GROUND DISTURBANCE PERMIT
TRK-FRM-001

A PHYSICAL COPY OF THE APPROVED GROUND DISTURBANCE PERMIT IS REQUIRED ON SITE FOR ANY GROUND DISTURBANCE WORK.

All ground disturbance work within Zone 1, 2 or 3 of the Metrolinx Right of Way (ROW) as defined in Appendix W of the GO Transit Track Standards (GTTS) requires an approved Ground Disturbance Permit issued by Engineering & Asset Management (E&AM) - Track. All Sections of the Ground Disturbance Permit be completed by the Contractor except for Section 2 and submitted alongside a Work Plan Methodology Template (WPMT).

SECTION 1 – COVER PAGE

SECTION 1.1 – Work Overview

Work Plan Name (Reference)		**Project Name**	
Work Plan Number (Reference)		**Metrolinx Contract Number**	
Contractor		**Subdivision**	
Subcontractor(s)		**Ground Disturbance Limits (Start and End Mileage)**	
Ground Disturbance Permit Author		**Track Protection Limits (Start and End Mileage)**	
Subject Matter Expert Reviewer of the Ground Disturbance Permit [1]		**Access Category**	
Ground Disturbance Start Date [2]		**Ground Disturbance End Date [2]**	
Ground Disturbance Start Time (24hr)		**Ground Disturbance End Time (24hr)**	
Most Intrusive Excavation Zone [3]		**Nearest Track to the Ground Disturbance**	

Comments on Ground Disturbance Duration and Available Work Window (If Applicable)

[1] Refer to the Frequently Asked Questions and Clarifications on Ground Disturbance Works for the definition of Subject Matter Expert.
[2] Dates are displayed in Day / Month / Year format and times are displayed in Military Time format (range 0000 to 2359).
[3] An Excavation Zone Calculator is available online to assist with clarifications pertaining to Excavation Zones.

SECTION 1.2 – INTERNAL CONTACT LIST

Role	Name	Phone Number
Metrolinx Project Manager (CPG)		
Metrolinx Project Coordinator (CPG)		

SECTION 1.3 – EXTERNAL CONTACT LIST

Role	Name	Phone Number
Competent Supervisor		
Consultant/Technical Advisor		
Geotechnical Engineer		
Track Inspection Guidelines (TIG) Qualified Employee		

SECTION 2 – GROUND DISTURBANCE PERMIT APPROVAL

THIS SECTION IS TO BE COMPLETED BY THE E&AM – TRACK TEAM.
Upon receipt of the submission, the E&AM - Track resources will review the material, provide comments/clarifications, and issue the permit to the Contractor. Any approved permit will expire in 90 calendar days after the date of approval and an updated permit will need to be re-submitted. The approved permit is to be submitted in the NAPT submission in addition to other required documentation for track protection.

	Name of Approver	Phone Number	Date of Approval	Date of Permit Expiration (90 Days After Approval)	Signature (By E&AM – Track)
Permit Approval					

Metrolinx assumes no responsibility or liability whatsoever for the works done pursuant to this permit, notwithstanding that any plans or specifications with respect to such works may have been reviewed or approved by Metrolinx pursuant to this permit. No such review or approval by Metrolinx of plans or specifications shall be deemed to limit the Contractor's full responsibility for the works performed under this permit. This permit does not alter, amend, or supplement the terms of any existing agreement between Metrolinx and the Contractor.

SECTION 3 – GROUND DISTURBANCE DETAILS

SECTION 3.1 – Ground Disturbance Overview

Describe below the methodology for the ground disturbance. Provide details on locates, supervision (including Geotechnical Engineer involvement), barrier erection, dewatering (or other groundwater control measures). Refer to the GTTS Section 20.1 Excavations and GTTS Appendix W for excavation requirements.

SECTION 3.2 – Ground Disturbance Depth and Distance

Provide below the details of ground disturbance with depths and distances from the nearest track. Dimensions shall be measured from the top end of existing tie(s).

Stationing/ Mileage	Horizontal Distance from the Top End of Tie (ft)	Vertical Distance from the Top End of Tie (ft)	Maximum Depth of the Excavation from Ground Surface [4] (ft)	Maximum Width (or Diameter) of the Excavation Perpendicular to the Track [5] (ft)	Maximum Length (or Diameter) of the Excavation Along the Track [6] (ft)

[4] Excavations deeper than 12 ft. (3.65 m) will require the design and supervision of a Geotechnical Engineer.
[5] Excavations wider than 12 ft. (3.65 m) will require the design of a Professional Engineer.
[6] Excavations longer than 100 ft. (30.48 m) must be reviewed and approved in writing by a Geotechnical Engineer to ensure safe train operations. Otherwise, the excavation must be filled in and compacted prior to train operation.

SECTION 3.3 – Slope Restoration, Backfill, and Compaction

Describe below the slope restoration, backfill, and compaction methodology in accordance with the GTTS.
Backfilling shall be carried out from the bottom of excavation in lifts of 6 in. to 12 in. (152 mm to 305 mm) and compaction shall be at least 98% SPMDD.

