

June 30, 2022

Planning and Housing Committee
10th Floor, West Tower
100 Queen Street West
Toronto, ON M5C 2N2

Sent via email to: phc@toronto.ca

ATTN: Planning and Housing Committee

RE: Notice of Public Meeting - Expanding Housing Options in Neighbourhoods

Your File #: 20 175353 STE 10 TM

Our Reference #: ENB_R220616-002ON

Thank you for sending Enbridge notice of this project. B&A Planning Group is the land use planning consultant for Enbridge's Liquids Pipeline network across Canada. On behalf of Enbridge, we work with municipalities and stakeholders regarding planning and development in proximity to their pipeline infrastructure to ensure that it occurs in a safe and successful manner.

We request that this response package is provided in full to the landowner / applicant as it contains useful and important information, including certain requirements that must be followed, in respect of development in proximity of pipelines.

Description of Proposed Development

We understand that this application is a notice that the City of Toronto has initiated an Official Plan Amendment to facilitate the establishment and retention of small-scale retail, service and office uses within the Neighbourhoods designation of the Official Plan.

This proposed Official Plan Amendment would remove the current requirement for new small-scale retail, service and office uses with Neighbourhoods to only be located on major streets, and only through a site-specific zoning by-law amendment. The Official Plan Amendment would also streamline policy language regarding compatibility. A separate Zoning By-law Amendment to implement the policy changes will be advanced in 2023 following additional consultations.

As demonstrated in **Attachment 01 | Approximate Location of Pipeline Infrastructure** the City of Toronto does have Enbridge pipeline infrastructure within its municipal boundaries.

Assessment & Requirements

The Official Plan Amendment notice was reviewed, and does not appear to contain any maps, statements or policies related to development in proximity of pipeline infrastructure. Therefore,

Enbridge would like to recommend inclusion of the maps, statements and policies detailed in the recommendations below.

Policy Recommendations:

- 1) **Mapping:** We recommend that Enbridge's pipelines (and any other pipelines) and facilities be indicated on one or more maps within the Official Plan. Requests for GIS data from Enbridge should be sent to notifications@Enbridge.com.
- 2) As per Federal and Provincial Regulatory Requirements and Standards, pipeline operators are required to monitor all new development in the vicinity of their pipelines that results in an increase in population or employment. To ensure that all development within the pipeline assessment area is referred to Enbridge for review and comment, we recommend inclusion of the following policy:

"When a neighbourhood plan, zoning amendment, subdivision application or development permit application is proposed that involves land within 200m of a pipeline, as demonstrated in "Map xx: ____" (per recommendation #1), Administration shall refer the matter to the pipeline company for review and input."
- 3) To ensure that no unauthorized ground disturbance or pipeline crossings occur when development progresses, we recommend the following policy be included within the Official Plan Amendment:

"All development within 30m or crossings of a pipeline shall require written consent from the pipeline company and is the responsibility of the applicant to obtain prior to development approval."

Future Development Requirements

Although the Official Plan Amendment: details a long-term future development vision, there are development requirements that will be mandatory at the subdivision and development stage that will be helpful to consider prior to application submission. Please review **Attachment 02 | Enbridge Development Requirements** for requirements for planning and development in proximity of pipelines. In addition, for more information about when written consent is required and how to submit an application, see **Attachment 03 | Enbridge Pipeline Crossing Guidelines**. For additional resources on safe development in proximity of Enbridge's pipeline network please view [Enbridge's Public Awareness Brochures](#) or visit the [Land Use Planning and Development website](#).

Please continue to keep us informed about the outcome of the project and any future policy, land use, subdivision, and development activities in proximity to Enbridge's pipelines and facilities. All future project notifications should be sent to notifications@Enbridge.com, while questions about the details of this letter may be sent to the contact listed below. Thanks again for providing us with the opportunity to provide comments on this project and we look forward to working with you in the future.

Sincerely,



Joanna Ilunga

Community Planner | BA (Hons), MScPI

403.692.5231 | jilunga@bapg.ca

B&A Planning Group | 600, 215 – 9 Avenue SW | Calgary, AB T2P 1K3 | www.bapg.ca

Attachment 01 | Approximate Location of Pipeline Infrastructure

Attachment 02 | Enbridge Development Requirements

Attachment 03 | Enbridge Pipeline Crossing Guidelines



Geographic Coordinates: -79.3106, 43.6277
 Coordinate System: NAD 1983 UTM Zone 17N
 Date Saved: Jun 16, 2022
 Map File: Referral_Mapping.aprx

0 1 2 3 4
 kilometres 1:300,000



Legend

- | | | |
|-------------------|----------------------|---------------------|
| Subject Site | Major Road | Park/Protected Area |
| Enbridge Facility | Municipality - Rural | USA Border |
| Enbridge Pipeline | Municipality - Urban | Waterbody |



Regional Context

Municipal Plan

City Of Toronto

Referral ID: R220616-0020N

June 2022

Map and data are conceptual and for informational and planning purposes only.



Geographic Coordinates: -79.3104, 43.4277
 Coordinate System: NAD 1983 UTM Zone 17N
 Date Saved: Jun 16, 2022
 Map File: Referral_Mapping.aprx

0 2,500 5,000 7,500 10,000 metres **1:270,000**



Legend

- | | |
|---------------------------------|----------------------|
| Subject Site | Railway |
| Enbridge Facility | Municipality - Rural |
| Enbridge Pipeline | Municipality - Urban |
| Facility Assessment Area (800m) | Park/Protected Area |
| Pipeline Assessment Area (220m) | USA Border |
| Prescribed Area (30m) | |

Local Context

Municipal Plan

City Of Toronto

Referral ID: **R220616-0020N**

June 2022

Map and data are conceptual and for informational and planning purposes only.

Attachment 02 | Enbridge Development Requirements

Definitions

- A **Right-of-Way (ROW)** is a strip of land where property rights have been acquired for pipeline systems by the pipeline company. It is a surveyed area of a specific width which grants legal rights of access to operate and maintain the infrastructure within it.
- The **Prescribed Area** is an area of 30 m (100 ft) perpendicularly on each side from the centreline of a pipeline. Excavation or ground disturbance within this zone requires written consent from the pipeline company pursuant to the Canadian Energy Regulator Pipeline Damage Prevention Regulations (Authorizations). Depending on the pipeline location and regulator this may also be known as a “controlled area” or “safety zone”.
- The **Pipeline Assessment Area** identifies lands on either side of a pipeline in which new development must be monitored by the pipeline operator. The requirement for and scope of this monitoring is governed by the Canada Energy Regulator (CER) and CSA Z662:19. Depending on the pipeline location, operator, and regulator this may also be known as the “notification zone”, “referral area” or “class location assessment area”.

Locating the Pipeline | Click Before You Dig

Any person planning to construct a facility across, on, along or under a pipeline (including the right-of-way), conduct a ground disturbance activity within 30 metres of the centreline of a pipe, or operate a vehicle or mobile equipment across a right-of-way, must first request a locate service. To identify the precise alignment of the pipeline on the subject lands, Locate Requests can be made online, via mobile apps, or via phone (see table below),

The locate request must be made a minimum of three (3) business days in advance of the construction, ground disturbance, or vehicle or mobile equipment crossing. The One-Call Centre will notify Enbridge to send a representative to mark the facilities, explain the significance of the markings and provide you with a copy of the locate report. Enbridge requests a minimum of five (5) business days’ notice for any work involving explosives.

Canadian One-Call Centres			
Province	Phone	Website	Mobile App
British Columbia	1.800.474.6886	www.bc1c.ca	
Alberta	1.800.242.3447	www.albertaonecall.com	Dig Info AB
Saskatchewan	1.866.828.4888	www.sask1stcall.com	Sask1st Call
Manitoba	1.800.940.3447	www.clickbeforeyoudigmb.com	
Ontario	1.800.400.2255	www.on1call.com	
Quebec	1.800.663.9228	www.info-ex.com	Info-Excavation
Nova Scotia & New Brunswick	1.800.344.5463	www.info-ex.com	Info-Excavation
Northwest Territories	Contact pipeline and facility owner directly		
www.clickbeforeyoudig.com			

Right-of-way

A right-of-way is a strip of land where property rights have been acquired for pipeline systems by the pipeline company. It is a surveyed area of a specific width which grants legal rights of access to operate and maintain the infrastructure within it:

- No permanent structures are permitted within the pipeline right-of-way area without Enbridge's prior written consent.
- Enbridge must have the ability to access Enbridge's pipeline right-of-way at all times for construction, maintenance, operation, inspection, patrol, repair, replacement and alteration of the pipeline(s). Therefore, the Enbridge pipeline right-of-way shall be maintained as green space, park belt or open space.
- No work shall take place on Enbridge's pipeline right-of-way without the presence of an Enbridge representative.
- Storage of materials and/or equipment, grading or placing fill on Enbridge's pipeline right-of-way is not permitted without prior written consent from Enbridge.

