

April 16, 2012

Ms. Mary Jo Kunkle
Executive Secretary
Michigan Public Service Commission
6545 Mercantile Way, Ste 7
Lansing, MI 48911

Re: MPSC Case No. U-17020
In Re Enbridge Energy, Limited Partnership

Dear Ms. Kunkle:

Enclosed for filing on behalf of Enbridge Energy, Limited Partnership in the above-referenced matter, please find:

1. Application Pursuant to 1929 PA 16; MCL 483.1 *et seq.* and Rule 601 of the Michigan Public Service Commission's Rules of Practice and Procedure, R 460.17601 to Replace, Construct and Operate Certain Pipeline Segments for the Transportation of Crude Oil and Petroleum in Berrien, Cass, St. Joseph, Kalamazoo, Calhoun, Jackson, Ingham, Oakland, Macomb, St. Clair Counties, Michigan;
2. Direct Testimony of Mark Sitek with exhibits;
3. Direct Testimony of Thomas Hodge with exhibits;
4. Direct Testimony of Douglas B. Aller with exhibits; and
5. Direct Testimony of Rachael Shetka with exhibits.

If you have any questions, please feel free to contact my office. Thank you.

Very truly yours,

Fraser Trebilcock Davis & Dunlap, P.C.



Michael S. Ashton

MSA/ab
Enclosures

STATE OF MICHIGAN
BEFORE
THE MICHIGAN PUBLIC SERVICE COMMISSION

IN RE ENBRIDGE ENERGY, LIMITED)	
PARTNERSHIP)	
)	Case No. U-17020
APPLICATION PURSUANT TO 1929 PA)	
16; MCL 483.1 <i>et seq.</i> and Rule 601 of the)	
Michigan Public Service Commission’s)	
Rules of Practice and Procedure, R)	
460.17601 to Replace, Construct and)	
Operate Certain Pipeline Segments for)	
the Transportation of Crude Oil and)	
Petroleum in Berrien, Cass, St. Joseph,)	
Kalamazoo, Calhoun, Jackson, Ingham,)	
Oakland, Macomb, St. Clair Counties,)	
Michigan)	

I.
INTRODUCTION

1. Pursuant to 1929 PA 16; MCL 483.1 *et seq.* and Rule 601 of the Michigan Public Service Commission’s (“MPSC” or “Commission”) Rules of Practice and Procedure, R 460.17601, Enbridge Energy, Limited Partnership (“Enbridge” or “Applicant”) hereby respectfully requests authority to construct, own and operate approximately 110 miles of new 36-inch diameter pipeline and 50 miles of new 30-inch diameter pipeline, all of which replace certain 30-inch diameter pipeline segments of its existing crude oil and petroleum pipeline¹ known as Line 6B in the counties of Berrien, Cass, St. Joseph, Kalamazoo, Calhoun, Jackson, Ingham, Oakland, Macomb and St. Clair., Michigan.² This project will reduce the level of future maintenance activities that would otherwise be

¹ Crude oil is a form of petroleum. For the ease of reference in this application, the crude oil and petroleum pipeline is sometimes referred to as simply a crude oil pipeline.

² Line 6B originates at Griffith, Indiana and extends to the east to traverse northwestern Indiana, southern Michigan, to ultimately cross the US-Canadian International Border at Marysville, Michigan, where it terminates at an affiliated Enbridge terminal in Sarnia, Ontario.

required while meeting the current and forecasted capacity needs of Enbridge shippers.

2. This Application addresses the replacement of five separate, noncontiguous pipeline segments, which vary in length, and are referred to as Segments 2B in Berrien and Cass Counties; Segment 3A in Cass and St. Joseph Counties; Segment 4A in Kalamazoo and Calhoun Counties; Segment 5A in Calhoun, Jackson and Ingham Counties; and Segment 8 in Oakland, Macomb and St. Clair Counties. This Application also addresses the installation of certain new station facilities at the existing station sites of Niles Pump Station in Cass County; Mendon Pump Station in St. Joseph County; Stockbridge Pump Station and Terminal Facility in Ingham County; Howell Pump Station in Livingston County; Ortonville Station in Oakland County; and St. Clair Station in St. Clair County, Michigan. (See Exhibit A-2 of this Application for more detailed information on project description and facilities.)

3. As a component of its long-term integrity management program, Enbridge has been working to replace certain pipeline segments of its Line 6B in the states of Indiana and Michigan. The first phase of these replacement projects was designed to manage and maintain the future integrity of Line 6B under the Line 6B 2012 Maintenance and Rehabilitation Program ("2012 Program"). This first phase focused on replacing seven, noncontiguous pipeline segments of Line 6B, totaling approximately 75 miles of pipeline between Griffith, Indiana and Ortonville, Michigan. Under this first replacement project, the first 10 miles included Segment Nos. 1 and 2, which are located in Indiana. The remaining sixty-five miles, which included Segment Nos. 3 through 7, are located in Michigan and were filed with this Commission in two separate applications referenced as Case Nos. U-16838³ and U-16856,⁴ respectively.⁵

³ The first project, known as the 50-mile Stockbridge to Ortonville Replacement Project, was filed with the MPSC on August 12, 2011, as Case No. U-16838, seeking authority to replace approximately 50 miles of Line 6B with new 30-

4. Subsequent to filing these integrity-driven maintenance projects, Enbridge continued to evaluate the operation of the remaining Line 6B segments under its maintenance and rehabilitation program. Consistent with that program, Enbridge examined comprehensive and integrated integrity results, including internal inspection data, and projected future maintenance activities on these remaining segments. Concurrently, Enbridge evaluated the long term capacity requirements of its shippers. Based on these evaluations and the current capacity limitations of Line 6B, Enbridge decided to replace the remaining segments. The remaining pipeline segments Enbridge plans to replace are as follows:

- a. Griffith to Stockbridge (Pipeline Segments 2B, 3A, 4A, 5A) with a new 36-inch diameter pipeline, which is consistent with the same size of pipeline this Commission approved for the 15-mile Niles, Mendon and Marshall Replacement Project (U-16856).⁶
- b. Ortonville to St Clair River (Pipeline Segment 8) with a new 30-inch diameter pipeline, which is consistent with the same size of pipeline pending approval before this Commission for the 50-miles Stockbridge to Ortonville Replacement Project (U-16838).⁷

inch diameter pipeline in the counties of Ingham, Livingston and Oakland. This application is pending before the Commission.

⁴ The second project, known as the 15-mile Niles, Mendon and Marshall Replacement Project, was filed with the MPSC on August 26, 2011, as Case No. U-16856, seeking authority to replace three 5-mile pipeline segments of Line 6B with new 36-inch diameter pipeline in the counties of Cass, St. Joseph and Calhoun, Michigan. Replacement of these pipeline segments with new 36-inch diameter pipeline is in the public interest because it avoids additional landowner and environmental impacts that may otherwise occur by replacing newly installed 30-inch diameter pipe with new 36-inch diameter pipe, in order to meet future shipper demand in this region. This project was approved by this Commission pursuant to a December 6, 2011, Order Approving Settlement Agreement.

⁵ Both of these projects are major components of Enbridge's long-term integrity management program for Line 6B resulting in reliable transportation of much of the crude oil feedstock used by regional refineries.

⁶ See Footnote No. 4

⁷ See Footnote No. 3.

Replacement of these segments was selected in order for Enbridge to restore the original ultimate pipeline capacity of Line 6B. Enbridge further concluded that by replacing the Griffith to Stockbridge portion of Line 6B with new 36-inch diameter pipeline and replacing the last 50 miles with new 30-inch diameter pipeline, along with installing new facilities at existing station locations, it would be able to meet its shippers' forecasted demands for additional pipeline capacity in the future. Enbridge plans to deactivate the 5 remaining noncontiguous pipeline segments in place, and maintain its cathodic protection over the long-term. This is consistent with the maintenance procedures Enbridge plans to implement for its 75-mile Replacement Project, which this Commission approved in Case No. 16856 for the 15-Mile Niles, Mendon and Marshall Replacement Project, and is pending approval in Case No. 16838 for the 50-Mile Stockbridge to Ortonville Replacement Project (see Footnotes 3 and 4 for more details).

5. Enbridge's decision to replace these segments minimizes the amount and frequency of future maintenance activities. While ongoing integrity inspections, testing and maintenance achieves required safety standards, replacement of the remaining Line 6B segments is the more cost-effective option to meet the current and future capacity requirements of its shippers.

6. Enbridge has conducted numerous discussions and meetings with its shippers⁸ regarding their current and future transportation requirements on Line 6B. These discussions have played an important role in Enbridge's decision to replace the remainder of the Line 6B pipeline segments because shippers have expressed a present need for additional pipeline capacity. However, with Line 6B expected to operate at pressures below

⁸ Shippers are defined to mean producers, refiners and marketers who schedule the transportation of crude oil supplies from a point of receipt to a point of delivery on a common carrier pipeline system. Such scheduling of transportation service is based on month to month nominations. Shippers include producers of crude oil in North America and refiners or marketing companies that sell, purchase and/or transport crude oil volumes for themselves or others.

the previous maximum operating pressure, the available pipeline capacity on Line 6B would be reduced. By replacing the remaining segments of Line 6B with new pipeline, Enbridge will be able to achieve the original ultimate capacity and also provide the pipeline capacity necessary to meet its shippers' current transportation requirements.

7. Shippers are also forecasting a need for additional capacity above current demands. Line 6B has experienced periodic apportionment⁹ based on monthly shipper demand. Enbridge anticipates that the frequency of apportionment will only increase as demand for additional pipeline capacity rises to meet the feedstock requirements of the refineries, which Line 6B directly and indirectly serves. (See Paragraph 16 for a list of the refineries). As a result, Enbridge plans to replace certain segments of Line 6B with 36-inch diameter pipe and to install new facilities at certain existing station locations in order to meet its shipper's future transportation requirements. Enbridge has received initial shipper support for this Project from the Canadian Association of Petroleum Producers ("CAPP"),¹⁰ which represents a number of the largest shippers, as well as support from regional refineries served by this pipeline.

8. Moreover, this Project benefits the public by replacing those pipeline segments that would otherwise require extensive ongoing integrity assessment and maintenance under Enbridge's long-term integrity management program.¹¹ Thus, the Project also has an added public benefit by reducing ongoing impacts to landowners, local

⁹ When nominations on a pipeline exceed available capacity in a given month, the volumes nominated are allocated amongst those shippers that nominated in a month in accordance with the specific, non-discriminatory, procedures detailed in the FERC Rules and Regulations Tariff on file and in effect. The allocation of capacity when nominations exceed available capacity is referred to as "apportionment".

¹⁰ CAPP is a trade organization whose members operate petroleum and natural gas interests in Canada. The members of CAPP control 90% of the petroleum production in Canada.

¹¹ In accordance with various federal pipeline safety regulations and national consensus standards, pipelines are inspected, maintained, and repaired as necessary to maintain safe operations commensurate with the operating pressures of the pipeline. This process, known as "integrity management" includes periodic internal inspections with in-line inspection devices and, based on the results of those tools, anomalies are prioritized, monitored and/or excavated and repaired.

communities and the environment over the long term.

