ENBRIDGE PIPELINES (VIRDEN) INC.
Proposed Pipeline Project
16-10-09-28 W1M to 15-10-09-28 W1M
Near Cromer, Manitoba

Manitoba Innovation, Energy and Mines
Project Application

Date: March 15, 2012

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1. Background

Enbridge Pipelines (Virden) Inc. ("EPVI") proposes to build the following facility (the "Project"):

- A 4 inch diameter pipeline (WD-06) that is approximately 488 metres in length originating at 16-10-09-28 W1M and tying into another existing pipeline (WD-02) at 15-10-09-28 W1M, in order to create a continuous flow from the Magellan Resources Ltd. ("Magellan") battery at 16-10-09-28 W1M to the Enbridge Pipelines Inc. ("EPI") Cromer Terminal.

This document serves as an application to Manitoba Innovation, Energy and Mines – Petroleum Branch for approval for the above noted facility. The application was prepared in accordance with the following acts and regulations:

- Section 149 (2) of the Oil and Gas Act (applicable to the proposed pipeline).

This document provides: detailed information regarding the applicant, EPVI; detailed plans and information regarding the proposed Pipeline; a summary of landowners and occupants correspondence; and, a summary of other approvals and permits being applied for concurrently.

2. Applicant Information

EPVI is a subsidiary of Enbridge Pipelines (Saskatchewan) Inc. ("EPSI"). EPSI owns and operates crude oil and liquids pipeline systems in Southeastern Saskatchewan and Southwestern Manitoba. These EPSI systems are comprised of approximately 356 km of trunk line and approximately 1,900 km of crude oil and natural gas liquids gathering system pipeline, plus associated terminals and storage facilities. The crude oil and natural gas liquids are transported to Cromer, Manitoba and then to Eastern Canada and the United States via connecting pipeline systems.

2.1 Technical Qualifications

The EPSI gathering system was built in 1955 to transport crude oil and natural gas liquids to Eastern markets. EPSI has many years of experience designing and operating pipeline facilities in a safe and efficient manner.

2.2 Financial Qualifications

EPSI is part of Enbridge Income Fund Holding Inc. ("EIFH"), which holds a portfolio of energy infrastructure assets. EIFH's portfolio consists of a 50% interest in the Alliance Canada Pipeline, a 100% interest in EPSI and Green Power assets which include a 50%

interest in NRGreen Power Limited Partnership and interests in three wind power projects in Western Canada.

3. Project Need

The proposed Project will allow EPVI to create a continuous flow from the Magellan battery at 16-10-09-28 W1M through an existing pipeline to the delivery point at Enbridge Pipelines Inc. ("EPI") Cromer Terminal, and ultimately, to markets in Canada and the US.

4. Pipeline Description

4.1 Physical Description

EPVI proposes to construct a 4 inch pipeline from 16-10-09-28 W1M to 15-10-09-28 W1M, in order to transport crude oil from the Magellan battery at 16-10-09-28 W1M to the EPI Cromer Terminal. This new pipeline will be approximately 488 metres in total length.

Additional details regarding pipeline construction and operation are provided below.

4.1.1 Survey and Legal Description

The proposed pipeline will originate at 16-10-09-28 W1M and will tie-in to an existing pipeline at 15-10-09-28 W1M. The survey of the proposed pipeline route is provided in Appendix A and includes the location of all road and plan crossings within proximity to the pipeline right of way.

4.1.2 Substance Description

The proposed pipeline will transport crude oil produced from southwestern Manitoba. It is a light blend of crude oil with a sulphur content of 0.222 % by weight, 0.8217 specific gravity at 15°C, 40.72 API gravity at 15°C, and trace amounts of BS&W.

4.1.3 Proposed Pipeline Construction

The total length of the pipeline will be approximately 488 m and will include: two third-party pipeline crossings; one access road crossing; and two buried cable crossings. There will be an installation of above ground facilities at 16-10-09-28 W1M which includes a Lease Automated Custody Transfer ("LACT") building, a shipping pump, a charge pump, and an electrical panel. The pipeline tie-in at 15-10-09-28 W1M will be a Y-lateral tie-in, below grade. A schematic of the pipe configuration as well as a typical

profile and cross-section of the pipeline installation for pipeline, road allowance, and buried cable crossings is provided in Appendix B. The pipeline will be constructed using generally accepted installation practices, as per CSA Z662-11, with the pipeline having a minimum depth of cover of 1.5 metres, where at road crossings, the pipeline will be bored. EPVI will acquire the necessary crossing agreements and ensure that there is a minimum of 0.3 m cover between the crossing utilities.