Written Consent

Any proposed crossings of the pipeline right-of-way or ground disturbance within the Prescribed Area or pipeline right-of-way are subject to Enbridge's written consent in accordance with the Canadian Energy Regulator Act and regulations including the Canadian Energy Regulator Pipeline Damage Prevention Regulations as amended or replaced from time to time (or for pipelines contained within Alberta, the Pipeline Act (Alberta) and Pipeline Rules as amended or replaced from time to time).

The applicant will require Enbridge's written consent or a crossing agreement prior to undertaking the following activities:

- Constructing or installing a facility across, on, along or under an Enbridge pipeline right-of-way;
- Conducting any activity that would cause ground disturbance (excavation or digging) on an Enbridge's pipeline right-of-way or within 30m perpendicularly on each side from the centerline of Enbridge's pipe (the "Prescribed Area");
- The operation of a vehicle, mobile equipment or machinery across an Enbridge pipeline right-of-way; outside of the travelled portion of a highway or public road;
- Using any explosives within 300m of Enbridge's pipeline right-of-way.

For more information about when written consent is required and how to submit an application, please see [**Attachment 03 | Enbridge Pipeline Crossing Guidelines**](#).

Prescribed Area

The Prescribed Area is an area of 30 m (approximately 100 ft) perpendicularly on each side from the centreline of a pipeline. Excavation or ground disturbance within this zone requires written consent from the pipeline company pursuant to the Canadian Energy Regulator Pipeline Damage Prevention Regulations (Authorizations). Depending on the pipeline location and regulator this may also be known as a "controlled area" or "safety zone".

For pipelines crossing provincial boundaries, Enbridge is regulated by the Canada Energy Regulator and is subject to the Canadian Energy Regulator Act and its regulations as amended or replaced from time to time.

- Section 335(1) of the Canadian Energy Regulator Act prohibits any person to construct a facility across, on, along or under a pipeline or engage in an activity that causes a ground disturbance within the Prescribed Area unless the construction or activity is authorized by the pipeline company.
- Section 335(2) of the Canadian Energy Regulator Act prohibits any person to operate a vehicle or mobile equipment across a pipeline unless the vehicle or equipment is operated within the travelled portion of a highway or public road or such operation is authorized under section 13(1) of the Canadian Energy Regulator Pipeline Damage Prevention Regulations (Authorizations).

For pipelines contained within Alberta, Enbridge is regulated by the Alberta Energy Regulator and is subject to the Pipeline Act and Pipeline Rules as amended or replaced from time to time.

- As per the Alberta Energy Regulator, any person who plans to engage in an activity that causes a ground disturbance within the pipeline right-of-way must obtain the written consent of the pipeline company.

Crossings

- Written consent from Enbridge is required for all crossings of the pipeline.
- The written authorization request must include:
 - Drawings with cross sections of the proposed new road and road widening to verify the depth of cover from both sides of the road.
 - Drawings should include any new utilities that will cross the ROW.
- No vehicles or mobile equipment, including heavy machinery, will be permitted to cross Enbridge's pipeline right-of-way without the prior written consent of Enbridge. Please complete Enbridge's Equipment Specification and Data Sheet(s) to make an application for temporary equipment crossing including timeframe, type and weight of equipment per axle together with the name of the applicant, address, contact name and phone number/email.
- Where future development such as a roadway or a parking area is proposed over the pipeline right-of-way, Enbridge may be required to carry out pipeline inspection and recoating of the existing pipeline(s) prior to the start of the development. **The costs of Enbridge's design, inspection, recoating work and any other pipeline alteration as a result of the crossing will be borne by the Developer.**

Ongoing Activities

- Written consent must be obtained from Enbridge for ongoing activities such as mowing or maintenance of the pipeline right-of-way on public lands.

Class Monitoring in the Pipeline Assessment Area

As per Federal and Provincial Regulatory Requirements and Standards, pipeline operators are required to monitor all new development in the vicinity of their pipelines that results in an increase in population or employment. Therefore, please keep us informed of any additional development being proposed within the Pipeline Assessment Area indicated in **Attachment 01 | Approximate Location of Pipeline Infrastructure**.

- If a pipe replacement is necessary because of the proposed development, temporary workspace shall be granted to Enbridge on terms and conditions to be (or as) negotiated. This workspace will be adjacent to the existing pipeline right-of-way and may be up to a maximum of 15m wide on either or both sides. Grading or landscaping of the workspace is not permitted until the replacement has been completed.

Subdivisions

- Lot lines are not to be incorporated over Enbridge's pipeline right-of-way. If lot lines are incorporated over Enbridge's pipeline right-of-way, the owner agrees, in writing to include the following warning clause in all offers of sale and purpose and/or lease:
"Future residents are advised that Enbridge owns and operates _____ pipeline(s) within an _____ m pipeline right-of-way on the property. As a result, there are conditions that apply to various activities over the pipeline right-of-way that must be approved by Enbridge."
- All display plans in the lot/home sales office shall identify the Enbridge pipeline right-of-way-corridor within the proposed linear park block(s).

Structures and Setbacks

Development setbacks from pipelines and rights-of-way are recommended in support of damage prevention and to allow both pipeline operators and developers buffer lands for operations and maintenance purposes.

- No permanent structures are permitted within the pipeline right-of-way area without Enbridge's prior written consent.

Other Development

Wells / Septic Systems

Wells or septic systems shall not be located on Enbridge's pipeline right-of-way. Construction of any septic system within 30m of the pipeline right-of-way requires prior written notification to Enbridge to ensure the septic bed will not adversely impact the integrity of the pipeline and pipeline right-of-way. Written consent from Enbridge must be received prior to the start of any work.

Aerial Power Lines

Aerial power lines crossing the pipeline right-of-way require aerial warning devices installed and properly maintained. No poles, pylons, towers, guys, anchors or supporting structures of any kind are permitted on the pipeline right-of-way.

Pathways, Fencing & Landscaping

Fencing Along ROW

- For development along an Enbridge right-of-way, permanent fencing shall be erected and maintained by the Developer at the Developer's cost along the limits of Enbridge's pipeline right-of-way. The fence erected must meet Enbridge's and the governing municipality's specifications concerning type, location and height. Any excavations for fence posts on, or within 30m of the pipeline must be done by hand or hydrovac. There shall be no augers operated on the pipeline right-of-way. The Developer shall notify Enbridge three business (3) days prior to any excavation for fence posts located on or within 30m of the pipeline.
- Limits of the pipeline right-of-way parallel to the pipeline shall be delineated with permanent fencing to prevent gradual encroachment by adjacent landowners. Suitable barriers shall be installed at all road accesses to prevent unauthorized motor vehicles from entering Enbridge's pipeline right-of-way.
- Enbridge's written consent must be obtained and One Call notifications must be completed prior to any fence installations.

Landscaping

No landscaping shall take place on Enbridge's pipeline right-of-way without Enbridge's prior written consent and where consent is granted such landscaping must be performed in accordance with Enbridge's Pipeline Crossing Guidelines, as follows:

- The landowner / developer shall ensure a 5m continuous access way in the pipeline right-of-way is provided for the Enbridge repair crews.

In order to maintain a clear view of the pipeline for the purposes of right-of-way monitoring, which is required by federal regulation, trees and shrubbery planted in proximity to the pipeline must meet the following criteria:

- Enbridge permits the following vegetation within the pipeline right-of-way: Flowerbeds, vegetable gardens, lawns and low shrubbery (under 1 m in height), and
- The mature growth height of vegetation does not exceed 1.5 m (5 ft) at maturity and must maintain a minimum distance of 3 m (10 ft) from the nearest pipeline.