9. Therefore, for the reasons described above, Enbridge developed the Line 6B Phase 2 Replacement Project ("Phase 2 Replacement Project" or "Project"), which is a second phase designed to replace the remaining segments of Line 6B in the states of Indiana and Michigan. The replacement segments will be designed and constructed in accordance with federal pipeline safety regulations, specifically 49 Code of Federal Regulations Part 194 and 195 (49 CFR Parts 194 and 195) and any applicable national technical standards.

10. The scope of the Phase 2 Replacement Project results in the replacement of the remaining segments of Line 6B, totalling approximately 210 miles of new pipeline in the states of Indiana and Michigan. Specifically, Enbridge plans to replace approximately 160 miles of Line 6B with new 36-inch diameter pipeline between Enbridge's existing Griffith Pump Station and Terminal Facility in Lake County, Indiana and its existing Stockbridge Pump Station and Terminal Facility in Ingham County, Michigan. Enbridge also plans to replace approximately 50 miles of Line 6B with new 30-inch diameter pipeline from Ortonville to the St. Clair River in Marysville, Michigan. See the project overview map (Figure No. 1) and project description on Table No. 1 below. The first 50 miles of the Phase 2 Replacement Project includes Segment Nos. 1A and 2A, which are located in Indiana. The remaining 160 miles are located in Michigan with Segment Nos. 2B, 3A, 4A, 5A and 8 being the subject of this Application as more fully described below.

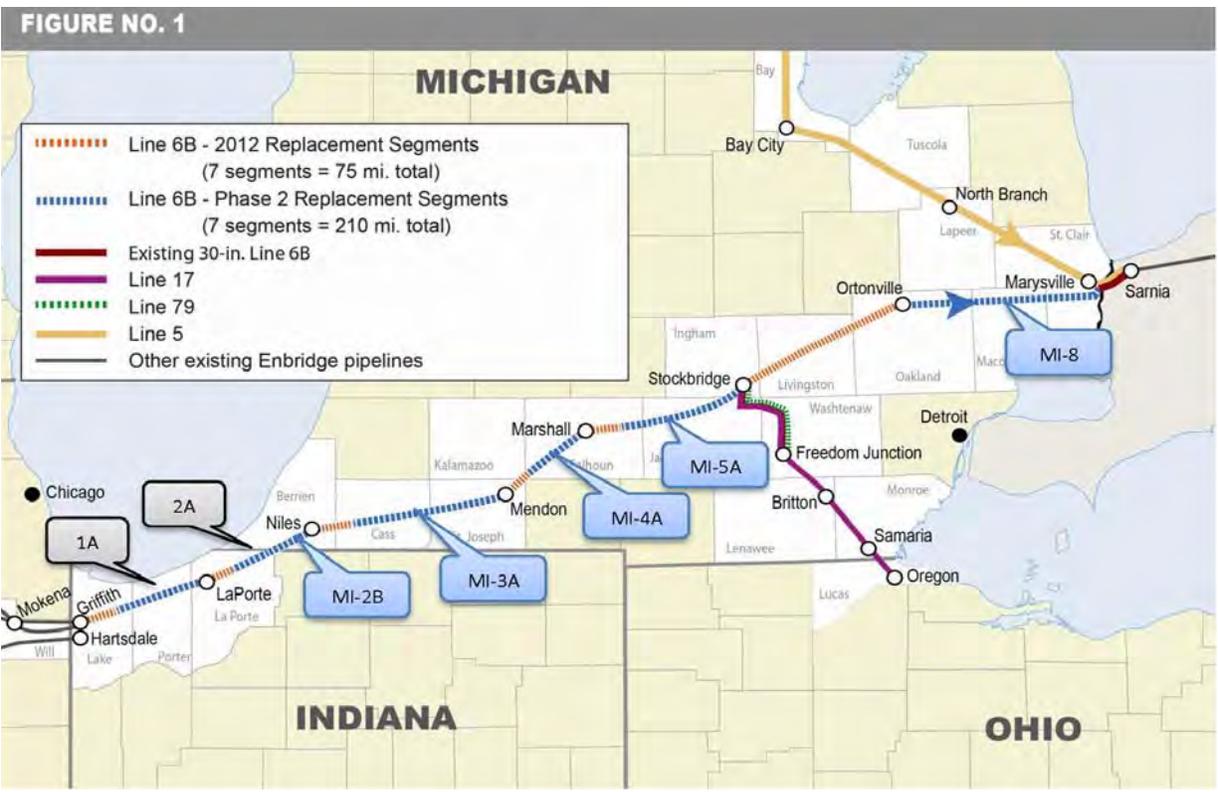


Table No. 1					
Overall Project Description					
Segment No.	Begin	End	Mileage	Counties Crossed	State
Segment 1A	470.5	499.5	29	Lake, Porter, LaPorte	IN
Segment 2A	504.7	525.8	21.1	LaPorte, St. Joseph	IN
<u>Total miles in Indiana</u>			<u>50.1</u>		
Segment 2B	525.8	538.3	12.5	Berrien, Cass	MI
Segment 3A	543.5	577	33.5	Cass, St. Joseph	MI
Segment 4A	582	607.7	25.7	St. Joseph, Kalamazoo, Calhoun	MI
Segment 5A	612.7	650.6	37.9	Calhoun, Jackson, Ingham	MI
Segment 8	701	751	50.0	Oakland, Macomb and St. Clair	MI
<u>Total miles in Michigan</u>			<u>159.6</u>		

11. This Project is in the public interest because it: 1) reduces the frequency and magnitude of maintenance activities that would otherwise be needed in these pipeline segments to maintain continued safe operations, thus, providing significant benefits to landowners, local communities and the environment; 2) restores the ultimate pipeline capacity of Line 6B and adds incremental pipeline capacity to meet shippers' current and future transportation requirements, as well as avoids anticipated increased level of apportionment on Line 6B; and 3) serves the future petroleum requirements of residents in Michigan and nearby states, who are dependent on refineries throughout the region to meet their refined petroleum product needs.

**II.
NAME AND ADDRESS OF APPLICANT
AND CONTACT INFORMATION**

12. Pursuant to Rule 601(2)(a), the name of the Applicant is Enbridge Energy, Limited Partnership, a limited partnership duly organized under the laws of the State of Delaware, with its principal place of business located at 1100 Louisiana, Suite 3300, Houston, Texas 77002. Applicant is a wholly owned subsidiary of Enbridge Energy Partners, L.P. ("Enbridge Partners") which is a Delaware master limited partnership. Enbridge Partners is a publicly held limited partnership, traded on the New York Stock Exchange under the symbol "EEP". Enbridge Partners' total assets were \$10.4 billion and operating income was approximately \$127 million for the year ending December 31, 2010.

13. The name, title, address and telephone number of the contact persons for the Applicant are as follows:

Lisa Wilson	Claudia Schrull
Sr. Legal Counsel	Manager, US Regulatory Pipeline Development
1409 Hammond Avenue	1100 Louisiana Street, Suite 3300
Superior, Wisconsin 54880	Houston, Texas 77002
715-398-4601	713-821-2045
lisa.wilson@enbridge.com	claudia.schrull@enbridge.com

14. In this proceeding, Enbridge will be represented by the following individual and firm:

Michael S. Ashton
Fraser Trebilcock Davis & Dunlap, P.C.
124 West Allegan, Suite 1000
Lansing, Michigan 48933
517-377-0875
mashton@fraserlawfirm.com

III.

OVERVIEW OF APPLICANT, OPERATIONS AND SERVICES PROVIDED

A. Applicant

15. The Applicant is an interstate common carrier liquid petroleum pipeline company, which provides transportation service to qualified shippers in accordance with conditions of service, rates and product quality as posted in its Tariffs filed with the Federal Energy Regulatory Commission (FERC) and as nominated on month-to-month basis from its qualified shippers as described in greater detail below.

16. The Applicant owns and operates the Lakehead System, the U.S. portion of an operationally integrated, international liquid petroleum pipeline system known as the Enbridge Mainline System. The Enbridge Mainline System spans approximately 3,500 miles across North America to connect producers and shippers in western Canada and the Williston Basin in North Dakota and Saskatchewan, and other producing areas with markets in the United States and eastern Canada.¹² Enbridge's affiliate, Enbridge Pipelines Inc., operates the Canadian portion of the Enbridge Mainline System, including portions located in western Canada, and in eastern Canada.

17. The Lakehead System spans approximately 1,900 miles from the international border near Neche, North Dakota, to the international border near Marysville, Michigan, plus a short section from the international border at the Niagara River into the Buffalo, New York area. The Lakehead System operates in seven Great Lakes states and transports between 50% and 75% of the crude oil needed by refineries in the Upper Midwest. (See Exhibit A-1 for an overview map of the Lakehead System.)

¹² Enbridge Energy, Limited Partnership was formerly known as Lakehead Pipe Line Company, Limited Partnership; hence, the "Lakehead System."

B. Operations and Service Provided

18. The Lakehead System transports crude oil and other liquid petroleum supplies to serve Michigan, regional and eastern Canadian refineries, which in turn provide the refined petroleum products used by Michigan and regional residents in the form of gasoline, jet fuel and other petroleum products. As part of the Lakehead System, Line 6B originates at an Enbridge terminal in Griffith, Indiana and traverses southern Michigan to the international border at the St. Clair River, with a connection at Stockbridge to Enbridge Line 17. Once it passes under the river at the international border, it delivers to the affiliated Enbridge Pipeline Inc. Sarnia Terminal. Line 6B is an integral part of the Lakehead System and plays a vital role in serving (directly or indirectly) the following local, regional and eastern Canadian refineries.¹³

- Marathon Petroleum in Detroit, Michigan
- PBF Refining in Toledo, Ohio
- BP-Husky in Toledo, Ohio
- United Refining in Warren, Pennsylvania
- Shell in Sarnia, Ontario
- Imperial Oil in Sarnia, Ontario
- Suncor in Sarnia, Ontario
- Imperial Oil in Nanticoke, Ontario

Line 6B serve as critical infrastructure to these local, regional, and eastern Canada refineries and transports a large portion of the total crude oil and petroleum processed by the regional refineries. Moreover, Line 6B provides the regional refiners with access to

¹³ Enbridge encloses with the testimony of Mr. Mark Sitek Exhibit A-6, which is a pictorial overview map of the refineries served directly or indirectly from Line 6B in the State of Michigan and the surrounding region.

reliable and cost-effective sources of crude oil and petroleum supplies from Western Canada and the Williston Basin to meet their ongoing feedstock requirements.

19. The Applicant is experienced in the construction, operation and maintenance of pipelines, including large diameter pipeline systems utilized for the transportation of petroleum and petroleum products. The Applicant will be responsible for operating and maintaining the new 36-inch and new 30-inch pipeline segments of Line 6B, including all newly installed facilities at the existing Niles, Mendon, Stockbridge, Howell, Ortonville and St. Clair Stations as further described in Exhibit A-2 of this Application.

**IV.
MUNICIPALITIES AFFECTED**

20. Pursuant to Rule 601(2)(b), the municipalities and counties affected by replacement Segment Nos. 2B, 3A, 4A, 5A and 8 are set forth in Table No. 2 below. Each municipality and county crossed by the planned replacement segments is a municipality, and county where Line 6B is already located and operating. (See Exhibit A-1 for an overview map showing the municipalities and counties traversed by each replacement segment proposed in this Application.)

