APPENDIX M

METROLIXN GO RAIL ELECTRIFICATION

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Name of Firm: Archaeological Services Inc. (ASI)


Submittal Date: September 8, 2017

Discipline: Environmental Assessment

Prepared By: John Sleath Date: December 23, 2016

Reviewed By: Annie Veilleux Date: September 8, 2017

Approved By: Rebecca Sciarra Date: September 8, 2017
Project Manager

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2. Checked for completeness and accuracy by the appointed discipline reviewers and that the discipline reviewers did not perform the original work.
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4. Updated to address previously agreed-to reviewer comments, including any remaining comments from previous internal or external reviews.
5. Reviewed for conformance to scope and other statutory and regulatory requirements.
6. Determined suitable for submittal by the Project Manager.
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<td>August 30, 2016</td>
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Prepared By: ASI 09-08-2017
REPORT DISCLAIMER

NOTWITHSTANDING the results and recommendations presented in this study, Archaeological Services Inc. notes that no cultural heritage assessment, no matter how thorough or carefully completed, can necessarily identify every property and/or structure that has not been previously identified as a known or potential cultural heritage resource. Cultural heritage assessments for transportation related projects are limited to the public right-of-way, and as such, potential cultural heritage resources on private property may be screened from view by vegetation and/or other barriers. In the event that a potential cultural heritage resource is found during subsequent construction activities, the consultant cultural heritage specialist and approval authority should be immediately notified.
Executive Summary

ASI was contracted by Morrison Hershfield on behalf of Metrolinx to conduct a Cultural Heritage Evaluation Report (CHER) and Cultural Heritage Evaluation Recommendation Report (CHERR) of the Willowbrook Maintenance Facility on the Lakeshore West rail corridor as part of the GO Rail Network Electrification Transit Project Assessment Project (TPAP). Metrolinx is undertaking a TPAP study under Ontario Regulation 231/08 - Transit Projects and Metrolinx Undertakings for electrification of the GO Rail Network. The Willowbrook Maintenance Facility was identified as a Potential Provincial Heritage Property as part of the Cultural Heritage Screening Report completed for the GO Rail Network Electrification TPAP.

The Willowbrook Maintenance Facility is located along the Lakeshore West rail corridor (from Mile 6.89 to 8.04) between Kipling Avenue and Royal York Road, and is owned by Metrolinx. The maintenance yard was built in 1906 and has undergone multiple changes, and consists of approximately 25 rail lines leading to various yards, sheds, and storage facilities oriented in a northeast and southwest direction. The maintenance facility is approximately two kilometers in length, has a maximum width of approximately 450 metres, and is located approximately 400 metres west of the Mimico GO Station in the City of Toronto.

Part 1 of this CHER provides a description of the potential cultural heritage resources, including a summary of its historical and current context (Section 1), a description of methodology and sources (Section 2), existing heritage recognition of the resource (Section 3), a description of adjacent lands (Section 4), summary of previous archaeological assessment (Section 5), community input (Section 6), and discussion of cultural heritage value (Section 7). A data sheet in provided in Section 8 and figures, including mapping and photographs, are provided in Section 9. Part 2 of this CHER contains the Recommendations Report which presents the evaluation tables outlining criteria set out in Ontario Regulations 9/06 and 10/06 and recommended outcome of the evaluation.

The CHER was conducted by John Sleath, Cultural Heritage Assistant in the Cultural Heritage Division, ASI.
Introduction

ASI was contracted by Morrison Hershfield on behalf of Metrolinx to conduct a Cultural Heritage Evaluation Report (CHER) and Cultural Heritage Evaluation Recommendation Report (CHERR) of the Willowbrook Maintenance Facility, Lakeshore West rail corridor, as part of the GO Rail Network Electrification Transit Project Assessment Process (TPAP). Metrolinx is undertaking a Transit Project Assessment study under Ontario Regulation 231/08 - Transit Projects and Metrolinx Undertakings for electrification of the GO Rail Network. The purpose of the Project is to convert the GO Network from diesel to electric power. The Willowbrook Maintenance Facility was identified as a Potential Provincial Heritage Property as part of the Cultural Heritage Screening Report completed for this Project.

The objective of this CHER is to provide evidence about reasons why the subject resource may be of cultural heritage value or interest, and identify the physical elements that contribute to its heritage value. Research for this CHER was conducted under the senior project management of Lindsay Graves, Assistant Manager of the Cultural Heritage Division, ASI.

1.1 Description of Property

The Willowbrook Maintenance Facility is located on the GO Transit Lakeshore West rail corridor, and is located in the City of Toronto (Figure 1-1 and Figure 1-2). The facility measures approximately two kilometers in length, oriented in a northeast-southwest direction, and has a maximum width of approximately 450 metres. The facility is bisected by the Lakeshore West rail corridor, which is four tracks wide at this point, and includes a maximum of 16 rail tracks on the south side, and 19 tracks on the north side of the rail line. The maintenance facility is located within several ownership parcels with unknown PINs, and is currently owned and maintained by Metrolinx.

1.2 Historical Summary

The Willowbrook Maintenance Facility was constructed in 1906 by the Grand Trunk Railway (GTR). The maintenance facility contains numerous storage and maintenance buildings designed to provide service to rail cars and engines operating on the Lakeshore West rail line. When GO Transit acquired the property from Canadian National Railway (CNR) in the mid 1960’s, they retained the facility in order to service and store GO commuter trains (See historical mapping in Section 9.0).

