assessment Reports.
- All work shall be performed in accordance with Applicable Law, including but not limited to the Ontario Heritage Act, the Ministry of Heritage, Sport, Tourism and Culture Industries, formerly the Ministry of Tourism, Culture and Sport (MTCS) Standards and Guidelines for Consultant Archaeologists (2011), and the Ministry of Heritage, Sport, Tourism and Culture Industries document, Engaging Aboriginal Communities in Archaeology: A Draft Bulletin for Consultant Archaeologists in Ontario (2011).
- In the event that archaeological resources are encountered or suspected of being encountered during construction, all work will cease. The location of the findspot

should be protected from impact by employing a buffer in accordance with requirements of the Ministry of Heritage, Sport, Tourism and Culture Industries. A professionally licensed archaeologist will be consulted to complete the assessment. If resources are confirmed to possess cultural heritage value/interest then they will be reported to the Ministry of Heritage, Sport, Tourism and Culture Industries, and further archaeological assessment of the resources may be required. If it is determined that there is a potential for Indigenous artifacts, Metrolinx/City of Mississauga should be contacted, and Applicable Law and/or any specific agreement between Metrolinx and Indigenous Nations will be followed.

- If final limits of the Project footprint are altered and fall outside of the assessed Study Area, additional archaeological assessments will be conducted by a professionally licensed archaeologist prior to disturbance and prior to construction activities. This will include completing all required archaeological assessments resulting from the Stage 1 Archaeological Assessment (Stage 2, Stage 3 and Stage 4, as required) as early as possible, prior to the completion of design, and in advance of any ground disturbance.
- For areas determined to have archaeological potential or contain archaeological resources that will be impacted by project activities, additional archaeological assessment will be conducted by a professionally licensed archaeologist prior to disturbance.
- If human remains are encountered or suspected of being encountered during project work, all activities must cease immediately and the local police/coroner as well as the Bereavement Authority of Ontario on behalf of the Ministry of Government and Consumer Services must be contacted. Archaeological investigations of human remains will not proceed until police have confirmed the remains are not subject to forensic investigation. Once human remains have been cleared of police concern, the Ministry of Heritage, Sport, Tourism and Culture Industries will also be notified to ensure that the site is not subject to unlicensed alterations which would be a contravention of the Ontario Heritage Act. If the human remains are determined to be of Indigenous origin, Metrolinx/City of Mississauga should be contacted and all Applicable Law and/or any specific agreement between Metrolinx and Indigenous Nations must be adhered to.
- All archaeological assessment findings will be shared with Indigenous Nations, as per Metrolinx's Guide to Engaging with Indigenous Communities (2020).
- A Stage 2 Archaeological Assessment (and further stages of archaeological assessments, as recommended) will be undertaken/completed as early as possible

during detailed design and prior to any ground disturbing activities.

Recommendations from these archaeological assessments will be followed.

- The Stage 2 Archaeological Assessment for areas retaining archaeological potential must be conducted by a licensed archaeologist and must follow the requirements set out in the Standards and Guidelines for Consultant Archaeologists (Government of Ontario, 2011).
- Should Indigenous Nations express interest in participating in the Stage 2 Archaeological Assessment, an invitation should be extended by the proponent for representatives of the Indigenous Nations to join the archaeological team during fieldwork. Additionally, the Stage 2 report should be made available to the Indigenous Nations for review prior to submission of the report to the Ministry of Heritage, Sport, Tourism and Culture Industries.
- ~~Work in proximity to known cemeteries requires completion of an archaeological assessment prior to any proposed ground disturbance in accordance with the Ministry of Heritage, Sport, Tourism and Culture Industries' Standards and Guidelines for Consultant Archaeologists (2011) and the Funeral, Burial, and Cremation Services Act and regulations under that Act.~~
- A cemetery investigation may be required should impacts be proposed on the property within the marked cemetery limits.
- Consultation with the Bereavement Authority of Ontario as outlined below will be required prior to any work within the cemetery limits.
- Should any development impacts to the property outside of the right-of-way be proposed as part of the Project, additional Stage 2 Archaeological Assessment for deeply buried archaeological materials following Section 2.1.7 of the Standards and Guidelines for Consultant Archaeologists will be undertaken.
- If human remains are encountered during construction, work must cease immediately and the police or Regional Coroner should be contacted, in addition to the Registrar of the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services and the Bereavement Authority of Ontario
- If historic structural remains are uncovered, a licensed archaeologist should be contacted to examine the find and determine if any documentation is required prior to its removal.

Ground Disturbing Activities

- A Stage 2 Archaeological Assessment (and further stages of archaeological assessments, as recommended) will be undertaken/completed as early as possible during detailed design and prior to any ground disturbing activities. Recommendations from these archaeological assessments will be followed.
- The Stage 2 Archaeological Assessment for areas retaining archaeological potential must be conducted by a licensed archaeologist and must follow the requirements set out in the Standards and Guidelines for Consultant Archaeologists (Government of Ontario, 2011).

~~Potential to Impact Cemetery Located in Proximity to the Project Footprint~~

- ~~■ Work in proximity to known cemeteries requires completion of an archaeological assessment prior to any proposed ground disturbance in accordance with the Ministry of Heritage, Sport, Tourism and Culture Industries' Standards and Guidelines for Consultant Archaeologists (2011) and the Funeral, Burial, and Cremation Services Act and regulations under that Act.~~

St. John's Dixie Cemetery & Crematorium/Dixie Union Cemetery

- A cemetery investigation may be required should impacts be proposed on the property within the marked cemetery limits.
- Consultation with the Bereavement Authority of Ontario as outlined below will be required prior to any work within the cemetery limits.

Dundas-Dixie Cemetery

- Should any development impacts to the property outside of the right-of-way be proposed as part of the Project, additional Stage 2 Archaeological Assessment for deeply buried archaeological materials following Section 2.1.7 of the Standards and Guidelines for Consultant Archaeologists will be undertaken.

Human Remains

- If human remains are encountered during construction, work must cease immediately and the police or Regional Coroner should be contacted, in addition to the Registrar of the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services and the Bereavement Authority of Ontario.

Structural Remains

- If historic structural remains are uncovered, a licensed archaeologist should be contacted to examine the find and determine if any documentation is required prior to its removal.

1.1.1.3 Monitoring Activities

Potential for the Disturbance of Unassessed or Documented Archaeological Resources

- Performance of the work will occur within land previously subject to an archaeological assessment.
- Any site personnel responsible for carrying out or overseeing land-disturbing activities will be informed of their responsibilities in the event that an archaeological resource is encountered.
- Further archaeological assessment may identify the need for monitoring during construction.

Ground Disturbing Activities

- Prior to any ground disturbing activities, the Stage 2 Archaeological Assessment must be completed in areas identified as retaining archaeological potential as outlined in the Stage 1 Archaeological Assessment. ~~Should Indigenous Nations express interest in participating in the Stage 2 Archaeological Assessment, an invitation should be extended by the proponent for representatives of the Indigenous Nations to join the archaeological team during fieldwork. Additionally, the Stage 2 report should be made available to the Indigenous Nations for review prior to submission of the report to the Ministry of Heritage, Sport, Tourism and Culture Industries..~~

Potential to Impact Cemetery Located in Proximity to the Project Footprint

- Further archaeological assessment may identify the need for monitoring during construction.

Structural Remains

- If historic structural remains are uncovered during construction, a licensed archaeologist should be contacted to examine the find and determine if any documentation is required prior to its removal.

6. Climate Change and Sustainability

No changes made to Chapter 6.

7. Engagement Process

No changes made to Chapter 7.

8. Permits and Approvals

1.2 Provincial

Archaeology

~~The Stage 1 Archaeological Assessment Report is currently with the Ministry of Heritage, Sport, Tourism and Cultural Industries for review.~~

Archaeological assessments must be undertaken by an archaeologist licensed under the *Ontario Heritage Act*, who will then submit the report for the Ministry of Heritage, Sport, Tourism and Culture Industries' review. Archaeological concerns have not been addressed until reports have been entered into the Ontario Public Register of Archaeological Reports where those reports recommend that:

- The archaeological assessment of the project area is complete and/or;
- All archaeological sites identified by the assessment are either of no further cultural heritage value or interest (as per Section 48(3) of the Ontario Heritage Act) or that mitigation of impacts has been accomplished through excavation or an avoidance and protection strategy.

Approval authorities typically wait to receive the ministry's review letter for an archaeological assessment report before issuing a decision on the application as it can be used, for example, to document that due diligence has been undertaken.

9. Future Commitments

9.1.1 Archaeology

~~The Stage 1 Archaeological Assessment Report is currently with the Ministry of Heritage, Sport, Tourism and Cultural Industries for review.~~

- A Stage 2 Archaeological Assessment (and further stages of archaeological assessments, as recommended) will be undertaken/completed as early as possible during detailed design and prior to any ground disturbing activities. Recommendations from these archaeological assessments will be followed.
- A letter inviting Indigenous Nations to participate in the Stage 2 Archaeological assessment will be sent once more details regarding the project footprint and design are determined.
- Prior to construction, Proponent to develop and implement an Archaeological Risk Management Plan The Archaeological Risk Management Plan will address any recommendations resulting from archaeological assessments and documents all protocols for the discovery of human remains and undocumented archaeological resources.
- Should the Project Area change as the Project progresses, areas that are potentially undisturbed will require Stage 2 Archaeological Assessment.

Table 9-1: Summary of Environmental Concerns, Mitigation Measures and Commitments during Construction

~~Note to draft: the Stage 1 Archaeological Assessment findings and recommendations are preliminary until the assessment is finalized. They will be updated once the report has been accepted by the Ministry of Heritage, Sport, Tourism and Culture Industries.~~

Environment	Environmental Component	Potential Impacts	Mitigation Measures(s)	Monitoring Activities
Built Heritage Resources and Cultural Heritage Landscapes	-	<ul style="list-style-type: none">■ Direct impacts to the heritage attribute(s) of a known or potential Provincial Heritage Property or Provincial Heritage Properties of Provincial Significance due to installation of new/modified infrastructure	<ul style="list-style-type: none">■ The following directly impacted properties were subject to a CHER and determined to have cultural heritage value or interest and therefore will require a Heritage Impact Assessment:<ul style="list-style-type: none">○ Built Heritage Resource 1 - 202 Dundas Street West,○ Built Heritage Resource 4 - 51, 55-57 Dundas Street West,○ Built Heritage Resource 5 - 47 Dundas Street West, and○ Built Heritage Resource 7 - 14 Dundas Street East.■ Should a Cultural Heritage Evaluation Report conclude that a property meets one or more of the criteria outlined in the Ontario Regulation 9/06 and/or Ontario Regulation 10/06 of the Ontario Heritage Act, then a Heritage Impact Assessment should be completed by a qualified person during detailed design to assess direct adverse impacts of the construction activities related to the Project on the identified heritage attributes of a resource.■ Given the importance and location of some Cultural Heritage Resources, consultation with Municipal heritage staff and other jurisdictions will be undertaken as appropriate to determine if proposed infrastructure will be subject to specific policies within heritage districts or conservation areas (including parks).	<ul style="list-style-type: none">■ Implement and comply with monitoring requirements and commitments pertaining to Cultural Heritage Resources/properties as per previously completed Metrolinx and/or City of Mississauga Environmental Project Reports and the recommendations contained in any/all of the following documents: Cultural Heritage Reports, Heritage Impact Assessments.
Archaeology	Archaeological Resources	<ul style="list-style-type: none">■ Potential for the disturbance of unassessed or documented archaeological resources	<ul style="list-style-type: none">■ Prior to construction, Proponent to develop and implement an Archaeological Risk Management Plan. The Archaeological Risk Management Plan will address any recommendations resulting from archaeological assessments and documents all protocols for the discovery of human remains and undocumented archaeological resources. The Archaeological Risk Management Plan shall be amended to incorporate any additional actions required resulting from subsequent Archaeological Assessment Reports.■ All work shall be performed in accordance with Applicable Law, including but not limited to the <i>Ontario Heritage Act</i>, the Ministry of Heritage, Sport, Tourism and Culture Industries, formerly the Ministry of Tourism, Culture and Sport (MTCS) <i>Standards and Guidelines for Consultant Archaeologists</i> (2011), and the Ministry of Heritage, Sport, Tourism and Culture Industries document, <i>Engaging Aboriginal Communities in Archaeology: A Draft Bulletin for Consultant Archaeologists in Ontario</i> (2011).■ In the event that archaeological resources are encountered or suspected of being encountered during construction, all work will cease. The location of the findspot should be protected from impact by employing a buffer in accordance with requirements of the Ministry of Heritage, Sport, Tourism and Culture Industries. A professionally licensed archaeologist will be consulted to complete the assessment. If resources are confirmed to possess cultural heritage value/interest then they will be reported to the Ministry of Heritage, Sport, Tourism and Culture Industries, and further archaeological assessment of the resources may be required. If it is determined that there is a potential for Indigenous artifacts, Metrolinx/City of Mississauga should be contacted, and Applicable Law and/or any specific agreement between Metrolinx and Indigenous Nations will be followed.■ If final limits of the Project footprint are altered and fall outside of the assessed Study Area, additional archaeological assessments will be conducted by a	<ul style="list-style-type: none">■ Performance of the work will occur within land previously subject to an archaeological assessment.■ Any site personnel responsible for carrying out or overseeing land-disturbing activities will be informed of their responsibilities in the event that an archaeological resource is encountered.■ Further archaeological assessment may identify the need for monitoring during construction.

