

**Enbridge Line 6B MP 608
Marshall, MI Pipeline Release**

Case No.: 15-1411-CE

**Addendum to the Large Woody Debris Replacement Work Plan and
Large Woody Debris Installation Plan Supplement to Large Woody
Debris Replacement Work Plan**

Prepared for Michigan Department of Environmental Quality

Enbridge Energy, Limited Partnership

Submitted: September 8, 2016

Approved: October 13, 2016

(MDEQ Approval: September 29, 2016)

1.0 INTRODUCTION..... 1

2.0 ALTERNATE LWD REPLACEMENT LOCATIONS 1

3.0 INSTALLATION APPROACH – ALTERNATE LWD LOCATIONS..... 2

 3.1 MP 2.50 – MP 3.25 (Upstream of Ceresco Restoration Reach)..... 2

 3.2 MP 26.50 – MP 27.25 (Shady Bend Region)..... 3

 3.3 MP 31.75 – MP 32.00..... 3

 3.4 Ceresco Restoration Reach (MP 3.50 – MP 5.25) 4

4.0 SCHEDULE AND PROPERTY ACCESS UPDATES 4

5.0 REFERENCES..... 5

FIGURES

- Figure 1 Alternate Large Woody Debris Replacement Locations
- Figure 2 Upstream of Ceresco Restoration Reach (MP 2.50 – MP 3.25)
- Figure 3 Shady Bend Region (MP 26.50 – MP 27.25)
- Figure 4 Ceresco Restoration Reach (MP 3.50 – MP 5.25)

TABLES

- Table 1 Proposed Large Woody Debris Structure Locations Removed
- Table 2 Proposed Large Woody Debris Installation Schedule – Revised
- Table 3 Enbridge ROW Access Tracking Spreadsheet – LWD Installation

LIST OF ACRONYMS

Enbridge	Enbridge Energy, Limited Partnership
LWD	large woody debris
LWD Addendum	Large Woody Debris Addendum
LWD Installation Plan	<i>Large Woody Debris Installation Plan Supplement to Large Woody Debris Replacement Work Plan</i> , submitted to MDEQ on July 25, 2016
LWD Replacement Work Plan	<i>Large Woody Debris Replacement Work Plan</i> , submitted to MDEQ on June 22, 2016
MDEQ	Michigan Department of Environmental Quality
MP	Mile Post
RDB	right descending bank

1.0 INTRODUCTION

This *Addendum to the Large Woody Debris Replacement Work Plan and Large Woody Debris Installation Plan Supplement to Large Woody Debris Replacement Work Plan* (LWD Addendum) serves to document changes in both the approved *Large Woody Debris Replacement Work Plan*, submitted to the Michigan Department of Environmental Quality (MDEQ) on June 22, 2016 (LWD Replacement Work Plan) (Enbridge, 2016a) and the approved *Large Woody Debris Installation Plan Supplement to Large Woody Debris Replacement Work Plan*, submitted to MDEQ on July 25, 2016 (LWD Installation Plan) (Enbridge, 2016b). In response to landowner access constraints, Enbridge Energy, Limited Partnership (Enbridge) has prepared this LWD Addendum to propose alternate LWD replacement locations in the Kalamazoo River along with associated installation approaches to include staging areas, equipment access, and travel routes. This LWD Addendum also addresses a revised installation approach for the Ceresco Restoration Reach to avoid tracking over riffle habitat with heavy equipment. The LWD proposed work schedule has been revised as an update to the current project status and to include the alternate LWD replacement locations.

2.0 ALTERNATE LWD REPLACEMENT LOCATIONS

As outlined in LWD Replacement Work Plan, original LWD replacement locations not usable due to landowner access constraints or safety-related issues may be substituted with “alternate locations”. A total of 28 proposed LWD structure locations were eliminated due to landowner access constraints within Replacement Areas: Mile Post (MP) 35.125 – MP 36.25, and MP 36.50 – MP 37.25 (also referenced as Delta Powerline Region). A list of specific proposed structure locations removed is detailed in *Table 1*.

Selection of “alternate locations” included an evaluation of remaining MDEQ, Michigan Department of Natural Resources, and Enbridge jointly agreed-upon Alternate Areas not previously selected for LWD replacement. Based on data and observations generated during the initial LWD replacement assessment the following alternate locations were selected as replacement LWD locations:

- MP 2.50 – MP 3.25 (Upstream of Ceresco Restoration Reach),
- MP 26.50 – MP 27.25 (Shady Bend Region), and
- MP 31.75 – MP 32.00.

Utilizing the same approach for initial LWD replacement selection, Enbridge designated specific LWD locations and types of LWD structures to install within these alternate Areas. A field survey was then conducted on August 25, 2016, at each of the proposed structure locations to further refine the type, location, and extent of the proposed structures. *Figure 1* depicts proposed alternate LWD locations and structure types.

