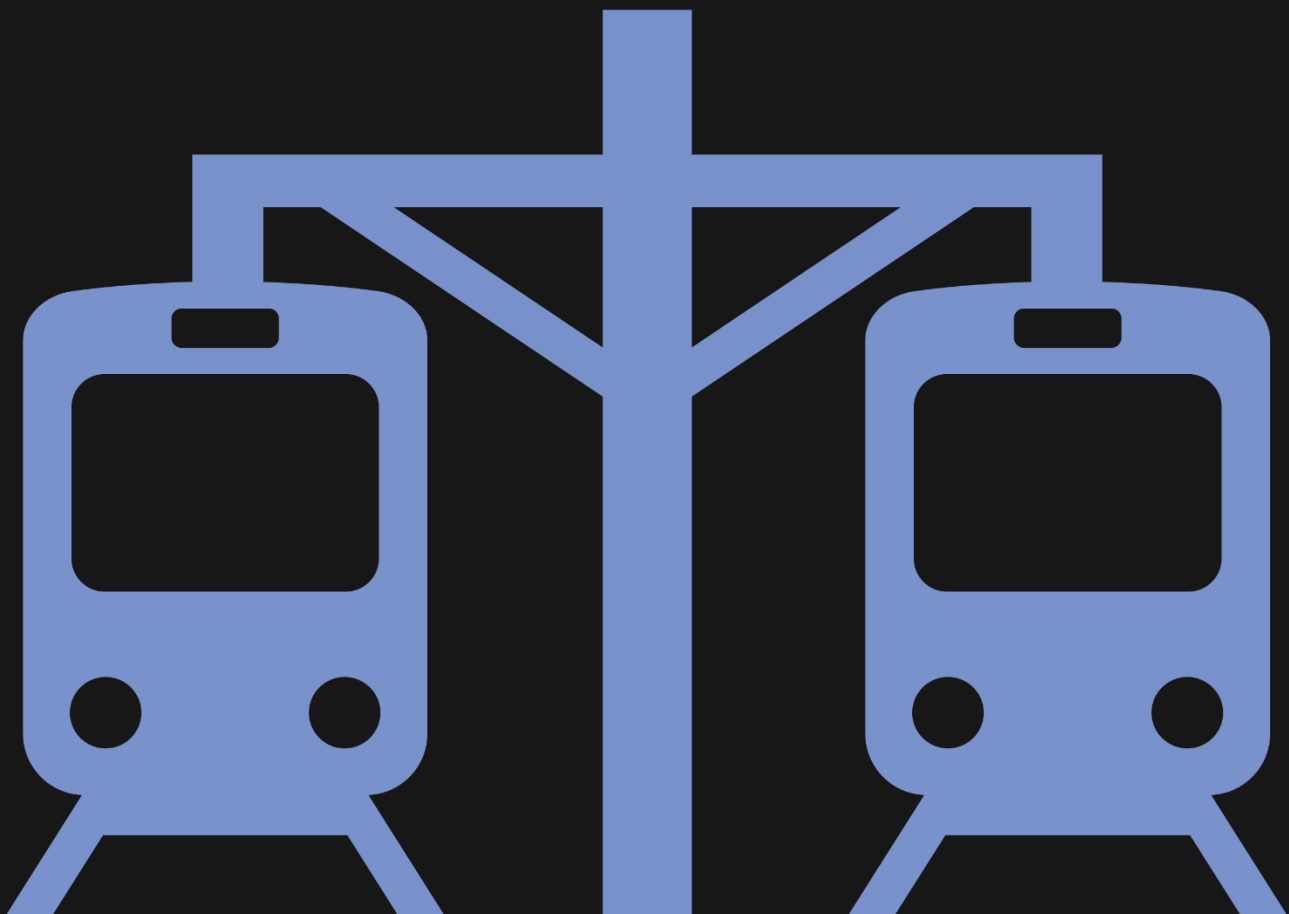


OPERATIONAL LRT REVIEW GUIDE

FOR THIRD-PARTY UTILITY AND ROADWAY
WORK

ADJACENT CONSTRUCTION REVIEW
INTEGRATED DELIVERY DIVISION

VERSION 00 | FEBRUARY 2026



PURPOSE OF METROLINX REVIEW

This Guideline is intended to outline the Metrolinx review process and requirements for third parties planning to conduct work within the Review Zone of an existing and operating Metrolinx Light Rail Transit (LRT) infrastructure. This review ensures that proposed third-party work will not adversely impact Metrolinx LRT's current and future operations or impact the integrity of LRT infrastructure.

This document applies only to the Eglinton Crosstown LRT (ECLRT) and the Finch West LRT (FWLRT) Lines.

Interested parties undertaking work within the Review Zone of the LRTs are encouraged to read this Guideline, and other applicable Metrolinx Guidelines, as may be applicable for such projects, and to visit Metrolinx's website for more information including maps of the Review Zone ([https://maps.metrolinx.com/Third Party Coordination Permitting](https://maps.metrolinx.com/Third_Party_Coordination_Permitting)). All inquiries related to utilities and road works may be directed to MCReviews@metrolinx.com.

- For utility and roadway work occurring around Priority Transit Projects (as defined by the Building Transit Faster Act), refer to the review process outlined in the document *Metrolinx Corridor Development Permit Guideline for Utility and Roadway Work*.

For utility relocations pertaining to Metrolinx projects, parties should refer to the Metrolinx and Infrastructure Ontario Utility Relocations Guideline. Metrolinx Pre-Construction Services Team will communicate directly with the Utility Company regarding relocations associated with Metrolinx transit projects.