The pipeline is proposed to be constructed of NPS 4 steel pipe. Specifically, the pipe will be 114.3 mm (outside diameter) x 6.0 mm wall thickness and will be constructed of Grade 359, Category II, YJ-1 coated steel pipe as per CSA Regulation Z245.1 – Steel Line Pipe. The pipeline will be designed for 4,960 kPag maximum operating pressure. The pipeline will be hydrostatically tested at 7,737 kPag (1.56 x MOP) for 4 hours of strength test and 4 hours of leak test as outlined in CSA Guideline Z662-11 – Oil & Gas Pipeline Systems.

4.1.4 Pipeline Operation

The proposed pipeline is expected to operate at a rate between 40 m^3/D and 60 m^3/D. The pipeline will be continuously flooded with the product, and is expected to be flowing for a period of 10 to 12 hours every day.

4.2 Pipeline Safety Systems

4.2.1 Corrosion Control

The pipeline will be externally coated with Shaw Yellow Jacket (YJ-1) and all girth welds will be coated using Densyl Tape (All Purpose Petrolatum Tape). In addition, cathodic protection will be provided by the rectifier system currently installed on the WD-02 pipeline segment, the pipeline in which the proposed WD-06 pipeline segment will tie-in to. The proposed corrosion control system will comply with Clause 9.0 of CSA Guideline Z662-11 – Oil & Gas Pipeline Systems.

4.2.2 Leak Detection and Emergency Shutdowns

EPVI will have a robust leak prevention and detection system in place along with an Emergency Shutdown plan for the pipeline. The proposed plan will include the following:

- Pigging of the pipeline at regular intervals to remove any build up of potentially corrosive material on the pipeline
- Pressure indicating transmitters to track any unexpected pressure loss in the pipeline

This information will be used to plan maintenance, automatically shutdown the pipeline and/or alert the Control Room operators of abnormal situations.

5. Landowner and Occupant Consultation Program

The consultation program for this Project was designed and implemented to ensure all potentially affected parties were engaged and provided with detailed and timely information respecting the Project.

DESIGN & IMPLEMENTATION OF THE CONSULTATION PROGRAM

Through experience gained from other projects in the Southwestern Manitoba area, the anticipated impacts on stakeholders were identified and assessed to determine expected levels and areas of public interest in the Project. Enbridge Virden also took into account the nature and type of work to be undertaken as part of the construction and operation of the Project. An appropriate consultation program was then designed. The following is a list of the drivers that influenced the design of the consultation program:

- As the Project work and new pipeline construction proposed are modest in scope, the nature, magnitude and potential impacts associated with the Project are not expected to be extensive or long-lasting.
- The Project's impacts with respect to construction noise, dust, traffic, and disruptions due to equipment movement are expected to be low. There will be an increase in noise arising from construction activities but it will cease immediately upon construction completion.
- At any given time, the work force on site will not exceed 10 people. The Project will have a negligible impact on local infrastructure (such as roads, power utilities, water, and solid waste facilities) and on local services (such as accommodation, recreation, emergency and health care).
- The construction crews would be working no more than six days a week, during daylight hours; the construction window will be roughly two weeks.
- Enbridge has typically had positive relationships with local landowners and regional stakeholders.

- There is a significant amount of oil and gas development taking place in this area, which means the landowners are sensitized to development of this nature.

STAKEHOLDER GROUPS CONSULTED & METHOD OF CONSULTATION

The following stakeholders have been identified by Enbridge Virden as being potentially affected by the Project:

DIRECTLY IMPACTED LANDOWNER

The Project scope of work will require construction activities to occur on one parcel of land that is owned by a single landowner. Enbridge Virden personally consulted with this landowner regarding the Project and an easement agreement has been negotiated and acquired. Enbridge Virden will continue to consult directly with the landowner and provide Project updates as required.

PRIMARY STAKEHOLDER GROUPS

Landowners and Tenants within a 1.5 km radius of the tie-in points and a 0.5 km distance along the centerline of the pipeline.

- Project information packages were mailed to the respective landowners and tenants, within the radii described above.

OTHER STAKEHOLDERS GROUPS – potentially affected

Rural Municipality (RM) of Pipestone

- A project information package was mailed (the same package that was mailed to landowners and tenants).
- In addition, the RM has approved and signed a pipeline route drawing for the Project dated November 29, 2011.