The Willowbrook Maintenance Facility is located in part of Lots 2-5, Concession 1 Fronting the Lake, and Lots 6 and 7, Meridian Concessions I and II in the historic Township of Etobicoke in the former County of York. The facility is located in the southern portion of the historic town of Mimico, founded in 1856, and later amalgamated with the Borough of Etobicoke in 1967, which was in turn amalgamated into the City of Toronto in 1998.
1.3 Current Context

The Willowbrook Maintenance Facility is bounded between Kipling Avenue in the west, and Royal York Road in the east in the City of Toronto. The area around the facility is primarily an industrial/commercial neighborhood on all sides, with the exception of the northeastern, eastern, and extreme southeastern portions which are located in the historic community of Mimico. The Islington Avenue Bridge spans the maintenance facility at the midpoint, where it is at its widest.

The properties adjacent to the bridge include: industrial/warehouse facilities to the south along New Toronto Street, warehouse/industrial facilities and a correctional facility to the northwest on Horner Avenue, warehouse/industrial facilities on the northwestern portion of Judson Street, semi-detached and detached residences to the northeastern portion of Judson Street, and commercial/warehouse facilities on the eastern portion on Royal York Road. All of these adjacent features appear to have been constructed more than 40 years ago.

Figure 1-1: Location of study area in the City of Toronto, Ontario (Open Street Map)
2 Methodology and Sources

2.1 Legislation and Policy Context
This cultural heritage evaluation considers cultural heritage resources in the context of improvements to specified areas, pursuant to Ontario Regulation 231/08: Transit Projects and Metrolinx Undertakings (Transit Projects Regulation) and the Ontario Environmental Assessment Act (EAA 1990). Pursuant to the Environmental Assessment Act, applicable infrastructure projects are subject to assessment so as to determine related impacts on above ground cultural heritage resources (MTO 2006). Infrastructure projects have the potential to impact cultural heritage resources in a variety of ways such as loss or displacement of resources through removal or demolition and the disruption of resources by introducing physical, visual, audible or atmospheric elements that are not in keeping with the resources and/or their setting.

When considering cultural heritage resources in the context of improvements to specified areas, a 40 year old threshold is used as a guiding principle when identifying cultural heritage resources. While identification of a resource that is 40 years old or older does not confer outright heritage significance,
this threshold provides a means to collect information about resources that may retain heritage value. Similarly, if a resource is slightly younger than 40 years old, this does not preclude the resource from retaining heritage value.

The TPAP is defined in sections 6-17 in *Ontario Regulation 213/08: Transit Projects and Metrolinx Undertakings*, and provides a series of relevant provisions and definitions. The TPAP Guide (January 2014) includes provisions to consider when the proposed project may have a negative impact on a matter of provincial importance, which is defined as follows (2014: 2):

“...a matter of provincial importance that relates to the natural environment or has cultural heritage value or interest....”

The TPAP Guide further notes that identification and assessment of potentially impacted built heritage resources, cultural heritage landscapes, and protected heritage properties are relevant in determining if a matter is of ‘provincial importance’ (2014: 10). It should be noted that the TPAP Guide acknowledges that a built heritage resource, cultural heritage landscape, or protected heritage property does not necessarily need to meet criteria set out under *Regulation 10/06* of the *Ontario Heritage Act* to be considered of ‘provincial importance’.

The analysis used throughout the cultural heritage resource assessment process addresses cultural heritage resources under other various pieces of legislation and their supporting guidelines:

- *Environmental Assessment Act* (R.S.O. 1990, Chapter E.18)
  - Guideline for Preparing the Cultural Heritage Resource Component of Environmental Assessments (MCC – MOE 1992)
- *Ontario Heritage Act* (R.S.O. 1990, Chapter O.18) and a number of guidelines and reference documents prepared by the Ministry of Tourism and Culture (MTC):
  - Standards and Guidelines for the Conservation of Provincial Heritage Properties (MTC 2010)
  - Ontario Heritage Tool Kit (MCL 2006)
- *Planning Act* (R.S.O. 1990, Chapter P.13) and the 2014 *Provincial Policy Statement*

This assessment was also guided by the *Metrolinx Interim Cultural Heritage Management Process* (Metrolinx 2013b), the *Draft Terms of Reference for Consultants: Cultural Heritage Evaluation Report and Cultural Heritage Evaluation Report Recommendations* (Metrolinx 2014); and the City of Toronto *Terms of Reference for Heritage Impact Statements* (August 2011).
2.2  
Approach to Cultural Heritage Evaluation Report


- A general description of the history of the study area as well as a detailed historical summary of property ownership and building(s) development;
- A description of the cultural heritage landscape and built heritage resources;
- Representative photographs of the exterior and interior of a building or structure, and character-defining architectural details;
- A cultural heritage resource evaluation guided by the *Ontario Heritage Act* criteria;
- A summary of heritage attributes;
- Historical mapping, photographs; and
- A location plan.

A site visit was conducted by John Sleath, Cultural Heritage Assistant, and Joel Konrad, Cultural Heritage Specialist, both of ASI, on 10 August 2016, to conduct photographic documentation of the subject resource. The assessment was conducted from within the maintenance facility accompanied by GO Transit employees.