- A Metrolinx Municipal Consent Review (MCR) is required to conduct third-party work within the Review Zone of a Metrolinx LRT network, including but not limited to the following activities:
 1. Build, alter, place, or replace utility infrastructure that would require grading or excavation;
 2. Roadway and major reconstruction, or Municipal Right-of-Way resurfacing and replacement; and/or
 3. any work or activity requiring road occupation or impact to LRT infrastructure.

Responses from the Metrolinx Municipal Consent Review process do not replace any other approval and/or permit that an Applicant must obtain from other regulatory agencies to satisfy applicable law, including municipal and provincial approvals.

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1.0 DEFINITIONS & ABBREVIATIONS

“ACR” means Adjacent Construction Review (formerly Third-Party Projects Review), the Metrolinx group assigned to function as the Applicant’s primary contact with Metrolinx on a development application.

“Applicant” means the owner of third-party projects within the Review Zone. The Applicant could be a company, an owner, or their authorized agent.

“Application Package” means the documents to be submitted by the Applicant. Details of the documents can be found in Appendix 1.

“Authorities Having Jurisdiction” or **“AHJ”** means any federal, provincial, territorial, regional, municipal or local governmental authority, quasi-governmental authority, court, government or self-regulatory organization, commission, board, tribunal, organization, or any regulatory, administrative or other agency, or any political or other subdivision, department, or branch of any of the foregoing or any Utility Company, having legal jurisdiction in any way over Metrolinx, any aspect of the performance of the Works, the operation of the system or, in each case to the extent it has or performs legislative, judicial, regulatory, administrative or other functions within its jurisdiction.

“BTFA” mean the *Building Transit Faster Act, 2020*, and amendments made in 2025.

“Business Days” means a day from Monday to Friday, other than a holiday as defined in section 87 of the Legislation Act, 2006.

“Crane Swing Agreement” defined in Section 4.1.3 of this Guideline.

“Eglinton Crosstown LRT” or **“ECLRT”** refers to the segment of this transit corridor, and its associated Review Zone, between Mount Dennis and Kennedy stations.

“EMS” means Emergency Medical Services.

“Finch West LRT” or **“FWLRT”** refers to the segment of this transit corridor, and its associated Review Zone, between the station termini at Finch West (Keele Street) and Humber College (Highway 27).

“LRT” means Light Rail Transit.

“Metrolinx LRT Technical Review” means the review by Metrolinx of the Application Package for compliance to the technical requirements of this Guideline and the referenced standards.

“Metrolinx LRT Work Permit” means the permit issued by Metrolinx upon successful completion of the MCR process.

“Municipal Consent Review” or **“MCR”** is the Metrolinx review process to review third-party work within Municipal Right-of-Way and within Metrolinx LRT Review Zone. The details are defined in Section 3.0 of this Guideline.

“Municipal Right-of-Way” means the land owned or controlled by a municipality that is reserved for public infrastructure and access purposes. Use or occupation of the Municipal Right-of-Way by third parties is subject to municipal approval, permits, and applicable bylaws.

“NDA” means non-disclosure agreement, a confidentiality agreement governing the relationship and exchange of information between two or more parties. Additional details are stipulated in Section 4.1.1 of this Guideline.

“NFPA” means the National Fire Protection Association.

“MTO” means the Ontario Ministry of Transportation and any successor or replacement ministry thereto.

“Ontario Land Surveyor” means a professional licensed under the Surveyors Act and regulated by the Association of Ontario Land Surveyors (AOLS).

“Ontario One Call” means the province’s centralized service for locating underground infrastructure.

“Priority Transit Projects” are those defined in the BTFA.

“Review Zone” means the area within 60m from an LRT infrastructure/asset and beyond 60m where there is impact to the LRT infrastructure/asset (including but not limited to deep excavation or using an elevated device (crane, boom truck, etc.).

“Roadway” or **“Roadways”** means a linear paved infrastructure for use of vehicle traffic and including curbs, sidewalks and streetscaping.

“Roadway Owner” means the owner of Roadway elements, which can be a municipal corporation, a commission, or a private company.

“Rule Book” means the ECLRT or the FWLRT document that outlines rules, procedures, instructions, and information on working within the active ECLRT and FWLRT corridor.

“Rule Book Training” means the training required by individuals who need to go to track level.

“Technical Review Agreement” is the term defined in Section 4.1.2 of this Guideline.

“Utility Company” means a municipal corporation or commission or a company or individual operating or using communications services, water services or sewage services, or transmitting, distributing, or supplying any substance or form of energy for light, heat, or power.

2.0 PURPOSE OF THE GUIDELINE

For activities and projects within Municipal Right-of-Way (ROW) that fall within the boundaries of the ECLRT and FWLRT Review Zone, this Guideline will help municipalities, utility companies and roadway owners navigate the Metrolinx Municipal Consent Review process with ease and clarity, outlined in Section 3.1.

While Metrolinx will protect for the LRT infrastructure, operation, and maintenance, it is of extreme importance that public and private sector projects within the LRT Review Zone still proceed for the benefit of stakeholders where they do not negatively impact infrastructure, transit operations and maintenance activities. This Guideline and Metrolinx staff are a resource to support due diligence activities conducted by the Utility Infrastructure and Roadways community to inform project designs and methods of construction to ensure the successful completion of all projects.

This Guideline does not apply to the review of developments in proximity to GO Transit infrastructure, in-construction Metrolinx corridors, or the Toronto Transit Commission (TTC) corridors.