Environment	Environmental Component	Potential Impacts	Mitigation Measures(s)	Monitoring Activities
			<p>professionally licensed archaeologist prior to disturbance and prior to construction activities. This will include completing all required archaeological assessments resulting from the Stage 1 Archaeological Assessment (Stage 2, Stage 3 and Stage 4, as required) as early as possible, prior to the completion of design, and in advance of any ground disturbance.</p> <ul style="list-style-type: none">■ For areas determined to have archaeological potential or contain archaeological resources that will be impacted by project activities, additional archaeological assessment will be conducted by a professionally licensed archaeologist prior to disturbance.■ If human remains are encountered or suspected of being encountered during project work, all activities must cease immediately and the local police/coroner as well as the Bereavement Authority of Ontario on behalf of the Ministry of Government and Consumer Services and <u>the Ministry of Heritage, Sport, Tourism and Culture Industries</u> must be contacted. Archaeological investigations of human remains will not proceed until police have confirmed the remains are not subject to forensic investigation. Once human remains have been cleared of police concern, the Ministry of Heritage, Sport, Tourism and Culture Industries will also be notified to ensure that the site is not subject to unlicensed alterations which would be a contravention of the <i>Ontario Heritage Act</i>. If the human remains are determined to be of Indigenous origin, Metrolinx/City of Mississauga should be contacted and all Applicable Law and/or any specific agreement between Metrolinx and Indigenous Nations must be adhered to.■ All archaeological assessment findings will be shared with Indigenous Nations, as per Metrolinx's <i>Guide to Engaging with Indigenous Communities</i> (2020).■ <u>Should Indigenous Nations express interest in participating in the Stage 2 Archaeological Assessment, an invitation should be extended by the proponent for representatives of the Indigenous Nations to join the archaeological team during fieldwork. Additionally, the Stage 2 report should be made available to the Indigenous Nations for review prior to submission of the report to the Ministry of Heritage, Sport, Tourism and Culture Industries.</u>	
Archaeology	Area of Archaeological Potential	<ul style="list-style-type: none">■ Potential to impact cemetery located in proximity to the Project footprint.	<ul style="list-style-type: none">■ Work in proximity to known cemeteries requires completion of an archaeological assessment prior to any proposed ground disturbance in accordance with the Ministry of Heritage, Sport, Tourism and Culture Industries' <i>Standards and Guidelines for Consultant Archaeologists</i> (2011) and the <i>Funeral, Burial, and Cremation Services Act</i> and regulations under that Act.	<ul style="list-style-type: none">■ Further archaeological assessment may identify the need for monitoring during construction.
Archaeology	Dundas-Dixie Cemetery	<ul style="list-style-type: none">■ Ground disturbing activities	<ul style="list-style-type: none">■ <u>Should any development impacts to the property outside of the Dundas Street right-of-way be proposed, additional Stage 2 and Stage 3 cemetery investigation is required</u>■ <u>If any archeological sites including cultural features are encountered, they must undergo assessment and documentation according to the 2011 Standards and Guidelines:-</u>■ <u>Given that the Bereavement Authority of Ontario is unaware of the possibility of a cemetery in this location, and it is not a formal licensed cemetery, a Cemetery Investigation Authorization may not be required. Consultation with the Ministry of Heritage, Sport, Tourism and Culture Industries and the Bereavement Authority of Ontario should occur prior to any ground disturbance; and</u>■ <u>A Stage 3 Cemetery Investigation report must be completed detailing the results of the investigation for each cemetery and submitted to the Ministry of Heritage, Sport, Tourism and Culture Industries for review and acceptance into the Ontario Public Register of Archaeological Reports.</u>	<ul style="list-style-type: none">■ N/A

Environment	Environmental Component	Potential Impacts	Mitigation Measures(s)	Monitoring Activities
			<div>■ Should any development impacts to the property outside of the right-of-way be proposed as part of the Project, additional Stage 2 Archaeological Assessment for deeply buried archaeological materials following Section 2.1.7 of the Standards and Guidelines for Consultant Archaeologists will be undertaken.</div>	
Archaeology	Human Remains	<div>■ Ground disturbing activities</div>	<div>■ <u>If human remains are encountered during construction, work must cease immediately, the police or Regional Coroner should be contacted, as well as the Registrar of the Cemeteries Regulation Unit of the Ministry of Consumer Services, the Bereavement Authority of Ontario, and the Ministry of Heritage, Sport, Tourism and Culture Industries. If the remains are not determined to be of forensic interest, a Burials Site Investigation under the Funeral, Burial and Cremation Services Act, 2002 may be ordered;</u></div> <div>■ If human remains are encountered during construction, work must cease immediately and the police or Regional Coroner should be contacted, in addition to the Registrar of the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services and the Bereavement Authority of Ontario</div>	<div>■ N/A</div>

10. Bibliography

No changes made to Chapter 10.

Appendices

No changes to Appendices other than Stage 1 Archaeological Assessment in Appendix D. Changes to the Stage 1 Archaeological Assessment follow on next page.

Appendix D - Stage 1 Archaeological Assessment

Acknowledgements

Proponent:	Metrolinx
City of Mississauga:	Paula Wubbenhorst Denise Mahoney
Peel Art Gallery, Museum and Archives:	Kyle Neill, Nick Moreau, Samantha Thompson, PhD MLIS
St John's Dixie Cemetery and Crematorium:	Sandra Aguilar, Rick Whittingstall
Heritage Mississauga:	Matthew Wilkinson

Indigenous Consultation

A draft of this report was provided for review to the following potentially interested communities ~~and the following feedback was received:~~

Table 2: Report Review Feedback – Indigenous Consultation

Community	Feedback
Haudenosaunee Confederacy Chiefs Council	No feedback received.
Huron-Wendat Nation	No feedback received.
Mississaugas of the Credit First Nation	No feedback received.
Six Nations of the Grand River	No feedback received.

In addition to the Indigenous Nations, the following local authorities were consulted to gain insight on the Project Area, including:

- **Heritage Mississauga:** Matthew Wilkinson
- **City of Mississauga:** Paula Wubbenhorst, Denise Mahoney

- **Peel Art Gallery, Museum and Archives:** Kyle Neill, Nick Moreau, Samantha Thompson, PhD MLIS
- **St. John's Dixie Cemetery and Crematorium:** Sandra Aguilar, Rick Whittingstall

Executive Summary

Previous municipal planning studies and the Metrolinx Initial Business Case confirmed the need for improved bus transit infrastructure along Dundas Street. Metrolinx is now advancing plans for the Dundas Bus Rapid Transit corridor. More than 20 ~~km~~ kilometres of the 48-~~km~~ kilometre Bus Rapid Transit corridor will operate in bus lanes or in a dedicated right-of-way, separate from other traffic, allowing faster and more reliable transit connections.

In 2020, Metrolinx completed the Dundas Bus Rapid Transit Initial Business Case, which recommends a preferred Bus Rapid Transit alignment, and supportive service concept along Dundas Street between Kipling Station, in the City of Toronto, through the City of Mississauga and Halton Region, to Highway 6 in the City of Hamilton. AECOM Canada Limited (AECOM) was retained by Metrolinx and the City of Mississauga to evaluate the proposed 48-~~km~~ kilometre transit corridor. The evaluation involves the completion of the Preliminary Design, Preliminary Design Business Case and Transit Project Assessment Process.

A Transit Project Assessment Process is a focused environmental impact assessment process created specifically for transit projects. The process involves a pre-planning phase followed by a regulated (up to 120 days) consultation and documentation period. These phases include consultation, assessment of impacts, development of measures to mitigate negative impacts, and documentation. Consultation occurs with the public, stakeholders and Indigenous Nations throughout the process. Following these phases, there is a 30-day public review period where the public has the opportunity to review the Environmental Project Report (EPR) and provide additional comments, followed by a 35-day Minister's review period.

The preliminary design phase will build upon the pre-planning completed as part of the Transit Project Assessment Process. In this phase, the project team will utilize the environmental impact assessment from the Transit Project Assessment Process to refine the Bus Rapid Transit design to a 30% design level. The Preliminary Design Business Case analyzes the Dundas Bus Rapid Transit corridor against strategic objectives, financial and economic impacts and operations considerations. The Preliminary Design Business Case will compare the corridor against a business-as-usual scenario (i.e., without the project).

In 2018, the Dundas Connects Master Plan (Dundas Connects) was completed by the City of Mississauga. It guides future development and intensification along the Dundas Street Corridor in the City of Mississauga. Dundas Connects was developed over a 2-year period with extensive consultation from the public. It was endorsed by City Council on June 18, 2018. Bus Rapid Transit, cycling infrastructure, and an enhanced public realm for pedestrians were among the recommendations in the Plan. Dundas Connects is being implemented through various studies and initiatives, including this Transit Project Assessment Process.

The Dundas Bus Rapid Transit Mississauga East (the Project) includes the planning and design of a 7-km² kilometre Bus Rapid Transit corridor from Confederation Parkway to the City of Toronto boundary at Etobicoke Creek, within the City of Mississauga. The Project has been submitted under the Government of Canada's Investing in Canada Infrastructure Program and is currently awaiting approval. This Stage 1 Archaeological Assessment Report (the Report) has been prepared to support the Dundas Bus Rapid Transit – Mississauga East Transit Project Assessment Process.

The Stage 1 Archaeological Assessment resulted in the finding that there is high potential for pre- and post-contact Indigenous and 19th century Euro-Canadian archaeological resources and human burials to be present within the Study Area ~~within areas not subject to previous disturbance~~. Based on the results of background studies and a review of the City of Mississauga Official Plan, it has been determined that archaeological potential still exists within some small portions of the Study Area. **In light of these results, prior to any ground disturbing activities, a Stage 2 Archaeological Assessment is recommended for all land identified as retaining archaeological potential (Figure 18).**

The Stage 2 Archaeological Assessment for areas retaining archaeological potential must be conducted by a licensed archaeologist and must follow the requirements set out in ~~the~~ *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario, 2011), including:

- The standard test pit survey method at 5 m intervals is to be conducted in all areas that will be impacted by the project where ploughing is not feasible (e.g., woodlots, overgrown areas, manicured lawns); and
- Poorly drained areas, areas of steep slope, and areas of confirmed previous disturbance (e.g., building footprints, roadways, areas with identifiable underground infrastructure) identified during the Stage 2 assessment are to be mapped and photo-documented ~~to confirm disturbance~~, but are not recommended for Stage 2 survey as they possess low to no archaeological potential (Section 2.1, Standard 2a and 2b).

There is one registered archaeological site located within the current Study Area boundaries, the Cherry Hill site (AjGv-18), that has been recommended for further work. However, the latitude and longitude of the site provided in the Archaeological Sites Database places the site right on the boundaries of the current Study Area, within an area of documented previous extensive disturbance (**Figure 2, Supplementary Documentation**). Once the land to be impacted by infrastructure improvements has been identified, should proposed construction activities impact any of the archaeological sites within an area that has not been subject to extensive disturbance, further Archaeological Assessment must be completed prior to ground disturbing activities.

Given the sparse details provided in the Archaeological Sites Database, it is not clear from the previous Archaeological Assessment what further work is required. or whether there is potential for deeply buried remains. Therefore, the Stage 2 Archaeological Assessment requirements will be applied. in the area to determine the level of disturbance present (Figure 18). The Stage 2 must follow the requirements set out in Standards and Guidelines for Consultant Archaeologists (Government of Ontario, 2011) as outlined above. If an undisturbed area in the vicinity of the coordinates provided in the Archaeological Sites Database willis found and determined to be impacted by the Project, Stage 2 testing of the area further archaeological work will be required in an attempt to relocate the site is required. The Stage 2 must follow the requirements set out in the Standards and Guidelines for Consultant Archaeologists (Government of Ontario, 2011) as outlined above. Once and assess for the area potential of project impacts has been determined, only the land that will be impacted by this project will require Stage 2 Archaeological Assessment. deeply buried remains is required.

Special consideration must be made for the ~~two~~ cemeteries located within the Study Area, : Dixie Union Cemetery, St. John's Dixie Cemetery & Crematorium/~~Dixie Union Cemetery,~~ and the remains of the Dundas-Dixie Cemetery (CHL 4).