Using background information and data collected during the site visit, the cultural heritage resource is evaluated using criteria contained within Regulation 9/06 and 10/06 of the *Ontario Heritage Act*. The two criteria sets share a requirement to fully understand the history, design and associations of all cultural heritage resources of the property. The following differences between the two sets of criteria should be noted (Metrolinx 2014: 12):

- Regulation 9/06 requires a consideration of the community context
- Regulation 10/06 requires a consideration of the provincial context

2.2.1  
List of Key Sources and Research Limitations

*Key Sources*

Background historical research, which includes the consultation of primary and secondary source documents, photos, and historic mapping, was undertaken to identify early settlement patterns and broad agents or themes of change in a study area. In addition, on-site archival research was undertaken
at the following libraries and archives to build upon information gleaned from other primary and secondary materials:

- Toronto Archives
- Archives of Ontario

Available federal, provincial and municipal heritage inventories and databases were also consulted to obtain information about the property. These included:

- The City of Toronto’s Heritage Properties Inventory;
- The Ontario Heritage Trust’s Pro vincial Plaque Program database;
- Park’s Canada’s Directory of Federal Heritage Designations, a searchable on-line database that identifies National Historic Sites, National Historic Events, National Historic People, Heritage Railway Stations, Federal Heritage Buildings, and Heritage Lighthouses; and
- Park’s Canada’s Canada’s Historic Places website: a searchable on-line register that provides information on historic places recognized for their heritage value at the local, provincial, territorial and national levels.

Previous consultant reports associated with potential above-ground cultural heritage resources and archaeological resources within and/or adjacent to the GO Rail Network Electrification TPAP included the following:

- Cultural Heritage Screening Report: GO Rail Network Electrification TPAP (ASI 2016)

A full list of references consulted can be found in Section 11 of this CHER.

Research Limitations
No research limitations were identified.

2.3 Consultation
Consultation with the Ontario Heritage Trust, the Ministry of Tourism, Culture, and Sport (MTCS), and heritage staff at the City of Toronto regarding the subject properties took place as part of the Cultural Heritage Screening Report (ASI 2016), and is summarized below.

| Contact Contact Information | Organization Date(s) of Communications Description of Information Received |
|-----------------------------|-----------------------------|---------------------------------|
| Kiki Aravopoulos, Easements Coordinator Kiki.Aravopoulos@heritagetrust.on.ca | Ontario Heritage Trust November 12, 2015 November 27, 2015 | Heritage Easement List |

Prepared By: ASI 09-08-2017
Table 2-1: Results of Community Consultation

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<th>Contact Information</th>
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<td>Sherry Pedersen, Program Manager</td>
<td>City of Toronto, Heritage Preservation Services</td>
<td><a href="mailto:speders@toronto.ca">speders@toronto.ca</a></td>
<td>November 3, 2015, November 13, 2015, November 27, 2015, December 8, 2015, February 18, 2016</td>
<td>No information received at the time of report writing.</td>
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<tr>
<td>Karla Barboza, Heritage Advisor</td>
<td>Ministry of Tourism, Culture and Sport</td>
<td><a href="mailto:Karla.Barboza@ontario.ca">Karla.Barboza@ontario.ca</a></td>
<td>November 27, 2015, December 8, 2015</td>
<td>Confirmed known PHPs along corridors; provided direction on other reports/EA studies to review.</td>
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3 Heritage Recognitions

3.1 Municipal
The subject resource does not retain heritage recognition at the municipal level for the following reasons:

- The property is not listed on the City of Toronto’s Heritage Properties Inventory.

3.2 Provincial
The subject resource does not retain heritage recognition at the provincial level for the following reasons:

- The property is owned by Metrolinx, however, is has not previously been identified as a Provincial Heritage Property; and
- The property has not been commemorated by the Ontario Heritage Trust.

3.3 Federal
The subject property does not retain heritage recognition at the federal level for the following reasons:

- The property does not contain a Federal Heritage Building; and
- The property is not a National Historic Site.

4 Adjacent Lands
The Willowbrook Maintenance Facility is not adjacent to any protected heritage properties.
5 Summary of Archaeological Assessments
The Stage 1 Archaeological Assessment for the GO Rail Network Electrification TPAP is currently underway (ASI, in progress). Once completed, this report will provide information about archaeological potential in the study area.

6 Community Input
A number of stakeholder groups were contacted and asked to complete a questionnaire to collect any information relating to the Willowbrook Maintenance Facility. See Appendix A for a sample questionnaire and Table 6-1 for a list of organizations contacted and a description of information received. At the time of writing, no responses were received from any of the organizations contacted. No concerns regarding the heritage value or local community interest were identified.

A review of various online sources did not reveal any interest from the community in the potential heritage value of the Willowbrook Maintenance Facility.

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<td>n/a</td>
<td>Toronto Railway Historical Association</td>
<td><a href="mailto:info@trha.ca">info@trha.ca</a></td>
<td>August 5, 2016</td>
<td>No response received to date</td>
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<td>n/a</td>
<td>Toronto Historical Association</td>
<td><a href="mailto:info@torontohistory.net">info@torontohistory.net</a></td>
<td>August 5, 2016</td>
<td>No response received to date</td>
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7 Discussion of Cultural Heritage Value

7.1 Discussion of Historical or Associative Value

7.1.1 Settlement History
Township of Etobicoke
The land in Etobicoke Township was acquired by the British from the native Mississaugas, and was included in the terms of the Toronto Purchase of September 25, 1787. The township was originally under the authority of the Nassau District Land Board which sat at Newark (Niagara) until the district boards were abolished by John Graves Simcoe in November 1794. When Simcoe redefined the administrative and electoral boundaries for Upper Canada, the area which covers the modern City of
Toronto and also Etobicoke formed part of the County of York in the East Riding of York in the Home District.