2.1 Emergency Work Notification Requirements

A Metrolinx MCR is **not required** in emergency situations when:

1. A Utility Company or a Roadway Owner is responding to an emergency that involves actions to protect public safety, or is in response to a failure or damage to existing Roadways or other Utility Infrastructure that has or may result in a loss of an essential service,
2. EMS, Fire, or Police assistance is required, or 911 is or must be called or dispatched, but the Applicant shall:
 - i. immediately notify Metrolinx via ACReinforcement@metrolinx.com and TTC Transit Control Emergency Line: 416-393-2164, option 4 (Duty Manager).
 - ii. At all times, the Applicant's workers and equipment must maintain a minimum three (3) metres clearance from any electrified LRT asset. If minimum clearance cannot be maintained, the Applicant will need to coordinate with Metrolinx to de-energize the asset.

2.2 Incidents Reporting Requirements

Incidents occurring within the LRT corridor including but not limited to, the following, require immediate notification to Metrolinx and TTC:

- Incidents involving emergency response personnel;
- Unsafe behaviour;
- TTC By-law violations;
- Disorderly conduct or vandalism;
- Assault or sexual assault;

- Death, illness, or injury;
- Violence or harassment;
- Criminal activity;
- Fire, smoke, or burning odour;
- Collision or derailment;
- Safety or security concerns;
- Emergency traction power cuts;
- Person taking flammable or dangerous material into a station or onto a vehicle;
- Environmental spills;
- Suspicious objects left unattended;
- Damage to LRT vehicles, buildings, or equipment requiring maintenance, repair, or in an unsafe condition;
- Unintended contact by a vehicle or workers with electrical services, pipes, or conduit, resulting in injury or damage to infrastructure.

Report all incidents to ACReinforcement@metrolinx.com and TTC Transit Control Emergency Line: 416-393-2164, option 4 (Duty Manager).

3.0 METROLINX MUNICIPAL CONSENT REVIEW (MCR) APPLICATION, REVIEW & APPROVAL PROCESS

3.1 Overview

The Metrolinx MCR process for third-party utility infrastructure and roadway projects is similar to, but distinct from, the municipal Public Utility Coordination (PUC) reviews, such as the City of Toronto's MCR (Municipal Consent Requirements) process. Metrolinx will respond to MCR applications with a *Metrolinx Response* letter or a *Metrolinx LRT Work Permit* upon completion of a review and confirmation of the absence of conflict.

In general, applications will require similar supporting documents with a Metrolinx MCR application. For extensive projects that have critical potential impacts to LRT operations and maintenance may require additional supporting documents and a longer review period may be required. To prevent safety and operational concerns, open trench or pit excavation is not allowed above and below LRT infrastructure. Metrolinx review will also examine the submission for the minimum three (3) metre clearance required between permanent third-party infrastructure and all existing LRT infrastructure. If temporary third-party infrastructure (e.g. shoring) encroaches within three (3) metre of a LRT infrastructure, the Applicant may need to revise the shoring design of the proposal.

The *Metrolinx LRT Work Permit* does not replace permits and approvals required by other Authorities Having Jurisdiction (AHJs) such as Conservation Authorities, the Ministry of Transportation pursuant to the Public Transportation and Highway Improvement Act, and municipalities. The MCR process is concurrent with other permits and approvals that an Applicant must obtain to satisfy applicable law, including municipal approvals.

Applicants and their design and construction team will need to go through the stages of the Metrolinx MCR process outlined in Figure 1 below.