Table No. 2			
Name of Replacement Segment	City or Village	Township	County
Segment No. 2B – MP 525.8 to MP 538.3			
		Bertrand	Berrien
	Niles	Bertrand/Niles	Berrien
		Milton	Cass

Table No. 2			
Name of Replacement Segment	City or Village	Township	County
Segment No. 3A – MP 543.5 to MP 577			
		Jefferson, Calvin	Cass
	Vandalia	Penn	Cass
		Newberg	Cass
		Fabius, Flowerfield, Park, Mendon	St. Joseph
Segment No. 4A – MP 582 to 607.7			
		Mendon	St. Joseph
		Brady, Wakeshma	Kalamazoo
		Athens, Leroy, Newton, Fredona	Calhoun
Segment No. 5A – MP 612.7 to MP 650.6			
		Marengo, Sheridan	Calhoun
		Parma, Springport, Tompkins, Rivers	Jackson
		Leslie, Bunker Hill, Stockbridge	Ingham
Segment 8 – MP 701 to MP 751			
		Brandon, Oxford	Oakland
	Leonard	Addison	Oakland
		Bruce, Armada, Richmond	Macomb
		Columbus	St Clair
	Marysville	St Clair	St. Clair
		Port Huron	St Clair

V.
NATURE OF UTILITY SERVICE TO BE FURNISHED

21. Pursuant to Rule 601(2)(c), the nature of the service to be furnished by Line 6B will not be changed by the Project. Line 6B will continue to be an integral part of a common-carrier crude oil and petroleum pipeline system, linking crude oil producing regions in North America to refineries that process crude oil into the petroleum products used by consumers and businesses in Michigan and the surrounding regions. The nature of the furnished service is set forth in more detail in the supporting testimony of Mr. Mark Sitek.

VI.
DESCRIPTION OF THE CONSTRUCTION AND PROJECT

22. Pursuant to Rule 601(2)(e), a full description of Segment Nos. 2B, 3A, 4A, 5A and 8, along with engineering design are set forth in Exhibit A-2 and related United States Geological Survey (USGS) topographical maps are enclosed as Exhibit A-3. Enbridge also encloses Exhibit A-4, which sets forth the construction specifications for the replacement segments, including other connecting valves, appurtenances and associated station facilities, to be constructed.

23. For a better perspective and understanding of the factors that prompted Enbridge to develop the Phase 2 Replacement Project and why this Project is in the public interest, along with other relevant facts, the Application sets forth the following information.

A. Public Convenience and Necessity

24. By this Application, Enbridge seeks authority to replace the remaining segments of its Line 6B in the states of Michigan. This Project reduces the level of future maintenance activities under Enbridge's maintenance and rehabilitation program and meets Enbridge shippers' current and future transportation requirements. This replacement enables Enbridge to restore its Line 6B to its original ultimate capacity to meet rising demand for additional pipeline capacity. In order to facilitate future forecasted shipper demand on Line 6B, Enbridge plans to install certain new facilities at select station sites and to replace the remaining Line 6B segments as follows: segments between Griffith, Indiana and Stockbridge, Michigan with a new 36-inch diameter pipeline consistent with the pipe size this Commission approved in Case No. U-16856 for the Niles, Mendon and Marshall Replacement Project, and segment between Ortonville and the St. Clair River with a new 30-inch diameter pipeline, which is also consistent with the pipe size this Commission is considering in Case No. U-16838 for the Stockbridge to Ortonville Replacement Project.

25. The Phase 2 Replacement Project serves a public need because it: 1) reduces the frequency and magnitude of maintenance activities that would otherwise be needed in these pipeline segments to maintain continued safe operations, thus, providing significant benefits to landowners, local communities and the environment; 2) restores the ultimate pipeline capacity of Line 6B and adds incremental pipeline capacity to meet shippers' current and future transportation requirements as well as avoids anticipated increased level of apportionment on Line 6B; and 3) serves the future petroleum requirements of Michigan and nearby states, who are dependent on refineries throughout the region to meet their refined petroleum product needs.

1) **Reduces Frequency and Amount of Maintenance Activities**

26. Enbridge's ongoing maintenance and rehabilitation program for Line 6B consists of a variety of preventative maintenance actions and inspections that protect the safe operation and longevity of Line 6B, as a vital pipeline serving the Midwest and eastern refinery markets. Prior to developing this Project, Enbridge evaluated internal integrity data collected through a series of sophisticated internal inspection instruments and analysis and, used that information to plan future maintenance activities on the remaining segments. While Enbridge could continue to safely operate Line 6B under its integrity verification and maintenance program, replacement is in the public interest because it minimizes the amount and frequency of maintenance activities

27. Additionally, this Project represents an efficient, alternative integrity management approach that is environmentally responsible and has the least long term recurring impacts to landowners and local communities. Replacing these pipeline segments benefits the public as it reduces future integrity excavations and maintenance activities, which otherwise would be conducted to assure safe operation of Line 6B. It also provides the added public benefit of minimizing impacts from recurring disruptions to landowners, local communities and the environment over the long term.

28. Prior to developing this Project, Enbridge also evaluated the long term capacity requirements of its shippers on Line 6B. Even if these segments continued to be operated under Enbridge's maintenance and rehabilitation program, the pipeline capacity on Line 6B does not meet shippers' current and forecasted transportation requirements. For these reasons, replacing these pipeline segments is the most cost-effective option for restoring Line 6B's ultimate pipeline capacity and meeting shippers' capacity requirements.

2) Restores Line 6B to its Ultimate Pipeline Capacity to Meet Current and Future Shipper Demand

29. This Project provides a public benefit by providing the needed common-carrier pipeline capacity necessary to meet Michigan and regional petroleum needs. Shippers have a current need for additional pipeline capacity on Line 6B. Replacement restores Line 6B to its ultimate pipeline capacity but after extensive discussions with its shippers, Enbridge determined that even if replaced, there is a need for additional pipeline capacity on Line 6B. Enbridge is forecasting continued transportation demands, which will result in increased shipper apportionment on Line 6B absent replacement from Griffith to Stockbridge with 36-inch diameter pipe and certain facility installations, and replacement from Ortonville to the St. Clair River with 30-inch diameter pipe. This growing demand is largely driven by ongoing and planned refinery upgrades and expansions in Michigan and Ohio and near-term anticipated demand increases by eastern Canadian refineries for growing crude supplies produced in parts of North America that are connected to the Enbridge Mainline System. Based on this growing demand for capacity on Line 6B, the additional pipeline capacity afforded by this Project is in the public interest because it will alleviate the current and anticipated capacity constraints on Line 6B.

30. As previously stated, Line 6B is operating under periodic apportionment. Thus, shippers are reliant upon this Project to meet their transportation requirements for increased incremental pipeline capacity from Griffith to Stockbridge, and further to Ontario and eastern United States markets. Enbridge has received initial shipper support for this Project, including from Michigan and regional refineries, as more fully discussed in the testimony of Mr. Mark Sitek.

31. As an alternative to this replacement Project, Enbridge considered expansion of its Line 5. Line 5 is the primary route by which the lighter grades of crude oil

are shipped from Superior via the Upper Peninsula of Michigan to the refineries in Michigan, Ontario, and northern Ohio. Expansion of Line 5 would require the construction of a second, 645-mile parallel pipeline from Superior to Sarnia. Enbridge dismissed this option as being more intrusive to landowners, local communities and the environment, than replacing certain segments of Line 6B with a 36- inch diameter pipe from Griffith to Stockbridge and a 30-inch from Ortonville to the St. Clair River in Marysville, Michigan. This Project is the most efficient and timely transportation solution, to meet shippers' current and forecasted demands for additional pipeline capacity.

3) Serves the Future Petroleum Requirements of Michigan Residents and Surrounding Region

32. This Project not only meets current and forecasted future capacity requirements of its shippers, but also provides secure and reliable crude oil and petroleum supplies to local and regional refineries, who serve the daily requirements of Michigan residents for refined petroleum products such as gasoline, jet fuels and other petroleum by-products. It is important to note that the incremental capacity provided by replacing Line 6B with a 36-inch pipeline between Griffith and Stockbridge is sufficient to satisfy the future demand at the Marathon Detroit and BP-Husky Toledo refineries, the refineries in Ontario, Canada as well as the refinery in Warren, Pennsylvania. Accordingly, the Project is designed to provide sufficient capacity to meet the foreseeable future needs in Michigan, northern Ohio, Ontario, Canada and western Pennsylvania.

33. Enbridge respectfully requests the Commission's approval of this Application by November 1, 2012, so that construction may commence as early as November 15, 2012. The target in-service date for this Project is September 2013.

B. Local Economic Benefit

34. The total estimated Project cost for replacing Segment Nos. 2B 3A, 4A and 5A with a new 36-inch diameter pipeline and Segment No. 8 with a new 30-inch diameter pipeline are shown on Table No. 3 below. Based on the anticipated costs of the Project and current tax schedules, Enbridge estimates it may pay incremental annual property taxes beginning in 2014 as shown on Table No. 3, subject to assessments by local government units.

35. Additionally, Enbridge anticipates that the Project will provide temporary beneficial impacts on the local economy during construction. Using the Regional Input-Output Modeling System (<http://www.bea.gov/regional/rims/>), Enbridge estimates that the Project will provide the following economic benefits as shown on Table 3 below.

Table No. 3				
Local Economic Benefits generated from Project				
Component	Estimated Total Project Costs *	Estimated Tax Benefits* 1/	No. of Temporary or Permanent Jobs Created	Total Economic Benefits*
Line 6B Phase 2 Replacement Project	\$ 1.295 Billion	\$22.8 M	21,948 person-years	\$ 3.1 Billion
During Operation of the Line 6B Replacement Segments				
2013			\$528 M	\$108 M
2014 - 2021		\$23.0 – 24.8 M	Average of 1,537 jobs over the period	\$315 M over the period
2022 - 2027		\$25.3 – 26.7 M	Average of 1,705 jobs over the period	\$350 M over the period

*M represents "million".

1/ Tax benefits start in year 2014. Each tax year thereafter, the estimated tax benefit will range between amounts specified, depending on current tax assessment tables and pipeline valuation within the taxing year.

36. Additionally, employment will be temporarily increased in the area and payroll taxes will temporarily rise during planning, preparation, construction and restoration of the Project. Local businesses would also benefit from the demand for goods and services generated by the workforce's need for food, lodging and supplies. Enbridge

expects to purchase some of the materials necessary for construction of the Project locally, including consumables, fuel, equipment, and miscellaneous construction-related materials.

C. Right of Way Requirements

37. Enbridge plans to acquire new right-of-way easements and temporary workspace immediately adjacent to and abutting the existing right-of-way for its proposed 36-inch diameter replacement segments (4 noncontiguous pipeline segments consisting of approximately 110 miles of new pipeline) in Berrien, Cass, St. Joseph, Kalamazoo, Calhoun, Jackson and Ingham Counties, and for its 30-inch diameter replacement segment (one pipeline segment consisting of approximately 50 miles of new pipeline) in Oakland, Macomb and St. Clair Counties.

38. In limited locations, there may be slight variations from the existing right-of-way due to encroachments, land use or constructability issues. Route variations that Enbridge has under consideration are shown on the topographical maps enclosed as Exhibit A-3 and discussed in more detail in the Environmental Impact Report ("EIR"), which is enclosed as Exhibit A-5, and in the testimonies of Mr. Thomas Hodge and Ms. Rachael Shetka.