The first survey of Etobicoke was made by Abraham Iredell in April 1795, with the first “legal settler” taking up land in 1800 (Armstrong 1985:143). Several of the modern streets in Etobicoke follow the survey lines set down by Iredell, and his field notes were used by William Hawkins (PLS) when he corrected and confirmed parts of the township survey in 1856-7. Other parts of Etobicoke, such as the extensive tract in the southwest corner of the township which was granted to the Hon. Samuel Smith, remained unsurveyed until this work was undertaken by Samuel Wilmot in 1811 (Hawkins 1857). Other early township surveys were undertaken by Augustus Jones (1797) and Hambly (1798). A survey of a road leading across the township to the King’s Mill was undertaken by Ridout and some soldiers from the garrison at York during the summer of 1814. The irregular shape of the township, as well as the various surveyors who laid out the concessions, caused Etobicoke to be “laid out in a fragmentary and unsystematic fashion” (Robinson, 1914 vol. 1: 97). Canniff also speculated that part of the haphazard survey found in Etobicoke may have been in an effort to permit as many settlers as possible to “obtain a frontage upon a water way” (Miles and Co. 1878:xxi).

In 1805, Etobicoke was briefly described by D’Arcy Boulton: “further to the westward (that is, between the Humber and the head of the lake Ontario) the Tobicoake, the Credit, and two other rivers, with a great many smaller streams, join the main waters of the lake; they all abound with fish, particularly salmon. At this place is a small house for the entertainment of travelers.” He further noted that “the tract between the Tobicoake and the head of the lake is frequented only by wandering tribes of Missassagues” (Boulton 1805:48). It should be noted here that one of the early alternate names given to the Etobicoke Creek was “Smith’s River” (Firth 1962:29).

In 1846, Etobicoke was described as “a well settled township, containing good land” although some of the land near the lake was “generally poor and sandy.” The timber was principally pine and hardwood, including beech, maple, elm and basswood. The township contained five grist mills and nine sawmills. The village of Mimico was of sufficient size to warrant notice at that time. The population of the township in 1842 had reached 2,467 (Smith 1846:57).

In 1851, it was noted that although Etobicoke was a small township, it was well settled and property values had increased greatly. During the late 1820s and early 1830s, land was available for purchase at $6 per acre, but by 1851 it had increased to £10-12 (about $50-60) per acre. The population in that year was 2,904. The township contained five grist mills and seven saw mills. The primary crops enumerated in the Agricultural census included wheat, barley, oats, peas, potatoes, wool, cheese and butter (Smith 1852:18).
7.1.2 Significant Themes, Events and/or People

Railway Development

The Lakeshore West rail corridor follows the tracks initially laid in the mid 1850s from Toronto to Hamilton by the Great Western Railway (GWR), who were leasing the land from the Hamilton & Toronto Railway Company (H&TRC). The H&TRC was established by Sir Allan MacNab and a number of other investors, with additional financial support from England, and a charter was granted in 1852.

Construction on the line began in 1853 and it was completed in 1855. The line was initially leased to the Great Western Railway (GWR), who in turn supplied railway stations along the corridor and constructed the GWR branch between Hamilton and Toronto (Paterson & George 1988:13). Given that the GWR was headquartered in Hamilton, mileage started in Hamilton. Extending from Hamilton, the first train stations were as follows (Reynolds 2011):

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

The establishment of the railway through Mimico slowly brought change to the village. In the 1850’s a group of Toronto businessmen purchased land along the railway line, and subdivided it into lots. Unfortunately, the economic recession following the Crimean War slowed development, and most of the subdivided land remained undeveloped for a considerable time (Mika and Mika 1983). The 1878 Illustrated Historical Atlas Map (Figure 9-1) demonstrates that the area retained a rural, agricultural character well into the late nineteenth century, with large tracts of land reserved by the government, and few subdivided residential lots containing structures (Miles and Co. 1878).

By the 1870s, there were five trains running daily between Toronto and Hamilton (Hicks 2006). Locomotives were now powered by coal rather than wood and air brakes had been developed which allowed for trains to attain greater speeds. By 1872, iron rails were being replaced by the more resilient steel rails, greatly improving safety standards and reducing expenses. It was also around this time that the H&TR was absorbed into the GWR and the single track between Hamilton and Toronto became known as the Toronto Branch. Other lines constructed by, or purchased by, the GWR included: the Galt & Guelph Railway; the London & Port Sarnia Railway; and the Canada Air Line Railway (Reynolds 2011).

In 1882, the Grand Trunk Railway (GTR) merged with the GWR. Track mileage was reversed at this time, with Union Station in Toronto now at Mile 0.00. In the 1880s and 1890s, a plan was developed by the...
GTR to fix the ‘Dip’ at the Credit River in Port Credit, in which the tracks would be raised by 12 feet. At the same time, the Toronto Branch rail corridor was doubled and to accommodate the new track and the raised roadbed (Reynolds 2011).

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

GO Transit service began in May 1967, with a new Mimico Station constructed in the extant location east of Royal York Road in service. The former CN Mimico Station was decommissioned when CN abandoned the maintenance facility, and was eventually relocated in the early 2010’s in advance of a condominium development.