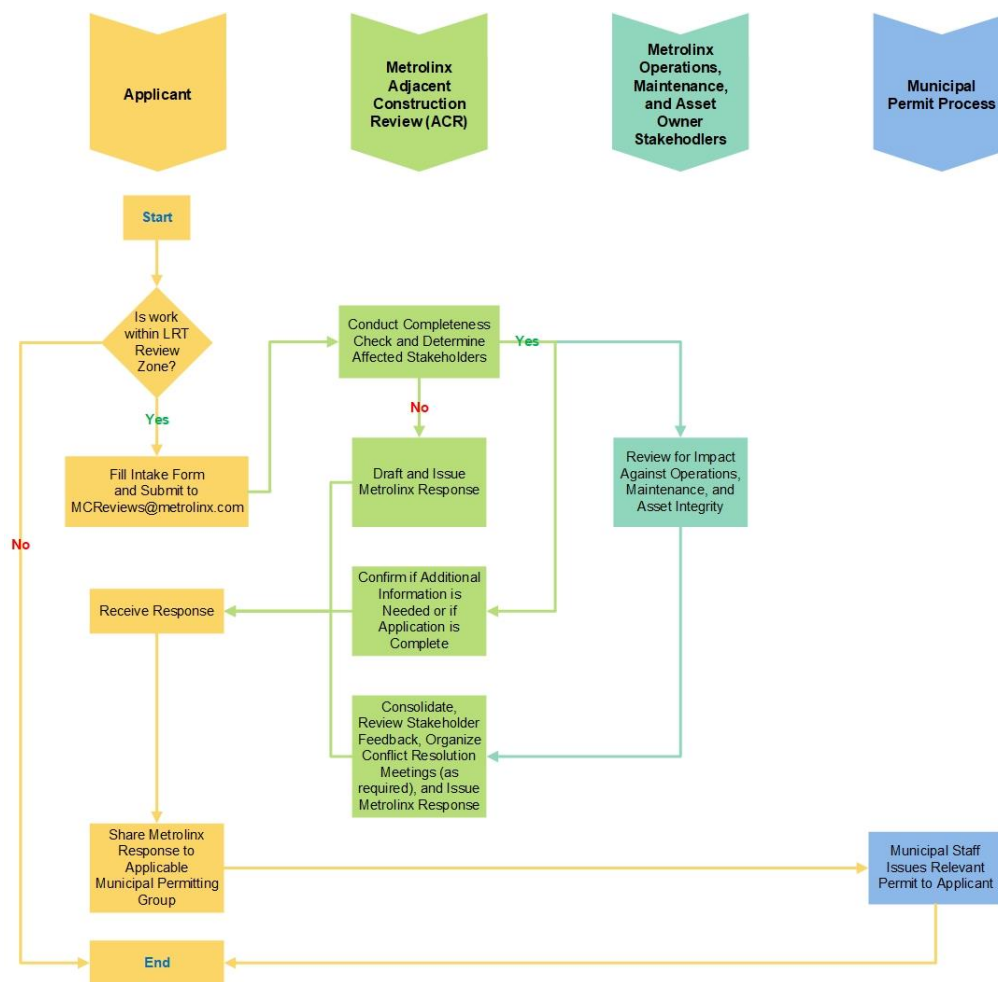


Figure 1: Diagram of the Metrolinx Review Process

3.2 Submission Requirements for Metrolinx Review

The specific information, drawings, and documents required for the review will depend on the nature of the third-party works. Specific submission requirements are summarized in Appendix 1. Your Metrolinx contact will confirm which documents and if any additional documents are required from your team.

To initiate the Metrolinx review, the Applicant must complete the application form (refer to Appendix 5 for details of the form) and submit to MCRReviews@metrolinx.com.

3.3 Timing of Permit Review Process

Depending on the complexity of the work and number of active entities working on the operational LRT network, longer review times may be required. Notwithstanding the aforementioned, Metrolinx endeavours to complete reviews within 20 Business Days. Where

this is not possible, Metrolinx will work closely with the applicants to advance the review as quickly as possible.

- **At interchange stations:** where modes of transit changes from LRT to subway or GO, the Applicant should endeavour to submit their application 18 months in advance, particularly for trucking activities along, across, under or over our assets. The Applicant is advised that applicable TTC diversion fees may apply to any routes impacted.
- **De-energization:** The Applicant's workers and equipment must maintain a minimum three (3) metres clearance from any electrified LRT asset, particularly for trucking applications (single or annual trip applications). If minimum clearance cannot be maintained, the Applicant will need to coordinate with and obtain approval from Metrolinx 12 months in advance to de-energize the asset. The Applicant is advised that applicable track occupancies and de-energization fees may apply.
- **Overweight Deliveries:** Overweight deliveries that are above 50,000 kg (50 Tonne) will require coordination at least six (6) months in advance of the planned trip.
- **Technical Review:** Depending on the complexity and impact of the third-party work on LRT infrastructure, a Metrolinx LRT Technical Review may be required. The length of time required for Technical Review will depend upon the complexity, and degree of impact of the project on Metrolinx LRT infrastructure, facilities, and operations. Metrolinx generally requires a 30 Business Days review period from receipt of payment for each complete submission.

3.4 Technical Review Fee and Other Operational Costs

Depending on the complexity and impact of the third-party work on LRT infrastructure, a Metrolinx LRT Technical Review may be required. A Metrolinx LRT Technical Review consists of the review of detailed design and construction documents, drawings, and specifications for the proposed third-party project. The focus of Technical Review is the identification of any impacts that the construction of the third-party project or activity will have on Metrolinx LRT infrastructure, operations, and maintenance. Metrolinx LRT Technical Reviews may include the review of demolition, shoring, excavation, dewatering, foundation, structural, superstructure, transportation, mechanical/electrical and construction scheduling components of the proposed third-party project.

The costs associated with Technical Reviews relate to the complexity of the project proposed. Timely payment of the Technical Review fees is the responsibility of the Applicant. The Technical Review fee covers only the cost of the review.

There may be additional costs that may be imposed on the Applicant in addition to the technical review fee. Costs that may be required but are not covered by Technical Review fees include, but are not limited to:

- Cost of LRT power cuts, electrical, or fire system load tests, including labour costs;
- Cost associated with track occupancies (e.g. flagging);

- Cost of operational diversion;
- Cost of impacts to TTC operation;
- Cost of impacts on LRT maintenance activities;
- Cost to third parties with whom Metrolinx has contractual commitment;
- Connections to LRT electrical, communications, and fire alarm system;
- Cost to changes to Metrolinx infrastructure;
- Other legal and agreement fees (e.g. Crane Swing, Permission to Enter, Easements, etc.);
- Metrolinx safety/training requirements such as the Rule Book Training.

3.5 Other Requirements

Other requirements, beyond those noted in Figure 1, are requirements that the Applicant will need to adhere which includes but are not limited to:

- All Applicants are required to contact Ontario OneCall to submit a request for buried infrastructure locates, prior to conducting any excavation or digging works. The onus always falls on the Applicant to confirm where buried infrastructure is located, and to contact its respective owners as required. For more information, visit the Ontario OneCall web page.
- At all times, the Applicant's workers and equipment must maintain a minimum three (3) metres clearance from any electrified LRT asset. If minimum clearance can't be maintained, the Applicant will need to coordinate and seek approval from Metrolinx one (1) year in advance to de-energize the asset.

