GO Rail Network Electrification Transit Project Assessment Process

Study Summary: Cultural Heritage Assessment (Appendix C and Appendix M)

Scope of the Study

The scope of the GO Rail Network Electrification Transit Project Assessment Process (TPAP) involves electrification of the following GO Transit rail corridors:

1. Union Station Rail Corridor – From UP Express Union Station to Don Yard Layover
2. Lakeshore West Corridor – From just west of Bathurst St (Mile 1.20) to Burlington
3. Kitchener Corridor – From UP Express Spur (at Highway 427) to Bramalea
4. Barrie Corridor – From Parkdale Junction (off Kitchener Corridor) to Allandale GO Station
5. Stouffville Corridor – From Scarborough Junction (off Lakeshore East Corridor) to Lincolnville GO Station
6. Lakeshore East Corridor – From Don Yard Layover to Oshawa GO Station

The Study Area encompasses the GO Transit rail corridors outlined above including the defined vegetation removal zone (i.e., an area extending 7m from the outermost electrified tracks on each side of the corridor), proposed locations for Tap and Traction Power Facilities, and electrical feeder routes.

The Cultural Heritage Assessment Report for the GO Rail Network Electrification is composed of two parts: i) Cultural Heritage Screening Report and ii) Cultural Heritage Impact Assessment Report. The cultural heritage assessment for GO Rail Network Electrification was based on methodology and criteria outlined by various documents issued by the Ministry of Tourism, Culture and Sport (MTCS), and Metrolinx. Specifically, the approach focused on assessing the following cultural heritage effects:

1. Direct and indirect effects to potential and known cultural heritage resources, such as bridges located within the GO rail corridors to be electrified;
2. Direct and indirect effects to potential and known cultural heritage resources, such as GO train stations located within the GO rail corridors to be electrified;
3. Direct and indirect effects to potential and known cultural heritage resources located within or adjacent to the footprint of properties proposed for electrification facilities (Traction Power Substations [TPS], Switching Stations [SWS], Paralleling Stations [PS] locations) and new or modified maintenance facility locations and ancillary works, including access roads and construction staging areas.

Approach/Methodology

The approach for the cultural heritage work focused on assessing the following cultural heritage effects:

1. Direct and indirect effects to potential and known cultural heritage resources, such as bridges located within the GO rail corridors to be electrified;
2. Direct and indirect effects to potential and known cultural heritage resources, such as GO train stations located within the GO rail corridors to be electrified;
3. Direct and indirect effects to potential and known cultural heritage resources located within or adjacent to the footprint of properties proposed for electrification facilities (Traction Power Substations [TPS], Switching Stations [SWS], Paralleling Stations [PS] locations) and new or modified maintenance facility locations and ancillary works, including access roads and construction staging areas.

The Cultural Heritage Screening Report (CHSR) identifies known or potential cultural heritage resources (CHRs) that may be affected by Electrification. For the GO Rail Network Electrification TPAP, the Study Area includes: potentially affected bridges/structures along the rail corridor ROW, traction power facility sites, GO Stations and existing GO Maintenance Facilities that will be modified. The approach to screening bridges/structures along the rail corridor was scoped to address

only those bridges/structures that are anticipated to be impacted by the proposed electrification infrastructure (e.g., due to an Overhead Contact System (OCS) attachment, clearance issue, etc.). With respect to culverts, no impacts are anticipated due to electrification. However, any known heritage culverts were automatically screened in. Similarly, any other resources within the study area that are known Provincial Heritage Property (PHP) or Provincial Heritage Property of Provincial Significance (PHPPS) were also automatically screened in.

Based on the results of the CHSR, a comprehensive Cultural Heritage Impact Assessment Report (CHIA) was prepared to provide recommendations for further analysis, mitigation where necessary and identify next steps.