In the early 2000s, increase rail traffic on the Lakeshore West rail corridor necessitated the addition of a third track. Triple tracking was completed by 2008 and consisted of more than 29 miles (48 kilometres) of new track, 15 interlockings, and 25 bridges (AECOM n.d.).

*Development of the Willowbrook Maintenance Facility*

The Willowbrook Maintenance Facility was constructed in 1906 by the GTR as a light maintenance and servicing yard for locomotives, cars, and coaches travelling along the rail line between Hamilton and Toronto. The newly formed CNR took over the bankrupt GTR in 1923, at which time they assumed control of the newly named the CNR Mimico Terminal.

The CNR Mimico Terminal housed three separate railway departments, including the motive power department that operated the roundhouse and serviced steam engines, the car department that repaired freight cars, and the yard and traffic department that schedule and arranged the individual engine and cars into the ‘consists’ that make up each train. By the mid 1960s the facility was in a state of poor repair, and was in the process of being decommissioned by CNR (Mackenzie 2015). Aerial photography from 1947 demonstrates that the facility had several small structures present in the northwestern portion of the study area, potentially the de-icing facilities depicted in a 1953 archival photograph (Figures 9-2 and 9-7). Additional archival photographs of the facility demonstrate that the structures are difficult to discern due to the large size of trains relative to the structures and the overall scale of the facility (Figures 9-8 and 9-9).
GO Transit acquired the property in 1965, at which time they changed the name to the Willowbrook Maintenance Facility. The facility began to operate as a light maintenance yard for GO commuter trains, which involved cleaning, inspecting, and performing routine and preventative maintenance, and short-term storage of diesel engines and passenger coaches. Aerial photography from 1966 depicts the study area as undergoing changes from the 1947 aerial, with previously constructed facilities being demolished and additional structures constructed in the approximate location of the extant PM Bays 3 and 4 in the northeastern section of the facility (Figure 9-3). These structures are clearly depicted in a 1965 photograph (Figure 9-10).

Aerial photographs from 1975 depict the same structures in the northeastern portion of the facility in the approximate location of modern-day PM Bays 3 and 4 (Figure 9-4). By 1985, these structures had been demolished, and extant PM Bays 1 and 2 are depicted in their present location (Figure 9-5). The Islington Avenue Bridge is also depicted for the first time in the aerial photographs, after its construction across the facility in 1979. The facility is shown to have undergone few changes before (Figure 9-6).

7.2 Discussion of Design and Physical Value

7.2.1 Physical Characteristics

The following description of the Willowbrook Maintenance Facility is based on a site plan, historical photographs, site visit, and historical aerial photographs. The following drawings were available for review:

- Willowbrook Rail Maintenance Facility, New Progressive Maintenance Bays 3 and 4, Overall Site Plan (Morrison Hershfield 2010)

The Willowbrook Maintenance Facility was constructed in 1906 by the Grand Trunk Railway as a light rail maintenance yard along the Oakville subdivision of the Lakeshore West rail corridor. The facility measures approximately two kilometres in length and 180 metres in maximum width, oriented in the same northeast-southwest direction as the Lakeshore West rail corridor. The facility contains at maximum 19 tracks north of the Lakeshore West rail corridor, which is four lanes wide at this point. An additional 16 tracks are located to the south of the rail corridor as part of VIA Rail’s Toronto Maintenance Yard. The combination of the Willowbrook and VIA maintenance yards form one of the largest passenger rail service yards in North America (Terpstra 2012). Currently, the Willowbrook Maintenance Facility is separated into three operating yards, with the north yard consisting of four tracks leading to a maintenance building, with space for 14 cars, the south yard consisting of four tracks for servicing locomotives and coaches, and the storage yard consisting of two tracks that serve as an overflow storage site (Mackenzie 2015).
**Final Cultural Heritage Evaluation Report: Willowbrook Maintenance Facility**

**Modifications**
To keep up with the ongoing needs of the original steam locomotives, then later diesel trains, the maintenance facility has undergone numerous repairs and renovations throughout its history. The principal maintenance structures originally constructed in 1906 by the Grand Trunk Railway have been replaced by modern structures by CNR and later by GO Transit when they assumed control in the mid-late 1960s.

Originally, the CNR Mimico Yard was designed to service freight locomotives after they had been uncoupled from the various freight or passenger cars they hauled. While this system proved effective for freight cars that were constantly being uncoupled when the consists were changed, this system proved inefficient for commuter trains that would have the same number of coaches in tow every day. In an effort to streamline maintenance and limit the need to uncouple locomotives and self-propelled diesel coaches, a facility was needed that was able to handle cleaning, refueling, and light maintenance with the passenger coaches still attached to the engines. The CNR Mimico Yard was found to be large enough to accommodate the trains without uncoupling, and it already contained the maintenance and service facilities in place from CNR operations. However, as the CNR had been preparing to abandon the facilities at their Mimico Yard, they were in a poor state of repair when GO Transit acquired the facility (Sergeant 2004). The Government of Ontario was initially hesitant to commit substantial funds to the newly acquired Willowbrook Maintenance Facility, as the entire GO Transit system was initially considered as a test operation (Sergeant 2004). It was many years before the facility contained the necessary facilities to perform all the current maintenance, cleaning, and repair operations needed.

Various repairs and modernizations have occurred since GO acquired the facility, including major overhauls in 1980, 1987, and 1997, with further modifications undertaken in 2013 to Progressive Maintenance (PM) Bays 2, 3, and 4, fuel systems upgrades, and the construction of a new wheel house (Terpstra 2012). There are further anticipated modifications related to the future GO Rail Network Electrification TPAP (MMM Group n.d.).