3.0 INSTALLATION APPROACH – ALTERNATE LWD LOCATIONS

Installation of proposed alternate LWD structures will in some cases require alternate staging areas and access routes. As previously noted, alternate staging and access to avoid tracking of heavy equipment over riffle habitat within Ceresco Restoration Reach is also detailed in this section.

3.1 MP 2.50 – MP 3.25 (Upstream of Ceresco Restoration Reach)

A total of 13 “alternate location” structures are proposed for installation in Upstream of Ceresco Restoration Reach river work segment to include: 2 Type 1A Log Vane; 6 Type 1B Habitat Log structures; 4 Type 2 Wooden Wing Deflector structures; and, 1 Type 3 bar apex jams structure.

The overall intent of installing LWD structures in this area is to increase the amount of LWD, which currently is lacking. This reach generally appears in stable condition and contains a high concentration of riffles containing gravel/cobble substrate. Additional structure will provide cover for fish and attachment media for macroinvertebrates.

The staging area for this river work segment consists of two areas accessed on an existing gravel trail extending from 15 Mile Road and located between MP 2.80 and MP 3.10 on the right descending bank (RDB). This 15 Mile Road staging area will be used for staging LWD and heavy equipment and as river entry points for heavy equipment. Boats used for navigation control, LWD assistance, and other project-related needs will enter/exit the river

at Saylor's Landing Boat Launch daily. *Figure 2* depicts the approximate locations of the proposed staging areas, installation locations, and equipment travel routes; and details the proposed staging area layouts and traffic patterns for access.

Barge by boat method will be the preferred approach to deliver and install LWD in Upstream of Ceresco Restoration Reach river work segment.

3.2 MP 26.50 – MP 27.25 (Shady Bend Region)

A total of 9 “alternate location” structures are proposed for installation in Shady Bend river work segment to include: 1 Type 1A Log Vane and 8 Type 1B Habitat Log structures.

This alternate area has areas of eroded bank, which can be protected by installation of habitat logs. In the case of the property parcel identified as KN-E-347.A on *Figure 1*, a log vane structure will be installed at the head of the eroded area to deflect flows away from the bank. The root wad portion of the habitat logs will be positioned against the eroded banks protecting the exposed banks from further erosion.

The staging area for this river work segment consists of the former Shady Bend Campground on the RDB at MP 27.00. This staging area will be used for staging LWD and heavy equipment, river entry points for heavy equipment, and launch point for boats. *Figure 3* depicts the locations of the proposed staging areas, installation locations, and equipment travel routes; and details the proposed staging area layouts and traffic patterns for access.

Barge by boat method will be the preferred approach to deliver and install LWD in Shady Bend river work segment.

3.3 MP 31.75 – MP 32.00

A total of 6 “alternate location” structures are proposed for installation in MP 31.75 to MP 32.00 river work segment to include: 4 Type 1B Habitat Log structures and 2 Type 2 Wooden Wing Deflector structures.

This alternate location extends upstream from the existing replacement location which spans from approximately MP 32.00 to the 35th Street Bridge. Similar to the existing work location, this alternate location generally lacks LWD and is fairly uniform in texture and features.

Installation of habitat logs and Type II wing deflectors will provide cover for fish as well as provide some complexity to the channel.

Staging and access areas along with LWD delivery methods will be the same as that proposed for LWD installation in MP 32.00 to 35th Street Bridge river work segment and detailed in LWD Installation Plan.

3.4 Ceresco Restoration Reach (MP 3.50 – MP 5.25)

Due to location of riffles identified throughout Ceresco Restoration Reach river work segment, Enbridge is proposing the amphibious excavator travel on the overbank, where necessary, to avoid tracking through riffles. Therefore, an updated figure set was prepared to outline new travel routes for the amphibious excavator from proposed staging areas and is included as part of *Figure 4*. Boat and barge access along with LWD delivery method will remain as proposed in LWD Installation Plan.

4.0 SCHEDULE AND PROPERTY ACCESS UPDATES

A revised schedule, provided as *Table 2*, assumes river work will primarily be conducted Monday through Friday with select work conducted on Saturdays (e.g., LWD delivery to staging areas, assembly of LWD structures at staging areas, mobilization, and equipment set up). Unexpected delays that may shift the proposed schedule, such as weather, are not accounted for in this schedule. Conversely, efficiencies realized during installation could reduce the forecasted work durations.