Dixie Union Cemetery and St. John's Dixie Cemetery & Crematorium

Based on the background research and the plot mapping illustrating where the burials are located in relation to the ~~fenceline~~ fence line, it is reasonable to believe that the fenceline represents the cemetery limits and in addition to conversations with the cemetery operator, it has been determined that there is no potential for unmarked burials associated with the ~~cemetery~~ Dixie Union Cemetery to be located outside the current ~~marked boundaries~~ fenceline (**Figure 3, Supplementary Documentation**). It has also been determined that all expansion of the cemetery has occurred to the north with the expansion of the St. ~~John the Baptist Anglican Cemetery or St.~~ John's Dixie Cemetery and any unmarked graves are unlikely to exist within the Dundas Street right-of-way. Additionally, there is a large, modern concrete retaining wall to the west along the Cawthra Road underpass that is not anticipated to be impacted by the Project. ~~Therefore, a~~

~~cemetery investigation may be required should impacts be proposed on the property within the marked cemetery limits. Consultation with the Bereavement Authority of Ontario as outlined below will be required prior to any work within the cemetery limits. As such, once detail design is complete and the scope of construction activities has been determined, only those areas of potentially undisturbed lands that will be affected by this project will require Stage 2 Archaeological Assessment~~ As a result, no further Archaeological Assessment is required within the Dundas Street or Cawthra Road rights-of-way as part of this Project. While there are currently no plans to impact the cemetery lands, if during detail design changes to include impacts by the Project, or any future impacts proposed within the fenced limits of the cemetery property, further Stage 1 Archaeological assessment will be required to determine the potential to impact unmarked burials. Arrangements must be made with the cemetery owner/operator, the Bereavement Authority of Ontario and the Ministry of Heritage, Sport, Tourism and Culture Industries prior to any ground disturbing activities to determine an appropriate strategy for Stage 2 and 3 field methods within the fenced limits of this cemetery to ensure provisions under the Funeral, Burial, Cremations Services Act (Ontario Government 2002) are addressed. Any invasive Stage 2-4 archaeological fieldwork within the cemetery limits will also require a Cemetery Investigation Authorization from the Bereavement Authority of Ontario.

Dundas-Dixie Cemetery

The existence of the Dundas-Dixie Cemetery is largely unknown, and it is unclear if any grave shafts exist below the current commercial structures on the property. It is also unlikely that any intact archaeological resources exist beneath the land alterations along Dundas Street adjacent to the property. Therefore, because ~~it~~ the cemetery is illustrated on historic mapping, and any relating documentation may have been destroyed, it is recommended that should any development impacts to the property outside of the Dundas Street right-of-way be proposed ~~as part of the Project~~, additional Stage 2 ~~assessment for deeply buried archaeological materials~~ and Stage 3 cemetery investigation is required to confirm the level of disturbance, following Section 2.1.7 and 3.3.3 of the Standards and Guidelines for Consultant Archaeologists, and will include:

- ~~• Given that the area cannot be test pitted by hand, mechanically excavate trenches at maximum intervals of 10 m to verify the presence of and to assess deeply buried archaeological resources and/or the extent of disturbance is required;~~
- Prior to construction activities, mechanical removal will include removal areas consisting of hard surfaces (i.e., concrete, asphalt), and areas of

overburden or fill on the property outside of the Dundas Street right-of-way, where impacts are proposed (Figure 18-2).

- Mechanical removal must extend to a depth where it is possible to determine if any intact subsoil remains and must occur under the supervision of a licensed archaeologist;
- Mechanical excavations using a backhoe with a straight-edged ditching bucket ~~are to occur~~ must take place where topsoil is present within the ~~core of the~~ planned development area ~~and over~~ for the assessment of any areas of archaeological potential; ~~and~~
- ~~Should an archaeological site or material possessing cultural heritage value or interest is uncovered, further archaeological documentation will be required.~~
- ~~Currently, there are no proposed impacts to this property.~~ Upon completion of hard surface/fill/overburden and topsoil removal, the detail design, should work for the proposed Project be required to occur within any cemetery area must be inspected and assessed by a licensed archaeologist for evidence of potential grave shafts. Mechanical removal must be extended a minimum of 10 metres beyond any exposed cultural features/potential grave shafts, or less if this will measure beyond the project limits or fieldwork adjacent to a cemetery where the boundaries if areas of low potential for unmarked burials are encountered (e.g., areas of deep and extensive disturbance);
- If any archeological sites including cultural features ~~are not clear,~~ arrangements must be made with the Bereavement Authority of Ontario for a Cemetery Investigation Authorization prior to any ground disturbing activities. ~~encountered, they must undergo assessment and documentation according to the 2011 Standards and Guidelines.~~
- If human remains are encountered during construction, work must cease immediately ~~and,~~ the police or Regional Coroner should be contacted, ~~in addition to~~ as well as the Registrar of the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services, the Bereavement Authority of Ontario, and the Ministry of Heritage, Sport, Tourism and Culture Industries. If the remains are not determined to be of forensic interest, a Burials Site Investigation under the Funeral, Burial and Cremation Services Act, 2002 may be ordered;
- Given that the Bereavement Authority of Ontario: is unaware of the possibility of a cemetery in this location, and it is not a formal licensed

cemetery, a Cemetery Investigation Authorization may not be required. Consultation with the Ministry of Heritage, Sport, Tourism and Culture Industries and the Bereavement Authority of Ontario should occur prior to any ground disturbance:

- A Stage 3 Cemetery Investigation report must be completed detailing the results of the investigation for each cemetery and submitted to the Ministry of Heritage, Sport, Tourism and Culture Industries for review and acceptance into the Ontario Public Register of Archaeological Reports.

The current Study Area also crosses a number of 19th century settlement areas, including Summerville, Sydenham (later Dixie), and Cooksville. Based on our detailed map and background review, we have not identified any areas where deeply buried potential remains. However, there is a possibility that structural remains could exist beneath the surface. Therefore, during construction, if historic structural remains are uncovered, a licensed archaeologist should be contacted to examine the find and determine if any documentation is required prior to its removal.

It is pertinent to note that the Mississauga East Study Area evaluated in this report includes additional land that may not be impacted by the Project. A large area was assessed as part of this Stage 1 Archaeological Assessment in order to accommodate areas of possible infrastructure improvements. As such, once detail design is complete and the scope of construction activities has been determined, only those areas of potentially undisturbed lands archaeological potential that will be affected by this project will require Stage 2 Archaeological Assessment.

Should Indigenous Nations express interest in participating in the Stage 2 archaeological assessment Archaeological Assessment as part of the Dundas Bus Rapid Transit Project, an invitation should be extended by the proponent for representatives of the Indigenous Nations to join the archaeological team during fieldwork. Additionally, the Stage 2 report should be made available to the Indigenous Nations for review prior to submission of the report to the MHSTCI Ministry of Heritage, Sport, Tourism and Culture Industries. Further, as unmarked Indigenous burials have been referenced in previous historical records (Ontario Genealogical Society 1997), local Indigenous Nations should be engaged in any impacts within the boundaries of the Dixie Union Cemetery/St. John's Dixie Cemetery & Crematorium.

Should additional land outside of the Study Area boundaries be included as part of the Dundas Bus Rapid Transit Project, the standard requirements for Archaeological Assessments to be conducted prior to land disturbance remain in place.

The Ministry of Heritage, Sport, Tourism and Culture Industries is asked to accept this report into the Ontario Public Register of Archaeological Reports thereby concurring with the recommendations presented herein. As further Archaeological Assessment is required, archaeological concerns for the Dundas Bus Rapid Transit Mississauga East Project in the City of Mississauga, Ontario have not been fully addressed.

Table of Contents

No changes made to Table of Contents

1. Introduction

Previous municipal planning studies and the Metrolinx Initial Business Case confirmed the need for improved bus transit infrastructure along Dundas Street. Metrolinx is now advancing plans for the Dundas Bus Rapid Transit corridor. More than 20 ~~km~~ kilometres of the 48-~~km~~ kilometre Bus Rapid Transit corridor will operate in bus lanes or in a dedicated right-of-way, separate from other traffic, allowing faster and more reliable transit connections.

In 2020, Metrolinx completed the Dundas Bus Rapid Transit Initial Business Case, which recommends a preferred Bus Rapid Transit alignment, and supportive service concept along Dundas Street between Kipling Station, in the City of Toronto, through the City of Mississauga and Halton Region, to Highway 6 in the City of Hamilton. AECOM Canada Limited (AECOM) was retained by Metrolinx and the City of Mississauga to evaluate the proposed 48-~~km~~ kilometre transit corridor. The evaluation involves the completion of the Preliminary Design, Preliminary Design Business Case and Transit Project Assessment Process.

A Transit Project Assessment Process is a focused environmental impact assessment process created specifically for transit projects. The process involves a pre-planning phase followed by a regulated (up to 120 days) consultation and documentation period. These phases include consultation, assessment of impacts, development of measures to mitigate negative impacts, and documentation. Consultation occurs with the public, stakeholders and Indigenous Nations throughout the process. Following these phases, there is a 30-day public review period where the public has the opportunity to review the

Environmental Project Report (EPR) and provide additional comments, followed by a 35-day Minister's review period.

The preliminary design phase will build upon the pre-planning completed as part of the Transit Project Assessment Process. In this phase, the project team will utilize the environmental impact assessment from the Transit Project Assessment Process to refine the Bus Rapid Transit design to a 30% design level. The Preliminary Design Business Case analyzes the Dundas Bus Rapid Transit corridor against strategic objectives, financial and economic impacts and operations considerations. The Preliminary Design Business Case will compare the corridor against a business-as-usual scenario (i.e., without the project).

In 2018, the Dundas Connects Master Plan (Dundas Connects) was completed by the City of Mississauga. It guides future development and intensification along the Dundas Street Corridor in the City of Mississauga. Dundas Connects was developed over a 2-year period with extensive consultation from the public. It was endorsed by City Council on June 18, 2018. Bus Rapid Transit, cycling infrastructure, and an enhanced public realm for pedestrians were among the recommendations in the Plan. Dundas Connects is being implemented through various studies and initiatives, including this Transit Project Assessment Process.

The Dundas Bus Rapid Transit Mississauga East (the Project) includes the planning and design of a 7-kilometre Bus Rapid Transit corridor from Confederation Parkway to the City of Toronto boundary at Etobicoke Creek, within the City of Mississauga. The Project has been submitted under the Government of Canada's Investing in Canada Infrastructure Program and is currently awaiting approval. This Stage 1 Archaeological Assessment Report (the Report) has been prepared to support the Dundas Bus Rapid Transit – Mississauga East Transit Project Assessment Process.

1.1 Purpose

The objective of the Stage 1 Archaeological Assessment is to document the archaeological and land use history and current conditions within the Study Area. This information will be used to support recommendations regarding cultural heritage values or interests as well as assessment and mitigation strategies. The results of the Stage 1 Archaeological Assessment presented in this report are drawn in part from:

- Recent and historical maps of the Study Area;
- Reports of previous Archaeological Assessments within 50 metres of the Study Area;

- The Ontario Ministry of Heritage, Sport, Tourism and Culture Industries (~~MHSTCI~~) Archaeological Sites Database (~~ASDB~~) for a listing of registered archaeological sites within a 1-~~km~~kilometre radius of the Study Area; and
- Archaeological management plans or other archaeological potential mapping, where available.

This Stage 1 ~~archaeological assessment~~ Archaeological Assessment was triggered by the requirements of the *Environmental Assessment Act* in accordance with subsection 11(1) (Ontario Government 1990a). This project is also subject to the requirements of the *Ontario Heritage Act* (Government of Ontario 1990b) and *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011).

2. Historical Context

Years of archaeological research and assessments in southern Ontario have resulted in a well-developed understanding of the historic land use in the former Peel County from the earliest Indigenous ~~people~~peoples to the more recent Euro-Canadian settlers and farmers. **Table 2** provides a breakdown of the cultural and temporal history of past occupations in the former Peel County as outlined by Ellis and Ferris (1990).