39. Generally, Enbridge will maintain a 25-foot offset or buffer from its existing Line 6B. Thus, Enbridge will have the typical right-of-way requirements and construction footprint as shown on Table No. 4 below.

Table No. 4						
Typical Construction Footprint and Right-of-Way Requirements						
		Typical Construction Footprint				
Land Type	Typical Survey Corridor	Typical Construction Footprint	Temporary Work Space	Use of Existing Permanent Right-of-Way	New Permanent Right-of-Way	Additional Temporary Work Space at Crossings
<u>Right-of-way requirements where the new pipeline segments will be co-located within or abutting the existing Line 6B. /1</u>						
Upland	250 feet	105 feet	55 feet	Varies **	Varies up to 50 feet	75 feet
Wetland	250 feet	80 feet	30 feet	Varies **	Varies up to 50 feet	
<u>Right-of-way requirements where the new pipeline segments will not be co-located with the existing Line 6B. /2</u>						
Upland	250 feet	105 feet	45 feet	Not Applicable	60 feet	75 feet
Wetland	250 feet	80 feet	20 feet			
/1. ROW-Detail-No. 1 – enclosed as Appendix A to EMP of Exhibit A-5						
/2. ROW-Detail-No. 2 – enclosed as Appendix A to EMP of Exhibit A-5						

40. In addition, there will be certain areas along Segment Nos. 2B, 3A, 4A 5A and 8 where additional temporary workspace will be needed to avoid encroachments near the existing pipeline or certain land or environmental features. Enbridge will work with affected landowners to make those minor adjustments for additional temporary workspace on a case-by-case basis. For more detailed information regarding the right-of-way requirements and typical right-of-way configuration drawings, see the supporting testimony of Mr. Thomas Hodge and Mr. Doug Aller.

41. No additional land will be required for the station installations proposed in this Application. All work activities will be located within the existing station locations.

42. Enbridge is familiar with the landowners along Line 6B's corridor. Enbridge has received favorable responses for survey permission from a majority of the landowners affected by the Project. Enbridge remains committed to working with the affected landowners as field survey work progresses to determine the exact location of the new 36-inch or 30-inch diameter pipe within the new Line 6B pipeline easements. Along with earlier communications for survey permission, Enbridge has mailed its initial informational packet to keep affected landowners informed regarding Phase 2 Replacement Project. Enbridge plans to commence negotiations for such land rights once all civil survey and land title work are completed. In addition, Enbridge plans to hand deliver, where practical, or mail its informational packets to landowners of agricultural property prior to extending any offers for a pipeline easement as required under 1929 PA 16; MCL 483.2a.

43. Enbridge will negotiate in good faith with affected landowners along each replacement segment to acquire any additional permanent or temporary right-of-way and easement grants that are needed for the Project. Upon the Commission's approval of this Application, Enbridge may exercise the eminent domain authority provided by 1929 PA 16 where additional permanent right-of-way is required and no other reasonable alternative right-of-way can be obtained through negotiation for the installation of the replacement pipe.

D. Public Outreach Efforts

44. Enbridge has been and continues to work diligently with affected landowners, public officials and stakeholders along the Project route. Enbridge has established a project field office in Howell, Michigan, to provide land agents, as well as administrative and supervisor personnel, with a local community presence and base of operations.

45. In addition, Enbridge is committed to meaningful consultation and dialogue with stakeholders affected by this Project. Enbridge has contracted the services of a Michigan-based community relations consultant that has worked with Enbridge for several years. Enbridge has and will continue to communicate information about the Phase 2 Replacement Project to local, county and state public officials through various means, including mailings, face-to-face consultation meetings, distribution of collateral materials, a toll-free number, a pipeline integrity video, and web site information.

46. Enbridge established an internet website for interested stakeholders to learn more about the Phase 2 Replacement Project and obtain updated information on the status of this Project. We will attempt to communicate clearly to avoid confusion over the ongoing maintenance activities still required pending replacement as well as the upcoming construction of the three 5-mile segments at Niles, Mendon and Marshall in 2012 and this Project. Interested stakeholders are encouraged to go to <http://www.enbridgeus.com/Line6bphase2> for the latest updates. To further its public outreach efforts, Enbridge remains committed to maintaining an open dialog with its affected landowners and will continue to mail Project update letters as deemed necessary to keep its landowners informed on the progress of the Project. Landowner negotiations for compensation will be managed on an individual basis by experienced land and right-of-way

agents, who have also been oriented on the purpose and details of this Project and Enbridge expectations and practices.

47. Enbridge established 866-410-4356 as a toll-free number to accommodate stakeholder contact during the Project and through the 2013 restoration stage. The toll-free number is equipped with voicemail service in order to receive after-hours calls. Representatives answering calls or retrieving messages will be properly trained to direct stakeholder calls to appropriate functions or Enbridge personnel within 24-hours of contact.

E. Executive Summary of Environmental Impact Report

48. Construction and operation of the Project would result in minor short-term impacts on the environment. Enbridge evaluated the potential impacts of the Project on geology and mineral resources, soils, water resources, vegetation, wildlife, fisheries, special status species, land use, visual resources, socioeconomics, cultural resources, air quality, and noise. Enbridge's analysis of these issues is discussed in more detail in the Environmental Impact Report (EIR) for the Project, which Enbridge encloses as Exhibit A-5 and which is discussed in the supporting testimony of Ms. Rachael Shetka.

49. The Project is best characterized as installation of a replacement crude oil and petroleum pipeline consistent with Enbridge's maintenance and rehabilitation program, which will allow Enbridge to meet the current and forecasted transportation requirements of its shippers. Enbridge evaluated several alternatives to the Project, including no action, system alternatives, route variations, and alternative energy and conservation alternatives. After assessing each of the Project alternatives and route variations, Enbridge has determined that the Project as proposed is the preferred option.

50. Impacts to natural resources are anticipated to be minimal and short-term. Anticipated land use impacts from construction activities will be short-term. During pipeline construction, crop production within the construction corridor will be suspended. In active croplands, pastures, hayfields, and residential areas, topsoil will be stripped from the ditch and subsoil storage areas, typically to a depth of 12 inches. Topsoil will be segregated from subsoil excavated from the pipeline trench. Following pipeline installation, the subsoil and topsoil will be returned to the trench in proper order. Topsoil will be evenly distributed on the previously stripped area.

51. The Project will be located in Berrien, Cass, St. Joseph, Kalamazoo, Calhoun, Jackson, Ingham, Oakland, Macomb and St. Clair Counties, Michigan. The proposed pipeline route will be co-located with an existing pipeline right-of-way with the potential for only minor variations, which will significantly reduce even short-term impacts. This will also restrict environmental and land use impacts to an existing disturbed area of a similar land use, thus minimizing impacts on new undisturbed areas. Enbridge will work with property and business owners to develop an acceptable construction plan and negotiate pipeline easements for the additional permanent right-of-way needed for installation and operation of the pipeline. Enbridge will cross waterbodies, railroads, roads and sensitive features by a combination of horizontal directional drill, bore, and open-cut methods. These crossings will be fully restored in accordance with state and local permit requirements. As all major roadways will be bored, Enbridge does not anticipate any significant effects to public traffic patterns. In the event public traffic may be affected, Enbridge will inform and coordinate its activities with the appropriate local authorities.

52. Enbridge selected a typical 250-foot wide environmental survey corridor, and in limited areas, a slightly wider or narrower corridor was chosen in order to address unique features that were specific to that particular location. The environmental

corridor is typically centered based footage measured from the alignment of the proposed pipeline. Enbridge took this approach in routing its planned replacement segments so that it could effectively make necessary minor variations within an established corridor that was environmentally surveyed and where landowners were notified. Generally, minor variations are needed as a result of encroachments, landowner requests and the need to avoid certain environmentally sensitive areas identified by environmental surveys or the permitting agencies.

**VII.
UTILITIES RENDERING SAME TYPE OF SERVICE**

53. Pursuant to Rule 601(2)(f) of the MPSC's Rules of Practice and Procedure, R 460.17601(2)(f), there are no other utilities that can transport the large volumes or types of crude oil and petroleum produced in western Canada or the Williston Basin to refineries served in the region of the Project.

**VIII.
OTHER REQUIREMENTS**

54. Pursuant to MCL 483.6, Enbridge makes an explicit authorized acceptance of 1929 PA 16, as amended.

**IX.
RELIEF REQUESTED**

WHEREFORE, ENBRIDGE respectfully requests that this Honorable Commission, acting under its authority pursuant to 1929 PA 16, as amended, and Rule 601 grant the following relief:

- A. Approve and grant Enbridge's Application for the Project;
- B. Find and certify that the Project is just, reasonable and in the public interest;
- C. Issue its Order granting Enbridge the authority to replace, design, construct, install, test, operate, maintain, repair and own the replaced Segment Nos. 2B 3A, 4A, 5A, and 8 and install certain new facilities at the existing station sites at Niles, Mendon, Stockbridge, Howell, Ortonville and St. Clair Stations, including all related appurtenances, for the transportation of crude oil and petroleum as described herein; and
- D. Grant such further relief as the Commission deems necessary and appropriate.

Respectfully submitted,



Dated: April 16, 2012

Michael S. Ashton
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Lansing, Michigan 48933
517-377-0875
mashton@fraserlawfirm.com

