#### WORK PLAN METHODOLOGY TEMPLATE CPG-PGM-FRM-277

All Sections of the Work Plan Methodology Template (WPM) is to be filled by the Contractor except for Section 2. Project Delivery Team and/or Consultant to verify the contents of the form.

		SECTIO	ON 1 - COVER PAGE		
		SECTION	1.1 - WORK OVERVIEW		
Work Plan Name		Project Name			
Work Plan Nur	Work Plan Number		Project Number		
Work Plan Rev	ision No.		Contract Number		
Contractor		Subdivision			
WPM Author			Mileage Limits (Start and End)		
Metrolinx PDT Contact			Corridor		
Consultant / Te	echnical Advisor		Competent Supervisor		
Major or Minor	Work		Shifts (Day / Night / Continuous)		
Work Start	Date		Work End	Date	
WORK Start	Time (24hr)		WORKENG	Time (24hr)	
Total Work Du	ration (Hours)		Total Number of Work Days / Nights		
Track Protectio	Track Protection Requested		Track Work Block Requested		
Comments on Work Duration				•	

Dates are displayed in Day / Month / Year format and times are displayed in Military Time format (range 0000 to 2359). Disclaimer: Calculated total work duration and total number of work days/nights are estimates and are subject to Metrolinx's operational restrictions.

#### SECTION 1.2 - SUBMISSION STAGE GATE

Stage No.	Stage Description	Work plan Submission Deadline	Work plan Submission Date	Submission Deadline Met / Missed	Work Plan Revision No.	Status (Reviewed, Review with Comments, Revise and Resubmit, Scope Change)
1	WPM Submittal (40 Days in advance of Track Block)					
2	WPM Review Finalized (21 Days prior to Track Block)					
3	WPM Final Approval (7 Days prior to Track Block, decision subject to change)					
/	Pre-block Meeting (4 Days in Advance of the Track Block)					
5	Support Staff Conference (24 Hrs. in Advance of the Track Block)					

Pre-Block Meeting and Support Staff Conference to conform to specifications outlined in Track Closures, Railway Track Construction, Temporary Track Protection and other related documents. Dates are displayed in Day / Month / Year format

SECTION 1.3 – CORRIDOR ACCESS				
Who is the Constructor for this work?				
Has Corridor Access been granted for this work?				
Are there other works to be coordinated with in the work area?				

SECTION 2.1 - REVIEW LOG								
Thi	is section is to be co	mpleted by the Project Delivery Team. Pl	lease identify the status of the WPM Re	view.				
Stage Description	Work Plan Revision No.	Submission Date	Name of Reviewer	Status (Reviewed, Review with Comments, Revise and Resubmit)				
WPM Submittal								
WPM Received and distributed by Contract Administrator								
WPM Reviewed by Consultant								
WPM Reviewed by CPG								
WPM Reviewed by ICHST								
WPM Reviewed by RCI								
WPM Review Finalized								

### SECTION 2.2: STAKEHOLDERS

This section is to be completed by the Project Delivery Team. Please check stakeholders that are impacted by the work outlined in this WPM. Add any missing stakeholders where required.								
	Metrolinx Internal Stakeholders							
Capital Projects Group (CPG) Project Delivery Team	For INFO	For Review	RCI Track and Structures	For INFO	For Review			
CPG Track and Structures	For INFO	For Review	RCI Signals & Communications	For INFO	For Review			
Rail Services	For INFO	For Review	RCI Bridges and Structures	For INFO	For Review			
Rail Operations	For INFO	For Review	Community Services	For INFO	For Review			
Integrated Construction Health and Safety Team	For INFO	For Review	Transit Safety	For INFO	For Review			
Network Infrastructure Electrification	For INFO	For Review	Station Operations	For INFO	For Review			
Network Infrastructure Signals	For INFO	For Review	Customer Communications	For INFO	For Review			
Service Planning	For INFO	For Review	Bus Operations	For INFO	For Review			
StratComm	For INFO	For Review		For INFO	For Review			
	For INFO	For Review		For INFO	For Review			