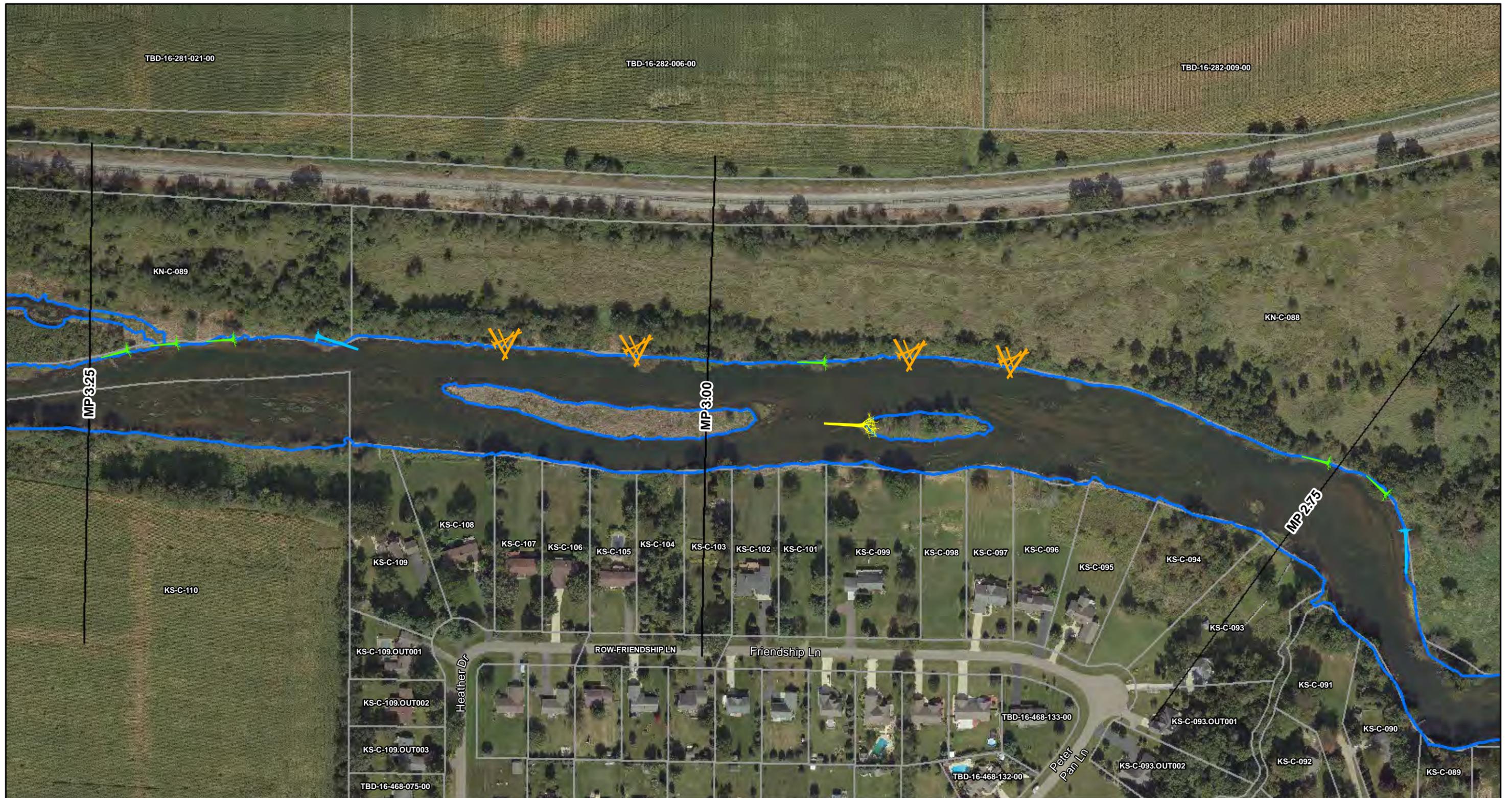
Enbridge right of way updated the property access tracking spreadsheet, in accordance with alternate LWD replacement locations, to log landowner contact activities. Refer to *Table 3* for the updated access tracking spreadsheet which includes: MP designation, affected parcels, property owners, and access verification status.

5.0 REFERENCES

Enbridge, 2016a. Enbridge Energy, Limited Partnership Line 6B MP 608 Pipeline Release, Marshall, Michigan; *Large Woody Debris Replacement Work Plan*, dated June 22, 2016.

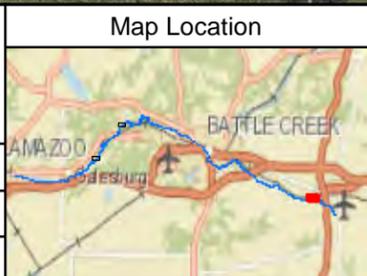
Enbridge, 2016b. Enbridge Energy, Limited Partnership Line 6B MP 608 Pipeline Release, Marshall, Michigan; *Large Woody Debris Installation Plan Supplement to Large Woody Debris Replacement Work Plan*, dated June 25, 2016.