Table 3: Cultural Chronology for the Former Peel County

Archaeological Period	Time Period	Characteristics
Early Paleo	9000-8400 BC	<ul style="list-style-type: none"> ■ Fluted Points ■ Arctic tundra and spruce parkland, caribou hunters
Late Paleo	8400-8000 BC	<ul style="list-style-type: none"> ■ Holcombe, Hi-Lo and Lanceolate Points ■ Slight reduction in territory size
Early Archaic	8000-6000 BC	<ul style="list-style-type: none"> ■ Notched and Bifurcate base Points ■ Growing populations
Middle Archaic	6000-2500 BC	<ul style="list-style-type: none"> ■ Stemmed and Brewerton Points, Laurentian Development ■ Increasing regionalization
Late Archaic	2000-1800 BC	<ul style="list-style-type: none"> ■ Narrow Point ■ Environment similar to present
	1800-1500 BC	<ul style="list-style-type: none"> ■ Broad Point ■ Large lithic tools
	1500-1100 BC	<ul style="list-style-type: none"> ■ Small Point ■ Introduction of bow
Terminal Archaic	1100-950 BC	<ul style="list-style-type: none"> ■ Hind Points, Glacial Kame Complex ■ Earliest true cemeteries
Early Woodland	950-400 BC	<ul style="list-style-type: none"> ■ Meadowood Points ■ Introduction of pottery

Middle Woodland	400 BC – AD 500	<ul style="list-style-type: none"> ■ Dentate/Pseudo-scallop Ceramics ■ Increased sedentism
	AD 550-900	<ul style="list-style-type: none"> ■ Princess Point ■ Introduction of corn horticulture
Late Woodland	AD 900-1300	■ Agricultural villages
	AD 1300-1400	■ Increased longhouse sizes
	AD 1400-1650	■ Warring nations and displacement
Contact Period	AD 1600-1875	■ Early written records and treaties
Historic	AD 1749-present	■ European settlement (French and English)

The following sections provide a detailed summary of the archaeological cultures that have settled in the vicinity of the Study Area. As Chapman and Putnam (1984) illustrate, the modern physiography of southern Ontario is largely a product of events of the last major glacial stage and the landscape is a complex mosaic of features and deposits produced during the last series of glacial retreats and advances prior to the withdrawal of the continental glaciers from the area. Southwestern Ontario was finally ice free 12,500 years ago. With continuing ice retreat and lake regressions the land area of southern Ontario progressively increased while barriers to the influx of plants, animals, and people steadily diminished (Karrow and Warner 1990). The lands within the former Peel County have been extensively utilized by pre-contact Indigenous people who began occupying southwestern Ontario as the glaciers receded from the land.

2.1.1 Euro-Canadian Settlement

Former Peel County and the Township of Toronto

The County of Peel was created by an act of Parliament in 1867. Prior to this, it was part of the Nassau or Home District, which was created in 1788 after the creation of Lower and Upper Canada (Walker and Miles 1877) and originally surveyed by Samuel Wilmot. It was comprised of the Townships of Toronto, Toronto Gore, Chinguacousy, Caledon and Albion. By 1819 the greater part of the county had been settled, with the first settlers coming from New Brunswick, the United States following the American Revolution, and other parts of Upper Canada. The population in 1809 was recorded at 475185. These early settlers were mostly in the “old survey” of Toronto Township. Peel had a total population of 1,425 by 1821 (Walker and Miles 1877).

In 1806, Deputy Surveyor Samuel Wilmot completed the original survey of the Township of Toronto (Walker and Miles 1877). Initial settlement in the Township of Toronto was along Dundas Street, first conceptualized by Lieutenant Governor John Graves Simcoe in the late 16th century as a military road. Dundas Street was constructed as a colonial road built by the Queens Rangers and was completed from the western end of Lake Ontario east to York by 1796. The road was constructed following a trail first established and utilized by Indigenous people in southern Ontario and at one time was the

only major east-west roadway through the province, penetrating the dense forests of Toronto Township (Clarkson 1977; Riendeau 2002). Already a surveyed road at the time of the township survey, Dundas Street was also used as a proof line to survey Toronto Township. Lots and Concessions were named according to their north or south orientation from Dundas Street.

In the early 1800s, the Napoleonic Wars had slowed immigration and settlement in Toronto Township and by 1809, only 175 individuals are listed in the Township of Toronto Census Record (Riendeau 2002). Settlement of the Township of Toronto continued along the Credit and Etobicoke Rivers and numerous mills were constructed along these waterways. Cooksville was an important stagecoach stop along the newly constructed Dundas Street. Cooksville was originally named Harrisville after its first settler, Daniel Harris, a United States immigrant, in 1800.

Harris first established his household at the southeast corner of Dundas Street and the former Centre Road (Huron Road) before selling his land; by 1830 the intersection was subdivided into village lots and shortly thereafter became known as Cooksville, where much of the early growth that occurred in the Mississauga area was based. A fire destroyed much of Cooksville in 1852, slowing its growth as a commercial shipping hub until the 1870s.

The Silverthorn family helped to establish both the former villages of Summerville (originally known as Mill Place) and Sydenham, later renamed Dixie for the travelling doctor Beaumont Dixie, who also financially supported the construction of the Dixie Union Chapel. Summerville enjoyed early success as a centre for blacksmithing and milling, but its mills and shops began to close as early as the 1860s, with its last blacksmith shop demolished in 1979. Dixie was particularly known for Phillip Cody's inn and tavern, which served not only as a meeting place for early settlers to the area, but also as a space for marriages, baptisms, and other religious services to take place, led by a 'circuit-rider', usually a Methodist missionary. The inn was also a space where landowners would gather to discuss the topic of town improvements and infrastructure. The village of Summerville is no longer visible along Dundas Street, Dixie was amalgamated with the Town of Mississauga as part of its formation in 1968.

The City of Mississauga was incorporated in 1974 with the amalgamation of the Town of Mississauga and the Villages of Port Credit and Streetsville, as well as portions of the Townships of Toronto Gore and Trafalgar (Heritage Mississauga 2016).

Development of Railways, Roads, and Highways

The Credit Valley Railway was constructed between 1877 and 1879 and was originally intended to connect Toronto with Orangeville. The first section of track ran from Parkdale

to Milton and was opened in 1877. Several branches were added to the line, and in 1883, the line was taken over by the Canadian Pacific Railway (Heritage Mississauga 2016), which is still in operation today. The Great Western Railway Company began construction in 1847 with the first line connecting Hamilton to Niagara and Windsor. In 1855, the railway was expanded to Toronto. In 1882, the Great Western Railway was taken over by the Grand Trunk Railway. Today, this line is used by the Canadian National Railway and is primarily used by the Toronto Transit Commission and GO transit (Heritage Mississauga 2016). Finally, the Grand Trunk Railway Company of Canada was incorporated by the Canadian government in 1852 and was to connect Toronto to Montreal. This was achieved through the purchase of five existing railways. One of these lines was redirected from its original route and extended to Sarnia. By 1856, the Grand Truck Railway line had been built from Montreal to Sarnia via Toronto ~~(Library and Archives Canada, 2005).~~ For a short time, the former Toronto and Suburban Railway also passed through and along Dundas Street. Founded in 1894, the Toronto and Suburban Railway was an electric railway formed by the merging of the City and Suburban Electric Railway Company and the Davenport Street Railway Company. It was later absorbed by the Canadian National Railway in 1918 and then transferred to the Canadian National Electric Railway, a subsidiary of the Canadian National Railway. The line through Dundas Street was abandoned in 1931 and the track was removed during World War II. Few physical remnants of the line are visible today. The Credit Valley Railway historically passed through the Study Area.

Major roads running through Toronto Township include Mavis Road, Dundas Street and Hurontario Street. Dundas Street was completed to the Humber River by 1796, before the townships had been surveyed, so that it served as a baseline for concessions south of Dundas Street and north of Dundas Street in Nelson, Trafalgar and Toronto South Townships. Early land grants on the lake frontage of the new townships were issued to retired officers and soldiers (Middleton and Landon 1927). Also known as The Governor's Road, after Lieutenant Governor Simcoe, Dundas Street was only partially opened until the early 19th century, and takes its name from Henry Dundas, a British secretary of state. Early settlement originally clustered around Dundas Street, and the road was used for military purposes to connect transportation around the Great Lakes.

Many of the major arterial roads in the City of Mississauga follow the original survey pattern laid out during the Crown survey for Toronto Township. Many of the north-south oriented roads that cross over Dundas Street including Mavis Road, Hurontario Street, and Cawthra were laid out as a result of Samuel Wilmot's original survey. However, Dundas Street was laid out prior to the survey and has been identified as the province's first east-west arterial road. In the 1920s, much of Dundas Street became a part of the Ministry of Transportation Highway 5 that ran from Cooksville to Hamilton and Port Dover,

designated as a provincial highway. By the 1990s most of Highway 5 was transferred out of provincial control as a result of downgrading and has since become the responsibility of a series of municipalities.

Finally, in the 1930s, with the recognition of the congestion along Highway 2, planning for a new four-lane highway began. The first section of Highway 401 was completed in 1947, with the remaining phases completed during the 1950s and 1960s (Bever 2013). The original interchange at Highways 401, 403 and 410 was constructed during the 1970s, following increased traffic flow in the Greater Toronto Area however, a massive construction project took place in this intersection during the late 1980s and early 1990s that resulted in the completions of new ramps connecting the Highway 403 with the Highway 401, new overpasses constructed and the former loop ramp from Highway 410 southbound replaced by the large Highway 410 bridge (flyover) (Bever 2013). Highway 403 is located north of Dundas Street and provided a way for motorists to circumvent the downtown core of Mississauga.

Table 4:- 1861 Notable Historic Landowners and Features

Lot	Concession	Landowner	Historic Feature
1	1S	William Ward	Summerville P.O to the south
11	1S	Joseph Silverthorn	3 structures
5	1S	William T. Shaver	1 structure
13	1S	Crewe (Dr.)	1 structure

Table 5:- 1877 Notable Historic Landowners and Features

Lot	Concession	Landowner	Historic Feature
1	1N/S	No landowner(s) listed	<ul style="list-style-type: none"> ■ Summerville P.O. ■ Credit Valley Railway
2	1N	F. Silverthorn	<ul style="list-style-type: none"> ■ 1 structure, 1 orchard
2	1N	James Alderston	<ul style="list-style-type: none"> ■ 1 structure (church), 1 orchard
3	1S	James Alderston	<ul style="list-style-type: none"> ■ 1 structure, 1 orchard ■ Credit Valley Railway
3	1N	C.R. Wilcox	<ul style="list-style-type: none"> ■ 1 structure, 1 orchard
3	1N	Allen Wilcox	<ul style="list-style-type: none"> ■ 1 structure, 1 orchard
4	1N	James Falconer	<ul style="list-style-type: none"> ■ 1 structure, 1 orchard
4	1S	Robert Pallett	<ul style="list-style-type: none"> ■ 1 structure, 1 orchard ■ Credit Valley Railway
4	1N	J. Clarkson	<ul style="list-style-type: none"> ■ 1 structure, 1 orchard
4	1S	Wm. H. Pallett	<ul style="list-style-type: none"> ■ 1 structure, 1 orchard ■ Credit Valley Railway
5	1N	Joseph Brown	<ul style="list-style-type: none"> ■ 1 orchard, 1 house ■ Schoolhouse ■ Toll Bar
5	1S	William Shaver	<ul style="list-style-type: none"> ■ 1 orchard ■ Credit Valley Railway
6	1N	William Shaver, W. Watson	<ul style="list-style-type: none"> ■ 1 structure ■ 1 structure, multiple orchards
6	1S	Multiple landowners	<ul style="list-style-type: none"> ■ Multiple structures and orchards; ■ Church and cemetery (R.C.C.) ■ Credit Valley Railway
7	1N	Matthew Gummerson	<ul style="list-style-type: none"> ■ 1 structure, 1 orchard
7	1S	Amos Wilcox	<ul style="list-style-type: none"> ■ 1 structure, 1 orchard ■ Credit Valley Railway
8	1N	John Kennedy	<ul style="list-style-type: none"> ■ 2 structures, 1 orchard
8	1S	Thomas Stanfield	<ul style="list-style-type: none"> ■ 1 structure ■ Dixie P.O. ■ Credit Valley Railway
9-10	1N	Mrs. John Wilson	<ul style="list-style-type: none"> ■ 1 church, 1 cemetery ■ 1 structure, 1 orchard
11	1N	Joseph Silverthorn	<ul style="list-style-type: none"> ■ 2-3 orchards, 1 structure
12-13	1N	Jonathan Dunn	<ul style="list-style-type: none"> ■ 1 structure, multiple orchards ■ Credit Valley Railway
15	1N	John C. Price	<ul style="list-style-type: none"> ■ P.O. Cooksville ■ 1 house ■ Credit Valley Railway

The 1861 and 1877 mapping continue to depict the same early 19th century transportation routes as above; Summerville, Sydenham (later renamed Dixie in the 1877 mapping), and Cooksville are also depicted. By 1877, the Credit Valley Railway is also depicted, as well as the Summerville and Dixie **Post Office (P.O.)** structures – only Summerville is depicted in the 1861 mapping. Two cemeteries are indicated in the 1877 mapping (Lot 6,

Concession ~~4S~~ **1 South**, and Lot 10, Concession ~~4N~~ **1 North**, with adjacent church). Etobicoke Creek is depicted as the “River Etobicoke” in the 1877 mapping.