External Stakeholders (Railways)							
Canadian National Railway(CN)	For INFO For Review	VIA Rail	For INFO For Review				
Canadian Pacific Railway (CP)	For INFO For Review	Amtrak	For INFO For Review				
Goderich-Exeter Railway(GEXR)	For INFO For Review	,	For INFO For Review				

External Stakeholders (Other Transit, Cities, Townships, Governments, Public Interest)						
	For INFO	For Review		For INFO	For Review	
	For INFO	For Review		For INFO	For Review	
	For INFO	For Review		For INFO	For Review	

Regulators						
Ministry of Environment(MOE)	For INFO	For Review	Transport Canada	For INFO	For Review	
Toronto and Region Conservation (TRCA)	For INFO	For Review		For INFO	For Review	
	For INFO	For Review		For INFO	For Review	

Public Services							
Fire Department         For INFO         For Review         Schools         For INFO         For Review							
Emergency Medical Services(EMS)	For INFO	For Review	Police Department	For INFO	For Review		
	For INFO	For Review		For INFO	For Review		

External Stakeholders (Utility Companies - Crossings or Parallel to track within WPM limits)							
Hydro	For INFO	For Review	BELL	For INFO	For Review		
TransCanada (Pipelines)	For INFO	For Review	COGECO	For INFO	For Review		
Enbridge	For INFO	For Review	Rogers	For INFO	For Review		
Water Lines	For INFO	For Review	Storm Sewer Lines	For INFO	For Review		
Sanitation Sewer Lines	For INFO	For Review		For INFO	For Review		
	For INFO	For Review		For INFO	For Review		

#### **SECTION 3: MAIN CONTENT**

#### SECTION 3.1 - STAKEHOLDER CONSIDERATIONS

Construction work on Metrolinx / GO Property can impact services, operations and the public. The Contractor shall ensure that their work will not impact operations or put public safety at risk. In relation to the tasks, all mitigating measures to eliminate or reduce operational and public impacts shall be described here. Risks to operations and public shall be identified in detail and evaluated in Section 6 Risk Assessment (RA) and Site Safety. The Contractor shall allocate enough time to clean up site after completion of work, to make site safe for operations and the public.

#### Service and Operational Impact

#### Surrounding Community Impact

Describe any impact the work can impose on the community in the surrounding area (such as noise, dust, traffic control). Inform if special signage for the operation will be posted where and which kind, who will provide the signage, etc. Direct all communications with the public through Metrolinx PDT.

#### **Roadway and Private Property Impact**

Describe any traffic control, road closures and private property encroachments that are required for the work. List all permits required for the work and confirm if they have been obtained. A Traffic Plan shall be appended, and identified in Section 5 Attachments and Personnel List.

#### SECTION 3.2 - SCOPE OF WORK

Please provide a description of the work to be completed, including all objectives that are to be accomplished. Please include any multi-disciplinary involvement.

		CTION 3.3 - DETAILED TASK DESCRIPTION (Gantt Chart t lescription of the work, including pre-work and post-work activities, in a			1.
Task No.	Activity/Task	Task Location and Detailed Task Description	Start Date	Start Time	Duration
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

### SECTION 3.3 - DETAILED TASK DESCRIPTION (Gantt Chart to be Appended)

	SECTION 3.4-RESOURCES					
	Based on the Detailed Task Description, specify the labour, machinery, equipment and materials required to complete each task.					
		A - LABOUR				
Task No.	Worker Type (All Disciplines)	Quantity	Which Shift?	Length of Shift?		
				-		
				-		
├				+		
				1		

#### SECTION 3.4 - RESOURCES

### **B - MACHINERY**

Vill a Master-service				
Vill Contractor's Mec Task No.	Hi-Rail?			
	Machinery Type and Amount	GC or Sub?	Standby?	Tir-Nall :

C - MATERIALS					
Task No.	Material Type	Quantity	Inspected by Consultant?	Backup Material?	