Pathways / Trails

No pathways shall be installed on Enbridge's pipeline right-of-way without Enbridge's prior written consent and where consent is granted pathways must be designed in accordance with Enbridge's requirements:

- A pathway crossing Enbridge's pipeline right-of-way shall be installed as close as possible to a ninety (90) degree angle to the Enbridge pipeline(s).
- The width of the pathway shall not exceed 3m.
- A parallel pathway within Enbridge pipeline right-of-way shall maintain a minimum 5m separation from the edge of the Enbridge pipeline(s).
- Enbridge's pipeline(s) must be positively identified at certain intervals as directed by Enbridge's representative for parallel installation.
- Enbridge shall install pipeline markers at all road, pathway and other crossings throughout the development area at Developer's cost.

Drainage and Erosion

- The Developer shall ensure drainage is directed away from the pipeline right-of-way so that erosion will not adversely affect the depth of cover over the pipeline(s).
- Any large-scale excavation adjacent to the pipeline right-of-way, which is deeper than the bottom of the pipe, must maintain a slope of 3:1 away from the edge of the pipeline right-of-way.
- Depth of cover over Enbridge pipeline(s) shall not be compromised over the life of the Developer's facility due to rutting, erosion or other means.

Construction

- During construction of the site, temporary fencing must be erected and maintained along the limits of the pipeline right-of-way by the Developer to prevent unauthorized access by heavy machinery. The fence erected must meet Enbridge's specifications concerning type, height and location. The Developer is responsible for ensuring proper maintenance of the temporary fencing for the duration of construction. The Developer is responsible for the cost of material, installation and removal.
- Original depth of cover over the pipeline(s) within Enbridge's pipeline right-of-way shall be restored after construction. This depth of cover over the pipeline(s) shall not be compromised over the life of the Developer's facility due to rutting, erosion or other means.
- In the event Enbridge's pipeline(s) suffer contact damage or other damage as a result of construction, work shall stop immediately and Enbridge to be immediately notified.

Liability

In no event shall Enbridge be liable to the developer and/or landowner(s) for any losses, costs, proceedings, claims, actions, expenses or damages (collectively "Claims") the Developer and/or landowner(s) may suffer or incur as a result of or arising out of the presence of Enbridge pipeline(s) and/or operations on the pipeline right-of-way. The Developer and/or landowner(s) shall be responsible for all costs and expenses incurred to install, repair, replace, maintain or remove the Developer's and/or landowner(s) installations on or near the pipeline right-of-way and shall indemnify and save harmless Enbridge from all Claims brought against, suffered or incurred by Enbridge arising out of the activities of the Developer and/or landowner(s) in respect of the development or arising out of the presence, operation or removal of the Developer's and/or landowner(s) installations on or near Enbridge's pipeline right-of-way.

Enbridge Pipeline Crossing Guidelines, Canada

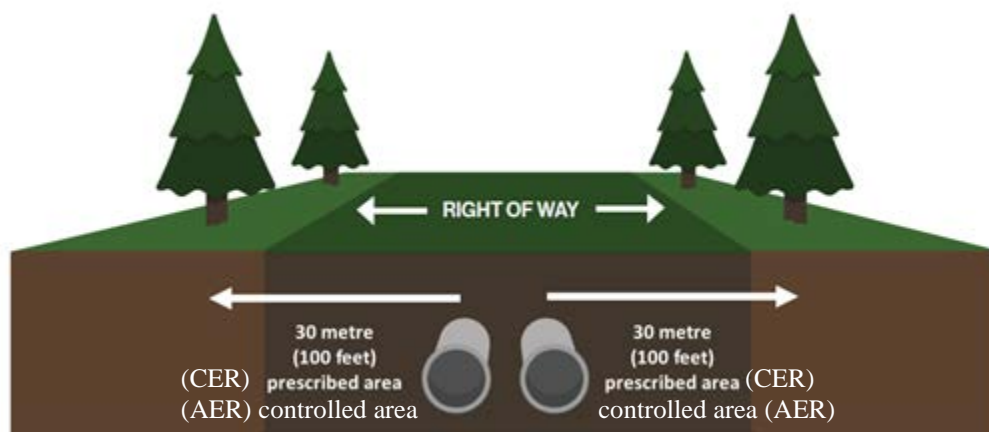
Application Guidance Details
May 2020 v2.0

Application Guidance Details

1. WHO REQUIRES CONSENT?

Consent is governed by the Canada Energy Regulator (CER) for interprovincial or international (federally regulated) pipelines and the Alberta Energy Regulatory (AER) for intra-provincial (provincially regulated) pipelines within the Province of Alberta. To ensure our pipelines and facilities operate safely written consent from Enbridge must be obtained in Canada before any of the following occur:

- ❖ Construction or installation of a new facility across, on, along or under Enbridge's pipeline and/or right-of-way;
- ❖ Ground disturbance activities in the prescribed area (CER) or controlled area (AER) which extends 30m from each side of the centerline of the pipeline;
- ❖ Operation or movement of vehicles, mobile equipment or machinery across Enbridge's right-of-way, outside of the travelled portion of a highway or public road;
- ❖ Using explosives within 300m of Enbridge's pipeline right-of-way;
- ❖ Use of the prescribed area or controlled area for storage or workspace purposes;
- ❖ Subdivision development across, on, along or over Enbridge's pipeline and/or right-of-way;
- ❖ Landowners wishing to install agricultural drainage tile across, on, along or under Enbridge's pipeline and/or right-of-way.



Activities that cause a ground disturbance include, but are not limited to, the following:

- | | |
|---------------------------|---|
| ❖ digging | ❖ clearing and stump removal |
| ❖ excavation | ❖ subsoiling |
| ❖ trenching | ❖ blasting/using explosives |
| ❖ ditching | ❖ quarrying |
| ❖ tunneling | ❖ grinding and milling of asphalt/concrete |
| ❖ boring/drilling/pushing | ❖ seismic exploration |
| ❖ augering | ❖ driving fence posts, bars, rods, pins, anchors or pilings |
| ❖ topsoil stripping | ❖ plowing to install underground infrastructure |
| ❖ land levelling/grading | ❖ crossing of buried pipelines or other underground infrastructure by heavy loads off the travelled portion of a public roadway |
| ❖ tree or shrub planting | ❖ installing agricultural drainage tile |

Under section 2 of the Canadian Energy Regulator Act, ground disturbance does not include:

- ❖ Cultivation to a depth of less than 45cm below the surface of the ground
- ❖ Any activity to a depth of less than 30cm and that does not result in reduction of the depth of earth cover over the pipeline less than that approved at time of construction

2. CROSSING A PIPELINE WITH AN AGRICULTURAL VEHICLE OR MOBILE EQUIPMENT

For pipelines regulated by the Canada Energy Regulator, the *Canadian Energy Regulator Pipeline Damage Prevention Regulations – Authorizations* provides that persons operating agricultural vehicles or mobile equipment across pipelines may do so in low-risk areas, under certain conditions:

- ❖ the loaded axle weight and tire pressures of the vehicle or mobile equipment are within the manufacturer's approved limits and operating guidelines; AND
- ❖ the point of crossing has not been the subject of a notification from the pipeline company that crossing at that location could impair the pipeline's safety or security.

This applies to vehicles or mobile equipment used for agricultural activities in the production of crops and the raising of animals and includes pasturing and cultivation activities such as tillage, plowing, disking and harrowing.

For pipelines regulated by the Alberta Energy Regulator, the *Pipeline Regulation (under the Pipeline Act)* provides that persons operating vehicles or equipment used for farming operations; or use of off-highway vehicles [as defined in section 117(a)(iii) to (viii) of the Traffic Safety Act] or use of private passenger vehicles (as defined in section 1(1)(jj) of the Traffic Safety Act) less than ¾ ton may temporarily cross over an AER regulated pipeline without further approval from Enbridge.

However, if neither of the above requirements can be met then an application must be submitted to Enbridge for further review and processing.

3. HOW TO APPLY FOR ENBRIDGE CONSENT

The applicant must submit a written request, either by completing the Application Form (attached) or a letter with equivalent information, together with the applicable drawing(s) to the respective Enbridge crossings department as set out in the *Contact Us* section of this document.

The drawing(s) must be prepared in accordance with the minimum standards as set out in the *Drawing Requirements* section of this document.

Enbridge's Equipment Specification and Data Sheet (attached) must also be completed for any vehicle/ mobile equipment crossing applications.