In addition to the early survey mapping, 1909 and 1938 topographic mapping (**Figures 9 and 10**), 1910 Fire Insurance Plans of Cooksville (**Figure 11**), and aerial photography from 1954, 1985, 1997, and 2010 (**Figure 12**) were compiled in order to demonstrate the increased development, urbanization, and commercialization of the area into the 20th century. Multiple structures are visible on the NTS mapping, including the cemetery locations marked by a small cross (**Figures 9 and 10**). The settlements are concentrated in Summerville, Dixie, and Cooksville, though settlement is visible along the entire length of the Study Area. The fire insurance plan for Cooksville (**Figure 11**) was examined in conjunction with the aerial photography (**Figure 12**), which further illustrates the substantial amount of building demolition and infrastructure development that has occurred throughout the years. Namely, the increase in width of the Dundas Street right-of-way and associated infrastructure improvements and construction impacts of those activities. The agricultural use of the Study Area extended until the mid-1950s when development began to expand. Additionally, the Dundas Street right-of-way appears to be a single lane road in the 1950 aerial. By the 1980s a number of the larger highway interchanges have been constructed as well as the expanded double-lane, divided Dundas Street right-of-way. By 1997, the areas had been nearly completely urbanized. The expansion of the Dundas Street right-of-way is visibly drastic between the 1950s and 2010 aerial images, as a result of extensive road and infrastructure improvements associated with the construction and maintenance of the right-of-way over time.

3. Archaeological Context

The modern physiography of Southern Ontario is largely a product of the events of the last major glacial stage, the Wisconsinan and Late Wisconsinan time (ca. 25,000-10,000 BC). The landscape in the former Peel County is made up of a complex arrangement of features and deposits produced during the last series of glacial advances and retreats by the Simcoe Lobe and Ontario Lobe of the North American Laurentide ice sheet prior to the withdrawal of the glacier from Southern Ontario (Ellis and Ferris 1990). Those features and deposits that were formed by glacial action are represented by till plains, end moraines, and drumlins.

The majority of the Study Area is located within the Iroquois Plain physiographic region (**Figure 13**). The Lake Iroquois Plain region was created approximately 12,500 years ago

along the shores of glacial Lake Iroquois and forms the southern boundary of the South Slope, cutting across the Highland Creek watershed. When the last glacier was receding, the lowlands bordering Lake Ontario were inundated by a vast body of water known as Lake Iroquois. As a result, the old shorelines, cliffs, bars, beaches, and boulder pavements are easily identifiable. The surrounding undulating till plains stand in stark contrast to the smooth lake bottom (Chapman and Putnam 1984:190). The Iroquois Plain extends from the Niagara River to the Trent River around the western part of Lake Ontario, for a total distance of 305 ~~km~~ kilometre. Soil conditions in the plain vary greatly, so it is divided into several sub-sections (Chapman and Putnam 1984, 190). Soils in this region are comprised largely of permeable lacustrine sandy soils and clay that are well drained, allowing the ground discharge of water to surrounding creeks and rivers. Based on the strength of its ~~shoreeliffs~~ shore cliffs and beaches, Lake Iroquois was much longer-lived than any of the earlier glacial lakes. The lake was, essentially, an enlargement of present-day Lake Ontario which was formed as a result of the glacial blockage of the St. Lawrence River.

Etobicoke Creek

Etobicoke Creek is an approximately 60-~~km~~ kilometre-long tributary of Lake Ontario, draining an area of approximately 206 square ~~km~~ kilometres, beginning south of the Oak Ridges Moraine and draining into the north shore of Lake Ontario through Peel Region, the town of Caledon, and the cities of Brampton, Mississauga, and Toronto (Toronto Region Conservation 2010). Groundwater recharge is less than 100 millimetres (mm) per year across the Etobicoke Creek watershed, due primarily to its low permeability silt, clay, and silt till soils, except for the Brampton Esker area, where recharge is more than tripled. Agriculture, raising of livestock, commercial groundwater takings, and groundwater remediation represent the major uses of groundwater from Etobicoke Creek. The name 'Etobicoke' for both the creek and the township comes from an Anishinaabemowin word describing the area between the creek and the Humber River, meaning 'the place where the alders grow' (Harris 2015). The creek has been referred to as a creek or river interchangeably in early surveys, letters, and treaties, until it was defined as a creek in 1962 by the Geographical Names Board of Canada. Etobicoke Creek is also recognized by the City of Mississauga as a heritage corridor with historical significance within its Official Plan (City of Mississauga 2021).

These environmental characteristics would have provided an ideal environment for both temporary and permanent settlement throughout the pre-and post-contact periods. The single most important environmental feature necessary for extended human occupation is potable water. As such, proximity to water is regarded as a useful index for the determination of potential for the presence of archaeological resources. The water sources would have served as important pre- and post-contact transportation routes as

well as sources of potable water and riverine resources. During the 19th and 20th centuries, rapid deforestation resulted in significant land clearance and over time, the once diverse forest life and wide range of tree species and natural resources would have also been depleted as agricultural and modern residential and commercial development continued. As a result of continuing urban development, this portion of southern Ontario is almost completely deforested today.

Land Use and Settlement of the Area

Colonel Samuel Bois Smith, of the Queen's Rangers, was granted 2,600 ~~ac~~acres of land in southern Etobicoke; he expanded a log cabin at the mouth of the Etobicoke Creek (Harris 2015) and allowed for timbering to occur on his lands. He also built a ship, the Defiance, from oak trees, completing the project in 1835 (Reeves 1992). Timbering continued around the mouth of the creek as well as across Etobicoke Township, and by 1842 at least half of the township's forests had been cut. The loss of the trees contributed to flooding problems, beginning in the latter half of the 19th century, and by the 1870s the creek flats had been well populated by shanties. The creek flooding issues were most devastating in 1948 and 1952, with many properties destroyed along the sandbar and flats, and Hurricane Hazel destroyed more than fifty homes and caused seven deaths in 1954.

Smith sold 500 ~~ac~~acres of land to James Eastwood, and in 1883, Eastwood sold 75 ~~ac~~acres of waterfront land for residential development, which would later become the cottage lots of Long Branch Park. Further settlement and industrialization in the township occurred with the introduction of the radial line and the emergence of factories in the area (Reeves 1992). In 1929, cribwork reinforcement was carried out at the sandbar across the mouth of Etobicoke Creek, resulting in the first engineered alteration of the creek to allow for westward extension of Lake Promenade. Further work at the creek included the expropriation of floodplain properties, rechanneling of the creek and the conversion of flats to parkland (Reeves 1992); by the latter half of the 20th century the original mouth of the creek no longer existed.

3.1.1 Previous Archaeological Work

To inform the current Stage 1 Archaeological Assessment and further establish the archaeological context of the Project Area, a search of the ~~MHSTCI~~ Ministry of Heritage, Sport, Tourism and Culture Industries Public Register of Archaeological Reports was completed to determine if any previous archaeological work has been completed within the current Study Area or within 50 ~~m~~ metres of the Study Area. **Table 5** lists reports regarding previous archaeological work relevant to the Study Area.

Table 6: Archaeological Reports with Relevant Background Information

Year	Title	Author	PIF Number
2017	Stage 1 Archaeological Assessment Report, Hurontario LRT, Geographic Township of Toronto, Peel County, City of Brampton and City of Mississauga, Regional Municipality of Peel, Ontario	AECOM Canada Ltd. (AECOM)	P438-0122-2017
2018a	Stage 1 Archaeological Assessment Metro – West Mall Frozen Distribution Centre, 170 The West Mall, 21 Waulron Street and 30 Waulron Street, City of Toronto, Part of Lots 11 to 13, Concession 4 Colonel Smith's Tract, Geographic Township of Etobicoke, Former York County, Ontario	Archaeological Research Associates Ltd. (ARA)	P007-0883-2018
2018b	Stage 2 Archaeological Assessment Metro – West Mall Frozen Distribution Centre, 170 The West Mall, 21 Waulron Street and 30 Waulron Street, City of Toronto, Part of Lots 11 to 13, Concession 4 Colonel Smith's Tract, Geographic Township of Etobicoke, York County, Ontario	Archaeological Research Associates Ltd. (ARA)	P007-0925-2018
2018	Stage 1 Archaeological Assessment Southeast Mississauga Sanitary Sewer and Watermain Replacement Part of Lots 2, 4 and 5, Concession 1 SDS and Part of Lot 4, Concession 1 NDS (Former Township of Toronto, County of Peel) City of Mississauga Regional Municipality of Peel, Ontario	Archaeological Services Inc. (ASI)	P1066-0075-2018
2019	REVISED 2019 Stage 1-2 Archaeological Assessment of 89 Dundas Street West & 98 Agnes Street, Lots 14, 15, 31, 32 and Part of Lot 13 West of Hurontario Street, Registered Plan TOR-12, Part of Lot 16, Concession 1 North of Dundas Street, (Geographic Township of Toronto, County of Peel) City of Mississauga, Regional Municipality of Peel (AMICK Consultants Ltd. File #19843/MTCS File #P058-19843-2019)	AMICK Consultants Ltd. (AMICK)	P058-1786-2019
2020	Stage 2 Archaeological Assessment Of The Cooksville Site (A/gv-92), 89 Dundas Street West And 98 Agnes Street Redevelopment, Lots 14, 15, 31, 32 And Part Of Lot 13 West Of Hurontario Street, Registered Plan Tor-12, Part Of Lot 16, Concession 1 NDS, Geographic Township Of Toronto, City Of Mississauga	Archaeological Services Inc. (ASI)	P125-0302-2020

In 2017, AECOM conducted a Stage 1 Archaeological Assessment as part of the Hurontario Light Rail Transit (HuLRT) alignment project, located on multiple lots and concessions within the Geographic Township of Toronto, Peel County, Cities of Brampton and Mississauga, Ontario. The Stage 1 background research identified potential for the presence of precontact and Euro-Canadian archaeological resources within several areas of land; however, archaeological potential had been removed from the majority of the study area as a result of extensive 20th century urban and commercial development as well as road, highway, and sidewalk construction. Stage 2 Archaeological Assessment was recommended for all land identified within the HuLRT study area as retaining archaeological potential that would be impacted by construction (AECOM 2017, **Figure 14**). None of the areas recommended for further work were located within the current Study Area boundaries.

In 2018, ~~ARA~~ Archaeological Research Associates Ltd. conducted a Stage 1 Archaeological Assessment of land to be impacted by the proposed Metro – West Mall Frozen Distribution Centre (~~ARA~~ Archaeological Research Associates Ltd. 2018a). The Stage 1 assessment determined that the study area comprised a mixture of areas of archaeological potential and areas of no archaeological potential. Although it is possible that some of the areas of archaeological potential were impacted by past construction activities, the integrity of the soils and the depth of any past disturbances must be empirically evaluated (~~ARA~~ Archaeological Research Associates Ltd. 2018a). Stage 2 Archaeological Assessment was recommended for all areas found to retain archaeological potential (~~ARA~~ Archaeological Research Associates Ltd. 2018a). A small portion of the current Study Area was found to retain archaeological potential and was recommended for test pit survey.

The subsequent Stage 2 Archaeological Assessment for the proposed Metro – West Mall Frozen Distribution Centre was completed by ~~ARA in 2018~~ (~~ARA~~ Archaeological Research Associates Ltd. in 2018 (Archaeological Research Associates Ltd. 2018b)). The Stage 2 assessment resulted in the identification of one location of archaeological materials: Site 1 (AjGv-89). Site 1 comprised a 247 x 148 ~~m (NE-SW~~ metre (Northeast-Southwest) scatter of Euro-Canadian archaeological materials identified during pedestrian survey within the ploughed field in the northern portion of the application boundary (~~ARA~~ Archaeological Research Associates Ltd. 2018b). Based on detailed research utilizing historic maps, land registries and local historical society research in conjunction with a Controlled Surface Pick-Up and broader artifact analyses, Archaeological Research Associates Ltd has confirmed that the assemblage predominantly dates to the first half of the 20th century (~~ARA~~ Archaeological Research Associates Ltd. 2018b). No further work was recommended (~~ARA~~ Archaeological Research Associates Ltd. 2018b).

In 2018, Archaeological Services Inc. ~~(ASI)~~ completed a Stage 1 Archaeological Assessment as part of the Southeast Mississauga Sanitary Sewer and Watermain Replacement project, involving the proposed sanitary sewer and watermain rehabilitation and replacement near Dundas Street East and Dixie Road in Mississauga, Ontario. The Stage 1 background research identified archaeological potential for the recovery of precontact and Euro-Canadian archaeological resources, but the subsequent property inspection determined that much of the study area had been subjected to deep soil disturbance events, associated with construction activities, as well as channelization and erosion control along Etobicoke Creek; a part of the study area had been previously assessed in 2008, and the remaining portion was located in low and wet conditions along the creek and floodplain. No further Archaeological Assessment was recommended (~~ASI~~ Archaeological Services Inc. 2018). The land subject to Stage 1 Archaeological Assessment by ~~ASI~~ Archaeological Services Inc. is located within the current Study Area boundaries (**Figure 14**).

