

Third Party Requirements

2022 City of Sudbury Annual Contractors Meeting

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Third Party Requirements



• Notable Requirements

- ✓ The Third Party Requirements were effective June 2021 and include:
 - ✓ Addition of **Vital Pipelines**: a subset of pipelines that are critical to the safe and reliable operation of the natural gas system. Damage to vital mains could result in significant negative impact to public, operation and maintenance requirements.
 - ✓ All Railway (extension/modification/addition) are not covered in the 3rd Party Requirements and must be brought forward to Enbridge.
 - ✓ When Drilling Parallel to Pipeline - A minimum 1.0 m (3.3 ft) buffer zone from either side of the pipeline shall be clearly designated and marked off around the work area.
 - ✓ Excavators will be provided with a new copy of the guidelines when they receive a gas locate.

Third Party Requirements



• Notable Requirements – Cont'd

- Clearances between other underground structures:
 - With gas main less than 16" size – 0.6m (2ft) Horizontal and 0.3m (1ft) vertical
 - Any vital main – 1.0m (3ft) Horizontal and 0.6m (2ft) vertical
 - Trees or large shrubs must maintain a horizontal clearance between the edge of the root ball or open bottom container to the adjacent edge of the existing pipelines of not less than 3.0 m (10 ft) for Vital mains, 1.2 m from any non-vital pipeline and 0.6 m from any non-vital with a root deflector.
 - All work within 5 m (16 ft) from either side of lines operated by Storage Transmission Operations (STO) must be approved by GDS prior to commencing.
 - GDS requires approval for all permanent structures to be built within 7 m (22.9 ft) of GDS's vital pipelines.
- Minimum Cover Required for Mains: Under traveled surfaces (roads): 1.2 m (4ft), Right-of-way: 1 m (3.3ft), Highways: 1.5 m (5ft), Water crossing, and below drainage and irrigation ditch: 1.2 m (4ft)
- Minimum Cover Required for Services: Private property: 0.5 m (1.6ft), Road crossing: 0.9 m (2.9ft)

Third Party Requirements



• Notable Requirements – Cont'd

- **Enbridge requires Notification when:**
 - Work Within 30 m (100ft) from either side of the right of way of a CER-regulated pipeline
 - All work within 5 m (16ft) from either side of lines operated by STO
 - All other Vital Mains, work within 3 m (10ft) from either side of the Vital Main
- **Vehicle Load Restrictions (Weight/ Axle Maximum Allowable load)**
 - Plastic Pipe: 7,000 kg (15,400 lb)
 - Steel Pipe: Steel Pipe: 10,000 kg (22,046 lb)
- Equipment moving along the pipeline must be Parallel at a minimum offset of 1 m (3.3 ft) for pipelines < NPS 16.

Third Party Requirements



- Crossing Permits

AVAILABLE ELECTRONICALLY



Pipeline Equipment Crossing Data Sheet

Location Information		ATTACH ALL DRAWINGS AVAILABLE	
Description & Purpose of Crossing:			
Type of Crossing: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary - Limited Duration <input type="checkbox"/> Frequently Used Over Extended Time <input type="checkbox"/> Single or In & Out Crossing			
Crossing Party: <input type="checkbox"/> Company/Alliance Partner <input type="checkbox"/> Third Party			
Street Address:		District:	
City / Municipality:		FID#:	

AVAILABLE ELECTRONICALLY



Vehicles or Equipment with Tires

Equipment Description:			INDICATE UNITS	
Fully Loaded Gross Vehicle Weight:			Road legal without overweight permit? Y / N	
Axle	Maximum weight on axle	Tire pressure	Distance between tire set centerlines 	Centerline distance between axle in front
Steering				
2				

✓ Crossing permits are required when equipment in excess of the weights listed below are operated in the vicinity of buried facilities where no pavement exists or where grading operations are taking place.

Table 6-1: Vehicle Load Restrictions

Pipe Material	Weight/Axle Maximum Allowable Load kg (lb)
Plastic	7,000 kg (15,400 lb)
Steel	10,000 kg (22,046 lb)

✓ Crossing request forms must be submitted by the owner of the proposed work and provided to the Enbridge representative for review and approval prior to construction. The request must be submitted a minimum of six weeks prior to beginning work to allow sufficient time for review.

Third Party Requirements

• Blasting and Pile Driving

Blasting and Pile Driving Form



General information - Blasting contractor/consultant (Please print)

Consultant:	Contact:	Phone:
Contractor:	Contact:	Phone:
Date of blasting/pile driving (YYYY-MM-DD):	Time:	<input type="checkbox"/> AM <input type="checkbox"/> PM

Location

Municipality:	Concession:	Lot:
Street/road:	Other:	OOB Number:
Location of company plant (show on sketch):		

Note: The use of explosives should be avoided if any one or more of the following occur:
 • Ground vibrations at the pipeline are expected to exceed a peak particle ground velocity of 50.8 mm/s.
 • The amplitude of vibration at the pipeline is expected to exceed 0.15 mm.

Surface blasting To be completed by blasting contractor prior to blasting.