SUMMARY OF COMPLETED ACTIVITIES & RESULTS

ACTIVITY	TIMING 2011	DETAILS	ISSUES AND/OR CONCERNS RAISED
Face-To-Face Visit with the directly impacted landowner	**Completed on March 5, 2012**	An Enbridge Virden land agent met with the directly impacted landowner to discuss the Project details, answer questions, and address any potential concerns. The During this time period the land agent also secured an easement agreement.	The landowner had no issues with Project
Mailed project information packages to: • **the directly impacted landowner** • **landowners and tenants within**	**Completed on February 13, 2012**	A description of the Project scope and a map of the proposed Project area were sent by regular mail to both the directly impacted and to the adjacent landowners located within the radii established by the Manitoba Innovation, Energy and Mines – Petroleum Branch.	To date no issues have been identified

ACTIVITY	TIMING 2011	DETAILS	ISSUES AND/OR CONCERNS RAISED
a 1.5 km radius of the tie-in points and 0.5 km from the centerline of the pipeline			
Received Written Project approval from the RM of Pipestone	**Completed November 29, 2011.**	A pipeline diagram was provided to the RM of Pipestone for their approval. The RM signed-off on the Project on November 29, 2011.	No issues were identified
	Completed February 13, 2012	The same Project information package that was mailed to the adjacent landowners and tenants was also mailed to the RM.	No issues were identified

6. Environment, Health and Safety

6.1 Environmental Plan

EPVI will utilize company manuals (Environmental Guidelines for Construction, Waste Management Plan, and Vegetation Management Plan) and procedures (Operating and Maintenance Procedures) to develop this project in an environmentally responsible manner. Relevant topics included in our documents include, but not are limited to:

- Site and right of way access
- Erosion and silt control
- Topsoil salvage
- Pipeline installation techniques
- Trench (Bell hole) water management
- Vegetation, habitat, and wildlife protection measures
- Environmental inspection
- Reclamation
- Spill reporting
- Emergency mitigation procedures

6.2 Emergency Response Plan

A site-specific Emergency Response Plan will be developed for the construction of the pipeline and will include the nearest hospital, emergency service numbers, and a map for specific emergency routes to and from the construction location.

7. Other Approvals

In addition to the Petroleum Branch approval, EPVI is either concurrently seeking or intends to seek the additional approvals and permits outlined below.

Manitoba Conservation and Watershed Stewardship

EPVI has contacted Manitoba Conservation but has not received confirmation on whether an Environmental License is required for this project. EPVI will follow up with Manitoba Conservation regarding the license requirements. Manitoba Innovation, Energy and Mines has also indicated that they will verify with Manitoba Conservation if an Environmental License is required during their application review. The proposed Project is less than 10 km in length and is located on cropland. Based on the information obtained to date, the scope of the Project does not appear to cross an

environmentally sensitive area. EPVI has conducted the following environmental reviews:

- A search of Manitoba Conservation Data Centre's rare species database which found no occurrences at this time for the area of work.
- The Manitoba Water Stewardship Division was contacted to check for any provincial waterways within the work area. Their response has not been received as of the date of this submission, however, work will not commence until their response is received by EPVI. If their response indicates that there is a provincial waterway in the work area, Manitoba Innovation, Energy and Mines will be contacted.

Manitoba Infrastructure and Transportation

EPVI intends to notify Manitoba Rural Municipalities and obtain required approvals.

Other Utilities and Right of Ways

EPVI intends to notify and obtain required crossing and proximity agreements for all utilities and existing rights of way.

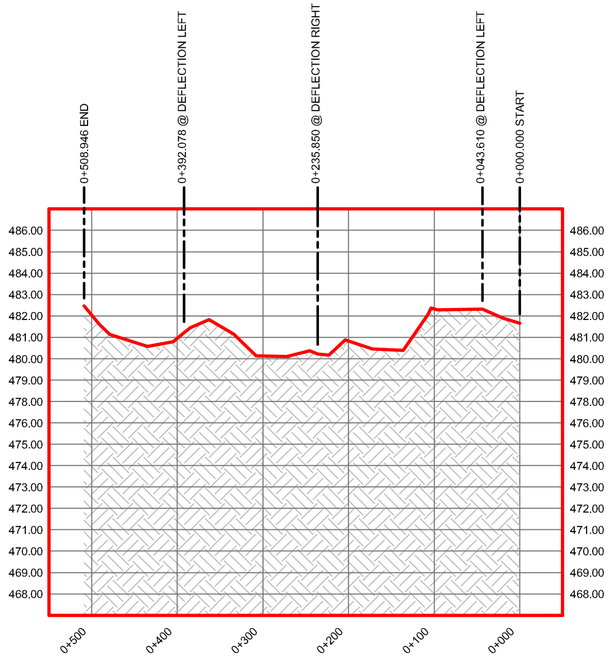
Affected Municipalities

Although the proposed pipeline is not located within 1.5 kilometers of any urban municipality, EPVI has received approval from the RM of Pipestone for the proposed project.