For federally regulated pipelines, the applicant may petition the Commission for approval of construction activity if:

- ❖ the applicant cannot comply with the terms and conditions as set out in the company's written consent;
- ❖ the applicant feels the terms and conditions in the company's written consent are excessive; or
- ❖ If the company refused to grant approval to the applicant for reasons of pipeline integrity, public safety or company policy.

An application can be filed with the Commission by writing to:

**Secretary of the Commission
Canada Energy Regulator
Suite 210, 517 – 10th Ave SW
Calgary AB T2R 0A8
Phone: 1-877-288-8803
Online: www.cer-rec.gc.ca**

Applications may be filed with the Commission by mail, courier or facsimile by calling the toll-free number at 1-877-288-8803. Applications can also be uploaded through the CER's Applications and Filings Portal on the CER website at Home / Applications and Filings / Submit Applications and Regulatory Documents / File under the CER Act / OPR: CER Act – Guide C (<http://www.cer-rec.gc.ca/pplctnflng/sbmt/nbpr-eng.html>).

4. DRAWING REQUIREMENTS

The following represents the minimum information that is required to be shown on the drawing(s) in order for Enbridge to review your application. Dimensions must be shown on the drawing(s) and may be done in either imperial or metric units (if metric, then to one decimal point).

NOTE: incomplete drawings and/or an incomplete application will be rejected back to the applicant.

(a) Permanent Installations

All proposed permanent installation drawings MUST contain the following items:

1. Plan Number, including any revision number and the respective date;
2. North Arrow;
3. Scale;
4. Legend;
5. Location indicator including: legal land description, PIN, GPS coordinates;
6. Plan view of whole quarter section or affected area including:
 - ❖ Lot lines, road limits
 - ❖ Proposed facilities (including curbs, footing, guard rails, guy wires, poles, fences, etc.) with tie dimensions to lot survey line preferably along pipeline and/or right-of-way boundary
 - ❖ Location of cathodic test lead terminals (if applicable);
7. Cross section view and/or profile view including:
 - ❖ For surface structures, show profile along pipeline(s) with highest elevation
 - ❖ For underground facilities show profile along facility
 - ❖ Property lines, pipeline(s) and depth of cover
 - ❖ All underground facilities must maintain an even elevation across the entire width of right-of-way except for gravity type facilities or those facilities installed by HDD;
 - ❖ Drill path plan for HDD installations
 - ❖ Unsupported span (m) of Enbridge pipeline for open cut installations
8. Crossing Angle;
9. Crossing location circled in red;
10. Identify all affected Enbridge facilities, right-of-way(s) and pipeline markers;
11. Method of Installation (MOI) (**Refer to Interpretation/Definitions section*);
12. Minimum Clearance (**Refer to Interpretation/Definitions section*);
13. Facility specifications:
 - ❖ PIPE/CABLE: pipe diameter, pipe material, product conveyed, cable size, if cable is within a conduit, conduit material, cable voltage; unsupported span (meters) of existing pipeline if MOI is open cut;
 - ❖ ROAD: width of road, cover at ditch, cover at center of road, surface material, road type/use; design loading calculation; indicate if any Government or Provincial setback requirements
 - ❖ OVERHEAD POWER: pole number(s), location of pole/guy wire/anchors/etc., method of installation of pole/guy wire/anchors/etc., horizontal clearance to pipe from proposed pole/guy wire/anchors/etc., vertical clearance to ground/grade, voltage, type of power (AC/DC), AC mitigation plan may be required;
 - ❖ PIPE RACK: height of pipe rack, pile location(s), pile clearance to Grantor's facility, pile installation method; alternate access route provided for rural locations
 - ❖ DRAINAGE TILE: location of tiles and incremental cost analysis.
14. Complete the Equipment Specification and Data Sheet, when required.

(b) Temporary Activities

All temporary drawings MUST contain the following:

1. Plan Number, including any revision number and the respective date;
2. North Arrow;
3. Scale;
4. Legend;
5. Location indicator including: legal land description, PIN, GPS coordinates;
6. Plan view of whole quarter section or affected area;
7. Temporary activities location circled in red;
8. Identify all affected Enbridge facilities, right of way(s) and/or PLA/easement ownership;
9. Facility specifications:
 - ❖ WORKSPACE: location, measurement of workspace, purpose;
 - ❖ ACCESS OF ROW: location, kilometer usage of ROW, width of access; egress/ingress points, complete the Equipment Specification and Data Sheet (attached);
 - ❖ EQUIPMENT CROSSING: complete the Equipment Specification and Data Sheet (attached);
 - ❖ ROAD USE: indicate road(s) to be utilized, km usage, reason required, frequency of use; complete the Equipment Specification and Data Sheet (attached);
 - ❖ GEOPHYSICAL: project/prospect name, number of reading units/lines, type of source, CER approval required (Y/N).

5. INTERPRETATION / DEFINITIONS

For crossing application purposes, Enbridge defines the following as:

Grantee means the applicant or the facility owner; a company, a person, a municipality or government body, etc.

Method of Installation means OPEN CUT or HDB or HDD; all defined as follows:

OPEN CUT

Enbridge defines open cut as trench methodology wherein access is gained to the required level underground for the proposed installation, maintenance or inspection of a pipe, conduit or cable. The excavated trench is then backfilled and the surface restored.

HORIZONTAL DIRECTIONAL BORE (HDB)

Enbridge defines horizontal directional bore as meeting ALL of the following:

- (a) The designed horizontal distance of the crossing shall be less than or equal to 150m (500ft) in length; AND
- (b) The depth of the pipeline installation shall be limited to 8m (25ft) to the centre (cross-section) of the pilot hole and measured to the corresponding surface location; AND
- (c) Straight alignment in the horizontal plane; AND
- (d) Pilot bit is steerable and trackable.

HORIZONTAL DIRECTIONAL DRILL (HDD)

Enbridge defines horizontal directional drill as an *HDB* that DOES NOT meet all of the criteria for an *HDB*. An *HDD* will satisfy some but not all of: a, b and c above and will satisfy d.

Minimum Clearance means the required distance between the existing Enbridge facility and the proposed facility based on the selected *Method of Installation*.

Minimum clearance required for installation ABOVE Enbridge facility by OPEN CUT is 0.3m
Minimum clearance required for installation BELOW Enbridge facility by OPEN CUT is 0.6m
Minimum clearance required for installation BELOW Enbridge facility by HDB is 1.0m
Minimum clearance required for installation BELOW Enbridge facility by HDD is 3.0m
Minimum clearance required for road installation from bottom of ditch to top of Enbridge facility is 0.9m and from centerline of road to top of Enbridge facility is 1.2m
Minimum clearance required for railway installation from bottom of ditch to top of Enbridge <i>uncased</i> facility is 1.83m and from centerline of rail bed to top of Enbridge <i>uncased</i> facility is 3.05m
Minimum clearance required for railway installation from bottom of ditch to top of Enbridge <i>cased</i> facility is 0.91m and from centerline of rail bed to top of Enbridge <i>cased</i> facility is 1.68m

6. WRITTEN CONSENT

After applying for written consent, Enbridge will review the proposed installation and/or temporary activities application in order to ensure that the proposed work will not pose a risk to existing Enbridge facilities, as well as, to ensure that any access required to existing facilities for maintenance or in an emergency situation will not be impeded.

Some applications may require further engineering assessment which will require additional time to review the proposed installation and/or temporary activities prior to Enbridge issuing consent. All efforts will be made to provide an agreement within an appropriate timeframe, however, please ensure that your application request is submitted with ample lead time.