4.0 AGREEMENTS

4.1 Agreements with Metrolinx that May be Required

The *Metrolinx LRT Work Permit* will govern the Applicant's work until the completion of construction of the Applicant's Project.

Through the Application Package Review Process, Metrolinx may identify conditions for specific agreements and timing for such agreements, in addition to the *Metrolinx LRT Work Permit*. The following agreements set out, in general terms, the nature and purpose of required agreements; other agreements not listed below may also be required depending upon the Applicant's proposal.

4.1.1 Non-Disclosure Agreement

Metrolinx may require an Applicant to enter into a Non-Disclosure Agreement to protect sensitive and confidential information such as documents, working papers, designs, and other materials pertaining to Metrolinx.

4.1.2 Technical Review Agreement

Metrolinx may require the Applicant to enter into a Technical Review Agreement (TRA) to confirm the Applicant's intent to initiate the Metrolinx LRT Technical Review process and issue payments to support the review of the Applicant's submission. The agreement will outline obligations of both parties.

4.1.3 Crane Swing Agreement

A Crane Swing Agreement may be required to provide easement rights for crane and shall outline the necessary requirements needed for the use of a crane on-site. The crane swing agreement identifies roles and responsibilities with respect to the installation and use of a construction crane that swings above a Metrolinx LRT corridor.

Appendix 1 -Submission Requirements

A1.1 Minimum Submission Requirements: Third-party Work Within Metrolinx LRT Review Zone

An application package (the “**Application Package**”) shall include the following minimum documents/information and additional documents requested by Metrolinx:

1. For major works, detailed description of the work (scope of work cover letter or document);
2. Applicable technical plans, drawings, and/or surveys;
3. Planned construction working window (start and end working window date), target construction starts, and duration of work;
4. Traffic control plans as per the Ontario Traffic Manual (OTM) - Book 7 (inclusive of staging and laydown areas);
5. Application Form (refer to Appendix 5), including owner authorization, if Applicant is not the owner; and
6. Any additional information necessary. The Applicant’s submission must demonstrate that there will be no negative impact on Metrolinx LRT infrastructure. Metrolinx will review the submission and advise if additional information is needed.

A1.2 Submission Requirements - Third-party Project with Potential to Change Loading Conditions of Metrolinx LRT Infrastructure

In addition to the submission requirements in Section A1.1, the following drawings/documents may be required for review. All documents must be signed and sealed by the appropriate professional.

Item No.	Submittal Requirements
Site Items/General	
B.1	Applicable law and standards compliance review confirming all code and standards utilized by the design/engineering teams.
B.2	Site servicing plans which show the utility installations proposed through or adjacent to Metrolinx property. This plan shall show Metrolinx utility connections where associated municipal connections are to be modified.
B.3	If applicable, drawings showing provision for make-up air to the station if existing LRT entrances are removed or modified by the third-party project.
B.4	<p>A pre-construction condition survey of Metrolinx LRT infrastructure, including a survey to confirm locations of existing walls and foundations of the Metrolinx LRT infrastructure.</p> <p>A post-construction condition survey as a means of observing any new structural or non-structural deficiencies or damage to Metrolinx LRT infrastructure will be required upon substantial completion of the third-party project.</p> <p>Condition surveys shall be in accordance with Appendix 4.</p>

Item No.	Submittal Requirements
B.5	Drawings/documentation of construction method, hoarding, construction access, and haul routes.
B.6	Electrolysis and Stray Current Study, completed by a Professional Engineer.
B.7	Architectural and urban realm/landscape plans, 3D Building Mass Renderings, site circulation diagrams, photographs, reports and such other information as necessary to support Metrolinx Review.
Geotechnical	
B.8	<p>An impact assessment sealed statement from the structural and/or geotechnical consultant stating the effects of the third-party project on the existing or planned Metrolinx infrastructure and works.</p> <p>The sealed statement must confirm that the third-party project does not adversely affect the integrity of Metrolinx LRT infrastructure and operation activities.</p>
B.9	<p>Monitoring Plan for movement of the shoring and Metrolinx LRT Infrastructure prior to and during construction of the third-party project, including Action Protocol.</p> <p>Note: A generic sample document that shows the values of Review and Alert levels and corresponding Action Protocol is attached to this Guide as Appendix 3.</p>
B.10	Documentation showing that the excavation support system and permanent structure adjacent to the Metrolinx property are designed for “at-rest” earth pressures. The “at-rest” horizontal earth pressure must be measured either by in-situ methods (K_0 stepped blade, self-boring pressuremeter, dilatometer, or cone penetration test) or through laboratory testing of undisturbed samples (triaxial testing).
B.11	Confirmation that pressuremeter testing, or other suitable in-situ testing, are carried out and provide the Elastic modulus of the soil (E and E_r) and variation with depth for use in modelling to confirm that there are no impacts to the Metrolinx LRT infrastructure.
B.12	<p>Shoring design criteria and description of excavation and shoring methods.</p> <p>Note: the submission must include any tiebacks is applicable that may encroach or have influence on the LRT tunnel/station</p>
B.13	If applicable, details regarding the replacement/repair of the waterproofing system of the affected Metrolinx LRT Infrastructure, including Metrolinx expansion joints, using products equal or compatible with the existing waterproofing system.
B.14	Ground water control plan, including the determination of the short-term (during construction) and long-term effects of dewatering on Metrolinx LRT infrastructure, and provision of assurances that the influence of dewatering will have no impact on the Metrolinx LRT infrastructure.