Figures



ENBRIDGE

Drawn: EN 9/6/2016
 Approved: BP 9/6/2016
 Project #: 60481718



Legend

Large Woody Debris Typical Structures

- Type 1A (Blue arrow symbol)
- Type 1B (Green arrow symbol)
- Type 2 (Orange symbol)
- Type 3 (Yellow symbol)

- Quarter Mile Grid Segments (Black line)
- Approximate River Bank (Blue outline)
- Parcel (Grey outline)

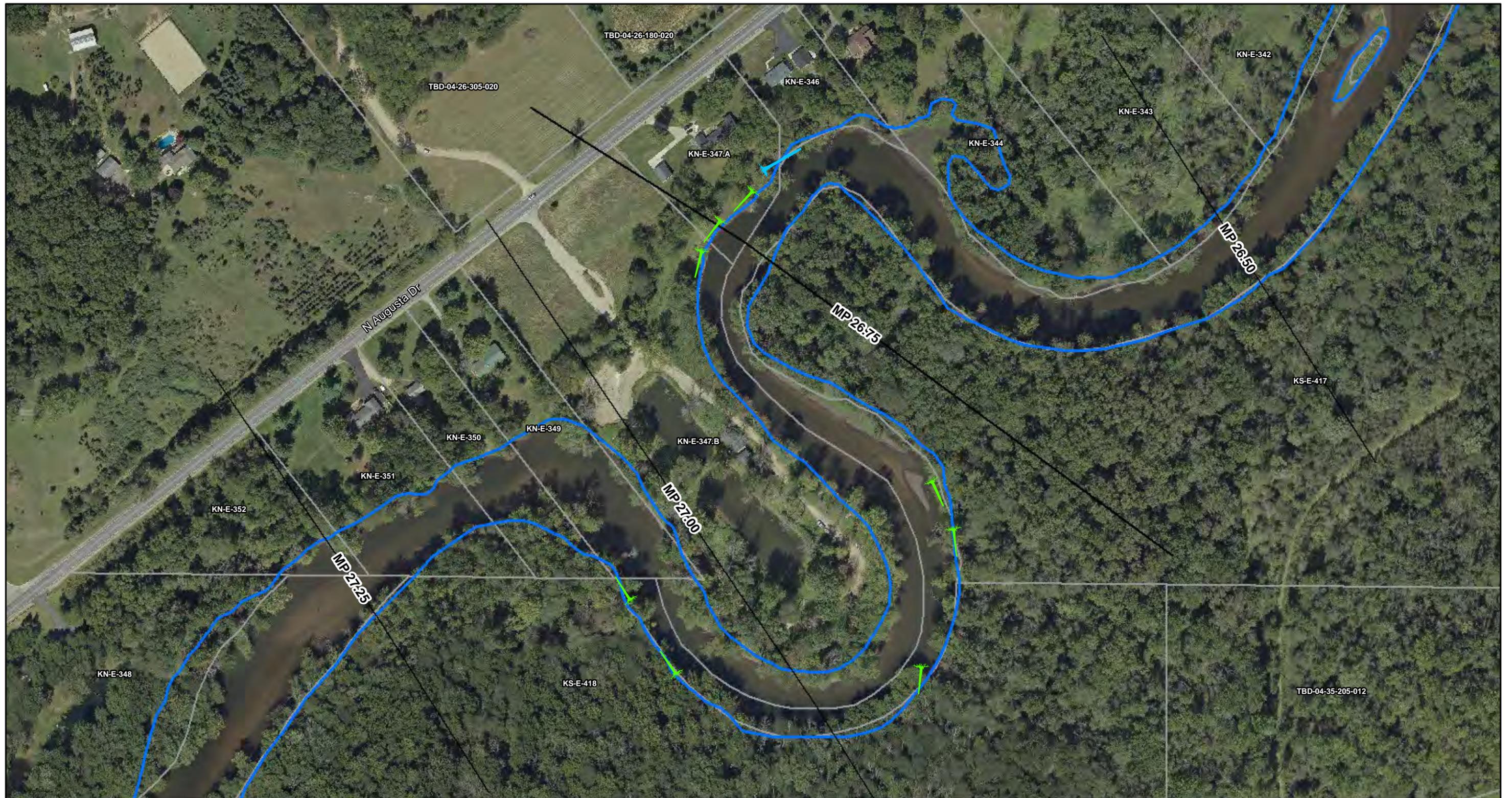
N

0 100 200 400
Scale in Feet

FIGURE 1
 LARGE WOODY DEBRIS ADDENDUM
 ALTERNATE LARGE WOODY DEBRIS
 REPLACEMENT LOCATIONS
 SHEET 1 OF 3

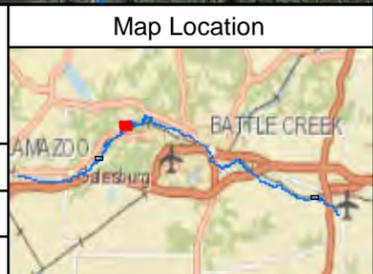
ENBRIDGE LINE 6B MP 608
 MARSHALL, MI PIPELINE RELEASE
 ENBRIDGE ENERGY, LIMITED PARTNERSHIP