Department of Municipal Affairs, Culture and Housing (Heritage Branch)

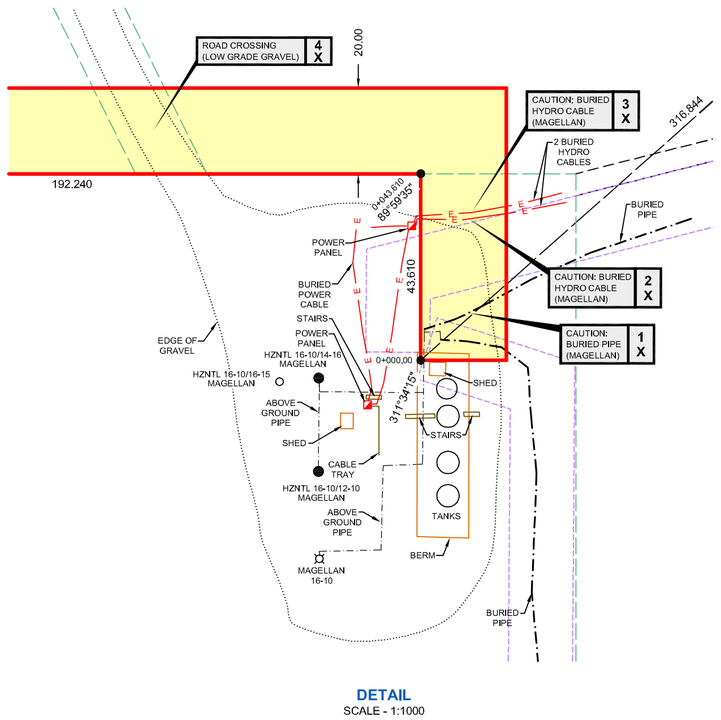
The Manitoba Historic Resources Branch was contacted and they have indicated that there are no previous recorded heritage sites within the areas proposed for development, the potential to impact significant heritage resources are deemed low and that they have no concerns with the project.