7. CONTACT US

To obtain written consent from Enbridge, please contact the respective office as set out below:

REGION	CONTACT INFORMATION
LIQUIDS PIPELINES - WESTERN CANADA (Alberta, Saskatchewan, Manitoba and Norman Wells)	Lands & ROW 330, 10180 – 101 Street Edmonton AB T5J 3S4 Email: crossingrequests@enbridge.com Phone: 780-378-2228
LIQUIDS PIPELINES - EASTERN CANADA (Ontario and Quebec)	Lands & ROW 1 st Floor, 1086 Modeland Road, Bldg 1050 Sarnia ON N7S 6L2 Email: est.reg.crossing@enbridge.com Phone: 1-800-668-2951
GAS PIPELINES / STORAGE - BRITISH COLUMBIA	Lands & ROW 200, 425 – 1 Street SW Calgary AB T2P 3L8 Email: crossings@enbridge.com Phone: 587-747-6538

GAS STORAGE - ONTARIO	3501 Tecumseh Road Mooretown ON N0N 1M0 Email: chris.pincombe@enbridge.com Phone: 519-862-6092
GAS PIPELINE - ALLIANCE	Lands & ROW 600, 605 – 5 Ave SW Calgary AB T2P 3H5 Email: crossings@alliancepipeline.com Phone: 403-266-4464

For more information on Enbridge Gas Distribution please click the link: <https://www.enbridgegas.com/gas-safety/pipeline-safety.aspx>

8. ONE CALL CENTRES

Before putting a shovel in the ground, whether it is in your backyard or a commercial jobsite, please do a locate request to safely identify any buried utility lines at www.clickbeforeyoudig.com.

Your local one call centre can also be reached by phone as shown below:

CALL OR CLICK BEFORE YOU DIG!! Contact your respective one-call centre	
British Columbia https://www.bconecall.bc.ca/ 1-800-474-6886	Alberta http://albertaonecall.com 1-800-242-3447
Saskatchewan www.sask1stcall.com 1-866-828-4888	Manitoba http://www.clickbeforeyoudigmb.com/ 1-800-940-3447
Ontario www.on1call.com 1-800-400-2255	Quebec www.info-ex.com 1-800-663-9228
Northwest Territories 1-867-587-7000 Or contact the pipeline company directly	

9. REGULATORS

In Canada, Enbridge has pipelines that are regulated by both the federal government and provincial governments. For more information on any of the regulators please visit their respective website.

Canada Energy Regulator: www.cer-rec.gc.ca

Alberta Energy Regulator: www.aer.ca

10. DEVELOPMENT ON OR NEAR THE RIGHT-OF-WAY

Enbridge should be consulted early in the design phase with regards to proposed subdivisions, roads and utilities, and municipal landscaping.

Subdivisions – Enbridge highly recommends that our right-of-way be used as a passive green space or as part of a linear park system. Permanent structures on the right-of-way are not permissible.

Roads and Utilities – Roads may be permitted to cross and/or run parallel to the right-of-way but no portion of a road allowance can be located on the right-of-way (apart from approved road crossings). Enbridge will review the location of utilities which are often proposed within the road allowance.

Landscaping – Projects such as pedestrian pathways may be permitted as long as they do not impede Enbridge's access along its right-of-way for operational and/or maintenance activities. Enbridge's written consent will specify the permitted landscaping requirements.

11. DAMAGE PREVENTION

Enbridge's underground facilities must be positively identified, to Enbridge's satisfaction, prior to the start of any proposed construction activities.

Enbridge's representative(s) have the authority to stop work at any time due to safety, environmental or operational concerns and/or unforeseen circumstances or emergency situations.

****IMMEDIATELY NOTIFY ENBRIDGE IF YOU COME INTO CONTACT WITH THE PIPE! ****

As a small scratch or dent in the pipeline's coating can impact long term safety of the pipeline and must be assessed by Enbridge.

Please note that obstacles or un-approved above ground installations located on an Enbridge right-of-way, such as sheds, trailers, boats and pools can interfere with Enbridge's access of their right-of-way. Permanent structures on the right-of-way are NOT permissible.

Enbridge must be contacted before conducting any blasting activities within 300m of the pipeline right-of-way so that Enbridge can review the proposed plans in order to see if there might be potential impacts to its facilities. Blasting activities related to prospecting for mines and minerals within 40m of a federally regulated pipeline right-of-way requires permission from the Canada Energy Regulator.

12. EMERGENCY SITUATIONS

In an emergency situation please provide as much notice, as is practicable, to Enbridge prior to commencement of any construction, excavation, installation or temporary crossing of existing pipelines and/or right-of-ways in order to access the emergency site.

Enbridge classifies an emergency situation as:

- ❖ A risk to human life;
- ❖ Required emergency repairs of public services; or
- ❖ To contain an environmental emergency.

In an emergency situation please call: **1-877-420-8800** (toll free) and/or contact your local One Call provider at the numbers listed in section 8.

DISCLAIMER: THESE GUIDELINES ARE INTENDED TO PROVIDE USEFUL CROSSING APPLICATION GUIDANCE INFORMATION TO THE APPLICANT. SUBMISSION OF AN APPLICATION MEETING THE REQUIREMENTS AS SET OUT HEREIN DOES NOT CONSTITUTE WRITTEN CONSENT FROM ENBRIDGE. ALL APPLICATIONS WILL BE REVIEWED BY ENBRIDGE TO DETERMINE WHETHER THE APPLICATION WILL BE APPROVED.

APPLICANT INFORMATION**Grantee* Full Legal Name for Agreement:****Regulator:****Other:****Grantee Address for Service:****Grantor/Enbridge Entity****Application by Broker/Land Consultant**Yes ☐ No ☐**Broker/Land Consultant Name:****Contact Person Name:****Contact Person Phone Number:****File Number:****Broker/Land Consultant Address:****CROSSING INFORMATION****Expected construction start and end date(s):****Permanent Installation** ☐**Temporary Activities** ☐Crossing ☐Drainage Tile ☐Pole/Pile Installation ☐Other ☐Workspace ☐Equipment Crossing ☐Access of ROW ☐Geophysical ☐Road Use ☐Proximity ☐Other ☐**Location indicator including affected legal land description(s), PIN and GPS Coordinates (Latitude and Longitude Decimal Degree):****Grantor's Affected Disposition(s) (Alberta) (i.e. PLA # or License # or Line #):****Grantee's Field Contact Information:**

Name:

Phone:

Email:

Details of Grantee's Proposed Permanent Installation and/or Purpose of Temporary Activities**Method of Installation*** *(For permanent installations)*Open Cut ☐ HDB ☐ HDD ☐**Drawing(s) Attached**Yes ☐ No ☐**Drawing Requirements Met ***Yes ☐ No ☐**Equipment Specification and Data Sheet Attached ***Yes ☐ No ☐ N/A ☐**Notes/Additional Information:****SUBMIT TO:**

LIQUIDS PIPELINES WESTERN CANADA (Alberta, Saskatchewan, Manitoba and Norman Wells)	LIQUIDS PIPELINES EASTERN CANADA (Ontario and Quebec)
Department: Lands & ROW	Department: Lands & ROW
Address: 330, 10180 – 101 Street Edmonton AB T5J 3S4	Address: 1 st Floor, 1086 Modeland Road, Bldg 1050 Sarnia ON N7S 6L2
Email: crossingrequests@enbridge.com	Email: est.reg.crossing@enbridge.com

Equipment Specification and Data Sheet(s)



In order to properly conduct an analysis on the requested crossing the following general information and appropriate data sheets are required to be completed.

Steps:

1. Complete the *Applicant – Information and Details* document for each crossing application
2. Add and complete the *Data Sheet – Equipment or Vehicle with Tires* for EACH piece of equipment
3. Add and complete the *Data Sheet – Equipment with Tracks* for EACH piece of equipment
4. Return fully completed general information and data sheets and any other pertinent information

Applicant Information

Applicant Name:	
Applicant Contact Person Name:	
Email:	
Phone Number:	
Applicant Reference/File Number:	

Details

Description and Purpose of Crossing:				
Location Indicator (legal land description, PIN, etc.)				
GPS Coordinates:(Latitude and Longitude Decimal Degree)				
Duration:	Temporary		Permanent	
Start Date:		End Date:		
Equipment or Vehicle with Tires:	Yes	No	Datasheet:	
Equipment with Tracks:	Yes	No	Datasheet:	

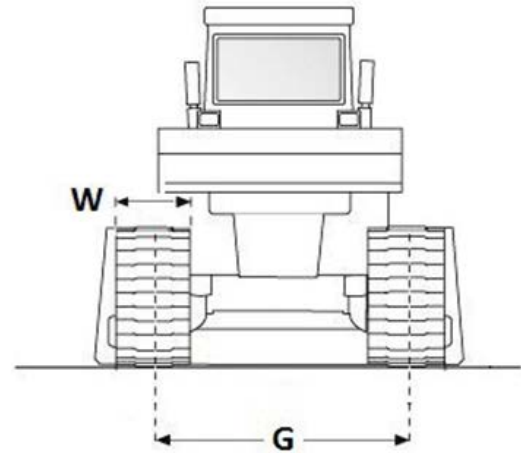
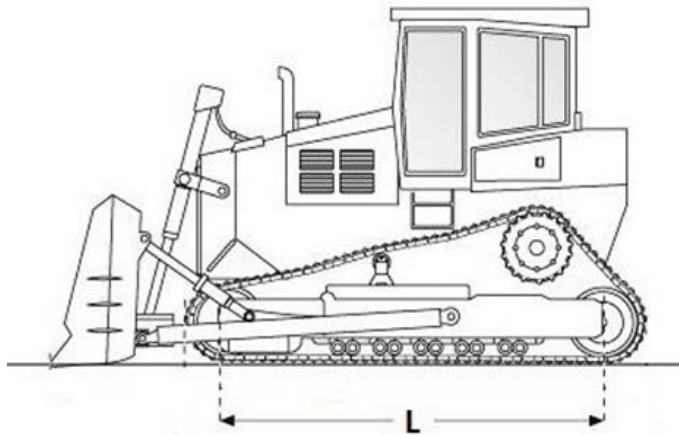
Data Sheet – Equipment with Tracks

Complete this data sheet for each piece of equipment with tracks.