**Existing Conditions**
The Willowbrook Maintenance Facility is accessed by a pedestrian overhead bridge south of Judson Street between Magnificent Road and Etona Court, and by several other vehicular access points. The facility includes an array of tracks and switches, and several structures dedicated to a variety of maintenance and repair operations (Figures 9-12 to 9-15).

The northern edge of the property consists of a large employee parking lot, north of the large Progressive Maintenance (PM) Bays 1 and 2, and the recently constructed Wheel Shop. PM Bays 1 and 2 measure approximately 360 metres in length, 22 metres in width each, and are oriented northwest-southeast on the same alignment as the rail tracks. PM Bay 1 and 2 are both accessible by a single track each, and are use to service and maintain an entire train, with a diesel locomotive and up to 12 passenger coaches attached (Figures 9-16 to 9-17). The Wheel shop is located to the north of PM Bay 1,
and measures approximately 63 metres in length, 22 metres in width, and is accessed by two rail tracks. The wheel shop is the site of wheel inspections, maintenance, and replacement, and has the ability to mill the wheels back into a perfectly round shape without removing them from the car (Figure 9-18). To the south of PM Bay 2, additional facilities dedicated to the repair of individual passenger coaches and individual diesel engines are located on the west and east ends, respectively. Coach Service (CS) Bays 1-3 are accessed by three tracks from the west, and are the site of scheduled maintenance or repairs to individual passenger coaches deemed too time and labour intensive to be conducted with the coach as part of a consist with a train in one of the Progressive Maintenance Bays (Figure 9-19). Diesel Service (DS) Bays 1-3 similarly are the site of repairs for the diesel engines that have been uncoupled from passenger coaches for individual servicing (Figure 9-20).

South of PM Bay 2 is a large open storage and holding yard incorporating one rectangular structure consisting of a tall canopy that houses auxiliary power supply to the trains, which spans the width of all nine rail tracks in the storage area. This auxiliary power structure provides the electricity needed to maintain climate control, lighting, and other electrical systems for the train during maintenance and storage when the diesel engine is shut down. The canopy measures approximately 65 metres in length and 20 metres in width, and is perpendicular to the storage yard, which measures approximately 900 metres in length at maximum, and 60 meters in width (Figures 9-21 to 9-23).

The northeastern portion of the facility includes an office and administrative building on the northern limit of the property, located south of Judson Street on Willowbrook Road. To the immediate south of this office structure are PM Bays 3 and 4, which combined measure 370 metres in length, and 22 metres in width. PM Bays 3 and 4 are serviced by one track each, and are used to inspect and service entire trains, in a similar manner to PM Bays 1 and 2 (Figures 9-24 and 9-25).

Two structures are dedicated to washing the trains, with one Train Washing (TW) station located in the western portion of the facility before the train exits Willowbrook (Figure 9-26), and one Locomotive Washing (LW) station where the diesel locomotives are washed prior to servicing in DS Bays 1-3 (Figure 9-27).

Fueling stations are located immediately east of PM Bays 3 and 4 (Figure 9-28) and south of PM Bays 3 and 4 before trains enter into the southern storage yard with auxiliary power station. This southern fueling station also includes two small ancillary structures (Figure 9-29).

The remainder of the facility consists of infrastructure related to signals, switches, vehicular access roads, and various other rail activity areas (Figures 9-30 and 9-31).

The adjacent property at 123 Judson Street includes a large parking area and a crew building, with offices and staff rest and meal facilities (Figure 9-32) As part of an ongoing condominium development to the immediate northeast of the maintenance facility, former CN Mimico Station was purchased by the
developer and relocated to the north side of Judson Street immediately west of Royal York Road, and now serves as a sales center. This station was originally located adjacent to the rail tracks, but was decommissioned with the construction of the extant Mimico GO Station in the late 1960s (Figure 9-33). This relocated CN Mimico Station is Designated under Part IV of the Ontario Heritage Act, however it is not considered adjacent to the study area, nor are there any anticipated impacts to it from the GO Rail Network TPAP.

The area adjacent to the Willowbrook Maintenance Facility consists of industrial and commercial establishments to the north, with a residential area north of Judson Street on at the northeast corner of the study area (Figure 9-34). The southern limit of the maintenance facility is bounded primarily by the Lakeshore West Corridor, with the exception of a small portion in the southwest that extends south of the rail line. The Via Toronto Maintenance Center is directly adjacent to the southern study area limit (Figure 9-35).

7.2.2 Comparative Analysis
The Willowbrook Maintenance Facility, constructed in 1906 by the Grand Trunk Railway, is a large storage and maintenance yard, the largest currently owned by Metrolinx. The East Rail Maintenance Facility, currently under construction by Metrolinx in Whitby, Ontario, will be of comparable size and will fulfill a similar function for trains stored on the Lakeshore East Line. Having a maintenance facility at both the east and west side of Union Station on the Lakeshore East/West Line is advantageous as it allows trains to be serviced without having to pass through the busy Union Station Rail Corridor. Further, a second maintenance facility provides redundancy so issues at one facility can be offset by the other facility, reducing delays and disruptions to commuter service.