In 2019, the Cooksville site (AjGv-92) was first identified during a Stage 1-2 Archaeological Assessment conducted by AMICK in 2019 (AMICK 2019). A total of 91 ~~1 m-~~ metre test units were excavated, and 657 artifacts were recovered, including one projectile point tip. The pre-contact component of the site was interpreted as a findspot due to the point, and 50% of the Euro-Canadian artifact assemblage represented demolition debris. The site was determined to retain further cultural heritage value or interest, and further Archaeological Assessment was recommended. A subsequent Stage 2 Archaeological Assessment was completed by ~~ASI~~ Archaeological Services Inc. in 2020, in which ~~ASI~~ Archaeological Services Inc. performed detailed land use history and a qualitative analysis of the 656 Euro-Canadian artifacts previously analyzed by AMICK; results determined that the deposit is not characteristic of a timespan where 80% -or more predates 1870. The site was not determined to retain further Cultural Heritage Value or Interest and had been sufficiently documented. No further Archaeological Assessment was recommended (~~ASI~~ Archaeological Services Inc. 2020, **Figure 14**).

Cemeteries

~~One cemetery~~ Two cemeteries and the remains of a potential cemetery fall within the Study Area boundaries: Dixie Union Cemetery and St. John's Dixie Cemetery & Crematorium/~~Dixie Union Cemetery,~~ both located at 737 Dundas Street East (**Figure 16**), and the remains of the Dundas-Dixie Cemetery, located at 1370 Dundas Street East (**Figure 17**). These are also the cemeteries identified in the historic mapping in ~~section~~ Section 2.1.3.

Dixie Union Cemetery and St. John's Dixie Cemetery & Crematorium/~~Dixie Union Cemetery~~

Dixie Union Cemetery (Cemetery 23) is Mississauga's oldest cemetery ~~and chapel~~. In 1810, a one ~~ac~~-acre parcel of land was donated by Philip Cody on Lot 10, Concession 1 NDS North of Dundas Street in Toronto Township, Peel County ("Toronto Township, Cemetery no. 23, Dixie Union Cemetery", OGS Ontario Genealogical Society 1997) ~~for the purpose of establishing a place of worship (church) and a cemetery in Toronto Township~~. Cody was an early New Englander settler who owned the tavern and inn across the street at the time (Cody's Tavern, built after Cody obtained a lien on Mrs. Amasa T. Grant's 200 ~~ac~~ acres and later a patent). He was also the father of 'Buffalo Bill' Cody, who was later baptized in ~~the~~ Dixie Union's chapel. ~~The~~ Cody's inn was a community space for landowners and settlers to discuss matters of town improvements and infrastructure; many voiced their concern in regard to scattered unmarked graves in the immediate area, including those of Indigenous persons ("Toronto Township, Cemetery no. 23, Dixie Union Cemetery", OGS ~~1997~~ Ontario Genealogical Society 1997). In personal communication with Rick Whittingstall, cemetery director of St. John's Dixie Cemetery & Crematorium on March 4, 2022, it was remarked that the cemetery does not possess records of the locations of these unmarked graves of Indigenous persons in either Dixie Union or St. John's Dixie cemeteries; it is unclear how many unmarked graves of Indigenous persons are present on the entire property, or where they are located. Therefore, it is not possible to relate the location(s) of these burial grounds to the current layout of either cemetery. Furthermore, personal communication with Samantha Thompson, PhD MLIS of the Peel Art Gallery, Museum, and Archives on February 17, 2022, confirmed that no reference to the location or number of Indigenous burial grounds on the property is contained within the Perkins Bull fonds, a collection of early 20th century research materials compiled by William Perkins Bull, a prominent lawyer and historian of Peel County, who was noted for taking a particular interest in the history of various Indigenous groups.

In response to these concerns, Cody transferred the land for ~~the cemetery~~ what would become Dixie Union Cemetery to John Silverthorn, Allan Robinette, and Daniel Harris (acting as trustees) for a nominal sum of five shillings; another settler, Moses Teeter, sold the southwest corner of Lot 10, Concession 1 NDS North of Dundas Street for the erection of a chapel. (Dixie Union Chapel). Multiple denominations would later worship ~~there at that chapel~~, including Episcopalians (or Church of England), Presbyterians, and Methodists. Construction of the original pine log chapel structure had begun in 1809; it was interrupted twice, first by the falling of a tree on the leg of Aboslum Wilcox, who was leading the construction project, and later briefly by the War of 1812, as Cody, Robinet, and several of the Silverthorn family enlisted. The log chapel (called 'Fountainhill' after a spring on the property, or 'the Indian Chapel', as the chapel had Indigenous attendance at services) was completed in 1816 and burned down within a few years ("Toronto Township, Cemetery no. 23, Dixie Union Cemetery", OGS Ontario Genealogical Society 1997). The present stone chapel was first built in 1837 (partially delayed by the Rebellion

of 1837), completed in 1838, and named for Dr. Beaumont Dixie, who donated more land to the church; an additional half-acre had also been added a few years after the sale of the land. The stone was quarried from Etobicoke Creek.

The Dixie Union Cemetery, adjoining ~~cemetery~~ the Dixie Union Chapel, contains the interments of many of Mississauga's earliest settlers, including the Silverthorns (builders of Cherry Hill House), Amos Wilcox (War of 1812), Cook (the namesake of Cooksville), Angus Gray (WWI), and Thomas Laird Kennedy, former premier of Ontario, as well as early ~~indigenous~~ Indigenous burials, whose graves were allegedly marked with fieldstones. (Ontario Genealogical Society 1997; Rick Whittingstall and Samantha Thompson, pers comm. 2022). The earliest monument is that of 3-year-old Philip Harris (died 1812), whose sandstone monument was carved by his father. The establishment of the cemetery can therefore be placed between 1810 and 1812.

By 1937, there were 707 interments in ~~the cemetery~~ Dixie Union Cemetery; funds had been donated by the Silverthorn and Gage families for the addition of an iron gate, fence, and stonework ("Toronto Township, Cemetery no. 23, Dixie Union Cemetery", OGS Ontario Genealogical Society 1997). Dr. C. W. Jeffries reported in 1930s that on the west side of the cemetery, burials faced east to west, with heads in the west facing the rising sun. Close to Dundas Street, the graves were square with the roadway. ~~Today, both the chapel and the cemetery are managed by the City of Mississauga joined to the St. John's Dixie Cemetery and Crematorium, an approximately 10 ac privately-owned cemetery at the northeast corner of Dundas Street and Cawthra Road. In 1870, the Dixie Union Cemetery was divided, and the St. John the Baptist Anglican Church (Dixie) structure was erected. The land east of an old laneway and behind St. John the Baptist Anglican Church (Dixie) became St.~~ Today, both the Dixie Union Chapel and the Dixie Union Cemetery are managed by the City of Mississauga, in conjunction with the Anglican Diocese of Toronto, who manages the adjoining St. John's Dixie Cemetery & Crematorium property. The historical boundaries of the cemetery are illustrated in the three plot maps included as part of Appendix A as well as in the supplementary documentation to this report (Figure 3: 1919 Dixie Union Cemetery Plot Map; Figure 4: 20th century (no date) Dixie Union Cemetery Plot Map; Figure 5: Modern Dixie Union Cemetery Plot Map, Produced by Geomatics T&W), provided courtesy of the City of Mississauga. The 1919 plot mapping clearly demonstrates Dundas Street to the south of the cemetery, as well as the cemetery fenceline and the plots contained within. The 20th century (no date) plot mapping also illustrates the boundaries of the cemetery; however, the map quality and legibility has degraded over time and it is difficult to read. The modern rendering of the plot mapping provided by Geomatics T&W also illustrates the boundaries of the cemetery, with Dundas Street south of the property fenceline and Cawthra Road west of the fenceline. The limits of the cemetery can also be verified in the field, as illustrated in images 28-32. The oldest interments are located behind Dixie Union Chapel, to the north

of the study area ~~John the Baptist Anglican Cometary and is now known as St. John's Dixie Cometary. The cemetery was expanded an additional 8 ac in 1954.~~

Plates 1, 2, and 3: Dixie Union Chapel and Cemetery, 1930s and earlier, The fenceline can also be viewed in historic photographs, provided courtesy of the Peel Art Gallery, Museum, and Archives. ~~Of; of~~ particular note is the marked difference between the current roadway and the dirt road visible in Plate 1; **also note** and the depth of the 'curb'. The white picket fence in Plate 1 (~~left~~) is later **replaced by** a stone ~~monument build~~, **brick, and wrought-iron fence** in Plate 2 (~~right~~); **while**. **While** the date of Plate 1 is unknown, it likely predates Plate 2 (1930s). The fenceline, however, **has** **appears to have** remained **relatively** unchanged through time. **Plate 3 demonstrates another view of the chapel and cemetery monuments, while Plates 4 and 5 demonstrates the historic plaque and informational signage present on the property.**



Also on the property is the St. John's Dixie Cemetery and Crematorium, an approximately 10-acre privately-owned Anglican cemetery located at the northeast corner of Dundas Street and Cawthra Road; the cemetery is owned and operated by the Anglican Diocese of Toronto (Supplementary Documentation, **Figure 6**). In 1869-1870, the St. John the Baptist Anglican Church (Dixie) structure was erected specifically for Anglican worship. Subsequently, the Dixie Union Cemetery was divided: the land east of an old laneway and behind St. John the Baptist Anglican Church (Dixie) became first known as the St. John the Baptist Anglican Cemetery and is now known as St. John's Dixie Cemetery

Plates 4 and 5: War of 1812 informational signage at Dixie Union Chapel (left), Dixie Union Chapel historic plaque (right). Text from plaque below.



and Crematorium. The cemetery was expanded by an additional 8 acres in 1954. The original 1870 St. John the Baptist Anglican Church (Dixie) church burned in 1924 and was rebuilt the next year in brick. In personal communication with Rick Whittingstall, cemetery director of St. John's Dixie Cemetery & Crematorium on March 4, 2022, Mr. Whittingstall confirmed that historical mapping of St. John's Dixie Cemetery exists, but the mapping is only available on cloth, and is too fragile for handling or scanning; cemetery management declined to provide a copy of the mapping for preservation purposes. No other copy of this mapping was available at the City of Mississauga, the Peel Art Gallery, Museum, and Archives, or the Bereavement Authority of Ontario; however, the Bereavement Authority of Ontario did provide a copy of the 1959 plot mapping (Supplementary Documentation, **Figure 6**), which demonstrates the boundaries of the cemetery, as well as further expansion of the cemetery plots to the north and the addition of a hall to the original church structure, which was completed in 1955 and erected to serve as a space for religious instruction for children. Mr. Whittingstall also confirmed that no other historic mapping exists to demonstrate further division or expansion of Dixie Union Cemetery or St. John's Dixie Cemetery.

In personal communication with Rick Whittingstall, cemetery director of St. John's Dixie Cemetery & Crematorium on March 4, 2022, Mr. Whittingstall confirmed that the boundaries of both Dixie Union Cemetery and St. John's Dixie Cemetery are known, and that due to the fact that Dundas Street precedes the establishment of Dixie Union Cemetery, it is unlikely for unmarked burials to exist outside of the fenceline. Further, expansion of the cemetery property has occurred to the north with the expansion of the St. John's Dixie Cemetery, originally established in 1869-70, and any unmarked graves are unlikely to exist within the Dundas Street right-of-way (Rick Whittingstall pers. comm., 2022).

Plate 1: Dixie Union Chapel and Cemetery, 1930s and earlier



Courtesy of Peel Art Gallery, Museum and Archives

Plate 2: Dixie Union Chapel and Cemetery dated 1930s



Courtesy of Peel Art Gallery, Museum and Archives

Plate 3: Dixie Union Chapel and Cemetery



Courtesy of Peel Art Gallery, Museum and Archives

Plate 4: War of 1812 informational signage at Dixie Union Chapel



Plate 5: Dixie Union Chapel Historic Plaque



Text from this plaque is below:

Constructed of stone from the nearby Etobicoke River, this building also known as the Stone Chapel, is a rare surviving example of a "union" chapel from the settlement period of Upper Canada. It was erected in 1837 through the efforts of John Silverthorn, Allen Robinet and Daniel Harris, prominent early settlers of Toronto Township. It replaced a previous log structure in which Anglicans, Methodists and Presbyterians worshipped as early as 1816. The erection of such multi-denominational churches was the result of the small size and poverty of many early religious groups. Little altered on the exterior since its construction, the chapel was last used for regular services by a Baptist congregation in the 1950's and is still held in trust for local Protestant denominations.