Appendix A
Preliminary Pipeline
Right of Way Survey Plan



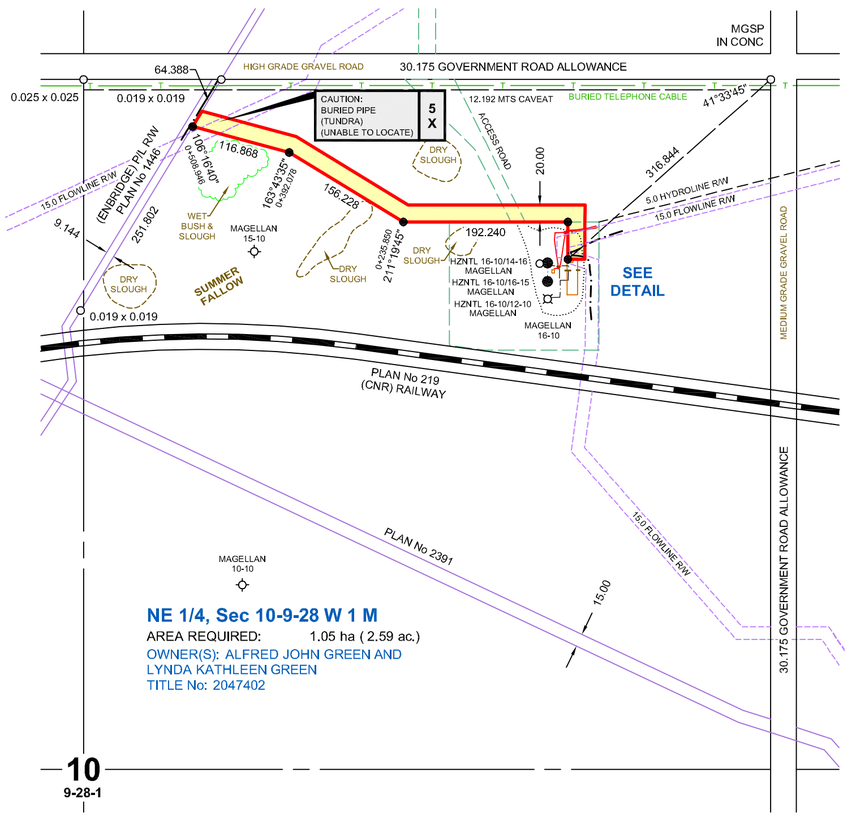
PROFILE 16-10-9-28 TO 15-10-9-28

VERTICAL SCALE 1:200
HORIZONTAL SCALE 1:5000



DETAIL

SCALE - 1:1000



NE 1/4, Sec 10-9-28 W 1 M

AREA REQUIRED: 1.05 ha (2.59 ac.)
OWNER(S): ALFRED JOHN GREEN AND LYNDA KATHLEEN GREEN
TITLE No: 2047402

BOOK OF REFERENCE

STATION TO STATION	DISTANCE (Meters)	R.O.W. Width	AREA Hectares	LEGAL DESCRIPTION	OWNER
0+000.000 - 0+508.946	508.946	20.0	1.05	NE 1/4, Sec 10, Twp 9, Rge 28, W 1M	ALFRED JOHN GREEN AND LYNDA KATHLEEN GREEN

CROSSING / REFERENCE DRAWINGS

No.	DESCRIPTION	LOCATION	DRAWING No:
1X	BUIRED PIPE - (MAGELLAN)	NE 1/4, Sec 10	SM-0168-11-XNG-1
2X	BUIRED HYDRO CABLE - (MAGELLAN)	NE 1/4, Sec 10	SM-0168-11-XNG-2
3X	BUIRED HYDRO CABLE - (MAGELLAN)	NE 1/4, Sec 10	SM-0168-11-XNG-3
4X	15.00 MADELLAN ACCESS ROAD (LOW GRADE GRAVEL)	NE 1/4, Sec 10	SM-0168-11-XNG-4
5X	BUIRED PIPE - (TUNDRA)	NE 1/4, Sec 10	SM-0168-11-XNG-5

REVISIONS

	DATE:	DESCRIPTION	JOB NO.
0	November 21, 2011	- PLAN ISSUED	SM-0168-11-CON
1			
2			

LEGEND:

Survey Monuments found shown thus: ○
Survey Monuments planted shown thus: ●
0.025 x 0.025 Iron Posts planted shown thus: ■
Temporary Point shown thus: ⊠
Distances are in metres and decimals thereof.

Buried Pipe shown thus:
Buried Cable shown thus: C
Buried Electrical Cable shown thus: E
Buried MTS Cable shown thus: T
Hydro Pole shown thus:
Overhead Hydroline shown thus: P
Buried Utility Gas line shown thus:
Fence line shown thus: X
Tree / Bush line shown thus:
Portions referred to shown thus:
Temporary Work Space shown thus:

WELL LEGEND:

- ○ LOCATION
- ☼ GAS WELL
- ● OIL WELL
- ☼ INJECTION WELL
- ☼ GAS INJECTION WELL
- ⌑ SERVICE WELL
- ○ SUSPENDED WELL
- ○ ABANDONED WELL
- ✳ ABANDONED GAS WELL
- ☼ SUSPENDED GAS WELL
- ◆ ABANDONED OIL WELL
- ◉ SUSPENDED OIL WELL
- Ⓦ WATER WELL

FACILITIES SOURCE DATA

	Yes	No	N/A
Legal Plans	☑	☐	☐
Land Titles	☑	☐	☐
Manitoba Telephone	☑	☐	☐
Manitoba Hydro	☑	☐	☐
Wellsite Listing	☑	☐	☐
OTHER _____	☐	☐	☐

Distances shown as calc. are not to be included in total line lengths.

There are no urban or rural centres within 1.5 kms of the proposed pipeline right of way.

RIGHT OF WAY INFORMATION

		YES	NO
RIGHT-OF-WAY BOUNDARIES	FLAGGED	☐	☑
BURIED FACILITIES	LOCATED	☑	☐
	FLAGGED	☐	☑

NOTE: Positions of buried facilities shown are derived from interpretations of signals from electronic devices. Reception of electronic signals is subject to interference and has limitations, therefore it should not be assumed that all buried facilities are shown, and facilities which are shown should not be construed as "located" until physically exposed. All underground installations should be marked by the respective authorities prior to excavation or construction.

I certify that the survey represented by this plan is correct to the best of my knowledge and was completed on the 9th day of November, 2011.

David J. Quirk
Manitoba Land Surveyor
MIDWEST SURVEYS INC.

SURVEYED BY: TB | CALC'D. BY: CO | DRAWN BY: SM

TOTAL LENGTH OF RIGHT-OF-WAY ALONG POSTED BOUNDARY = 508.946

ENBRIDGE PIPELINES (VIRDEN) INC.