Anticipated number of blasts:	Type of explosive:
Maximum weight per delay (kg):	Maximum weight of explosive per hole (kg):
Delay period (ms):	Type of initiation system:
Number of holes:	Depth of holes (m):
Drill hole diameter (mm):	Length of collar (m):
Drill pattern (draw sketch on page 3):	Type of rock to be blasted:
Mass density of rock (kg/m ³):	Completed by:
Signature:	Date (YYYY-MM-DD):

Tunnel blasting

Type of advancement and proposed tunneling method:	
Tunnel lining:	Other other pertinent information:

Pile driving

Name of design engineer:	Equipment list:
Control methods:	

- ✓ Blasting and pile driving activities in the vicinity of GDS facilities require prior approval by GDS. The Blasting and Pile Driving Form, provided by GDS, must be submitted by the owner of the proposed work for all blasting and pile-driving operations. The request must be submitted a minimum of six weeks prior to beginning work to allow sufficient time for review.
- ✓ Blasting mats must be used to protect any exposed pipe.
- ✓ A leak survey will be completed at the **end of each day of blasting** and the results will be included in the new application form (see blasting/pile driving requirements)

Third Party Observation Criteria



A GDS Representative is required to be on site to ensure the excavation or third-party activity is being safely completed near a pipeline when:

- ✓ Excavation with mechanical equipment will occur within 5.0 m (16 ft) of CER regulated pipelines and all lines operated by STO.
- ✓ Excavation with mechanical equipment may take place within 3.0 m (10 ft) of vital pipelines and pipeline segments.
- ✓ Once the pipeline is exposed, mechanical excavation is then permitted up to 1.0 m (3.3 ft) from the pipeline.
- ✓ It is anticipated that blasting will take place within 30 m (100 ft) of any pipeline.
- ✓ Any other situations which requires observation, as deemed necessary by EGI.

Third Party Observation Criteria



Notice on locate letter

IMPORTANT NOTICE TO EXCAVATORS

A conflict has been identified within your located area. Do NOT proceed with any excavation until this matter is cleared with an Enbridge Gas Inc. representative.

Vital mains/CER pipelines Pile driving/blasting

Contact the Enbridge Gas Inc. Damage Prevention Department Immediately Tel: 1-866-922-3622

CAUTION: This locate is for ENBRIDGE GAS INC. ONLY and is NOT a locate for ENBRIDGE PIPELINES or ENBRIDGE GAS STORAGE

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Third Party Requirements



- Support of Gas Pipeline

Table 7-1: Maximum Span without Support Beam

Pipe Size (NPS)	Steel m (ft)	PE (polyethylene) m (ft)
1/2	2 m (6.6 ft)	1 m (3.3 ft)
3/4 to 1-1/4	2.5 m (8.2 ft)	1.25 m (4.1 ft)
2	3 m (10 ft)	1.5 m (5 ft)
3 to 4	4.5 m (15 ft)	1.75 m (6 ft)
6	6 m (20 ft)	2 m (7 ft)
8	7 m (23 ft)	2 m (7ft)
10	8.5 m (28 ft)	-
12	10 m (33 ft)	-
16	11.5 m (38 ft)	-

Table 7-2: Support Beam Sizes and Maximum Span Between Beam Supports

Pipe Size (NPS)	Steel		Plastic	
	≤ 4.5 m	≤ 4.5 m	≤ 2 m	≤ 4.5 m
1/2 to 2	4 × 6	4 × 6	4 × 6	6 × 8
3 to 6	-	-	6 × 6	8 × 8

Table 7-3: Minimum Allowed Distance from Main to Excavation

Trench Depth (m)	Soil ^a Type 1 and 2	Soil ^a Type 3 and 4
1.2 m (3.9 ft)	0.9 m (3 ft)	0.9 m (3 ft)
1.5 m (4.9 ft)	0.9 m (3 ft)	0.9 m (3 ft)
1.8 m (5.9 ft)	0.9 m (3 ft)	0.9 m (3 ft)
2.1 m (6.9 ft)	0.9 m (3 ft)	0.9 m (3 ft)
2.4 m (7.9 ft)	0.9 m (3 ft)	0.9 m (3 ft)
2.7 m (8.9 ft)	0.9 m (3 ft)	1 m (3.3 ft)
3 m (9.8 ft)	0.9 m (3 ft)	1.5 m (4.9 ft)
3.3 m (10.8 ft)	0.9 m (3 ft)	1.8 m (5.9 ft)
3.6 m (11.8 ft)	0.9 m (3 ft)	2.2 m (7.2 ft)
3.9 m (12.8 ft)	0.9 m (3 ft)	2.5 m (8.2 ft)
4.2 m (13.8 ft)	0.9 m (3 ft)	3 m (9.8 ft)
4.5 m (14.8 ft)	1 m (3.3 ft)	3.4 m (11.2 ft)
4.8 m (15.7 ft)	1.5 m (4.9 ft)	3.8 m (12.5 ft)
5.1 m (16.7 ft)	2 m (6.6 ft)	4.1 m (13.5 ft)
5.4 m (17.7 ft)	2.5 m (8.2 ft)	4.6 m (15.1 ft)
5.7 m (18.7 ft)	3 m (9.8 ft)	5 m (16.4 ft)

Appendix



Contact for Blasting, Pile Driving and Crossing Requests:

Mitch Andryechev, Regional Engineer

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Projects/Relocations Contact:

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Operations Contact:

Brian Lawlor, Supervisor Operations

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Link to Third Party Requirements Document:

[Enbridge's Third Party Requirements in the Vicinity of Natural Gas Facilities](#)