Aerial Photography Date: September 2015



ENBRIDGE

Drawn: EN 9/6/2016
 Approved: BP 9/6/2016
 Project #: 60481718



Legend

Large Woody Debris Typical Structures

- Type 1A
- Type 1B
- Type 2
- Type 3

- Quarter Mile Grid Segments
- Approximate River Bank
- Parcel

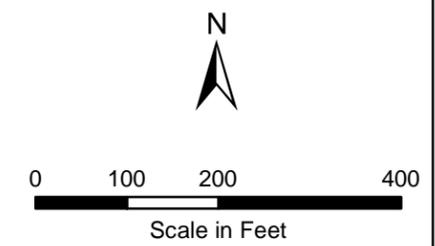


FIGURE 1
 LARGE WOODY DEBRIS ADDENDUM
 ALTERNATE LARGE WOODY DEBRIS
 REPLACEMENT LOCATIONS
 SHEET 2 OF 3

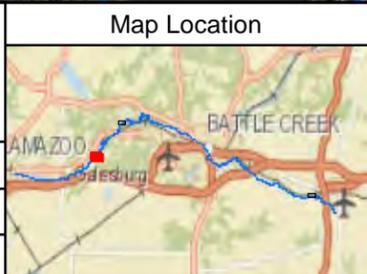
ENBRIDGE LINE 6B MP 608
 MARSHALL, MI PIPELINE RELEASE
 ENBRIDGE ENERGY, LIMITED PARTNERSHIP

Aerial Photography Date: September 2015



ENBRIDGE

Drawn: EN 9/6/2016
 Approved: BP 9/6/2016
 Project #: 60481718



Legend

Large Woody Debris Typical Structures

- Type 1A
- Type 1B
- Type 2
- Type 3

- Quarter Mile Grid Segments
- Approximate River Bank
- Parcel

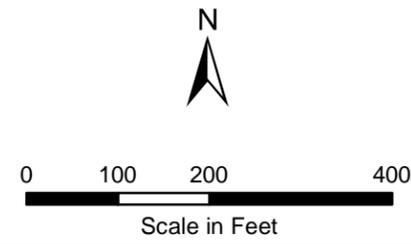
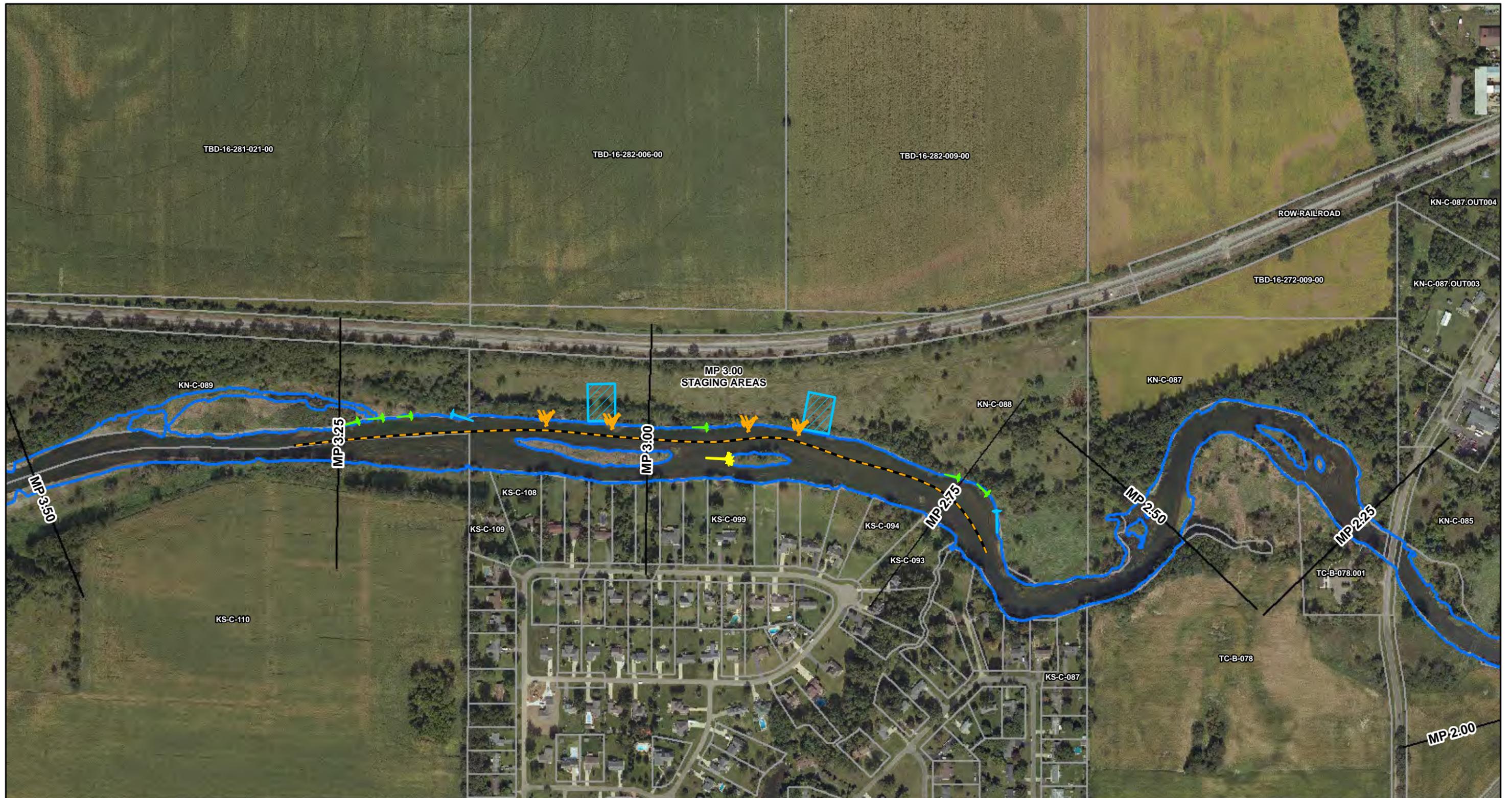