P. ENG.

PROJECT NAME: 4" WD-06 GATHERING LINE FROM 16-10-9-28 to 15-10-9-28 W 1 M Tie in | **FILE No: 11-22458**

PIPELINE CONSTRUCTION ALIGNMENT
PROPOSED 4" WD-06 GATHERING LINE
FROM MAGELLAN RESOURCES LTD. AT 16-10-9-28-W1M
TO TIE-IN AT 15-10-9-28-W1M
LOCATION PLAN

R.M. OF PIPESTONE

100 80 60 40 20 0 100 200 300

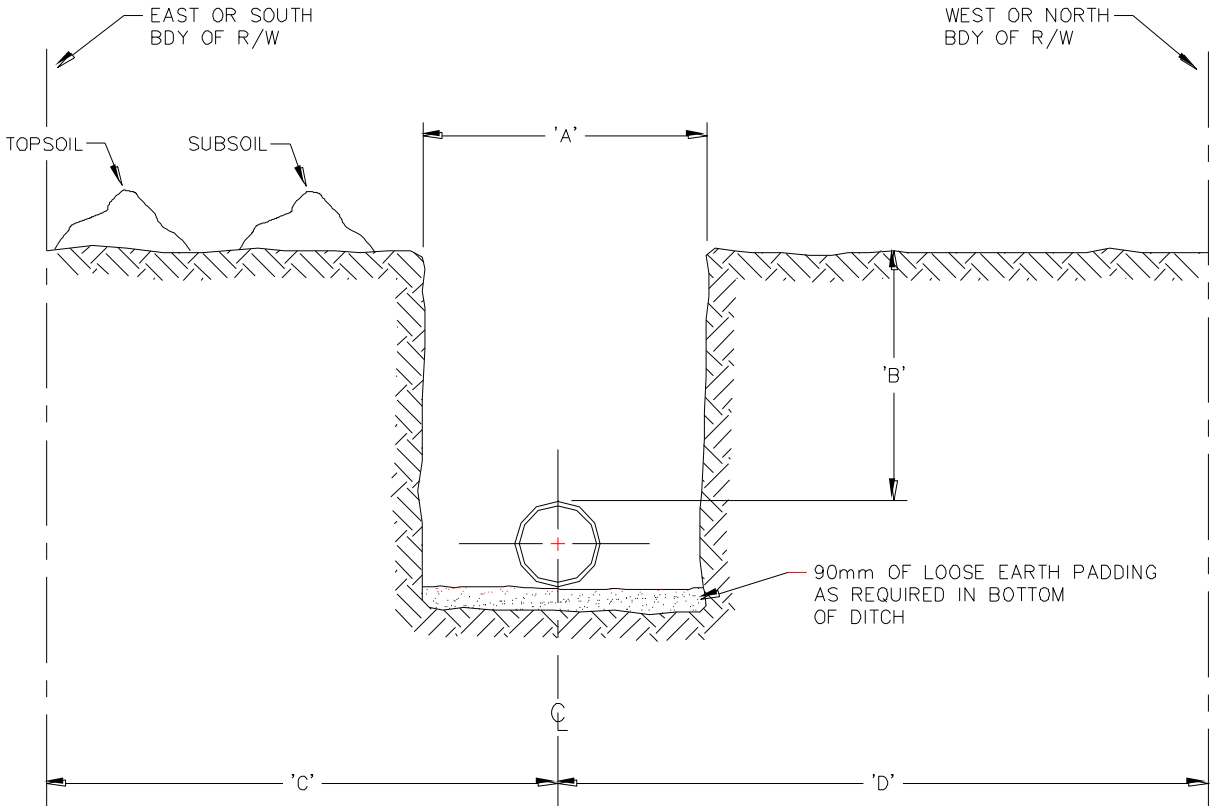
SCALE = 1:5000
SHEET No. 1 OF 1

MIDWEST SURVEYS INC.
David J. Quirk M.L.S.
ESTEVAN: (306) 634-2635 FAX: (306) 634-3164

REVISION 0

SM-0168-11-CON

Appendix B
Typical Pipeline Installation Cross-Sections



NOMINAL PIPE DIAMETER	MINIMUM DIMENSION 'B' IN EARTH	IN ROCK	MINIMUM DIMENSION 'A' IN EARTH IN ROCK
88.9mm	1.5m	.65m	375mm
114.3mm	1.5m	.65m	400mm
168.3mm	1.5m	.65m	450mm
219.1mm	1.5m	.65m	600mm
273.1mm	1.5m	.65m	600mm
323.9mm	1.5m	.65m	600mm