Remains of the Dundas-Dixie Cemetery

It is unclear whether a cemetery was ever in use on Lot 6, Concession 1 ~~SDS~~, **South of Dundas Street**. According to Matthew Wilkinson, Heritage Mississauga historian, there is no clear indication that the cemetery was ever functional. ~~It~~ **In a personal communication on February 17, 2021, Mr. Wilkinson noted that the documentary record for the existence of the cemetery is scarce, and the majority of the information below was shared via oral history and church stakeholder knowledge; Mr. Wilkinson had been in the past in contact with Mr. Pat Gunning and Mr. Aidan Manning of Saint Patrick's Parish, another Roman Catholic Church in Mississauga, located at 921 Flagship Drive; Mr. Manning is also an author of Peel history. Neither Mr. Gunning nor Mr. Manning were able to be reached by AECOM for further information, and no historical mapping, newspaper articles, or historical church records were available following personal communication with Saint Patrick's Parish on February 17, 2022.**

Mr. Wilkinson noted that the Dundas-Dixie Cemetery was associated with the original St. Patrick's Roman Catholic Church, which was demolished in 1974. The property at the southwest corner of Dundas and Dixie ~~was~~ **had been** acquired for a church ~~in 1864 from a John Ryder by the Roman Catholic Episcopal Church on October 10, 1863~~, though the church was not built until 1872. However, there is a cross adjacent to the church on the 1877 historic mapping, denoting a cemetery. By 1891 Mount Peace Catholic Cemetery on Cawthra Road had opened and became the principal burying ground for parishioners from St. Patrick's. No reference to a cemetery was noted when St. Patrick's was demolished, though if a cemetery existed, **Mr. Wilkinson noted that by his estimation,** burials would ~~have~~ likely ~~exist~~ **existed** behind (south) or beside (west) of the church, which would be under the current commercial structures on the property, not the parking lot. ~~The property tax rolls of Toronto Township were destroyed in a Cooksville fire in the 1960s, further complicating research of the land use history of the property~~ **These conclusions were provided by Mr. Wilkinson based on the 1877 mapping, oral history,**

and stakeholder information provided by Mr. Gunning and Mr. Manning; however, there is no mapping or documentary record to support these conclusions. The Bereavement Authority of Ontario was contacted on February 17, 2022, and Michael D'Mello, Deputy Registrar, confirmed that the Bereavement Authority of Ontario has no record of a cemetery on the property, and advised that should a cemetery be found, the Bereavement Authority of Ontario should be contacted immediately.

The only other reference to a cemetery on the property was found in a compilation of Toronto township church and cemetery data compiled by Peel historian and genealogist Trudy Mann (1934-2017):

There is some indication that there were burials near the site of the church at Dundas and Dixie. The 1877 Atlas of Peel County shows a cross here, which denoted a cemetery. A mistake could have been made, but overall the locations on the old maps were generally quite accurate. A parish priest of St. Patrick's said he had seen some old stones in that area. Perhaps they were early farm graves. The site is now a retail office and mall which makes it difficult to find answers to the stories.

Mann 1999

The property tax rolls of Toronto Township were destroyed in a Cooksville fire in 1969, further complicating research of the land use history of the property. In a personal communication with Samantha Thompson, PhD MLIS of the Peel Art Gallery, Museum, and Archives on February 17, 2022, the following newspaper clippings (Plates 6 and 7, below) were provided.

Plates 6 (left) and 7 (right): 1969 Cooksville Fire Newspaper Clippings



Courtesy of Peel Art Gallery, Museum and Archives

Disturbance of the property is unclear; in a personal communication with Steven Gottdank of Lennard Commercial Realty, who manages 1370 Dundas Street East (the current address of the property), Mr. Gottdank noted that the property was disturbed in the past as part of usual construction activities, as it now consists of a three-storey office and commercial complex, but the building contains no basement. Mr. Gottdank also stated that the realty office was unaware of any cemetery on the property.

3.2 Known Archaeological Sites

AECOM conducted a data search of the Archaeological Sites Database to determine if any registered archaeological sites are located within the Study Area as well as within 1 km kilometre of the current Study Area boundaries. This search resulted in the identification of three registered archaeological sites, listed in **Table 7**. Those within the Study Area boundaries have been **bolded**.

Table 7:- Registered Archaeological Sites within 1 km kilometre

Borden #	Site Name	Cultural Affiliation	Site Type	Development Status*
AjGv-92	Cooksville	Pre-contact, post-contact	Findspot	No Further CHVI Cultural Heritage Value or Interest
AjGv-18	Cherry Hill	Post-contact, Euro-Canadian	Village	Further CHVI Cultural Heritage Value or Interest
AjGv-89	Site 1	Post-contact, Euro-Canadian	Farmstead	No Further CHVI Cultural Heritage Value or Interest

*CHVI=Cultural Heritage Value or Interest

The Cooksville site (AjGv-92) was first identified during a Stage 1-2 Archaeological Assessment conducted by AMICK in 2019 (AMICK 2020). A total of 91 1 m metre test units were excavated, and 657 artifacts were recovered, including one projectile point tip. The pre-contact component of the site was interpreted as a findspot due to the point, and 50% of the Euro-Canadian artifact assemblage represented demolition debris. The site was determined to retain further cultural heritage value or interest, and further Archaeological Assessment was recommended. A subsequent Stage 2 Archaeological Assessment was completed by ASI Archaeological Services Inc. in 2020, in which ASI Archaeological Services Inc. performed a qualitative analysis of the 656 Euro-Canadian artifacts previously analyzed by AMICK; results determined that the deposit is not characteristic of a timespan where 80 percent or more predates 1870. The site was not determined to retain further ~~CHVI~~ cultural heritage value or interest and had been sufficiently documented. No further Archaeological Assessment was recommended (ASI Archaeological Services Inc. 2020).

The Cherry Hill site (AjGv-18) was identified in 1971. It was interpreted as a village site and was determined to retain further cultural heritage value or interest. The Archaeological Sites Database refers to a house being preserved by the Peel County Historic Society. In 1822, Joseph and Jane Silverthorn built a house on part of Lot 11, Concession 1 NDS called 'Cherry Hill' in order to accommodate the growth of their family ("Toronto Township, Cemetery no. 23, Dixie Union Cemetery", [OGS Ontario Genealogical Society](#) 1997). Further Archaeological Assessment was recommended. No additional site details are available on the Archaeological Sites Database at the time of the production of this report. The latitude and longitude of the site provided in the Archaeological Sites Database places the site right on the boundaries of the Study Area, within an area of documented previous disturbance.

The Site 1 site (AjGv-89) was identified during a Stage 2 Archaeological Assessment conducted in 2018 by [ARA—\(ARA Archaeological Research Associates Ltd. \(Archaeological Research Associates](#) 2018b). The site was comprised of a 247 m x 148 m ~~(NE-SW~~ [metre \(Northeast-Southwest\)](#) scatter of Euro-Canadian artifacts identified during pedestrian survey within the ploughed field in the northern portion of the application boundary. A total of 541 artifacts and other remains were observed, but only 201 Euro-Canadian artifacts and faunal remains were retained as part of sampling. The site was interpreted as a late 19th to early 20th century Euro-Canadian farmstead site. The site was determined to no longer retain cultural heritage value or interest, and no further Archaeological Assessment was recommended ([ARA Archaeological Research Associates](#) 2018b).

Information concerning specific site locations is protected by provincial policy and is not fully subject to the *Freedom of Information and Protection of Privacy Act*, 1990. The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to all media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The Ministry of Heritage, Sport, Tourism and Cultural Industries will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

3.2.1 Existing Conditions

The Study Area is comprised of an approximately 7-~~km~~ [kilometre](#)-long corridor within the City of Mississauga, beginning at Confederation Parkway in the west to the City of Toronto boundary at the major water course of Etobicoke Creek, for which there are several smaller water crossings and tributaries, including Little Etobicoke Creek and Cooksville Creek, which flows into Lake Ontario.

Land uses and built form vary considerably within the Study Area, including residential and commercial, as well as mixed uses and open green spaces. The road allowance is predominantly characterized by wide road allowances with four to six lanes of vehicular traffic and sidewalks that extend along the majority of the Study Area. Only the historic community of Cooksville is still partially visible as part of the streetscape along Dundas Street, with Dixie and Summerville communities no longer evident.

4. Stage 1 Property Inspection

In order to gain first-hand knowledge to evaluate if modern disturbance may have occurred and to confirm whether or not features of archaeological potential perhaps not visible on mapping were present within the Study Area, AECOM conducted a Stage 1 field review on March 31, April 1, and April 15, 2021, under PIF P438-239-2021 issued to licensed archaeologist Samantha Markham (P438), with Joshua Keddy, MA (P484) acting as field director. The field review was carried out as outlined in Section 1.2 of *the Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011). Weather conditions during this time were cloudy, with an average temperature of 10° Celsius. Visibility was not impaired at any time.

The Study Area was photo-documented from publicly accessible lands as permission to enter was not pursued; the ability to assess potential of archaeological resources or potential for human remains within the cemeteries was not impacted. The inspection was completed through both random spot checking and investigation of features of archaeological potential to examine areas accessible from the ROW. **Table 8** contains the inventory of the documentary record from the Stage 1 field review.

5. Analysis and Conclusions

5.1 Determination of Archaeological Potential

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. Criteria commonly used by the Ministry of Heritage, Sport, Tourism and Culture Industries to determine areas of archaeological potential are listed in Section 1.3.1 of *Standards and Guidelines for Consultant Archaeologists* (Ontario Government 2011). Distance to modern or ancient water sources is generally accepted as the most important element for past human settlement patterns

and when considered alone may result in a determination of archaeological potential. In addition, any combination of two or more of the listed criteria indicates archaeological potential.

Based on a review of the historical, environmental, and archaeological context of the Study Area, it has been determined that potential for the recovery of pre- and post-contact Indigenous and 19th century Euro-Canadian archaeological resources within the Study Area is high based on the presence of the following features:

- Proximity to three previously identified archaeological sites;
- Distance to various types of water sources (Etobicoke Creek and tributaries);
- Soil texture and drainage (Iroquois Plain physiographic region);
- Glacial geomorphology, elevated topography and the general topographic variability of the area (Lake Iroquois shoreline);
- Resource areas including food or medicinal plants, scarce raw materials and early Euro-Canadian industry;
- Areas of early Euro-Canadian settlement and early transportation routes (Governor's Road/Dundas Street, former Credit Valley Railway);
- Properties listed on municipal register of properties designated under the *Ontario Heritage Act* (Government of Ontario 1990b) (refer to **Table 6**); and
- Historic landmarks or sites (~~two~~ **three** cemeteries within Study Area boundaries; Cultural Heritage Landscapes).

Certain features indicate that archaeological potential has been removed, such as land that has been subject to extensive and intensive deep land alterations that have severely damaged the integrity of any archaeological resources. This includes landscaping that involves grading below the topsoil level, building footprints, quarrying and sewage and infrastructure development (Ontario Government 2011). Areas where archaeological potential has been removed within the Study Area include 20th century subdivision and commercial developments as well as road construction and infrastructure within the Dundas Street right-of-way. Additionally, several previous Archaeological Assessments have cleared various properties of archaeological concerns.

A review of the historical mapping from 1800, 1861 and 1877 as well as the 1910 fire insurance plan of Cooksville, and aerial photos ranging from 1955 to 2010 indicates that the area was settled and urbanized very quickly, with alterations to the Dundas Street right-of-way occurring between 1950's and 1980's with instances of significant infilling (**Figure 6 to Figure 12**). **Figure 13** depicts the locations of the historic shoreline of Lake Iroquois that has been heavily urbanized.

The City of Mississauga's Official Plan identified the presence of cultural heritage resources, including built heritage resources and cultural heritage landscapes. This indicates elevated potential for the presence of 19th century archaeological resources within the Study Area boundaries. This determination is also supported by the historic land use and settlement in the area as evidenced by 1861 and 1870 historic mapping. A number of historic features are illustrated on **Figures 6 to 8**. However, extensive and intensive modern disturbance associated with the Dundas Street right-of-way upgrades, commercial and residential development, and infrastructure improvements will have significantly impacted the potential for the survival of any deposits or features of archaeological potential.

5.2 Cemetery Analysis

Dixie Union Cemetery, St. John's Dixie Cemetery & Crematorium, and the remains of the Dundas-Dixie Cemetery are all located within the Study Area boundaries.

Background research and property inspection has confirmed that the historic boundaries of the Dixie Union Cemetery are determined and intact. Based on the background information, historic mapping, and consultation with the cemetery operator, as outlined in **Section 3.1.1**, there is low potential for unmarked graves to exist beyond the known cemetery property limits within the Study Area. Based on the fact that Dundas Street precedes the establishment of Dixie Union Cemetery, it is unlikely for unmarked burials to exist outside of the fenceline, it is reasonable to believe that the fenceline represents the cemetery limits (**Figure 3, Supplementary Documentation**). It has also been determined that all expansion of the cemetery has occurred to the north with the expansion of the St. John's Dixie Cemetery and any unmarked graves are unlikely to exist within the Dundas Street right-of-way (Rick Whittingstall pers. comm., 2022). Additionally, there is a large retaining wall to the west along the Cawthra Road underpass that is not anticipated to be impacted by the Project.