According to a review of the available literature, there are no other completed maintenance facilities owned by Metrolinx. Similar commuter and passenger rail maintenance facilities exist for other rail networks in Toronto, including:

- Via Rail’s Toronto Maintenance Facility- located directly south of the Lakeshore West Rail Corridor, adjacent to the Willowbrook Maintenance Facility (Via Rail n.d.) (Figure 9-37).
- Toronto Transit Commission’s (TTC) Davisville Subway Yard, a municipal electrical subway maintenance and storage facility built in 1954 that was the original storage and maintenance yard for the Yonge-University Subway Line (Figure 9-37).
- TTC’s Wilson Yard, a municipal electrical subway maintenance and storage facility built in 1978 that was built to accommodate the extra trains needed for the Yonge-University-Spadina Subway Line Extension.
- TTC’s Greenwood Yard, a municipal electrical subway maintenance and storage facility built in 1965 that is the main storage and maintenance yard for the Bloor-Danforth Subway Line (Adel and Bow 2015) (Figure 9-38).
• TTC’s Vincent Subway Yard, a municipal electrical subway maintenance and storage facility built in 1966 to store and service the maintenance trains needed for infrastructure maintenance. Currently closed for maintenance (Bow 2015).

Based on this review, the subject maintenance facility is considered to be the oldest example a light rail maintenance facility owned by Metrolinx, however there are several other similar rail facilities located within the City of Toronto. In terms of size, Willowbrook Maintenance Facility is comparable in size to the Via Rail Toronto Maintenance Facility, but larger than any of the TTC subway yards.

Section 9.5 includes images to provide a comparison between like maintenance facilities (Figures 9-36 to 9-38).

7.3 Discussion of Contextual Value

7.3.1 Description of Setting and Character of the Property and Surroundings
The Willowbrook Maintenance Facility is located on the outer fringe of the historic village of Mimico in the City of Toronto, Ontario. The area is bordered by the Lakeshore West rail line and the Via Rail Maintenance Facility to the south, Royal York Road to the east, industrial/commercial businesses to the north, and Kipling Avenue to the west.

The Islington Avenue Bridge carries Islington Avenue, a main north-south thoroughfare in the city of Toronto, over the facility and provides an elevated crossing between Kipling Avenue to the west and Royal York Road to the east. The bridge connects the industrial/commercial areas south of the Willowbrook maintenance facility along New Toronto Street and the residential area further south on Birmingham Street to the industrial and residential areas north along Judson Street. The Islington Avenue Bridge was evaluated in a separate CHER conducted by ASI (ASI 2016b). At this point, the Lakeshore West line is four tracks in width, with the Mimico GO Station located approximately 400 metres to the east.

In summary, the character of the general vicinity of the Willowbrook Maintenance Facility is strongly tied to the commercial/industrial and transportation history of the area. Since its inception in 1906, the surrounding area has developed around the rail facility.

7.3.2 Community Landmark
The Willowbrook Maintenance Facility is a large and dominating facility in the local area that significantly impacts local transportation and circulation patterns. While inaccessible to the general public, significant views of the Lakeshore West rail corridor and of the Willowbrook Maintenance Facility are noted from the Islington Avenue Bridge, providing a rarely seen glimpse of train maintenance activity. The facility is a central hub for the GO Transit system, and is a well known landmark to the
members of the regional GO Transit system, CN Rail network, Via Rail Network, and other ancillary railway and support services. However, it is not considered to be a significant landmark to the local community at large due to restricted access to the site.
# Final Cultural Heritage Evaluation Report: Willowbrook Maintenance Facility

## Data Sheet

<table>
<thead>
<tr>
<th>Property Name:</th>
<th>Willowbrook Maintenance Facility</th>
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| Municipal Address:    | 125 Judson Street  
                        | 43.61076902, 79.5075966 Datum WGS84 |
| Municipality:         | City of Toronto                  |
| Metrolinx/GO Transit Rail Corridor: | Lakeshore West |
| PIN:                  | 076010158 (Willowbrook MF)  
                        | 076010262 (Lakeshore West Rail Corridor) |
| Ownership:            | Metrolinx                        |
| Date of Construction: | 1906                             |
| Architect/Designer/Builder: | Grand Trunk Railway |
| Previous Owner(s)/Occupant(s): | GTR, CN |
| Current Function:     | Rail maintenance facility |
| Previous Function(s)  | Rail maintenance facility |
| Heritage Recognition/Protection: | None Identified |
| Local Heritage Interest: | None Identified |
| Adjacent Lands:       | No Protected adjacent heritage properties |
9 Figures

9.1 Historic Map Review

Figure 9-1: View of the study area on 1878 historic mapping (Miles & Co. 1878)

Figure 9-2: View of the study area on 1947 aerial photograph (Toronto Archives 1947)
Figure 9-3: View of the study area on 1966 aerial photograph (Toronto Archives 1966)

Figure 9-4: View of the study area on 1975 aerial photograph (Toronto Archives 1975)
Figure 9-5: View of the study area on 1985 aerial photograph (Toronto Archives 1985)

Figure 9-6: View of the study area on 1992 aerial photograph (Toronto Archives 1992)
9.2 Historical Photographs

Figure 9-7: CN de-icing facility at Mimico Yard in 1953 (McDonald n.d.)

Figure 9-8: CNR Mimico Yard, looking east with Kipling Avenue in foreground, circa 1960s (MacDonald, n.d.)
Figure 9-9: CNR Mimico Yard, looking west, circa 1960s (MacDonald n.d.)