FIGURE 1
 LARGE WOODY DEBRIS ADDENDUM
 ALTERNATE LARGE WOODY DEBRIS
 REPLACEMENT LOCATIONS
 SHEET 3 OF 3

ENBRIDGE LINE 6B MP 608
 MARSHALL, MI PIPELINE RELEASE
 ENBRIDGE ENERGY, LIMITED PARTNERSHIP

Aerial Photography Date: September 2015

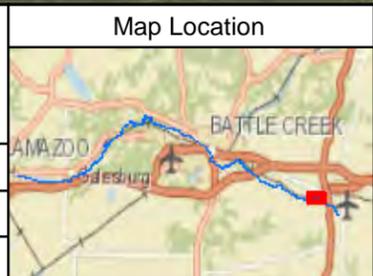


ENBRIDGE

Drawn: EN 9/6/2016

Approved: BP 9/6/2016

Project #: 60481718



Legend

Large Woody Debris Typical Structures and Count

- Type 1A
- Type 1B
- Type 2
- Type 3
- Toe Wood

Access Route

- Access/Staging Area
- Boat and Barge

- Quarter Mile Grid Segments
- Approximate River Bank
- Parcel

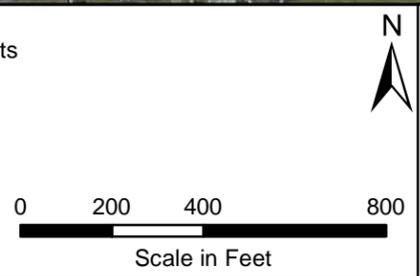
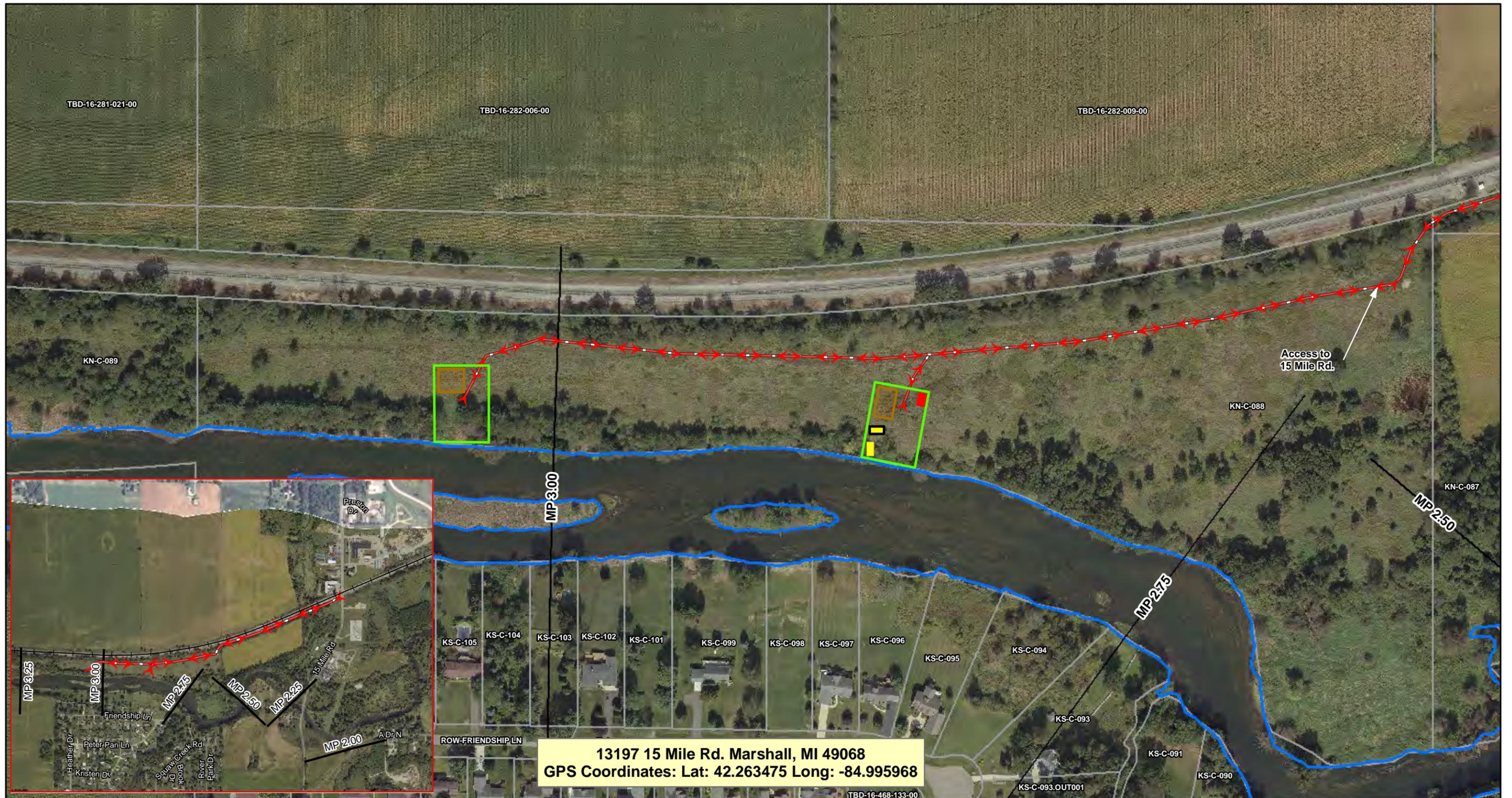


FIGURE 2
 LARGE WOODY DEBRIS ADDENDUM
 UPSTREAM OF CERESCO RESTORATION REACH
 (OVERVIEW)
 SHEET 1 OF 2

ENBRIDGE LINE 6B MP 608
 MARSHALL, MI PIPELINE RELEASE
 ENBRIDGE ENERGY, LIMITED PARTNERSHIP

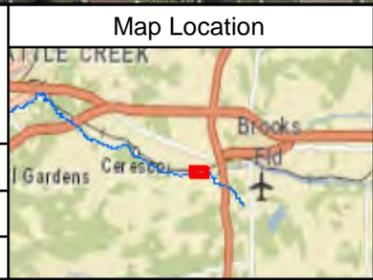
Aerial Photography Date: September 2015 over 2010



13197 15 Mile Rd. Marshall, MI 49068
GPS Coordinates: Lat: 42.263475 Long: -84.995968

ENBRIDGE

Drawn: EN 9/1/2016
 Approved: BP 9/1/2016
 Project #: 60481718



- Legend**
- Wood Staging Area
 - Amphibious Excavator
 - Conventional Excavator
 - Security
 - Staged Wood
 - Quarter Mile Grid Segments
 - Approximate River Bank
 - Parcel
 - Traffic Route