Equipment with Tracks

INDICATE UNITS

Manufacturer:			
Model:			
Equipment Description:			
Fully Loaded Gross Vehicle Weight:			
	Track Shoe Width (refer to W below)	Track Length on Ground (refer to L below)	Track Gauge (on center) (refer to G below)
Units			
Track			



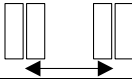
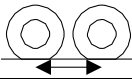
Data Sheet – Equipment or Vehicle with Tires

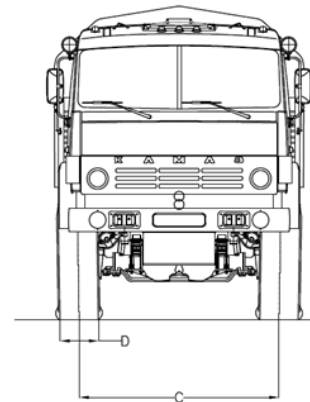
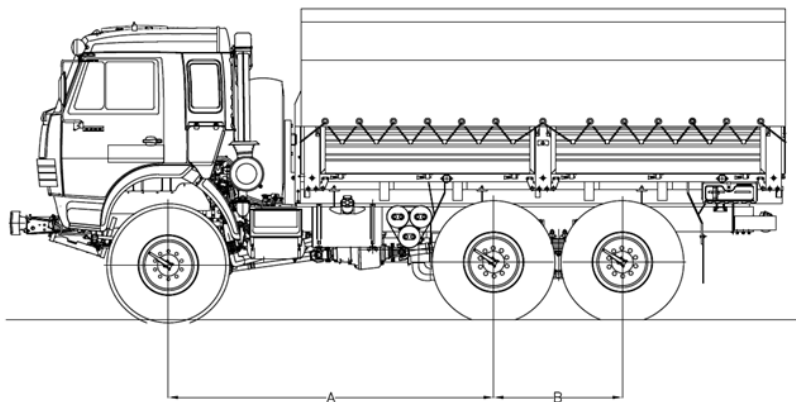
Complete this data sheet for **EACH** piece of equipment or vehicle with tires.

EXCLUSION: pick up trucks of one ton or less

Equipment or Vehicle with Tires

INDICATE UNITS

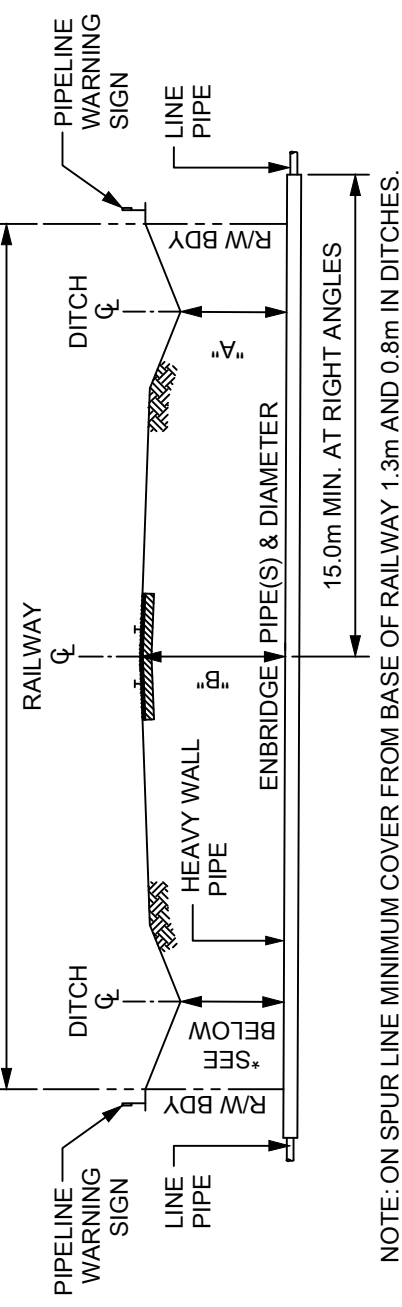
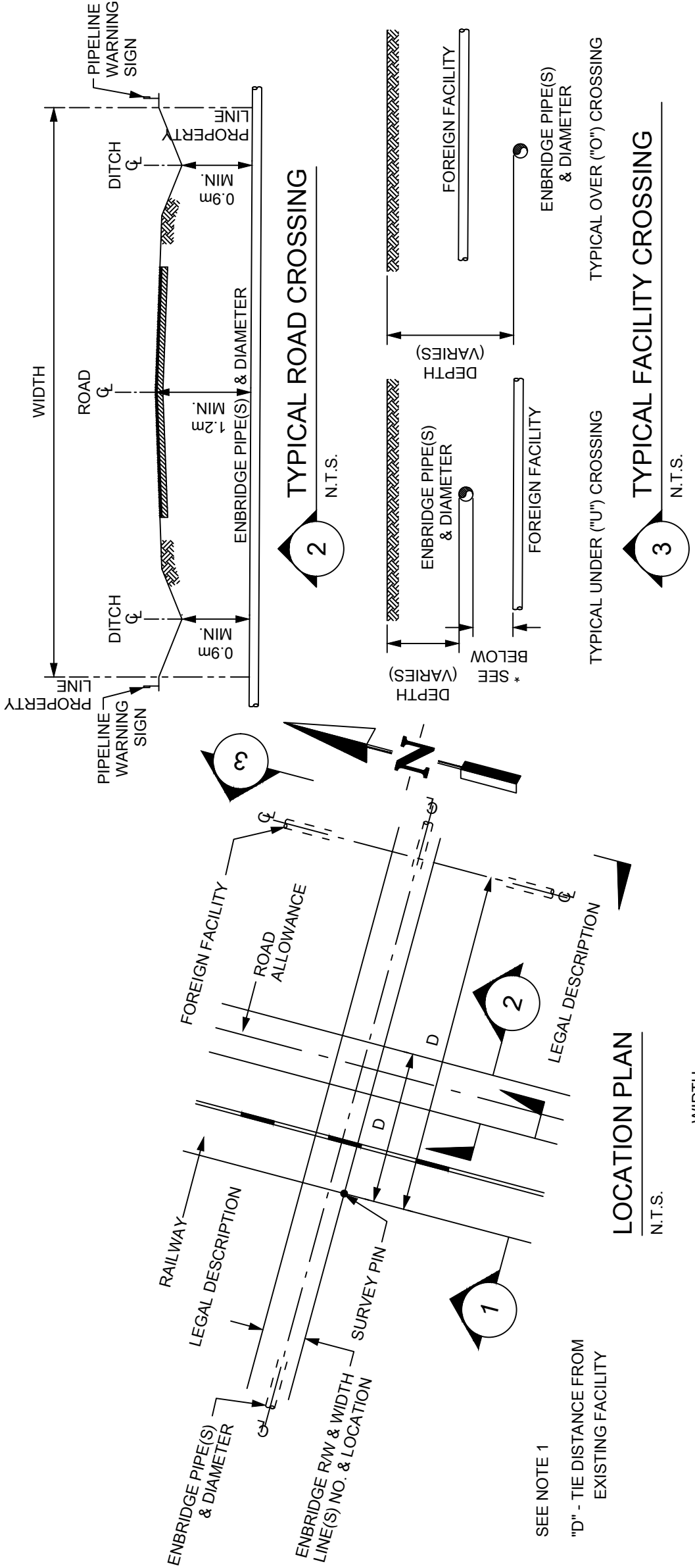
Manufacturer:						
Model:						
Equipment Description:						
Fully Loaded Gross Vehicle Weight:						
Road legal without overweight permit?		Yes			No	
Axle	Maximum Loaded Weight PER Axle	Number of Tires PER Axle	Tire Width (refer to D below)	Tire Pressure	Distance between Tire Set Centerlines (refer to C below) 	Centerline Distance to Previous Axle (refer to A below) (refer to B below) 
Units						
Steering						
2 nd						
3 rd						
4 th						
5 th						
6 th						
7 th						



NOTE:

1.ENBRIDGE PIPELINES
OPERATE UNDER HIGH PRESSURE
THEREFORE ENBRIDGE
REPRESENTATIVE(S) MUST BE
PRESENT DURING CONSTRUCTION.