**LINE 6B PHASE 2 REPLACEMENT PROJECT
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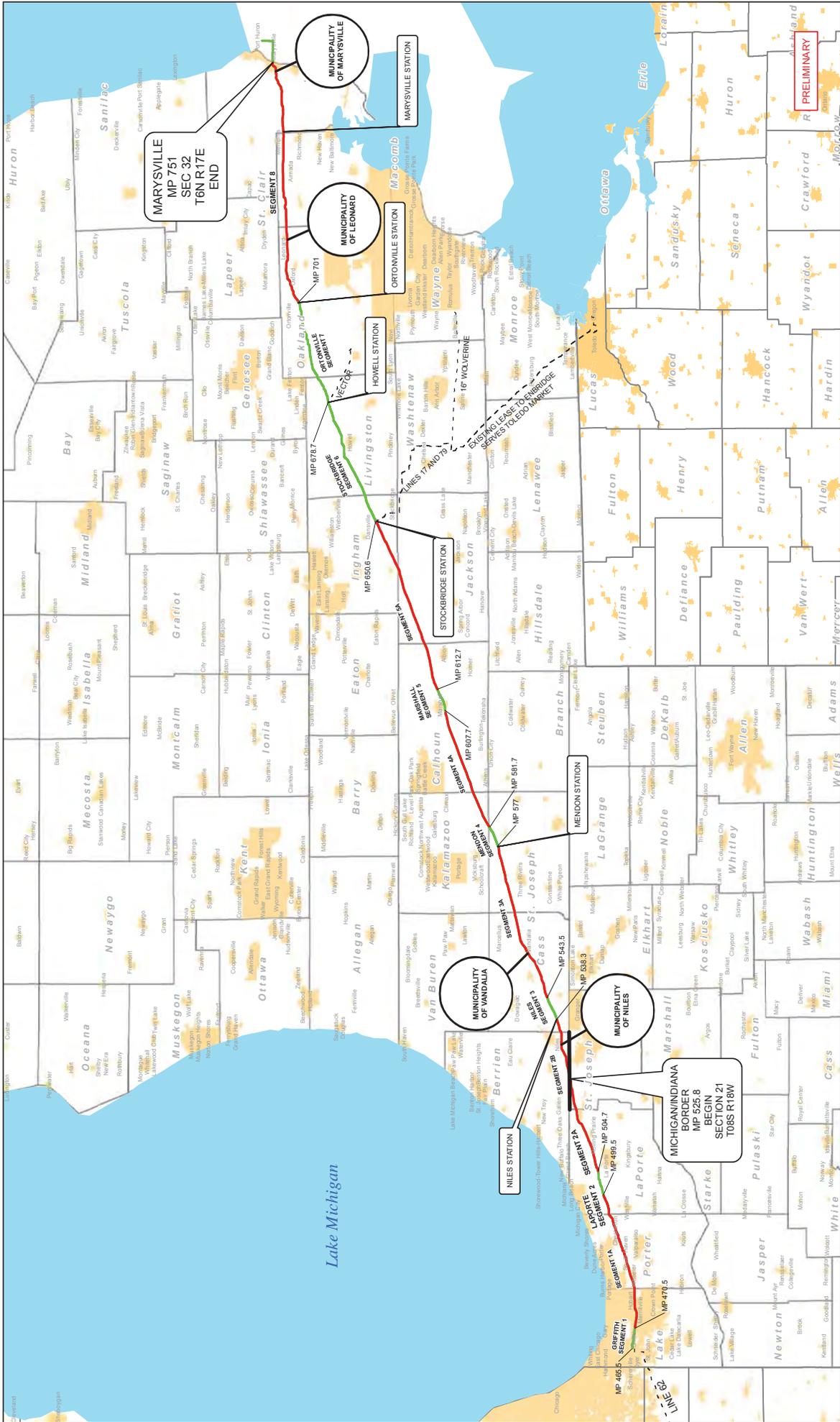
APPLICATION & RELATED EXHIBITS	
Line 6B Phase 2 Replacement Project Application	
Related Exhibits	
Exhibit A-1	Line 6B Phase 2 Replacement Project Regional Overview Map
Exhibit A-2	Detailed Project Description
Exhibit A-3	Line 6B Phase 2 Replacement Project Index Maps and Proposed Station Facilities (Niles, Mendon, Stockbridge, Howell, Ortonville and St. Clair)
Exhibit A-4	Specifications for Pipeline Construction (USA) and Facilities Construction (USA)
Exhibit A-5	Environmental Impact Report
Appendix A	Environmental Mitigation Plan & Related Attachments
Appendix B	Unanticipated Discovery Plan
Appendix C	Mapped Soil Units Traversed and Major Limitations
Appendix D	Water Wells Within 200 Feet of the Project Workspace
Appendix E	Spill Prevention, Containment and Control Plan
Appendix F	Agency Correspondence
Exhibit A-6	Refineries in Michigan and Surrounding Region Served by Lakehead System

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Exhibit A-1	Line 6B Phase 2 Replacement Project Regional Overview Map
Exhibit A-6	Refineries in Michigan and Surrounding Region Served by Lakehead System
Thomas Hodge	
Sponsored Exhibits	
Exhibit A-2	Detailed Project Description
Exhibit A-3	Line 6B Phase 2 Replacement Project Index Maps and Proposed Station Facilities (Niles, Mendon, Stockbridge, Howell, Ortonville and St. Clair)
Exhibit A-4	Specifications for Pipeline Construction (USA) and Facilities Construction (USA)
Appendix A to EMP	Diagram of Construction Footprint and ROW Requirements (Co-Sponsored with Douglas Aller)
Douglas Aller	
Sponsored Exhibits	
Appendix A to EMP	Diagram of Construction Footprint and ROW Requirements (Co-Sponsored with Thomas Hodge)

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Rachael Shetka	
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Appendix B	Unanticipated Discovery Plan
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Appendix E	Spill Prevention, Containment and Control Plan
Appendix F	Agency Correspondence



LEGEND

- Municipal Boundaries
- Counties
- Line 6B Phase 2 Replacement Project
- Filed as 6B 2012 Maintenance and Rehabilitation Program

Scale: 0 5 10 20 Miles

Map Information:

REV#	DESCRIPTION	DATE

Prepared by: ENBRIDGE

Project: LINE 6B PHASE 2 REPLACEMENT PROJECT REGIONAL OVERVIEW MAP

Scale: 1" = 20 MI.

Revision: REV. 9

Map of Michigan: Shows Michigan's location relative to Wisconsin, Indiana, Ohio, Pennsylvania, and New York.

Line 6B – Phase 2 Replacement Project Project Description

1. OVERVIEW

Enbridge proposes to replace seven (7), noncontiguous pipeline segments, totaling approximately 210 miles of new pipeline in Indiana and Michigan, as shown on Figure No. 1.

This project referenced as the “Line 6B Phase 2 Replacement Project” or “Project” begins in Griffith, Indiana and extends to the northeast to end at the St. Clair River in Marysville, Michigan. The first 50 miles of the Phase 2 Replacement Project includes Segment Nos. 1A and 2A, which

are located in Indiana. The remaining 160 miles are located in Michigan with Segment Nos. 2B, 3A, 4A, 5A and 8 being the subject of this Application as more fully described in Section 2 of this Exhibit. The scope of this Project also involves the installation of new station facilities at the existing station sites of Niles, Mendon, Stockbridge, Howell, Ortonville and St. Clair in Michigan as more fully described in Section 6 of this Exhibit.



2. Replacement of Certain Line 6B Pipeline Segments in Michigan

Enbridge proposes to replace, construct, own and operate five separate, noncontiguous pipeline segments consisting of 110 miles of new 36-inch diameter pipeline (Segments 2B, 3A, 4A, and 5A), and 50 miles of new 30-inch diameter pipeline (Segment 8), all of which replace certain 30-inch diameter pipeline segments of Line 6B in the counties of Berrien, Cass, St. Joseph, Kalamazoo, Calhoun, Jackson, Ingham, Oakland, Macomb and St. Clair, Michigan. Table No. 1 below provides detailed information on location and length of each pipeline segment proposed for replacement. Upon completion of this Project, Enbridge will have replaced the entire length of Line 6B with new pipeline from Griffith, Indiana to the St. Clair River in Marysville, Michigan.

Table No. 1						
Segment No.	Pipe Size	Begin M.P.	End M.P.	Mileage by Segment	Counties Crossed	State
Segment 2B	36	525.8	538.3	12.5	Berrien, Cass	MI
Segment 3A	36	543.5	577	33.5	Cass, St. Joseph	MI
Segment 4A	36	582	607.7	25.7	St. Joseph, Kalamazoo, Calhoun	MI
Segment 5A	36	612.7	650.6	37.9	Calhoun, Jackson, Ingham	MI
Total mileage for 36-inch pipeline segments				109.6		
Segment 8	30	701.0	751.0	50.0	Oakland, Macomb and St. Clair	MI
Total miles in Michigan				159.6		

3. Deactivation of Remaining Line 6B Pipeline Segments

Once the new pipeline segments are installed and tied-in to the existing pipeline segments, Enbridge plans to deactivate the remaining Line 6B pipeline segments in place. As part of this deactivation process, Enbridge plans to purge each pipeline segment of any materials, cap both ends, and fill with an inert gas at a low pressure. These segments will remain in place with cathodic protection and be monitored in accordance with accepted industry standards and Enbridge maintenance procedures for deactivated pipeline.

4. Pipeline Specifications

As stated above, Enbridge plans to replace the remaining pipeline segments of its Line 6B in the Griffith to Stockbridge section with new 36-inch diameter pipe and the pipeline segment east of Ortonville to the St. Clair River near Marysville with new 30-inch diameter pipe. The pipe specifications for these replacement segments are shown on Table No. 2 below, and are consistent with the new 36-inch diameter pipe, which this Commission previously approved for the 15-Mile Niles, Mendon and Marshall Replacement Project (MSPC Case No. U-16856), and the new 30-inch diameter pipe, which is currently pending before the Commission for the 50 mile Stockbridge to Ortonville Replacement Project (MSPC Case No. U-16838).

Table No. 2		
Pipeline Specifications	<u>36-inch Diameter Pipeline</u> (110 Miles - Segments 2B, 3A, 4A, and 5A)	<u>30-inch Diameter Pipeline</u> (50-Miles – Segment 8 Ortonville to St. Clair River)
Diameter	36-inch outside diameter 36" NPS	30-inch outside diameter 30" NPS
Wall thickness	0.500-inch wall thickness minimum	0.375-inch wall thickness minimum
Wall thickness at road/rail crossing	0.580-inch wall thickness minimum	0.469-inch wall thickness minimum
Pipe	X70 Steel pipe manufactured according to American Petroleum Institute (API) Specifications 5L	X70 Steel pipe manufactured according to American Petroleum Institute (API) Specifications 5L
Coating	Fusion Bond Epoxy	Fusion Bond Epoxy
Specified Minimum Pipe Yield Pressure for 36-inch wall thickness (72% of yield)	1400 psi	N/A
Specified Minimum Pipe Yield Pressure for 30-inch wall thickness (72% of yield)	N/A	1260 psi
Applicable Design Codes	49 CFR Part 195 and applicable national technical standards incorporated by reference.	49 CFR Part 195 and applicable national technical standards incorporated by reference.

5. Maximum Operating Pressure and Annual Capacity

Upon completion of this Project, (and the 75-mile replacement project filed with this Commission in MPSC Case Nos. U-16838 and U-16856), Enbridge will have replaced Line 6B in its entirety from Griffith, Indiana to the St. Clair River in Marysville, Michigan. This will enable Enbridge to restore Line 6B to its original ultimate pipeline capacity and along with certain facility installations at existing station sites, to provide the pipeline capacity necessary to meet its shippers' current and future transportation requirements. The replacement segments will be designed and constructed in accordance with federal pipeline safety regulations, specifically 49 Code of Federal Regulations Part 194 and 195 (49 CFR Parts 194 and 195) and any applicable national technical standards. Enbridge submits the following post-construction operating pressures and annual capacity for Line 6B, as shown on Table No. 3.

Table No. 3			
Pipeline Capacity	Existing Line 6B 30-Inch (BPD) *	Post-Construction 36-Inch (BPD) **	Post-Construction 30-Inch (BPD) **
Ultimate Design Capacity	450,000	889,000	583,333
Ultimate Annual Capacity	Ranged between 400,000 (bpd) to 410,000 (bpd)	800,000	525,000
Initial Design Capacity		550,000	550,000
Initial Annual Capacity		500,000	500,000
Maximum Operating Pressure (72% of maximum yield strength)	624 psi	1400 psi	1260 psi

* Prior to Sept. 2010.

** Stated capacity includes station upgrades indicated in Section 5 of this Exhibit.

6. Description of New Station Facilities

Enbridge plans to make certain station upgrades and minor modifications at existing station sites of Niles, Mendon, Stockbridge, Howell, Ortonville, and St. Clair, as more fully described below. The station upgrades and minor modifications described below are based on preliminary engineering design; and may be subject to slight changes as the engineering design is finalized. No new land is anticipated at this time based on these preliminary station designs. Thus, all work activities are expected to occur within the existing station site.