Item No.	Submittal Requirements
Structural	
B.15	<p>A structural analysis or calculations by the Applicant of the effects of all applicable loadings, including construction loading, on the Metrolinx LRT Infrastructure, in accordance with Metrolinx's Applicable Standards.</p> <p>The analysis must demonstrate that the Metrolinx LRT Infrastructure will not be adversely affected by the third-party project, including solutions to mitigate any impact on Metrolinx LRT Infrastructure. The documentation must include identification of the affected Metrolinx structural units.</p> <p>Note: The review of all submitted structural analysis or calculations will be focusing on design assumptions, structural model, loads, load combinations, and codes that were used and results with discussion and/or recommendations. The review will be focused on the portions of the third-party project that might affect Metrolinx LRT Infrastructure. Metrolinx will not accept any responsibility for the accuracy and adequacy of the calculations, which will remain the sole responsibility of the Applicant.</p>
B.16	Structural drawings including caisson/foundation plans, sections and details, floor plans, column and wall schedules and loads on foundation for the third-party project. Show the relationship of the third-party project to Metrolinx's infrastructure in both plan and section.
B.17	If applicable, details of remedial work to Metrolinx LRT Infrastructure to support roof at wall openings, including structural calculations, drawings, and construction sequencing.
B.18	Crane locations, loading with other pertinent details, such as, axle loads and configuration, outrigger loads and configuration, size of the spread of each outrigger, lifting area diagram, maximum/minimum loads on each leg/outrigger.
Construction (Information Required Prior to Start of Construction)	
C.1	Construction schedule noting the shoring activity and traffic staging plans.
C.2	Detailed shoring plans, elevations, and sections.
C.3	Drawings/documentation of construction method. Including but not limited to construction hauling routes, traffic staging plans, site logistic plans, hoarding, and construction access.
C.4	General Safety Management Plan
C.5	Demolition Permit Package and Earth works including Demolishing construction methodology and analysis report and Vibration Risk Assessment Reports.
C.6	Laydown Area Site Plan considering the property's boundaries
C.7	Pilling locations and excavation phasing drawings.

Item No.	Submittal Requirements
C.8	Monitoring: Applicant to supply and install monitoring equipment and plan to ensure that construction is being done with no conflict with Metrolinx LRT infrastructure and establish a shared monitoring data system: Alerts to be setup and emergency response personnel to be provided by the Applicant in case of emergencies (refer to Appendix 3 for details).
C.9	Pre-Construction: Two (2) Pre-Construction surveys required at the Applicant's costs: one for the Applicant, and another for Metrolinx.
C.10	Additional liability insurance of \$10,000,000.00 (ten million dollars) required to cover Metrolinx and agents of Metrolinx. List of certificate holders, coverage type(s), and coverage period will be provided.
C.11	Other documents/reports-where applicable and as request by Metrolinx.

Appendix 2: Requirements for Reference Plans and Other Survey Plans Near Metrolinx Subsurface LRT Infrastructure

A2.1 Universal

- Publish coordinates in compliance with Metrolinx’s georeferencing standards (document SR-150). The following Reference Datums and Grid System shall be used, in accordance with the MTO’s Engineering Survey Manual dated October 2006, Paragraph 31 of Ontario Regulation 216/10 under the Surveyor’s Act, and The City of Toronto Requirements for Integrated Surveys Pursuant to O. Reg. 216/10, under the Surveyors Act:
- Grid System: 3-degree Modified Transverse Mercator (MTM) Zone 10.
- Horizontal Reference Datum: North American Datum (NAD) 1983, using the NAD83 Canadian Spatial Reference System (CSRS) adjustment v.6
- Vertical Reference Datum: Canadian Geodetic Vertical Datum (CGVD) 1928:78 Adjustment.
- Publish any other coordinates required by the province or by the municipality.
- Show Metrolinx reference lines (RL) both existing and proposed.
- Show Metrolinx RL ahead & back chainages at RL PI's.
- Show Metrolinx RL chainages at RL intersections with street lines and other property lines.
- Show ties to property corners from RL intersections with street lines.

A2.2 Depiction of Metrolinx underground LRT Infrastructure - General

- Show outlines of existing subsurface Metrolinx LRT Infrastructure in plan, profile, and section views.
- Show expansion joints and wall outlines in plan view.
- Show expansion joints, floor slab outlines and roof slab outlines in profile view.
- Show wall outlines, floor slab outlines and roof slab outlines in section view.
- Label Metrolinx LRT Infrastructure Unit numbers in all views and label RL changes at all expansion joints.
- Show Metrolinx LRT Infrastructure plan views at various elevations as required.
- Show Metrolinx LRT Infrastructure profile views and section views as required.
- Show relationship of Metrolinx underground infrastructure to property lines.

A2.3 Depiction of Metrolinx LRT Infrastructure - less than 3m from adjacent property lines & infrastructure

- Show Metrolinx LRT Infrastructure based on field survey prepared by the Applicant.
- Survey interior faces of infrastructure and compile exterior faces of infrastructure from construction drawings (cite drawing numbers).

A2.4 Depiction of Metrolinx LRT Infrastructure - greater than 3m from adjacent property lines & infrastructure

- Show Metrolinx LRT Infrastructure based on mathematical compilation.
- Compile both interior and exterior faces of infrastructure from construction drawings (cite drawing numbers).

A2.5 Determination of Less Than 3m or Greater Than 3m status

- Use “less than” if there is any doubt or possibility of being less than 3m (this mitigates the risk of rejection during Metrolinx review).

- In the alternative, prior to formal submission of plans, submit request to the Metrolinx Project Manager for determination of status.