Based on the results of the CHIA, Cultural Heritage Evaluation Reports (CHERs) were conducted to confirm cultural heritage value of potential CHRs and to identify associated heritage attributes. Cultural heritage value for evaluation included:

- 10/06 Properties (PHPPS) are properties found to have cultural heritage value or interest of provincial significance as evaluated using the criteria found in Ontario Heritage Act O. Reg. 10/06.
- 9/06 Properties are properties of cultural heritage value or interest as evaluated using the criteria found in Ontario Heritage Act O. Reg. 9/06 (local significance).

Copies of the CHERs completed to-date are provided in Appendix M.

Heritage Impact Assessments (HIAs) will be undertaken to assess where there is any impacts to known PHPs or PHPPS.

Summary of Impact Assessment Results

<u>It should be noted that there is no removal or demolition of any identified heritage properties anticipated as part of the Electrification TPAP project.</u>

10/06 Properties potentially impacted by Electrification, such as alternation (e.g., displacement of heritage attributes and/or disruption of setting) – HIAs to be completed during TPAP:

- Union Station (Toronto)
- Credit River Bridge (Mississauga)
- Aurora GO Station (Aurora)

9/06 Properties potentially impacted by Electrification, such as alternation (e.g., displacement of heritage attributes and/or disruption of setting) - HIAs to be completed during detailed design:

- Islington Avenue Bridge (Toronto)
- Markham GO Station (Markham)
- Maple GO Station (Vaughan)
- Newmarket GO Station (Newmarket)
- Bradford GO Station (Bradford West Gwillimbury)
- Sixteen Mile Creek and Cross Avenue Bridge (Oakville)
- Bronte Creek Bridge (Oakville)
- Highland Creek Bridge (Toronto)
- Humber River Bridge (Toronto, Lakeshore West Corridor)

For additional more detailed information, please refer to the Cultural Heritage Impact Assessment Report (which is organized by rail corridor for easy reference) contained in Appendix C, as well as Appendix M which provides copies of the CHERs and HIAs completed to-date.

Mitigation Recommendations

Design Phase

Metrolinx is/will undertake HIAs for 10/06 Properties as part of the GO Rail Network Electrification TPAP. HIAs for 9/06 properties will be completed during detail design. Following completion of the HIAs, the recommendations established through these studies to mitigate/minimize heritage impacts will inform the final design of the affected GO stations/Bridge structures.

Construction Phase

Short-term disruption to the setting of cultural heritage resources resulting from construction activities though the introduction of physical, visual, noise-related, and atmospheric elements that are not in keeping with the character of the property may be experienced. Recommended mitigation measures include:

- Staging areas should be carefully selected so that they are non-invasive and avoid all heritage attributes;
- Pre-construction vibration studies should be carried out (if needed) to mitigate any potential vibration related impacts; and
- Pre-construction conditions should be re-established through post-construction landscape treatments.

Next Steps/Future Work

Heritage Impact Assessments & Maintenance Plans

Metrolinx is/will undertake HIAs during the GO Rail Network Electrification TPAP for 10/06 Properties and during detail design for 9/06 properties. The recommendations from those HIAs will be implemented during detail design (i.e., strategies to protect heritage attributes will be developed and implemented during detailed design as required in accordance with these studies). Generally speaking, the following process will be followed with respect to maintenance plans (post TPAP):

- Develop a maintenance plan that will protect the heritage attributes of the structure/property. This maintenance plan form part of Metrolinx's Strategic Conservation Plan;
- HIAs and maintenance plans created will be reviewed by the Metrolinx Heritage Committee;
- For Provincially Significant properties, MTCS approval will be obtained for any modifications to these structures/properties prior to construction;
- Coordination/consultation with local municipalities will be undertaken as required for any jointly owned structures.

For any additional potentially affected resources not previously identified through the TPAP process and documented in this EPR, the following process will be adhered to:

- Carry out a CHER to identify heritage value and attributes;
- If found to have cultural heritage value by the Metrolinx Heritage Committee, conduct HIA during detail design to identify potential impacts and appropriate mitigation measures and incorporate mitigation measures into the final design (following the steps noted above)