#### SECTION 3.5 - WORK GROUPS INVOLVED

Identify t		ctors) from the list below that are to be coordinated with	for this work
	Contractor / Subcontractor Company	Identify Competent Supervisor	Separate WPM Required?
Signal Support			
Track Support			
Structural Support			
Civil Works - Drainage			
Civil Works - Grading			
Civil Works - Excavation			
Civil Works - Sub-Ballast			
Electrical			
Railway Communications			

SECTION 3.6 - SCHEDULE RISK DESCRIPTION				
List the milestone tasks to be completed before the next task can be sta	rted.			
List the outside influences, including Weather and General Public const	raints (ex. Road Closures Public Events, etc.)			
Can the work be stopped halfway through?				
Can the block be extended without impacting operations?				
If any of the above responses are Yes, please explain:				

SECTION 3.7 - CONTINGENCY PLAN				
Please identify and list additional resources that can be utilized if required				
Please identify the amount of hours allocated to contingency:				
Please provide the contingency plan for each milestone:				

SECTION 3.8 - POINT OF NO RETURN DECISION (GO OR NO GO)					
	Recovery Plan to be appended with t	he WPM.			
Critical Milestone	Meeting Location, Time and Date	Rail Operations Notified	Stakeholders Notified		

Point of No Return	Describe when the point of no return is reached in the schedule. Provide a date and time for the point of no return.
How is the Decision Made	Describe in detail exactly who makes the call and when it is to happen. Who from the contractor is allowed to make the call? Who from the stakeholders should be consulted?
	Describe the influences that trigger the point of no return. (Examples: Weather, delay in pre-work, service
What Influences this Decision?	disruption, funding, schedule, etc.)

#### SECTION 3.9 - TRACK BLOCK

Identify Tracks Required for Track Block. Please see the accompanying document for the WPM which describes each block type.					
Type of Track Block Partial Block		Split Block	Total Block		
Multi-Track		Single Track		Other Railroads?	
List the tracks required:				Location	
From Mileage		To Mileage			
Length of time required to complete work:					
Length of time available to complete the work:					
If time required is greater than time available, can the work be completed in stages?					

#### SECTION 3.10 - TRACK PROTECTION

Identify which company will provide flagging from the list below and Identify as Track Flagging and / or Signals Support					
Track Protection	otection Track or Signals Track Pr			Track or Sigr	nals
A&B Rail	Track Flagging	Signals Support	GEXR	Track Flagging	Signals Support
TTR		Signals Support	CNR	Track Flagging	Signals Support
PNR	Track Flagging	Signals Support	CPR	Track Flagging	Signals Support
	Track Flagging	Signals Support		Track Flagging	Signals Support

When will the flagman be on site?	la flagging continuous?	
When will the flagman leave site?	Is flagging continuous?	

#### SECTION 3.11 - PRE-WORK

SECTION S.TT-FRE-WORK	
Pre-work includes delivery and assembly of track materials, day lighting of utilit	ies and/ or fibre optic cables.
List tracks to be affected during pre-work.	
Has pre-condition assessment been completed?	
Will the work be completed instages?	
If the work will be completed in stages, do any of the stages include Pre-Work?	
List, in order of criticality, the work to be completed before the track block:	

#### SECTION 3.12 - IN-SERVICE INSPECTION

Please mark which of the following inspections are required:				
Walking Detailed	Required	Required Installed Turnout Required		
Rail Flaw Detection	Required	Switch Pressure Test - No. 22 Switch Stand	Required	
Track Geometry - Hand	Required	Track In-Service Certificate	Required	
Track Geometry - Vehicle	Required	Bridge Span	Required	
Tunnel	Required	Culvert	Required	
Retaining Wall	Required	Grade Build-up for Track	Required	
Signal Bridge Structure	Required	Signals In-Service Certificate	Required	
	Required		Required	
	Required		Required	
	Required		Required	

Please list the Inspectors, along with their qualifications and which Company they represent

Name of Inspector	Company	Qualifications

### SECTION 3.13-POST-WORK

	Identify any work that must be comp	oleted after the track block.	
	Required?	Timeline to Complete:	Separate WPM Required?
Field Welding			
Destressing			
Follow-Up Surfacing			
Installation of TemporaryCrossing			
Restore Public Road Crossing Surface			
Temporary Slow Order (Rule43)			
General Bulletin Order(GBO)			
Test Train			
Train Observation			
Crossing Deactivation			
Equipment Removal			
Clean-up			