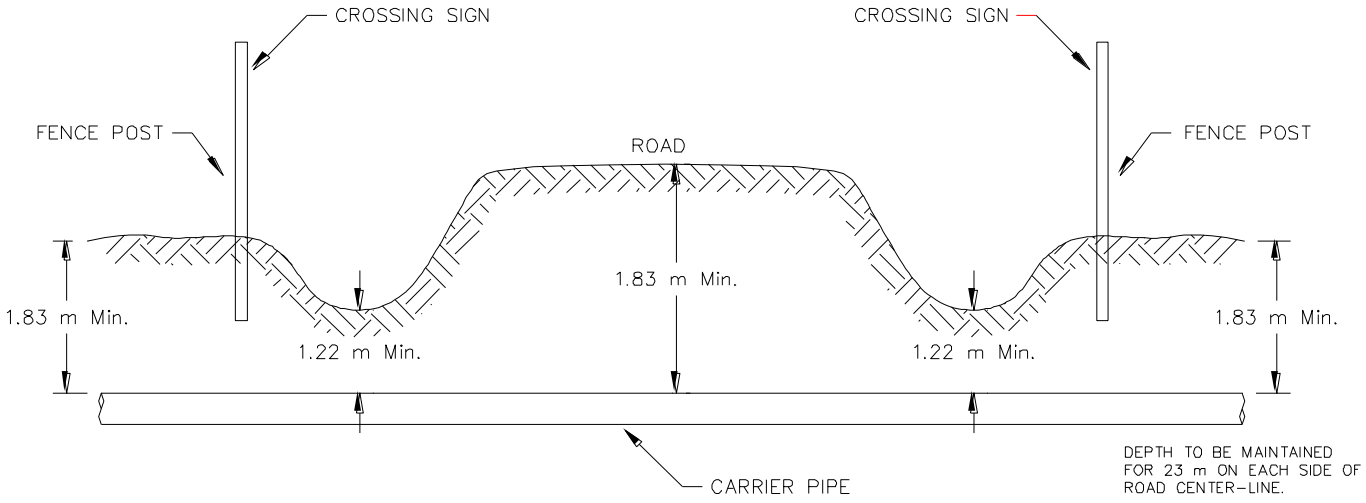
NORMAL PIPE LOCATION UNLESS OTHERWISE SPECIFIED BY COMPANY INSPECTOR OR BY CONTRACT DRAWING		
	DIMENSION 'C'	DIMENSION 'D'
TRUNK LINES	8m	7m
GATHERING LINES	8m	7m

REV	DESCRIPTION	BY	DATE	CHKD	APP
0	REDRAWN	MT	81-06-25		
1	CONVERTED TO METRIC	PJA	83-08-25		
2	DEPTH ADJUSTMENT		88-02-01		
3	REDRAWN ON CAD	JDM	93-12-01		
4	REVISED DWG TITLE AND PIPE LOCATION DIMS.	TJG	96-11-12		

TITLE

TYPICAL PIPELINE INSTALLATION
DITCH AND PIPE
CROSS SECTION

DRAWN BY	DATE	DWG. No.	REVISION
J.D. MICHEL	93-12-01	A-TYP-590-153	5
CHECKED BY	SCALE		
J. ZELAZNY	N.T.S.		



NOTES:

1. THIS DRAWING RELATES TO CROSSINGS OF PROVINCIAL HIGHWAYS, MUNICIPAL ROADS AND UNIMPROVED ROAD ALLOWANCES.
2. PIPE SHALL BE KEPT AT UNIFORM GRADE AND ON A STRAIGHT COURSE FOR A DISTANCE OF 15.2 m ON EACH SIDE OF THE CENTER LINE AT ROAD AS MEASURED AT RIGHT ANGLES TO IT.
3. ANY REMOVED PAVEMENT OR OTHER ROAD SURFACE SHALL BE REPAIRED OR REPLACED TO A CONDITION AS GOOD OR BETTER THAN BEFORE THE CROSSING.
4. BACKFILL SHALL BE THOROUGHLY TAMPED IN LAYERS NOT EXCEEDING 0.15 m TO PREVENT SETTLEMENT OF THE ROADWAY.