6.1 Existing Niles Pump Station

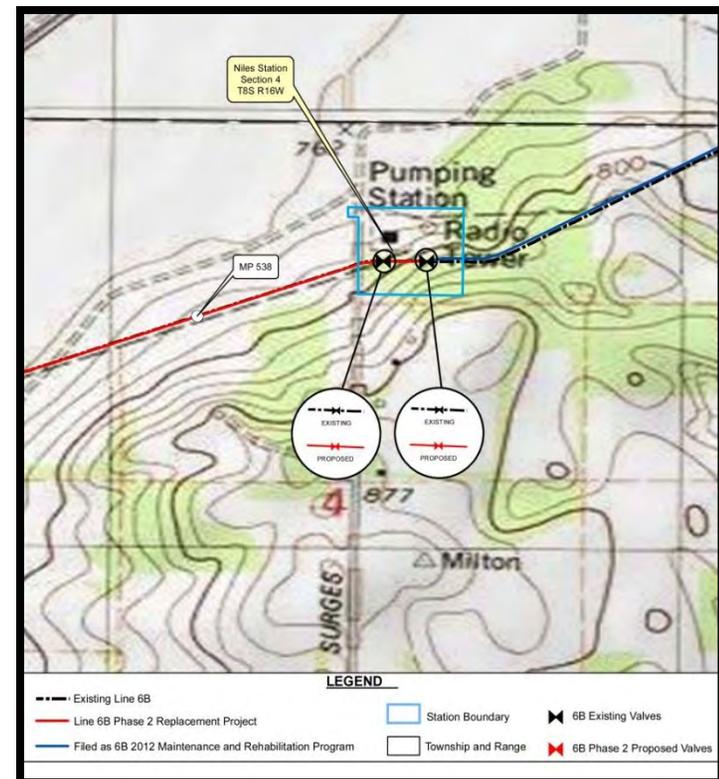
Located: Located in Section 4, Township 8 South, Range 16 West, Milton Township, Cass County, Michigan

New Station Facilities:

- One new pump station with four pumping units
- Station piping for tie-in work including associated valves and appurtenances
- Associated civil, structural, electrical, instrumentation controls, Communications and SCADA equipment and installation

Land Requirements:

All of the planned new station facilities will be located within the existing Niles Station site on land owned in fee by Enbridge. Thus, no new land requirements are anticipated at this time.



6.2 Existing Mendon Station

Location:

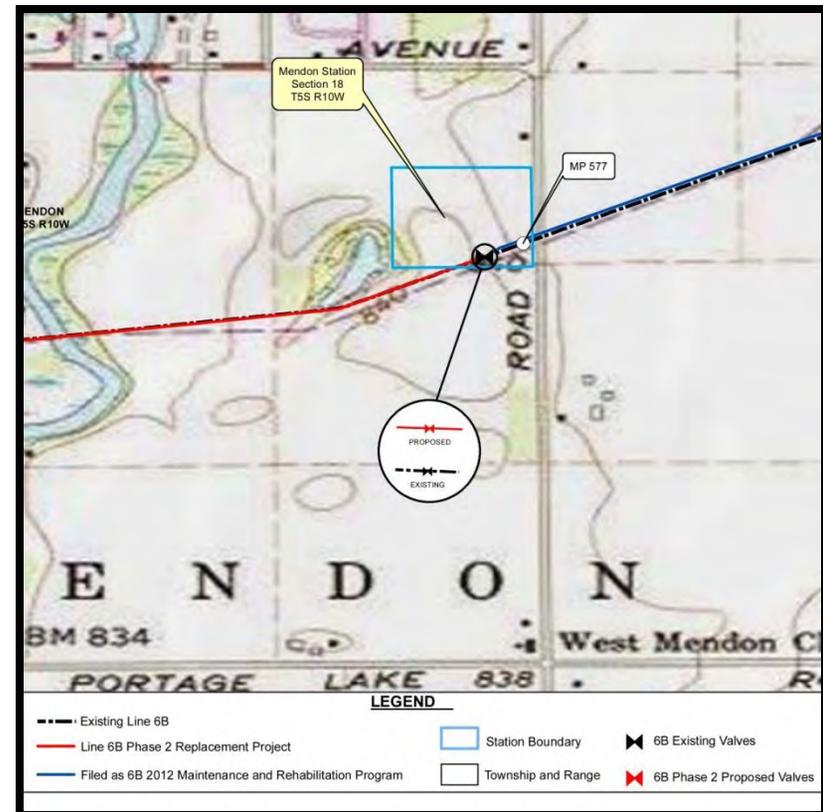
Located in Section 18, Township 5 South, Range 10 West, Mendon Township, St. Joseph County, Michigan

New Station Facilities:

- One new pump station with three pumping units
- Station piping for tie-in work including associated valves and appurtenances
- Associated civil, structural, electrical, instrumentation controls, Communications and SCADA equipment and installation

Land Requirements:

All of the planned new station facilities will be located within the existing Mendon Station site on land owned in fee by Enbridge. Thus, no new land requirements are anticipated at this time.



6.3 Existing Stockbridge Station and Terminal Facility

Location: Located in Section 6, Township 1 North, Range 2 East, Stockbridge Township, Ingham County, Michigan

New Station Facilities:

- Replacement of four pumping units at Stockbridge
- Station piping for tie-in work including associated valves and appurtenances
- 36-inch pig receiver
- Associated civil, structural, electrical, instrumentation controls, Communications and SCADA equipment and installation

Land Requirements:

All of the planned new station facilities at the existing Stockbridge Station will be located on land owned in fee by Enbridge or acquired in fee from an adjacent landowner. Thus, no new land requirements are anticipated at this time.



6.4 Existing Howell Station

Location:

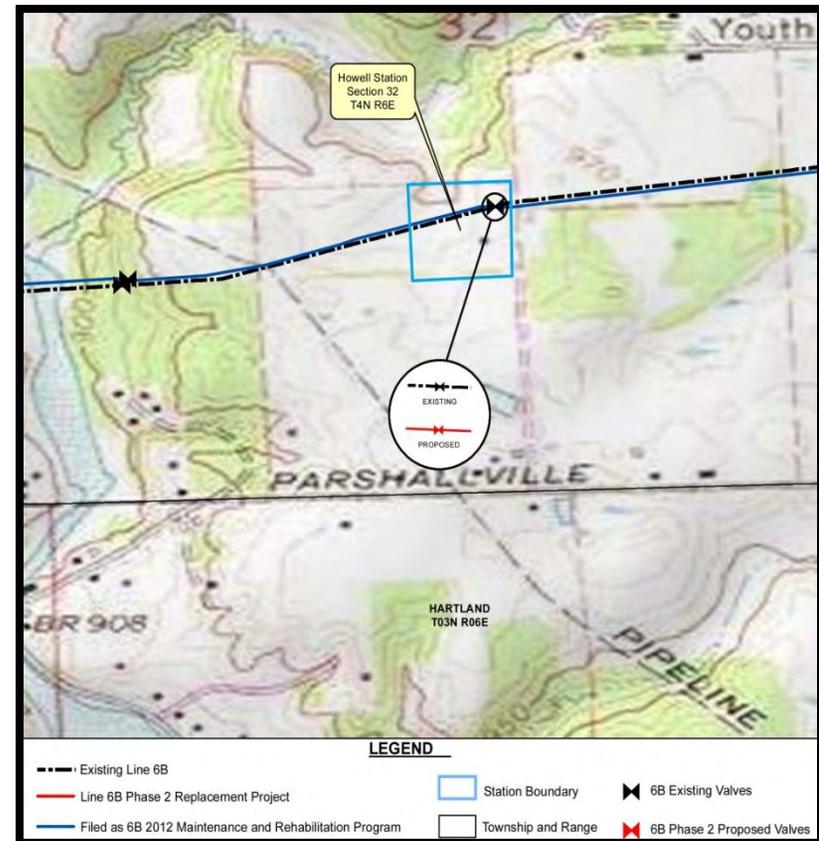
Located in Section 32, Township 3 North, Range 6 East, Hartland Township, Livingston County, Michigan

New Station Facilities:

- Replacement of existing pumping units
- Station piping for tie-in work including associated valves and appurtenances
- Associated civil, structural, electrical, instrumentation controls, Communications and SCADA equipment and installation

Land Requirements:

All of the planned new station facilities at the existing Howell Station will be located on land owned in fee by Enbridge. Thus, no new land requirements are anticipated at this time



6.5 Existing Ortonville Station

Location:

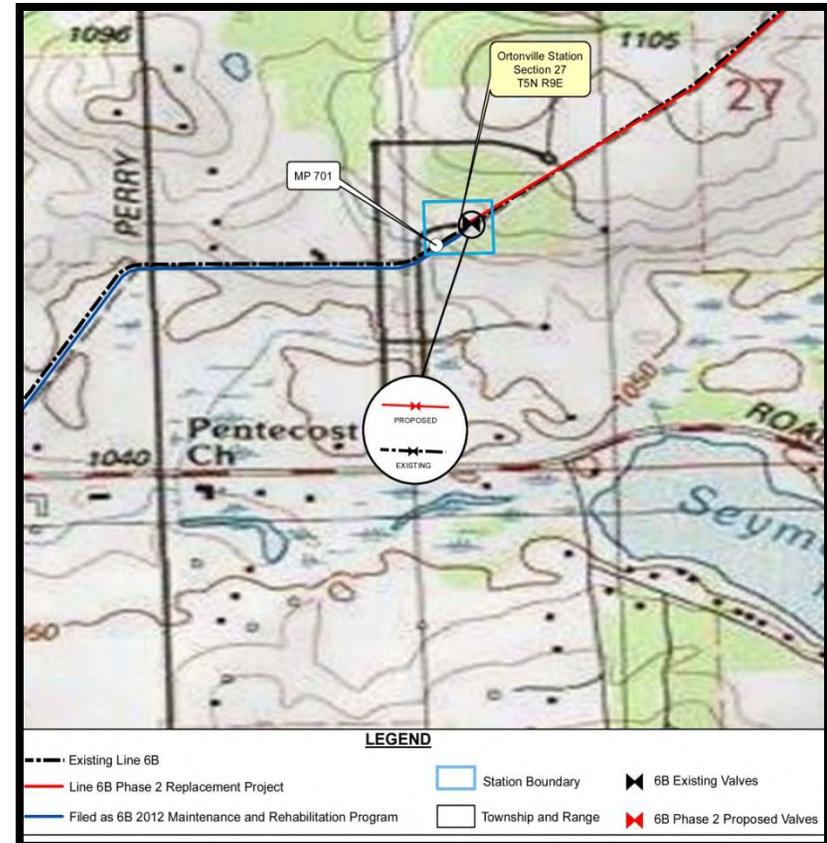
Located in Section 27, Township 5 North, Range 9 East, Brandon Township, Oakland County, Michigan

New Station Facilities:

- One new pump station with multiple pumping units
- Station piping for tie-in work including associated valves and appurtenances
- Associated civil, structural, electrical, instrumentation controls, Communications and SCADA equipment and installation

Land Requirements:

All of the planned new station facilities at the existing Ortonville Station are expected to be located on land owned in fee by Enbridge. Thus, no new land requirements are anticipated at this time.