	SECTION 3.1	4– UTILITY IMPACT	
Are utility locates required for this work?			
If required; identify if utility locates are current and	l complete.		
List any Utility companies that are	impacted by the work. Co	pies of locates to be appended, a	nd identified in Section 5 Attachments.
	Impacted?	Protection	Date in which the Locate was Conducted
Telecoms - Bell 360 (Fibre)			
Telecoms - Telephone			
Telecoms - Cable TV			
Natural Gas			
Hydro			
TransCanada			
Water Lines			
Sanitary Sewer Lines			
Storm Sewer Lines			
CN/CP Utilities			
CN/CP Signals			

SECTION 4 - ADDITIONAL REQUIREMENTS FOR SIGNAL WORK		
Complete this section in addition to previous sections if the scope of work involves signal work components. Signal work methodology should be described in detail in Section 3.3 - Detailed Task Description.		
UMENTS		
Mileage where GI is to be Performed		

GO Transit Signals & Communications Code of Practice (SCP)	Mileage where SCP is to be Performed

	SECTION 4.2 - DESIGN DOCUMENTATION AND SUPPLEMENTAL DRAWINGS			
Subdivision	Mile Drawing No. Date		Date	Revision No.

### SECTION 4.3 - CROSSING DEACTIVATION

List all crossings that will be deactivated. Identify if the deactivated crossings have pre-emption.				
Crossing Name	Subdivision	Mile	DAX/UAX	Pre-emption

### SECTION 4.4-SIGNAL TEST EQUIPMENT AND TOOLS

Task No.	Manufacturer	Description	Serial No.	Model No.	Calibration Date
Task NO.	Manufacturer	Description	Jenariuo.	Woder No.	Calibration Date

### SECTION 5 - ATTACHMENTS AND PERSONNEL LIST

SECTION 5	5.1 - OVERVIEW OF SITE		
Append to this WPM the following diagrams, provide c	onfirmation that they have been added	and indicate where they are located.	
	Diagram Provided? Attachment / File Name		
Material Laydown Area			
Muster Point			
Lighting Plan			
Designated Parking Area			
Access to Corridor			
Site Sketches			
Route to the Nearest Hospital			

SECTION 5.2 - ADDITIONAL REQUIRED PROCEDURES / SAFETY PLANS				
Append to this WPM the following documents, provide confirmation that they have been added and indicate where they are located.				
	Document Provided? Attachment / File Name			
Competent Supervisor Declaration				
Site Specific Emergency Plan (SSEP)				
Crane Lift Plan				
Traffic Plans/Permits				
Rescue Plan(s)				
Safe Work Procedures				
EquipmentSpecifications				
Training Records				
Temporary Rail Bypass Coupler (TRBC) Application Form				

### SECTION 5.3 – ADDITIONAL ATTACHMENTS

List all additional documents submitted with this WPM.		
Attachment	File Name	

### SECTION 5.4 - CONTRACTOR STAFF & SIGN OFF (add all required personnel)

All persons on site must hold a valid GO-Safe Orientation training. Contractor to list all staff and subcontractors and their workers anticipated to be working on the task and their related contact information and associated company. Contractor must ensure that a briefing contain the main elements of this WPM (including safety and emergency measures) take place on site prior to the work commencing. Workers involved in task to sign-off on Work Plan prior to commencing work.