2.THIS DRAWING IS FOR
REFERENCE ONLY. ACTUAL SITE
DETAILS OR REQUIREMENTS MAY
VARY.

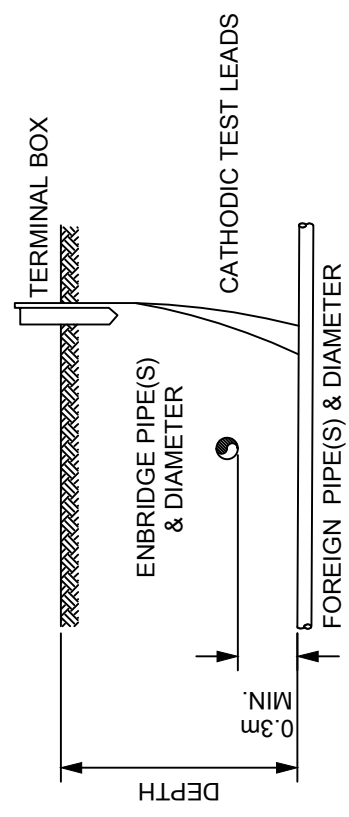


TYPICAL MAINLINE RAILWAY CROSSING

N.T.S.

* MINIMUM CLEARANCE:			
	"A"	"B"	
CASED	0.91m	1.68m	
UNCASED	1.83m	3.05m	

* MINIMUM CLEARANCE:
-0.3m IF OPEN CUT ABOVE ENBRIDGE PIPES
-0.6m IF OPEN CUT BELOW ENBRIDGE PIPES
-1.0m IF HDD UNDER ENBRIDGE PIPES
-3.0m IF HDD UNDER ENBRIDGE PIPES

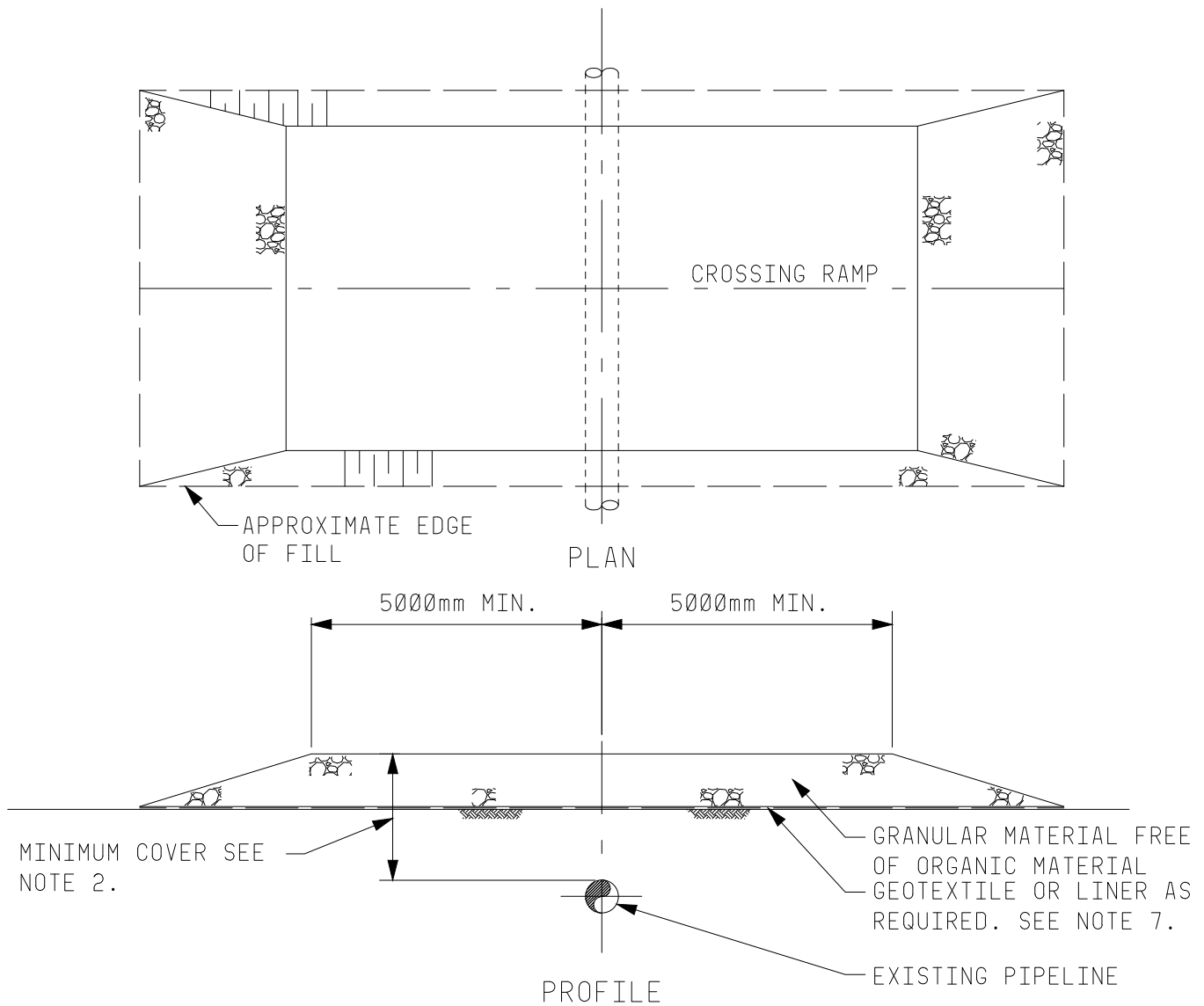


TYPICAL TEST LEAD CONNECTION

N.T.S.

(STEEL PIPELINES)