ROAD ALLOWANCE

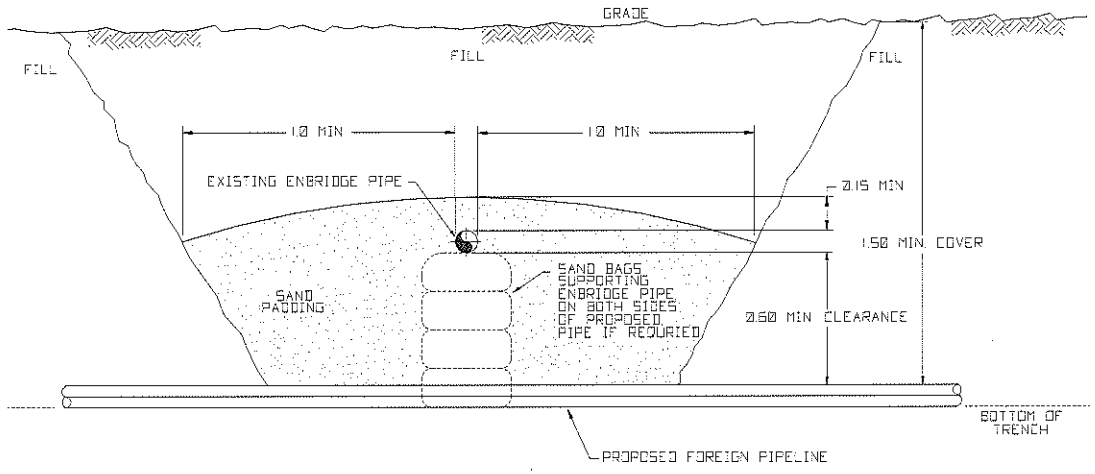
UNLESS OTHERWISE LOCATED BY COMPANY INSPECTOR AT LOWER DEPTH, PIPE SHALL BE INSTALLED WITH A MINIMUM COVER OF 1.83 m ACROSS ROAD ALLOWANCES ON WHICH NO ROADWAY HAS BEEN CONSTRUCTED. THE PROVISION OF NOTE 2 ABOVE SHALL ALSO BE MADE APPLICABLE TO SUCH ROAD ALLOWANCES.

ENBRIDGE

TITLE

TYPICAL PIPELINE INSTALLATION
ROAD CROSSING
CROSS SECTION

DRAWN BY	DATE	DWG. No.	REVISION
J.D. MICHEL	95-07-20	A-TYP-590-152	4
CHECKED BY	SCALE		
J. ZELAZNY	N.T.S.		



NOTES:

1. ALL DIMENSIONS IN METERS.
2. TRENCH AT EXISTING ENBRIDGE PIPELINE TO BE EXPOSED BY WATER WASHING OR BY HAND PRIOR TO ANY MECHANICAL EXCAVATION.
3. WHERE FOREIGN PIPELINE IS ALUMINUM, CLEARANCE SHALL BE INCREASED TO 0.6 m MINIMUM.
4. IN CASES WHERE EXISTING ENBRIDGE PIPELINE IS AT ABNORMAL DEPTH, THE NEW PIPELINE MAY BE ABOVE IF APPROVED BY ENBRIDGE. 0.6 m MINIMUM CLEARANCE SHALL BE MAINTAINED.
5. SAND PADDING NOT REQUIRED FOR STEEL PIPELINES. SELECTED FILL MATERIAL MAY BE SUBSTITUTED IF APPROVED BY ENBRIDGE.
6. ADEQUATE NOTICE SHALL BE GIVEN TO ENBRIDGE SO THAT THEIR REPRESENTATIVE MAY BE PRESENT WHEN CROSSING INSTALLATION IS MADE.
7. IF CATHODIC PROTECTION IS REQUIRED SEE DRAWING No. A-PP0-590 Sht 156
8. THE TEST LEADS, WHERE TEST LEADS TO FOREIGN LINES ARE REQUIRED, SHALL BE ATTACHED TO THE FOREIGN LINE BY EMPLOYEES OF FOREIGN COMPANY OR UNDER THEIR DIRECT SUPERVISION.
9. CROSSING SHALL BE MADE AT A 90° ANGLE (±5°). OTHER CROSSING ANGLES MAY BE APPROVED PROVIDED THE ANGLE WILL NOT HINDER LOCATING THE FACILITY IN THE FUTURE. CSA Z662 WILL NOT PERMIT CROSSINGS AT LESS THAN 45°.

REV	REVISION DESCRIPTION	BY	DATE	CHKD	APP
0	ORIGINAL ISSUE	JDM	1999-07-21	DAC	
1	REVISED NOTES	JDM	2011-04-13	TJB	
2	REVISED NOTES	JDM	2011-07-26	LM	

ENGINEERING RECORD

PROJECT	
AFE/FILE	DATE: 1999-07-21
DRAWN BY: J.D. MICHEL	DESIGNED BY
CHKD BY: D.A. COOK	ACAD DWG No: TYP590155b.DWG
ENGINEER	LAST UPDATE: 20110413 1536
J:\DWG\TYP\	SCALE: N.T.S

TITLE

ENBRIDGE PIPELINES (SASKATCHEWAN) INC
TYPICAL FOREIGN PIPELINE CROSSING
CROSS SECTION

DRAWING No	SHT.	REV
A-TYP-590	155b	2