Role	e work commencing. Workers involved in ta Company	Employee Name	Signature
General Contractor ProjectManager	Company	Employee Name	Signature
Subcontractor Project Manager			
General Contractor ProjectEngineer			
General Contractor Project Coordinator			
General Contractor Project Coordinator			
General Contractor Safety Representative			
Subcontractor ProjectCoordinator Subcontractor ProjectCoordinator			
General Contractor Foreman			
General Contractor Foreman			
General Contractor Foreman			
Subcontractor Foreman			
Subcontractor Foreman			
Subcontractor Foreman			
Subcontractor Foreman			
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### SECTION 5.5 - EXTERNAL CONTACT LIST (add all required personnel)

Role	Name	Phone Number
Contract Administrator		
Contract Administrator		
Contract MTCE Provider Superintendent		
Contract MTCE Provider Track Supervisor		
Contract MTCE ProviderInspector		

#### SECTION 5.6 - METROLINX CONTACT LIST (add all required personnel)

Role	Name	Phone Number
Metrolinx Project Manager(CPG)		
Metrolinx Project Coordinator(CPG)		
RCI Track Specialist		
RCI Signal Specialist		
RCI Bridges & Structures Specialist		

### SECTION 5.7 - EMERGENCY CONTACT LIST

Role	Name	Phone Number
Nearest Hospital		
Emergency Services		911
GO CMO Emergency		416-601-3611
GO Transit Control Centre(GTCC)		416-601-2147 (Rail) & 416-638-6776 (Bus)
CN Police / Railway		800-465-9239 (CN Railway) & 800-661-3963 (CN Police)
CP Police / Railway		800-716-9132
GO Transit Safety & Security		877-297-0642
Ontario OneCall		
Emergency Spill Response		

### SECTION 6 - RISK ASSESSMENT (RA) AND SITE SAFETY

### 6.1 – REQUIRED CMO PERMITS

Check off all activities for which CMO work permits are required. NOTE: Append updated training records where applicable

Activities	Regulatory Reference/ Additional Info
Hot Work	O. Reg. 632/05, s.2
Working requiring Fall protection	O. Reg. 297/13 Note: Provide site specific fall rescue plan
Confined Space Entry	O. Reg. 632/05 Proof of Confined Space Training required Note: Provide site specific CSE rescue plan
Trenching or Excavation	<ul> <li>(1) Proof of Utility Locates (30 day validity) required</li> <li>for all contractors and subcontractors</li> <li>(1) Proof of MoL Trench Notice (Form 0070) may be required</li> </ul>
Crane/ or Hoist Operations	O. Reg. 213/91, s.150 Proof of Crane/ Hoisting Training required
Tunnels , Shafts, Caissons or Cofferdam	O. Reg. 213/91, s.245 Proof of MoL Notification (Form 0077) required
Designated Substances	O. Reg. 278/05, s.11 Proof of MoL Notification for Asbestos Removal Work (0072) may be required
Site Visitor	Any visitor(s) access must be approved by CMO via the Site Visitor Permit.
Shut Down (HVAC, electric power, fire alarm & sensors, fire suppression)	Permit required for all operations affecting building occupants and fire safety
 Electrical Work (live or not)	Permit required for work on or around equipment (live or not).

### 6.2 - EMERGENCY RESCUE PLANS

Provide detailed rescue procedures in the event of fall from **working at heights** (O. Reg. 213/91); in the event where a worker needs to be extracted from a **confined space** (O. Reg. 632/05) and; where **trench work** is deeper than 2.4 meters (O. Reg. 213/91). Provide details/sketches in the available space below or as an attachment to this work plan with reference made in Section 5.