The existence of the Dundas-Dixie Cemetery is largely unknown, and it is unclear if any grave shafts exist below the current commercial structures on the property, as the current structure does not have a basement and the level of property disturbance has not been clearly defined beyond typical building construction (Steven Gottdank pers. comm. 2022). In addition, the demolition of the original St. Patrick's Roman Catholic Church on the property in 1974 would have also resulted in some disturbance on the property prior to the construction of the new building. However, community stakeholders and researchers have identified potential for human remains to exist on the property, as the site has been associated with a Roman Catholic church (**Section 3.1.1** of this report). It is not clear if any burials were made in this area, but stakeholder reference to the possibility of graves being present, in addition to the cross visible on the 1877 mapping, suggests there is a

possibility of graves being present behind (south) or beside (west) of the church, which would be under the current commercial structures on the property, not within the parking lot (Mr. Wilkinson pers. comm. 2022). Burials would be limited to the south and west portions of the property because the existing church structure is known to have stood on the southwest corner of Dixie Road and Dundas Street (Mann 1999; see **Figure 12-1-2** for church location). However, given that there is no documentary evidence to prove this, a cemetery investigation should be undertaken to confirm disturbance on this property.

5.25.3 Conclusions

AECOM's Stage 1 Archaeological Assessment of the Dundas Bus Rapid Transit Mississauga East Project Study Area has determined that the potential for the recovery of Indigenous and Euro-Canadian archaeological resources is high within areas not subject to previous disturbance. Areas where archaeological potential has been removed includes areas that have been subject to extensive land alterations that have significantly compromised the recovery of archaeological materials such as constructed roadways and buildings. Stage 2 Archaeological Assessment is recommended for all areas identified as retaining archaeological potential. ~~This conclusion is based on a review of previous Archaeological Assessments~~ Based on background research no further archaeological work is required outside the fenceline adjacent to Dixie Union Cemetery/St. John's Dixie Cemetery & Crematorium as the fenceline represents the legal limit of the property and it has been determined that there is low potential to encounter human burials beyond this area within the subject property. Further archaeological work will be required to determine the level of disturbance present and the presence/absence of human burials associated with this cemetery on the property where the Dundas-Dixie Cemetery could be present if this area will be impacted by the project (see **Section 5.2** of this report for analysis). This conclusion is based on a review of previous Archaeological Assessments, extensive background research of the cemeteries, consultation with cemetery operators and public stakeholders, the field review completed by AECOM, and professional judgement. Areas identified as retaining archaeological potential must be subject to Stage 2 Archaeological Assessment.

6. Recommendations

The Stage 1 Archaeological Assessment resulted in the finding that there is high potential for pre- and post-contact Indigenous and 19th century Euro-Canadian archaeological resources and human burials to be present within the Study Area ~~within areas not subject to previous disturbance~~. Based on the results of background studies and a review of the City of Mississauga Official Plan, it has been determined that archaeological potential still

exists within some small portions of the Study Area. **In light of these results, prior to any ground disturbing activities, a Stage 2 Archaeological Assessment is recommended for all land identified as retaining archaeological potential (Figure 18).**

The Stage 2 Archaeological Assessment for areas retaining archaeological potential must be conducted by a licensed archaeologist and must follow the requirements set out in ~~the~~ *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario, 2011), including:

- The standard test pit survey method at 5 m intervals is to be conducted in all areas that will be impacted by the project where ploughing is not feasible (e.g., woodlots, overgrown areas, manicured lawns); and
- Poorly drained areas, areas of steep slope, and areas of confirmed previous disturbance (e.g., building footprints, roadways, areas with identifiable underground infrastructure) identified during the Stage 2 assessment are to be mapped and photo-documented **to confirm disturbance**, but are not recommended for Stage 2 survey as they possess low to no archaeological potential (Section 2.1, Standard 2a and 2b).

There is one registered archaeological site located within the current Study Area boundaries, ~~the~~ Cherry Hill **site** (AjGv-18), that has been recommended for further work. However, the latitude and longitude of the site provided in the Archaeological Sites Database places the site right on the boundaries of the current Study Area, within an area of documented previous extensive disturbance (**Figure 2, Supplementary Documentation**). Once the land to be impacted by infrastructure improvements has been identified, should proposed construction activities impact any of the archaeological sites within an area that has not been subject to extensive disturbance, further Archaeological Assessment must be completed prior to ground disturbing activities.

Given the sparse details provided in the Archaeological Sites Database, it is not clear from the previous Archaeological Assessment what further work is required ~~or whether there is potential for deeply buried remains~~. Therefore, the Stage 2 Archaeological Assessment requirements will be applied ~~in the area to determine the level of disturbance present (Figure 18). The Stage 2 must follow the requirements set out in Standards and Guidelines for Consultant Archaeologists (Government of Ontario, 2011) as outlined above~~. If an undisturbed area in the vicinity of the coordinates provided in the Archaeological Sites Database ~~will~~ **is found and determined to** be impacted by the Project, ~~Stage-2 testing of the area~~ **further archaeological work will be required** in an attempt to relocate the site ~~is required. The Stage 2 must follow the requirements set out in the Standards and Guidelines for Consultant Archaeologists (Government of Ontario, 2011)~~.

as outlined above. Once ~~and assess for~~ the area ~~potential~~ of project impacts has been determined, only the land that will be impacted by this project will require Stage 2 Archaeological Assessment. ~~deeply buried remains is required.~~

Special consideration must be made for the ~~two~~ cemeteries located within the Study Area, ~~: Dixie Union Cemetery,~~ St. John's Dixie Cemetery & Crematorium/~~Dixie Union Cemetery,~~ and the remains of the Dundas-Dixie Cemetery (CHL 4).

Dixie Union Cemetery and St. John's Dixie Cemetery & Crematorium

Based on the background research and the plot mapping illustrating where the burials are located in relation to the ~~fenceline~~ fence line, it is reasonable to believe that the fenceline represents the cemetery limits and ~~that,~~ in addition to conversations with the cemetery operator, it has been determined that there is no potential for unmarked burials associated with the ~~cemetery~~ Dixie Union Cemetery to be located outside the current ~~marked boundaries~~ fenceline (Figure 3, Supplementary Documentation). It has also been determined that all expansion of the cemetery has occurred to the north with the expansion of the St. ~~John the Baptist Anglican Cemetery or St.~~ John's Dixie Cemetery and any unmarked graves are unlikely to exist within the Dundas Street right-of-way. Additionally, there is a large, modern concrete retaining wall to the west along the Cawthra Road underpass that is not anticipated to be impacted by the Project. ~~Therefore,~~ As a result, no further Archaeological Assessment is required within the Dundas Street or Cawthra Road rights-of-way as part of this Project. While there are currently no plans to impact the cemetery ~~investigation may be required should~~ lands, if during detail design changes to include impacts ~~be~~ by the Project, or any future impacts proposed ~~on the property within the marked~~ fenced limits of the cemetery limits. ~~Consultation with property,~~ further Stage 1 Archaeological assessment will be required to determine the potential to impact unmarked burials. Arrangements must be made with the cemetery owner/operator, the Bereavement Authority of Ontario ~~as outlined below will be required~~ and the Ministry of Heritage, Sport, Tourism and Culture Industries prior to any ~~work within the cemetery limits.~~ As such, once detail design is complete and the scope of construction ground disturbing activities ~~has been determined, only those areas of potentially undisturbed lands that~~ to determine an appropriate strategy for Stage 2 and 3 field methods within the fenced limits of this cemetery to ensure provisions under the Funeral, Burial, Cremations Services Act (Ontario Government 2002) are addressed. Any invasive Stage 2-4 archaeological fieldwork within the cemetery limits ~~will be affected by this project will~~ also require ~~Stage 2 Archaeological Assessment~~ a Cemetery Investigation Authorization from the Bereavement Authority of Ontario.

Dundas-Dixie Cemetery

The existence of the Dundas-Dixie Cemetery is largely unknown, and it is unclear if any grave shafts exist below the current commercial structures on the property. It is also unlikely that any intact archaeological resources exist beneath the land alterations along Dundas Street adjacent to the property. Therefore, because ~~it~~ the cemetery is illustrated on historic mapping, and any relating documentation may have been destroyed, it is recommended that should any development impacts to the property outside of the Dundas Street right-of-way be proposed ~~as part of the Project~~, additional Stage 2 ~~assessment for deeply buried archaeological materials~~ and Stage 3 cemetery investigation is required to confirm the level of disturbance, following Section 2.1.7 and 3.3.3 ~~of the Standards and Guidelines for Consultant Archaeologists~~, and will include:

- ~~• Given that the area cannot be test pitted by hand, mechanically excavate trenches at maximum intervals of 10 m to verify the presence of and to assess deeply buried archaeological resources and/or the extent of disturbance is required;~~
- Prior to construction activities, mechanical removal will include removal areas consisting of hard surfaces (i.e., concrete, asphalt), and areas of overburden or fill on the property outside of the Dundas Street right-of-way, where impacts are proposed (Figure 18-2).
- Mechanical removal must extend to a depth where it is possible to determine if any intact subsoil remains and must occur under the supervision of a licensed archaeologist;
- Mechanical excavations using a backhoe with a straight-edged ditching bucket ~~are to occur~~ must take place where topsoil is present within the ~~core~~ of the planned development area ~~and over~~ for the assessment of any areas of archaeological potential; ~~and~~
- ~~• Should an archaeological site or material possessing cultural heritage value or interest is uncovered, further archaeological documentation will be required.~~
- Currently, there are no proposed impacts to this property. Upon completion of hard surface/fill/overburden and topsoil removal, the detail design, should work for the proposed Project be required to occur within any cemetery area must be inspected and assessed by a licensed archaeologist for evidence of potential grave shafts. Mechanical removal must be extended a minimum of 10 metres beyond any exposed cultural features/potential grave shafts, or less if this will measure beyond the project limits or fieldwork adjacent to

~~a cemetery where the boundaries are not clear, arrangements must be made with the Bereavement Authority of Ontario for a Cemetery Investigation Authorization prior to any ground-disturbing activities.~~ if areas of low potential for unmarked burials are encountered (e.g., areas of deep and extensive disturbance):

- If any archeological sites including cultural features are encountered, they must undergo assessment and documentation according to the 2011 Standards and Guidelines.
- If human remains are encountered during construction, work must cease immediately and the police or Regional Coroner should be contacted, in addition to as well as the Registrar of the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services, the Bereavement Authority of Ontario, and the Ministry of Heritage, Sport, Tourism and Culture Industries. If the remains are not determined to be of forensic interest, a Burials Site Investigation under the Funeral, Burial and Cremation Services Act, 2002 may be ordered:
- Given that the Bereavement Authority of Ontario is unaware of the possibility of a cemetery in this location, and it is not a formal licensed cemetery, a Cemetery Investigation Authorization may not be required. Consultation with the Ministry of Heritage, Sport, Tourism and Culture Industries and the Bereavement Authority of Ontario should occur prior to any ground disturbance:
- A Stage 3 Cemetery Investigation report must be completed detailing the results of the investigation for each cemetery and submitted to the Ministry of Heritage, Sport, Tourism and Culture Industries for review and acceptance into the Ontario Public Register of Archaeological Reports.

The current Study Area also crosses a number of 19th century settlement areas, including Summerville, Sydenham (later Dixie), and Cooksville. Based on our detailed map and background review, we have not identified any areas where deeply buried potential remains. However, there is a possibility that structural remains could exist beneath the surface. Therefore, during construction, if historic structural remains are uncovered, a licensed archaeologist should be contacted to examine the find and determine if any documentation is required prior to its removal.

It is pertinent to note that the Mississauga East Study Area evaluated in this report includes additional land that may not be impacted by the Project. A large area was assessed as part of this Stage 1 Archaeological Assessment in order to accommodate areas of possible infrastructure improvements. As such, once detail design is complete

and the scope of construction activities has been determined, only those areas of ~~potentially undisturbed~~ lands archaeological potential that will be affected by this project will require Stage 2 Archaeological Assessment.

Should Indigenous Nations express interest in participating in the Stage 2 ~~archaeological assessment~~ Archaeological Assessment as part of the Dundas Bus Rapid Transit Project, an invitation should be extended by the proponent for representatives of the Indigenous Nations to join the archaeological team during fieldwork. Additionally, the Stage 2 report should be made available to the Indigenous Nations for review prior to submission of the report to the ~~MHSTCI~~ Ministry of Heritage, Sport, Tourism and Culture Industries. Further, as unmarked Indigenous burials have been referenced in previous historical records (Ontario Genealogical Society 1997), local Indigenous Nations should be engaged in any impacts within the boundaries of the Dixie Union Cemetery/St. John's Dixie Cemetery & Crematorium.

Should additional land outside of the Study Area boundaries be included as part of the Dundas Bus Rapid Transit Project, the standard requirements for Archaeological Assessments to be conducted prior to land disturbance remain in place.

The Ministry of Heritage, Sport, Tourism and Culture Industries is asked to accept this report into the Ontario Public Register of Archaeological Reports thereby concurring with the recommendations presented herein. As further Archaeological Assessment is required, archaeological concerns for the Dundas Bus Rapid Transit Mississauga East Project in the City of Mississauga, Ontario have not been fully addressed.