SECTION 3.4 – Contingency Plan

Provide a contingency plan below in case this work extends beyond the allotted time and beyond the track protection arrangements. Describe the anticipated overrun scenario and provide relevant contact information to communicate the block overrun and when the decision will be made to escalate. Identify the critical timeframe to obtain materials and human resources in case of a non-compliance.

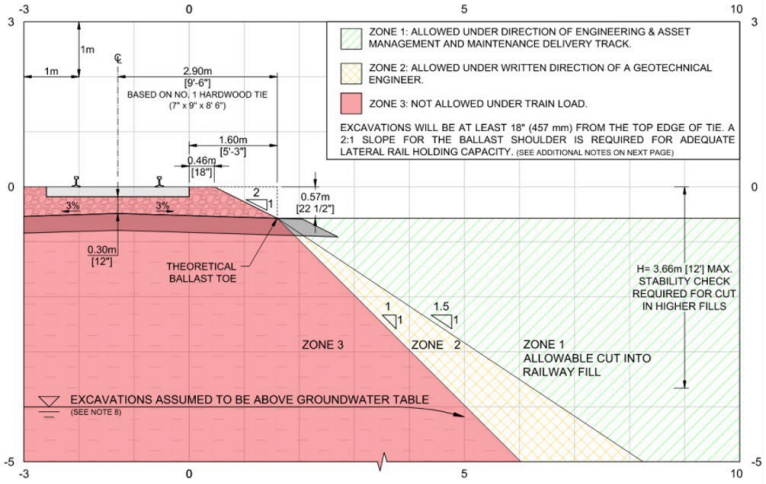

Figure: Appendix W – GO Transit Track Standards

The Revised Appendix W diagram and general notes are published as part of Track Standards Bulletin #008.

SECTION 4 - Monitoring
Describe the ground movement monitoring plan or shoring wall monitoring plan, if applicable. Identify below the Company and the person responsible to complete the ground movement monitoring and/or shoring wall monitoring. Refer to GTTS Section 20.2 Monitoring, General Guidelines for Design of Railway Bridges and Structures, and Trenchless Utility Works Design and Construction Guidelines on Metrolinx Right-Of-Way (Heavy Rail).

SECTION 5 – REQUIRED ATTACHMENTS		
SECTION 5.1 – Required Attachments for Intrusive Works in All Zones		
Append to this permit the following documents, provide confirmation that they have been added.		
	Attachment Title	**Notes**
Cross-sectional Drawing/Sketch of the Proposed Works		Provide cross-sections and identify the most intrusive Zone of Excavation in which excavation will occur.
A Geotechnical Memo		Required if the bottom of the excavation exceeds the stabilized groundwater table.
Diagram Identifying Type and Location of Physical Demarcation Devices		Demarcation devices must be onsite prior to the commencement of the excavation.
Groundwater Control Measures		If applicable.
Locates (Ontario One Call, Private Locates, Railway Locates)		Required.
Access Route Map for the Excavator/Drilling Rig		Required.
Risk Mitigation Strategy		Include Risk Assessment if Applicable. Refer to Section 6.4 – Risk Assessment Summary in the WPMT.

SECTION 5.2 – Confirmation of the Survey Stake-Out Before the Excavation		
	Confirmation	**Notes**
Confirmation of the Survey Stake-out Before the Excavation		Required.

SECTION 5.3 – Required Additional Attachments for Intrusive Works in Zone 2		
In addition to the documents above, permit submissions for intrusive works within Zone 2 also require the attachments below.		
	Attachment Title	**Notes**
Written Authorization by a Geotechnical Engineer		Confirming the excavation within Zone 2 is adequate for Cooper E80 train axle loading or protected by a shoring system designed and approved by a Geo-Structural Engineer.
Monitoring Plan		A ground movement monitoring or a shoring wall monitoring plan for both vertical and horizontal settlement is required for any excavation works exceeding the Zone 1 limits in Appendix W, and must be sealed, signed, and dated by a Professional Engineer.

SECTION 5.4 – Required Additional Attachments for Intrusive Works in Zone 3		
In addition to the documents above, permit submissions for intrusive works within Zone 3 also require the attachments below.		
	Attachment Title	**Notes**
Confirmation that Excavation will not Occur Under Live Train Operations		Provide a detailed schedule of the excavation work.
Detailed Backfill Methodology		Comprehensive backfilling methodology identifying materials to be leveraged and expected compaction results.

SECTION 5.5 – Daily Report for Intrusive Works in Zone 3		
Intrusive works within Zone 3 require a Daily Report to be submitted by a TIG Qualified Employee.		
	Confirmation	**Notes**
Daily Report by TIG Qualified Employee		Upon completion of backfilling and compaction of material and prior to cancellation of track protection, a daily report (including relevant photos) on the backfilling activities will be submitted to: track.coe.dept@metrolinx.com by an individual qualified in the Track Inspection Guidelines (TIG) course. As a minimum, a baseline inspection by the TIG inspector is required prior to the excavation and an inspection is required prior to train service.