### **∠** METROLINX

#### SECTION 6.3 - RISK ASSESSMENT MATRIX

			Likelihood					
			Very Unlikely	Less than Likely	Likely	More than Likely	Very Likely	
			All viable controls in place, no major contributing factors identified, but risk occurrence cannot be ruled out	Strong control in place with a few contributing factors exist	Some controls in place and some contributing factors exist	Limited controls in place and substantial contributing factors exist	A few weak controls in place and several contributing factors	
			<10% but not 0%	10% to <40% to	40% to <60% to	60% to <90% to	≥90% but not	
			to occur	occur	occur	occur	100% to occur	
	Risk Scoring Criteria		1	2	3	4	5	
	<ul> <li>Major Service Delay &gt; 1 hr. (repeated/several weeks)</li> <li>Loss of Service &gt; 8 hrs.</li> <li>Major Station**/Facility Impact or Closure &gt; 8 hrs.</li> <li>Fatality</li> <li>Widespread/offsite environmental contamination (&gt;1 year cleanup</li> <li>Damage to property &gt; \$10,000,000</li> <li>Irreversible equipment damage, unable to operate</li> </ul>	) 5	5 Medium	10 Medium	15 Elevated	20 High	25 High	
	<ul> <li>Major Service Delay &gt; 1hr. (repeated/multiple weeks) or one delay several hours</li> <li>Loss of Service 1 to 8 hrs.</li> <li>Major Station**/Facility Impact or Closure 1 to 8 hrs.</li> <li>Minor Station*/Facility Impact or Closure &gt; 8 hrs. or closure of multiple critical injury</li> <li>Localized environmental contamination (≤ 1 year cleanup)</li> <li>Damage to property \$1,000,000 to \$10,000,000</li> <li>Substantial equipment damage, significant downtime due to repair needed</li> </ul>	tiple 4	4 Low	8 Medium	12 Elevated	16 Elevated	20 High	
Severity	Major Service Delay > 1 hr. (repeated/week) or (once/peak period)     Minor Service Delay 30 to 60 mins. (repeated/multiple weeks) or		3 Low	6 Medium	9 Medium	12 Elevated	15 Elevated	
Low	<ul> <li>Major Service Delay &gt; 1hr 1/week</li> <li>Minor Service Delay 30 to 60 mins. (repeated/week)</li> <li>Minor Station*/Facility Impact or Closure ≤ 1 hr.</li> <li>Minor Injury</li> <li>Localized impact to air/water/land (≤ 1 week cleanup)</li> <li>Damage to property \$10,000 to \$100,000</li> <li>Minor Damage to equipment, minimal downtime due to repairs ne</li> </ul>	2	2 Low	4 Low	6 Medium	8 Medium	10 Medium	
	<ul> <li>Minor Service Delay 30 to 60 mins.</li> <li>First aid</li> <li>Limited effects on air quality (≤ day to cleanup)</li> <li>Damage to property &lt; \$10,000</li> </ul>	1	1 Low	2 Low	3 Low	4 Low	5 Medium	

\* A one-line station, \*\* A station with more than one line or a major support facility

#### SECTION 6.4 - RISK ASSESSMENT SUMMARY

Based on the Detailed Task Description stated in Section 3.3, populate the table below by listing the associated hazards of each task. Then determine the risk rating by evaluating the severity and likelihood of the hazard which poses a risk and/or consequences to safety, operations, environment etc.

(1) The following is only a brief summary of instructions. Please review the WPMT user guideline for complete details for developing the Risk Assessment Summary table below.

(2) Re-list the task numbers and activity/task

(3) Provide a detailed account of all hazards associated to the activity/task

(3) Use the RA Matrix above:

(a) assign a **Severity** level (1 to 5) to the hazard by referencing the **Risk Scoring Criteria** which may best represent the consequence. Provision of other risks and/or consequences which are known to apply to a task can be added to best fit the scenario.

(b) assign a Likelihood level (1 to 5) by referencing the qualitative and quantitative criteria which may best represent the risk/consequence occurring.

(c) multiply Severity x Likelihood to obtain the Risk rating

(4) List the control measures to be put in place to reduce the initial uncontrolled Risk rating

(5) Repeat step (3) to re-evaluate the final controlled **Risk** rating with all appropriate control measures in place

(6) Complete Section 6.5 with the sign-off of all contributors to the Risk Assessment Summary

			(Initial) Uncontrolled Rating				(Final) Controlled Rating		
Task No.	Activity/Task	Hazard / Risk / Consequence	Severity	Likelihood Risk		Control Measure / Comment		Likelihood	Risk

SECTION 6.5 – RISK ASSESSMENT SIGN-OFF					
NOTE: The development of this RA shall be produced by individuals with knowledge, experience and understanding of the work and associated hazards. This would include but not limited to the General Contractor, H&S Representatives, Sub-contractors etc. The names of the individuals who have contributed to the RA shall be listed below.					
RA developed by (Name / Title): Signature:					
RA developed by (Name / Title):	Signature:				
RA developed by (Name / Title):	Signature:				