A2.6 Currency

- All plans to be up-to-date and signed by the same Ontario Land Surveyor.

Appendix 3: Monitoring Plan - Review and Alert Levels and Action Protocol

The Monitoring Plan for the Applicant's shoring and Metrolinx LRT Infrastructure shall include the value of the Review Level and the Alert Level and the corresponding Action Protocol. Note that the Review Level and the Alert Level for differential movement of the structural units of the Metrolinx LRT Infrastructure are 2mm and 3mm, respectively. The Action Protocols are listed below.

Review Level: If the displacement of the Shoring or the Metrolinx LRT Infrastructure reaches the value of the Review Level, the Applicant shall:

- i. Inform Metrolinx ACReinforcement@metrolinx.com immediately that the Review Level has been reached.
- ii. Conduct a review of the work completed with the area noted for the movement and assess whether it is necessary to alter the method or sequence of construction.
- iii. Issue the results of the review to Metrolinx.

Alert Level: If the displacement of the Shoring or the Metrolinx LRT Infrastructure reaches the value of the Alert Level, the Applicant shall:

- Contact TTC Transit Control Centre at 416-393-2164 option 4 (Duty Manager)
- Contact via email the following Metrolinx contacts immediately, and make the works secure and cease further work in the "affected" area.
 - ACReinforcement@metrolinx.com
- Conduct a review of the monitoring and the work completed within the area of movement and issues the results and comments to Metrolinx.
- Develop a remedy that is satisfactory to Metrolinx. Metrolinx will allow the Applicant to resume work in the affected area only when the Applicant has implemented corrective measures to the satisfaction of Metrolinx.

Appendix 4: Requirements for Condition Survey of Metrolinx LRT Infrastructure

A pre-construction condition survey and/or structural/building assessment of existing Metrolinx LRT infrastructure is required as a method for providing baseline of conditions prior to the start of Applicant's construction. A post-construction condition survey and/or structural/building assessment of Metrolinx LRT infrastructure is required as a means of observing any new structural or non-structural deficiencies or damage to Metrolinx LRT infrastructure due to Applicant's construction and shall be performed upon substantial completion of the development.

The condition surveys/assessments shall be comprised of both plans and photographic components, with survey limits extending 30 metres past the proposed Applicant's Project limits. The condition survey shall be carried out in accordance with MTO guidelines. Any damage to Metrolinx Infrastructure due to the Applicant's construction shall be the Applicant's responsibility to correct. The Condition Survey Report/Assessment shall include at a minimum:

- drawings illustrating locations and type of the defects, all photograph locations; and all cracks over 0.3mm;
- photographic record of each defect;
- the size of the cracks shall be measured with a gauge and identified in the written text of the report; and
- hard copy of the report and a USB drive with all of the actual photographs - original jpg or tiff file - to allow for zooming in, and for post-processing, if necessary, to improve visibility.

Appendix 5: Application Form for Operational LRT Reviews

Section A: Project Details
1. Project Information

Project Name:
Project Address (number and street name)

2. Scope Details

Scope of Work:		
Equipment and Manpower:		
Reason for the Proposed Work:		
Is a Streetcar or Bus Diversion Required? (Applicable diversion fees may apply to any routes impacted.) <input type="checkbox"/> Streetcar <input type="checkbox"/> Bus <input type="checkbox"/> No Diversion Needed <input type="checkbox"/> Other:		
Approximate distance to Metrolinx assets (e.g. tunnel, station, tracks):		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; height: 40px; vertical-align: top; padding: 5px;">Proposed Working Window Start Date and Time:</td> <td style="width: 50%; height: 40px; vertical-align: top; padding: 5px;">Proposed Working Window Finish Date and Time:</td> </tr> </table>	Proposed Working Window Start Date and Time:	Proposed Working Window Finish Date and Time:
Proposed Working Window Start Date and Time:	Proposed Working Window Finish Date and Time:	
Approximate Duration of Work (days or hours):		

3. Project Type (check all that apply)

<input type="checkbox"/> Underground Utility within Municipal ROW	<input type="checkbox"/> Underground Utility on Private Property	<input type="checkbox"/> Overhead Utility within Municipal ROW	<input type="checkbox"/> Overhead Utility on Private Property
<input type="checkbox"/> Public Roadwork	<input type="checkbox"/> Public Curbs, sidewalks and streetscaping	<input type="checkbox"/> Roadwork on Private Property	<input type="checkbox"/> Other

4. Application Information

Applicant is: <input type="checkbox"/> Owner or <input type="checkbox"/> Authorized agent of the Owner	
Name	Position or Company
Address	
Phone Number	Email address

5. Owner Information (If different from applicant)

Name	Position or Company
Address	
Phone Number	Email address

6. Track Occupancies

Is the proposed project being carried out will require occupancy of the LRT tracks

Yes No

(If yes, associated fees will be required to occupy track time and advanced coordination with LRT operations will be required at least one year in advance, the March before the planned working window)

7. Owner's Authorization

I, _____ solemnly declare that I am (choose one of the following):

- Owner
- An Agent of the Owner

and that all above statements contained within this application are true and accurate and subject to FOI (Freedom of Information) - Public Document.