6.6 Existing Marysville Station

Location:

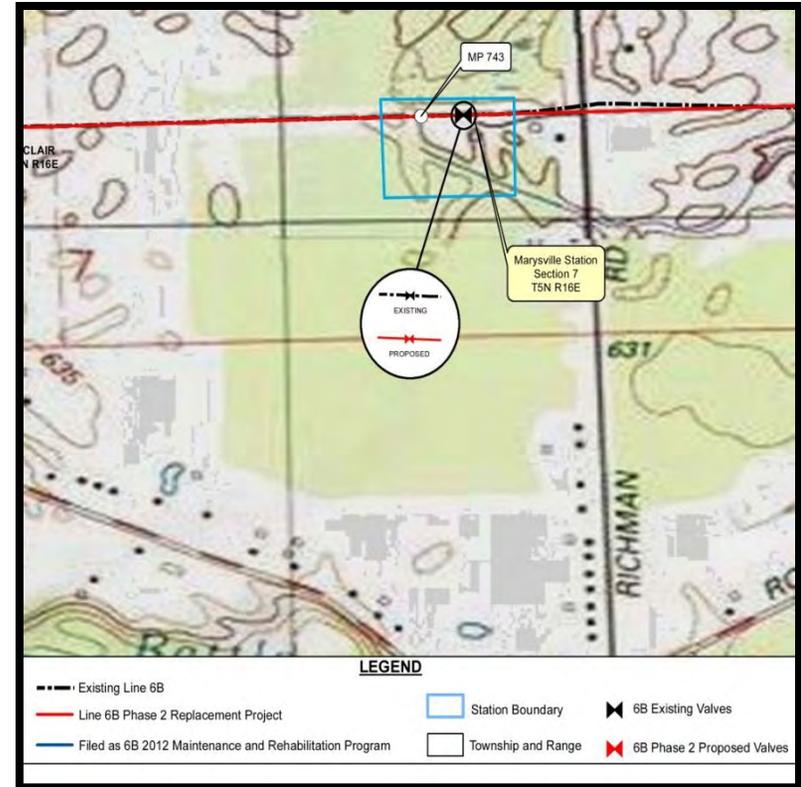
Located in Section 7, Township 5 North, Range 16 East, St. Clair Township, St. Clair County, Michigan

New Station Facilities:

- One new pump station with multiple pumping units
- Station piping for tie-in work including associated valves and appurtenances
- Associated civil, structural, electrical, instrumentation controls, Communications and SCADA equipment and installation

Land Requirements:

All of the planned new station facilities at the existing Marysville Station are expected to be located on land owned in fee by Enbridge. Thus, no new land requirements are anticipated at this time.



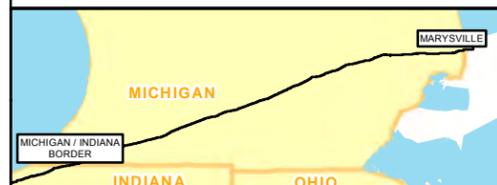


LINE 6B PHASE 2 REPLACEMENT PROJECT

INDEX MAPS

SHEET	DESCRIPTION
1	COVER SHEET
2	REGIONAL OVERVIEW MAP
3-6	TOWNSHIP AND RANGE MAP
7-103	TOPOGRAPHIC ROUTE MAPS
104-10J	TOPOGRAPHIC STATION MAP

PRELIMINARY



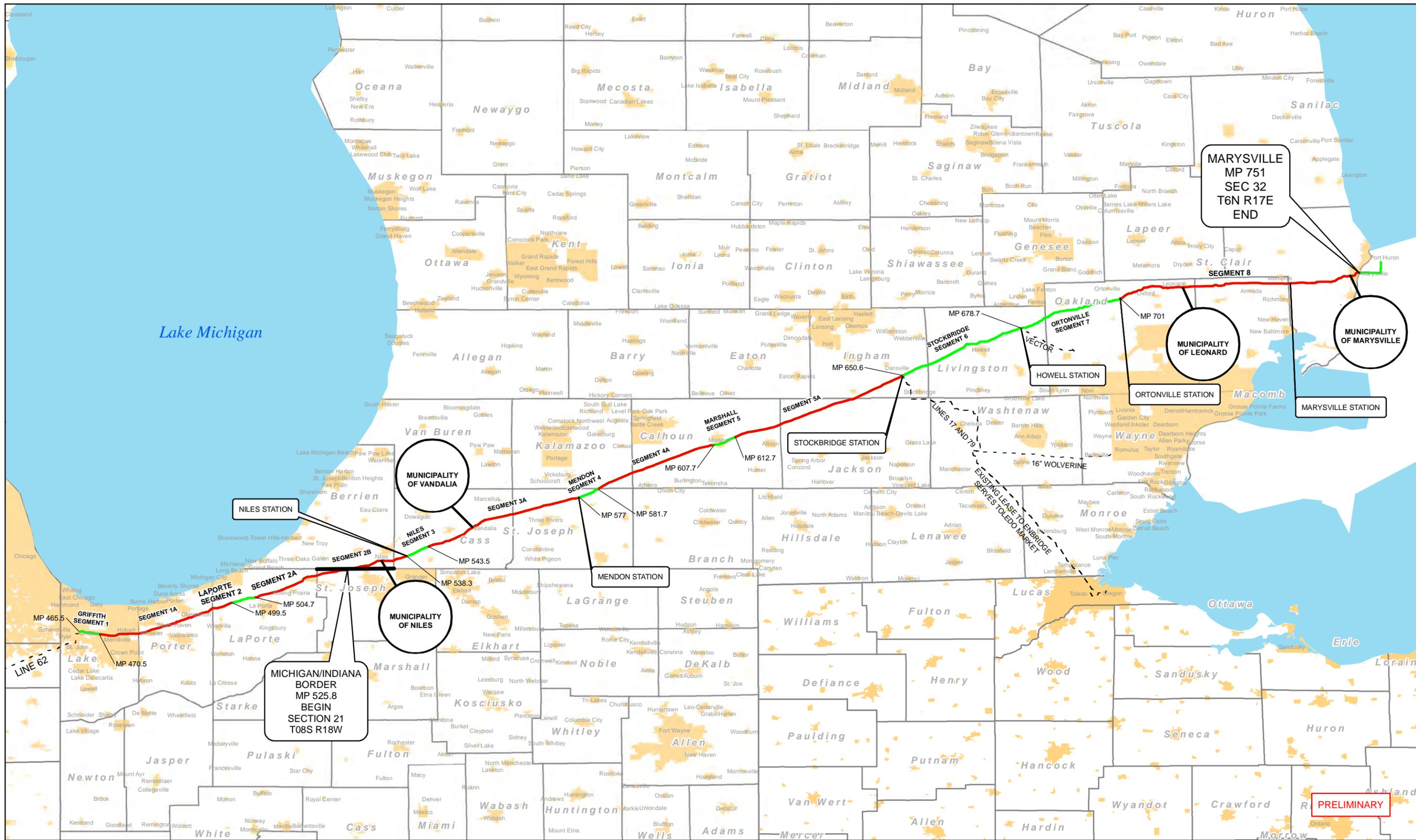
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REV	DESCRIPTION	DATE
0	PRELIMINARY PSC SUBMITTAL	XX/12

DWN BY: MPF DATE: 3/27/2012
REV BY: DATE:
APR BY: DATE:

ENBRIDGE LINE 6B PHASE 2
REPLACEMENT PROJECT
INDEX MAPS

SCALE: NA SHEET: 1 OF 109 REV: 0



MARYSVILLE
MP 751
SEC 32
T6N R17E
END

MUNICIPALITY
OF LEONARD

MUNICIPALITY
OF MARYSVILLE

HOWELL STATION

ORTONVILLE STATION

MARYSVILLE STATION

STOCKBRIDGE STATION

MENDON STATION

MUNICIPALITY
OF VANDALIA

MUNICIPALITY
OF NILES

MICHIGAN/INDIANA
BORDER
MP 525.8
BEGIN
SECTION 21
T08S R18W

NILES STATION

PRELIMINARY



- LEGEND**
- Line 6B Phase 2 Replacement Project
 - Filed as 6B 2012 Maintenance and Rehabilitation Program
 - Municipal Boundaries
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 - Lakes



REV	DESCRIPTION	DATE

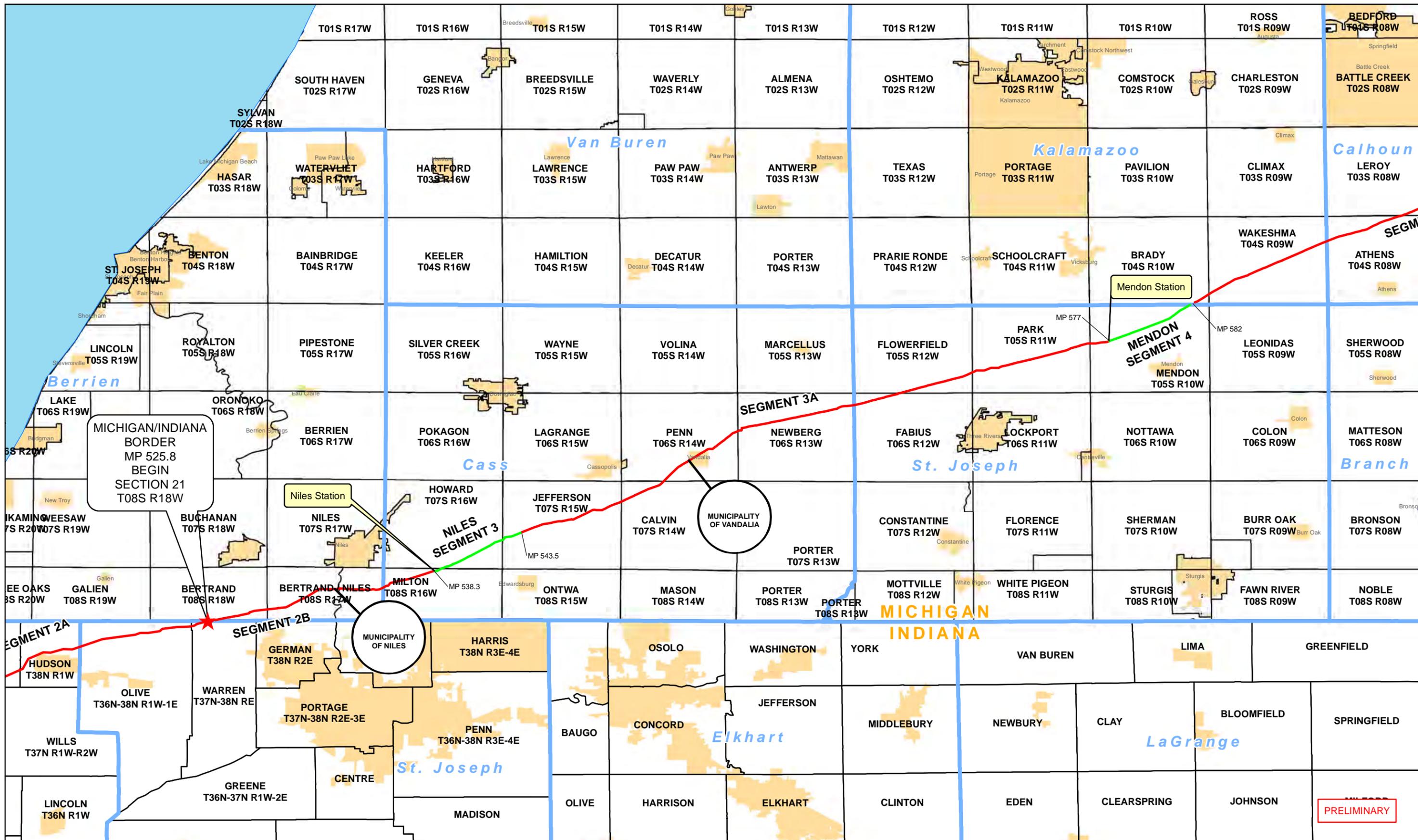
Prepared By: **TDSI**

ENBRIDGE

LINE 6B PHASE 2
REPLACEMENT PROJECT
REGIONAL OVERVIEW MAP

DWN BY: MPF DATE: 3/27/2012
REV BY: DATE:
APR BY: DATE:

SCALE: 1 IN. = 20 MI. SHEET: 2 OF 109 REV: 0



MICHIGAN/INDIANA
BORDER
MP 525.8
BEGIN
SECTION 21
T08S R18W

Niles Station

Mendon Station

MUNICIPALITY
OF NILES

MUNICIPALITY
OF VANDALIA

PRELIMINARY



LEGEND

- Line 6B Phase 2 Replacement Project
- Filed as 6B 2012 Maintenance and Rehabilitation Program
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- Counties
- Lakes

0 1.5 3 6 Miles		
REV	DESCRIPTION	DATE

Prepared By:

TDS

DWN BY: MPF DATE: 3/27/2012

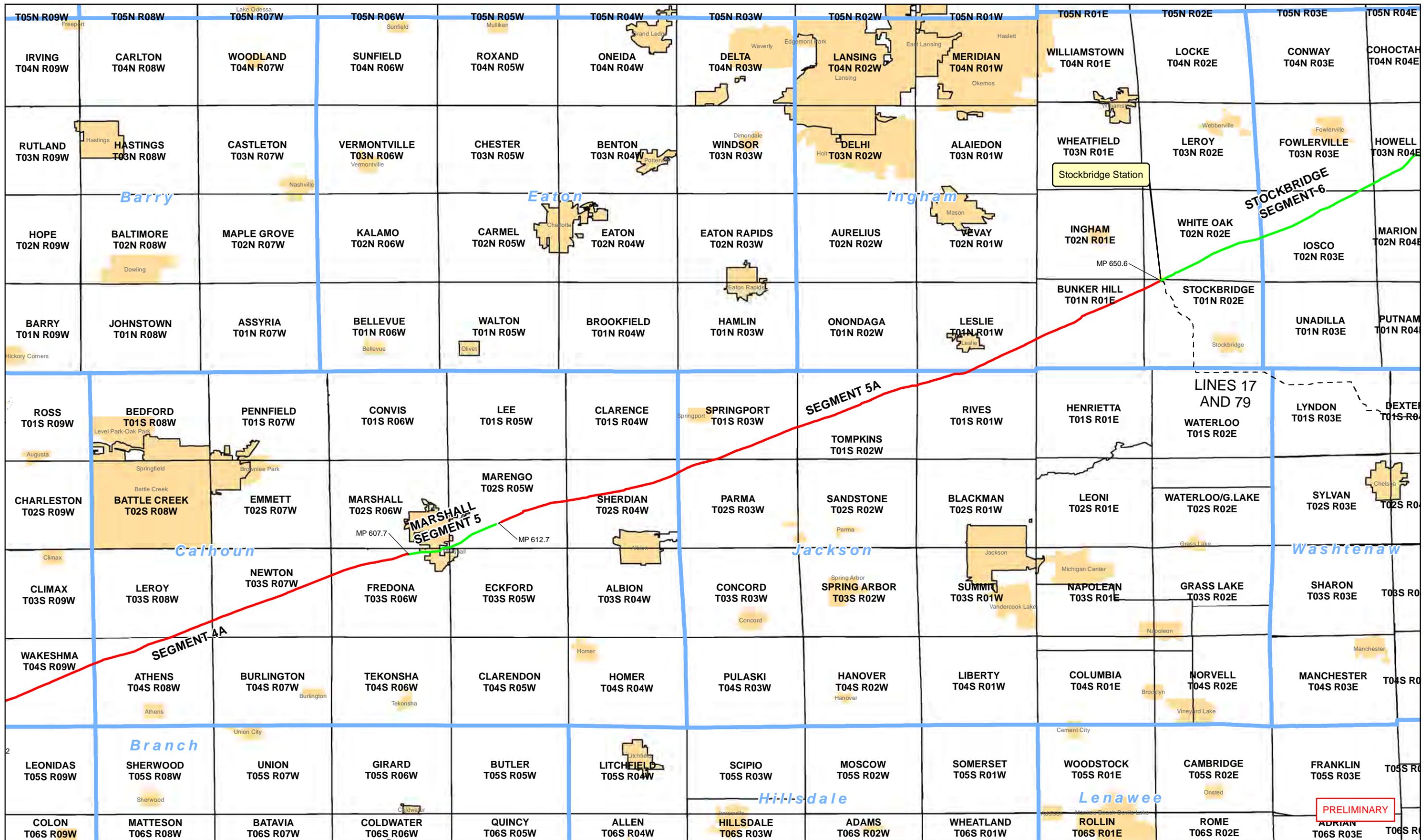
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ENBRIDGE

LINE 6B PHASE 2
REPLACEMENT PROJECT
ROUTE MAP
TOWNSHIP AND RANGE

SCALE: 1 IN. = 6 MI. SHEET: 3 OF 109 REV: 0



LEGEND

- Line 6B Phase 2 Replacement Project
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- Municipal Boundaries
- Township and Range
- Counties
- Lakes

0 1.5 3 6 Miles

REV	DESCRIPTION	DATE

Prepared By: **TDSI**

DWN BY: MPF DATE: 3/27/2012

REV BY: DATE:

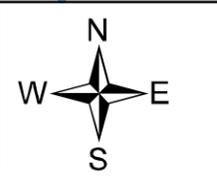
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ENBRIDGE

LINE 6B PHASE 2 REPLACEMENT PROJECT ROUTE MAP TOWNSHIP AND RANGE

SCALE: 1 IN. = 6 MI. SHEET: 4 OF 109 REV: 0

PRELIMINARY



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- Township and Range
- Counties
- Lakes

0 1.5 3 6 Miles

REV	DESCRIPTION	DATE

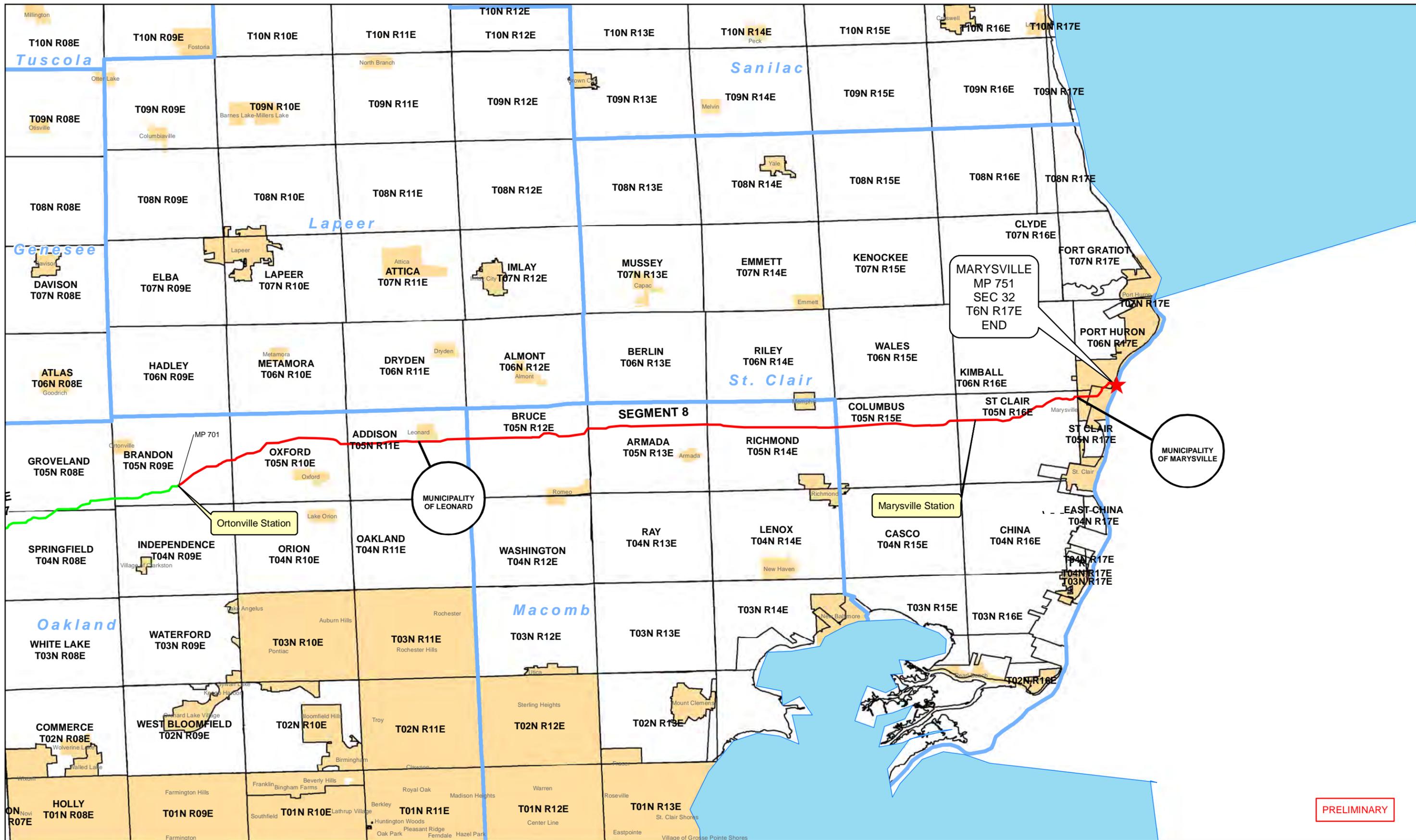
Prepared By: **TDS**

DWN BY: MPF DATE: 3/27/2012
 REV BY: DATE:
 APR BY: DATE:

ENBRIDGE

LINE 6B PHASE 2 REPLACEMENT PROJECT ROUTE MAP TOWNSHIP AND RANGE

SCALE: 1 IN. = 6 MI. SHEET: 5 OF 109 REV: 0



MARYSVILLE
MP 751
SEC 32
T6N R17E
END

MUNICIPALITY
OF LEONARD

MUNICIPALITY
OF MARYSVILLE

PRELIMINARY



LEGEND

- Line 6B Phase 2 Replacement Project
- Filed as 6B 2012 Maintenance and Rehabilitation Program
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0 1.5 3 6 Miles

REV	DESCRIPTION	DATE

Prepared By:

DWN BY: MPF DATE: 3/27/2012

REV BY: DATE:

APR BY: DATE:

LINE 6B PHASE 2
REPLACEMENT PROJECT
ROUTE MAP
TOWNSHIP AND RANGE

SCALE: 1 IN. = 6 MI. SHEET: 6 OF 109 REV: 0