Figure 9-10: Structures in the northeast portion of the facility, looking east, circa 1965 (Sergeant 2004)
9.3 Site Plan

Figure 9-11: Site Plan showing the proposed locations of PM Bays 3 and 4.
9.4 Site Visit Photographs

Figure 9-12: Study area showing Locomotive Wash (LW) building, tracks, and trains, looking southeast. Note the Via Rail maintenance facility at rear center.

Figure 9-13: Study area at the eastern entrance, showing rail lines at center, signals at right, looking northeast.
Figure 9-14: Western portion of the study area, looking north east with the Train Washing (TW) structure at left, PM Bays 1 and 2 at center rear, and rail lines in foreground.

Figure 9-15: Northeast portion of the study area, with PM Bays 3 and 4 at rear and vehicular access in foreground, looking northeast.
Figure 9-16: East elevation of PM Bays 1 and 2, looking southwest.

Figure 9-17: Interior of PM Bays 1 and 2, looking northeast.
Figure 9-18: West elevation of Wheel Shop (WB), looking northeast.

Figure 9-19: West elevation of Coach Service (CS) Bays 1-3, looking northeast.
Figure 9-20: East elevation of PM Bays 1 and 2 at rear right, Diesel Service (DS) Bays 1 and 2 at rear left, with the Islington Avenue Bridge overhead, looking southwest.

Figure 9-21: Auxiliary power canopy in southern yard, with trains hooked to auxiliary electrical power, looking northeast.
Final Cultural Heritage Evaluation Report: Willowbrook Maintenance Facility

Figure 9-22: Train connected to auxiliary power while undergoing service, looking northeast.

Figure 9-23: Train connected to auxiliary power during short-term storage, with train at left in foreground travelling eastbound on Lakeshore West Line, looking north from the Islington Avenue Bridge. Note the Via Rail maintenance facility in the foreground.
Figure 9-24: East elevation of PM Bays 2 and 4, looking southwest.

Figure 9-25: Train fueling station leading to PM Bays 3 and 4, with the Via Rail maintenance facility at rear left, looking southwest.
Figure 9-26: East elevation of Train Washing (TW) structure in the southwest portion of the facility, looking southwest.

Figure 9-27: North and west elevations of Locomotive Wash (LM) station, looking southeast.
Figure 9-28: Fuelling stations to the east of PM Bays 3 and 4 in the northeast portion of the study area, looking south.

Figure 9-29: Fuelling station and ancillary structures in the southern portion of the study area to the east of the storage yard, looking north.
Figure 9-30: Track showing left and right hand turnouts leading to PM Bays 1 and 2 and DS Bays, looking east from the Islington Avenue Bridge.

Figure 9-31: Train storage in the southwestern portion of the study area, looking southwest.
Figure 9-32: Adjacent structures at 123 Judson Street, looking east.

Figure 9-33: Original CNR Mimico Station, relocated to the northwest corner of Judson Street and Royal York Road in anticipation of condominium construction, looking southwest.
Figure 9-34: Residential area north of Judson Street, looking northeast.

Figure 9-35: Via Rail Toronto Maintenance Center at rear, with train travelling westbound on Lakeshore West Corridor in foreground, looking southwest.
9.5 Comparative Property Photographs

Figure 9-36: Via Rail Toronto Maintenance Facility, looking southwest from the Islington Avenue Bridge.

Figure 9-37: Toronto Transit Commission’s Davisville Subway Yard in 2006, looking north from the Belt Line Trail (Transit Toronto Image Archive).
Figure 9-38: TTC’s Greenwood Subway Yard from satellite imagery. (Transit Adel and Bow 2015)
10 Chronology

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<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Reference</th>
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<tbody>
<tr>
<td>1853-55</td>
<td>Great Western Railway/ Hamilton and Toronto Railway Company lay initial tracks</td>
<td>Reynolds 2011</td>
</tr>
<tr>
<td>1882</td>
<td>Grand Trunk Railway acquires GWR and operates rail service between Toronto and Hamilton</td>
<td>Reynolds 2011</td>
</tr>
<tr>
<td>Circa 1906</td>
<td>GTR constructs Mimico Yards in extant location</td>
<td>Mackenzie 2015, ASI 2016</td>
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<td>1923</td>
<td>Canadian National Railways acquires GTR, continues operations at CNR Mimico Yard</td>
<td>Andreae 1997</td>
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<tr>
<td>1979</td>
<td>Islington Avenue Bridge constructed over facility</td>
<td>Lovell 1980</td>
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<tr>
<td>1980's</td>
<td>PM Bays 1 and 2 constructed</td>
<td>Review of aerial photographs</td>
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<tr>
<td>2013</td>
<td>PM Bays 3 and 4 and Wheel Shop constructed</td>
<td>Mackenzie 2015</td>
</tr>
</tbody>
</table>

11 Bibliography

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VIA Rail


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09-08-2017
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Report Reviewer: Lindsay Graves
APPENDIX A: Cultural Heritage Evaluation Report Sample Questionnaire

Response by:

Name of Organization:

Date:

1. Have you collected any historical information on the property? If yes, please provide a short description of this collection:

2. Is there any local interest in the history of the property relating to:
   a. Historical or Associative Value
   b. Design or Physical Value
   c. Contextual Value
   d. Other

   Please provide additional information regarding your selections above:

3. Do you know whether the lands where the property is located may be valued by the community, including First Nations? If yes, please provide a brief description:

4. Are there any other additional comments that you think are relevant?