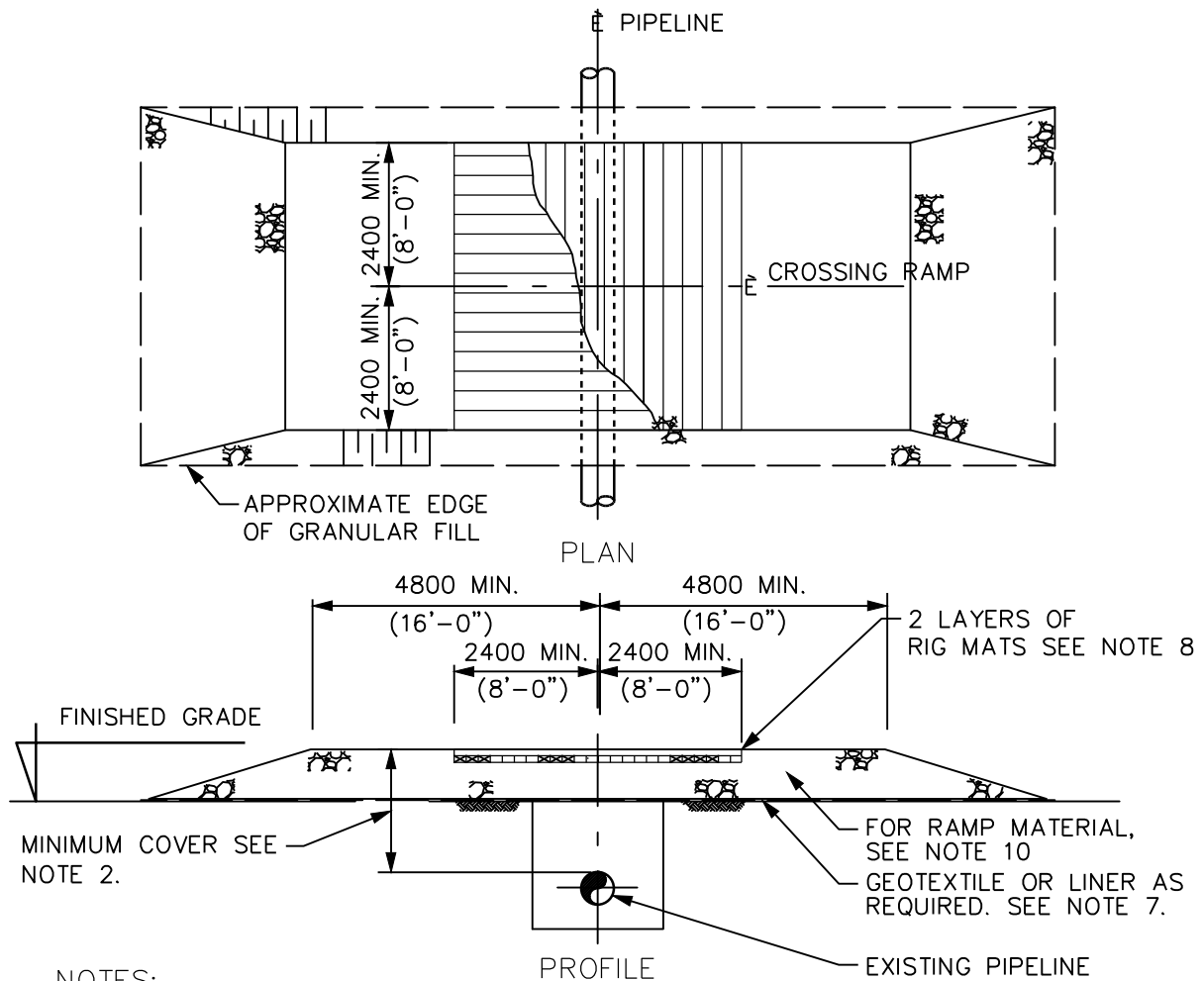
REFERENCE DRAWINGS			
3	AS BUILT	INTERNAL DRAFTING	DR434
			12 AUG 18
			BLB
2	REVISION	CD 02505243 & REVISED AS PER SAWMILL	08 APR 13
			DRD/TD
1	REVISED	AS PER OPERATIONS INFORMATION	05 MAY 10
			DRD/TD
DES	DESIGN	DATE	CHK
NO	DESCRIPTION	BY	APPR
COPYRIGHT © THIS DRAWING IS THE PROPERTY OF ENBRIDGE AND SHALL NOT BE REPRODUCED EITHER IN WHOLE OR IN PART WITHOUT PRIOR WRITTEN CONSENT OF ENBRIDGE.			
ENBRIDGE			
TYPICAL CROSSING DETAILS FOR THIRD PARTY APPLICANTS CROSSING ENBRIDGE PIPELINES CANADA			
BY/ME	CHK: EH	ENG: HCF/ROST	ENB APPR: GAF/ALLDER
DATE: 30 AUG 88	SCALE: 1/8"	STATUS: AS BUILT	
DWG NO:	B-1.02-5052-0		REV NO: 3



NOTES:

1. ON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL REMOVE COMPLETE RAMP AND RESTORE AREA TO ORIGINAL CONDITION.
2. MINIMUM COVER SHALL BE AS SPECIFIED IN THE CROSSING AGREEMENT.
3. LENGTH OF RAMP TO VARY IN ACCORDANCE WITH CROSSING ANGLE.
4. RAMP WIDTH SHALL BE MINIMIZED AS MUCH AS POSSIBLE, AND SHALL NOT ENCROACH BOUNDARIES SET IN THE CROSSING AGREEMENT.
5. RAMP SIDE SLOPE SHALL NOT BE STEEPER THAN 1V:4H.
6. RAMP SHALL BE COMPACTED, AND HAVE A CROSS FALL TO ENSURE THAT WATER WILL NOT POND ON THE RAMP CAUSING EXCESSIVE RUTTING.
7. A GEOTEXTILE OR LINER BARRIER TO BE INSTALLED AT THE DISCRETION OF THE ENBRIDGE FIELD REPRESENTATIVE.
8. REFER TO DRAWING A-1.8-43105 FOR FRENCH VERSION.
REFERE AU DESSIN A-1.8-43105 POUR VERSION FRANCAISE.

A-1.8-43105-0		TYPICAL DESIGN DETAIL		2	
REFERENCE DRAWINGS					
2	FRENCH TRANSLATION REFERENCE AS PER IDR 583	2019 JAN 11	BLB	ENB	
1	AS BUILT INTERNAL DRAFTING ID 304	20 MAR 18	GB	ENBRIDGE	
REV NO.	REVISION DESCRIPTION	DATE BY	CHK	APPR.	
COPYRIGHT © THIS DRAWING IS THE PROPERTY OF ENBRIDGE AND SHALL NOT BE REPRODUCED EITHER IN WHOLE OR IN PART WITHOUT PRIOR WRITTEN CONSENT OF ENBRIDGE.					
TYPICAL DESIGN DETAIL TYPICAL TEMPORARY CROSSING RAMP WITH EARTH					
BY: GB	CHK: GG	ENG. :	ENB APPR:		
DATE: 14 FEB 18	SCALE: NTS	STATUS: AS BUILT			
DWG. NO.:	A-1.8-42872-0				REV. NO. 2



NOTES:

1. ON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL REMOVE COMPLETE RAMP AND RESTORE AREA TO ORIGINAL CONDITION.
2. MINIMUM COVER SHALL BE AS SPECIFIED IN THE CROSSING AGREEMENT.
3. LENGTH OF RAMP TO VARY IN ACCORDANCE WITH CROSSING ANGLE.
4. RAMP WIDTH SHALL BE MINIMIZED AS MUCH AS POSSIBLE, AND SHALL NOT ENCROACH BOUNDARIES SET IN THE CROSSING AGREEMENT.
5. RAMP SIDE SLOPE SHALL NOT BE STEEPER THAN 1V:4H.
6. RAMP SHALL BE COMPACTED, AND HAVE A CROSS FALL TO ENSURE THAT WATER WILL NOT POND ON THE RAMP CAUSING EXCESSIVE RUTTING.
7. A GEOTEXTILE OR LINER BARRIER TO BE INSTALLED DURING SPRING, SUMMER AND FALL SEASONS.
8. RIG MATS SHALL BE STAGGERED OR PLACED IN A PERPENDICULAR ORIENTATION FROM THE PREVIOUS LAYER SO THAT THE EDGES DO NOT LINE UP.
9. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.
10. SNOW OR ICE CAN BE USED AT THE DISCRETION OF THE ENBRIDGE FIELD REPRESENTATIVE.
11. REFER TO DRAWING A-1.8-43106 FOR FRENCH VERSION.
REFERE AU DESSIN A-1.8-43106 POUR VERSION FRANCAISE.

A-1.8-43106-0 TYPICAL DESIGN DETAIL			
REFERENCE DRAWINGS			
3	AS BUILT DR. IDR 743	20 JUN 19 MF	AE ENB
2	FRENCH TRANSLATION REFERENCE AS PER IDR 583	11 JAN 19 MM	BLB ENB
1	AS BUILT INTERNAL DRAFTING ID 304	20 MAR 18 BLB	GB ENBRIDGE
REV. NO.	REVISION DESCRIPTION	DATE BY	CHK APPR.
COPYRIGHT © THIS DRAWING IS THE PROPERTY OF ENBRIDGE AND SHALL NOT BE REPRODUCED EITHER IN WHOLE OR IN PART WITHOUT PRIOR WRITTEN CONSENT OF ENBRIDGE.			
ENBRIDGE			
TYPICAL DESIGN DETAIL TYPICAL TEMPORARY CROSSING RAMP WITH RIG MATS			
BY: GB	CHK: GG	ENG.:	ENB APPR:
DATE: 14 FEB 18	SCALE: NTS	STATUS: AS BUILT	
DWG. NO.:	A-1.8-42873-0		REV. NO.: 3