Applicant Signature

Date

Section B: Documents Submitted

1. Minimum Submission Requirements

Include the following minimum submission requirements/documents when submitting an application to MCReviews@metrolinx.com:

Note:

- 1. Refer to the *Metrolinx Operational LRT Review Guide for Third-party Utility and Roadway Work* for more information, including an overview of the review & approval process, timing, agreements with Metrolinx, technical requirements, and more.**
- 2. Incomplete applications will be returned to the Applicant and will not undergo a Metrolinx review process.**

Minimum Submission Requirements:

- 1. For major works, submit a detailed description of the work (scope of work cover letter or document);
- 2. Applicable technical plans, drawings, and/or surveys (PDF and CAD);
- 3. Traffic control plans as per the Ontario Traffic Manual (OTM) - Book 7 (inclusive of staging and laydown areas);
- 4. Any additional information necessary. The Applicant's submission must demonstrate that there will be no negative impact on Metrolinx LRT infrastructure. Metrolinx will review the submission and advise if additional information is needed.

2. Submission Requirements - Third-party Projects with Potential to Change Loading Conditions of Metrolinx LRT Infrastructure

If the third-party project has the potential to change loading conditions of Metrolinx LRT Infrastructure, Metrolinx may request the Applicant to initiate a Metrolinx LRT Technical Review process. The following documents are required. If already available at the intake stage and to expedite the review process, provide the following documentations:

Note:

- 1. Refer to the *Metrolinx Operational LRT Review Guide for Third-party Utility and Roadway Work* for more information, including an overview of the review & approval process, timing, agreements with Metrolinx, technical requirements, and more.**
- 2. Incomplete applications will be returned to the Applicant and will not undergo a Metrolinx LRT Technical Review process.**
- 3. When submitting the zipped file, organize the documents based on the pre-fix noted below (e.g. B.1, B.2, etc.).**
 - B.1 Applicable law and standard compliance review
 - B.2 Site servicing plans which show the utility installations proposed through or adjacent to Metrolinx property.
 - B.3 If applicable, drawings showing provision for make-up air to the station if existing LRT entrances are removed or modified by the third-party project.
 - B.4 Pre-construction condition survey of Metrolinx LRT infrastructure (Refer to Appendix 4 of the guidelines for more details on the requirements).
 - B.5 Drawings/documentation of construction method, hoarding, construction access, and haul routes.
 - B.6 Electrolysis and Stray Current Study, completed by a Professional Engineer.
 - B.7 Architectural and urban realm/landscape plans, 3D Building Mass Renderings, site circulation diagrams, photographs, reports and such other information as necessary to support Metrolinx Review.
 - B.8 An impact assessment sealed statement from the structural and/or geotechnical consultant stating the effects of the third-party project on the existing or planned Metrolinx infrastructure and works. The sealed statement must confirm that the third-party project does not adversely affect the integrity of Metrolinx LRT infrastructure and operation activities.
 - B.9 Monitoring Plan for movement of the shoring and Metrolinx LRT Infrastructure prior to and during construction of the third-party project, including Action Protocol (Refer to Appendix 3 of the guidelines for more details on the requirements).
 - B.10 Documentation showing that the excavation support system and permanent structure adjacent to the Metrolinx property are designed for "at-rest" earth pressures.
 - B.11 Confirmation that pressure meter testing, or other suitable in-situ testing, are carried out and provide the Elastic modulus of the soil (E and Er) and variation with depth for use in modelling to confirm that there are no impacts to the Metrolinx LRT Infrastructure.
 - B.12 Shoring design criteria and description of excavation and shoring methods.
 - B.13 If applicable, details regarding the replacement/repair of the waterproofing system of the affected Metrolinx LRT Infrastructure, including Metrolinx expansion joints, using products equal or compatible with the existing waterproofing system.
 - B.14 Ground water control plan
 - B.15 A structural analysis or calculations by the Applicant of the effects of all applicable loadings, including construction loading, on the Metrolinx LRT Infrastructure.

- B.16 Structural drawings including caisson/foundation plans, sections and details, floor plans, column and wall schedules and loads on foundation for the development. Show the relationship of the development to Metrolinx's infrastructure in both plan and section.
- B.17 If applicable, details of remedial work to Metrolinx LRT Infrastructure in order to support roof at wall openings, including structural calculations, drawings and construction sequencing.
- B.18 Crane locations, loading with other pertinent details, such as, axle loads and configuration, outrigger loads and configuration, size of the spread of each outrigger, lifting area diagram, maximum/minimum loads on each leg/outrigger.
- C.1 Construction schedule noting the shoring activity and traffic staging plans.
- C.2 Detailed shoring plans, elevations, and sections.
- C.3 Drawings/documentation of construction method. Including but not limited to construction hauling routes, traffic staging plans, site logistics plans, hoarding, and construction access.
- C.4 General Safety Management Plan
- C.5 Demolition Permit Package and Earth works including Demolishing construction methodology and analysis report and Vibration Risk Assessment Reports.
- C.6 Laydown Area Site Plan considering the property's boundaries
- C.7 Pilling locations and excavation phasing drawings.
- C.8 Monitoring: Applicant to supply and install monitoring equipment and plan to ensure that construction is being done with no conflict with Metrolinx LRT infrastructure and establish a shared monitoring data system: Alerts to be setup and emergency response personnel to be provided by the Applicant in case of emergencies (refer to Appendix 3 of the guidelines for details).
- C.9 Pre-Construction: Two (2) Pre-Construction surveys required at the Applicant's costs: one for the Applicant, and another for Metrolinx.
- C.10 Additional liability insurance of \$10,000,000.00 (ten million dollars) required to cover Metrolinx and agents of Metrolinx. List of certificate holders, coverage type(s), and coverage period will be provided.
- C.11 Other documents/reports-where applicable and as request by Metrolinx.