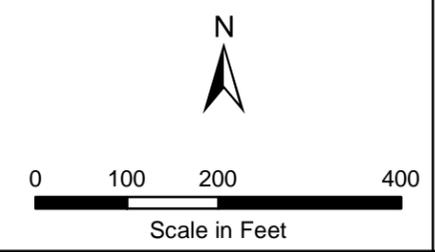
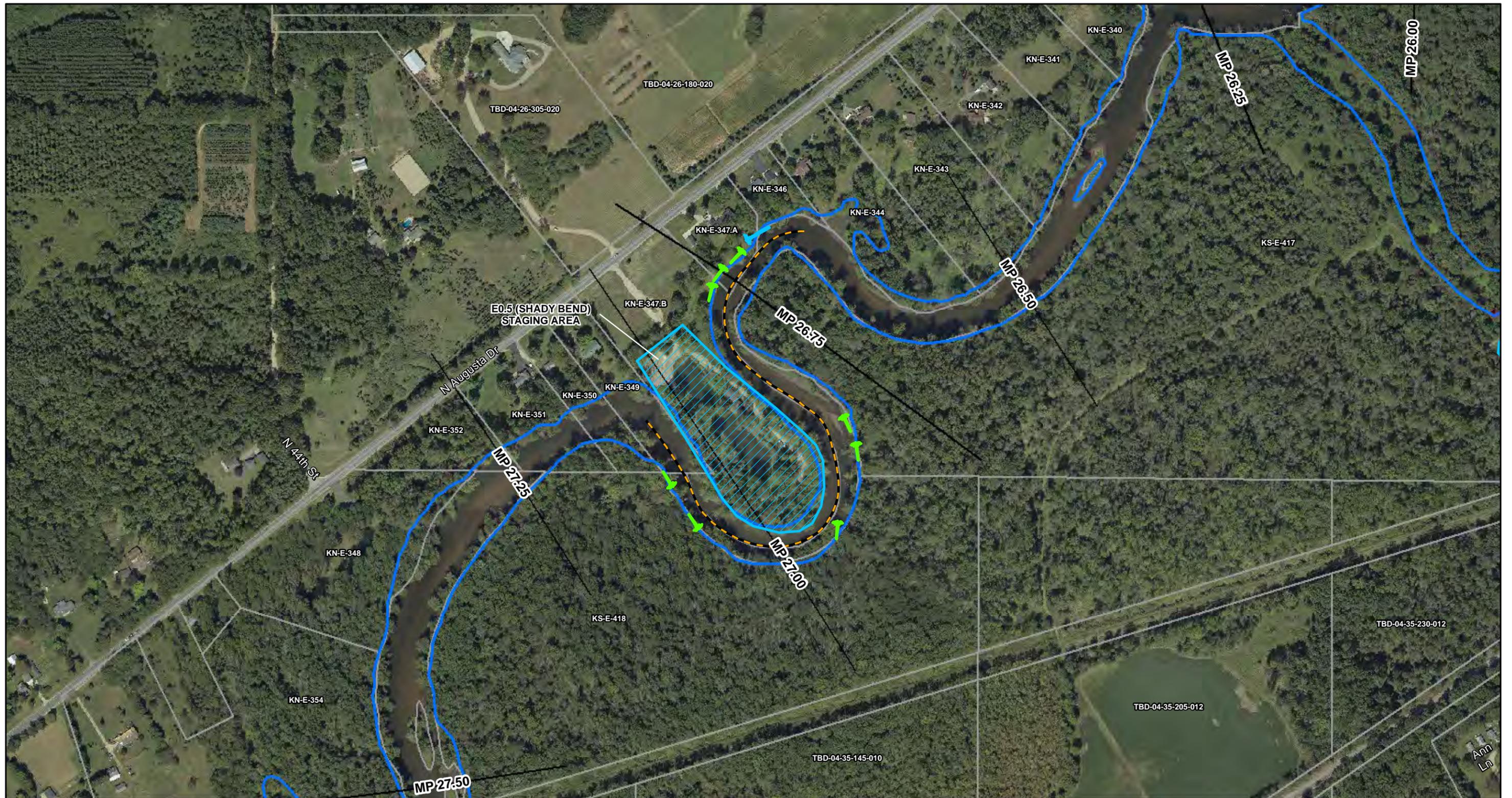


FIGURE 2
LARGE WOODY DEBRIS ADDENDUM
STAGING AREA - MP 3.00
SHEET 2 OF 2

ENBRIDGE LINE 6B MP 608
 MARSHALL, MI PIPELINE RELEASE
 ENBRIDGE ENERGY, LIMITED PARTNERSHIP

Aerial Photography Date: September 2015 over 2010

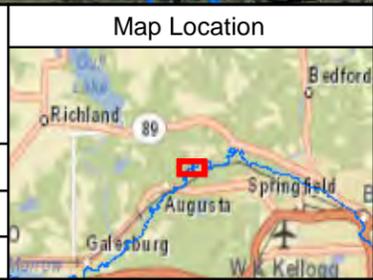


ENBRIDGE

Drawn: EN 9/6/2016

Approved: BP 9/6/2016

Project #: 60481718



Legend

Large Woody Debris Typical Structures and Count

- Type 1A
- Type 1B
- Type 2
- Type 3
- Toe Wood

Access Route

- Access/Staging Area
- Boat and Barge
- Quarter Mile Grid Segments
- Approximate River Bank
- Parcel

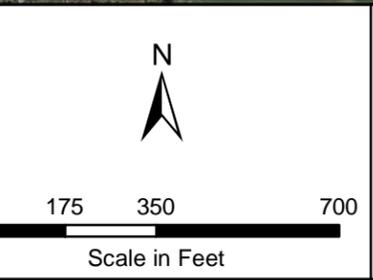


FIGURE 3

LARGE WOODY DEBRIS ADDENDUM

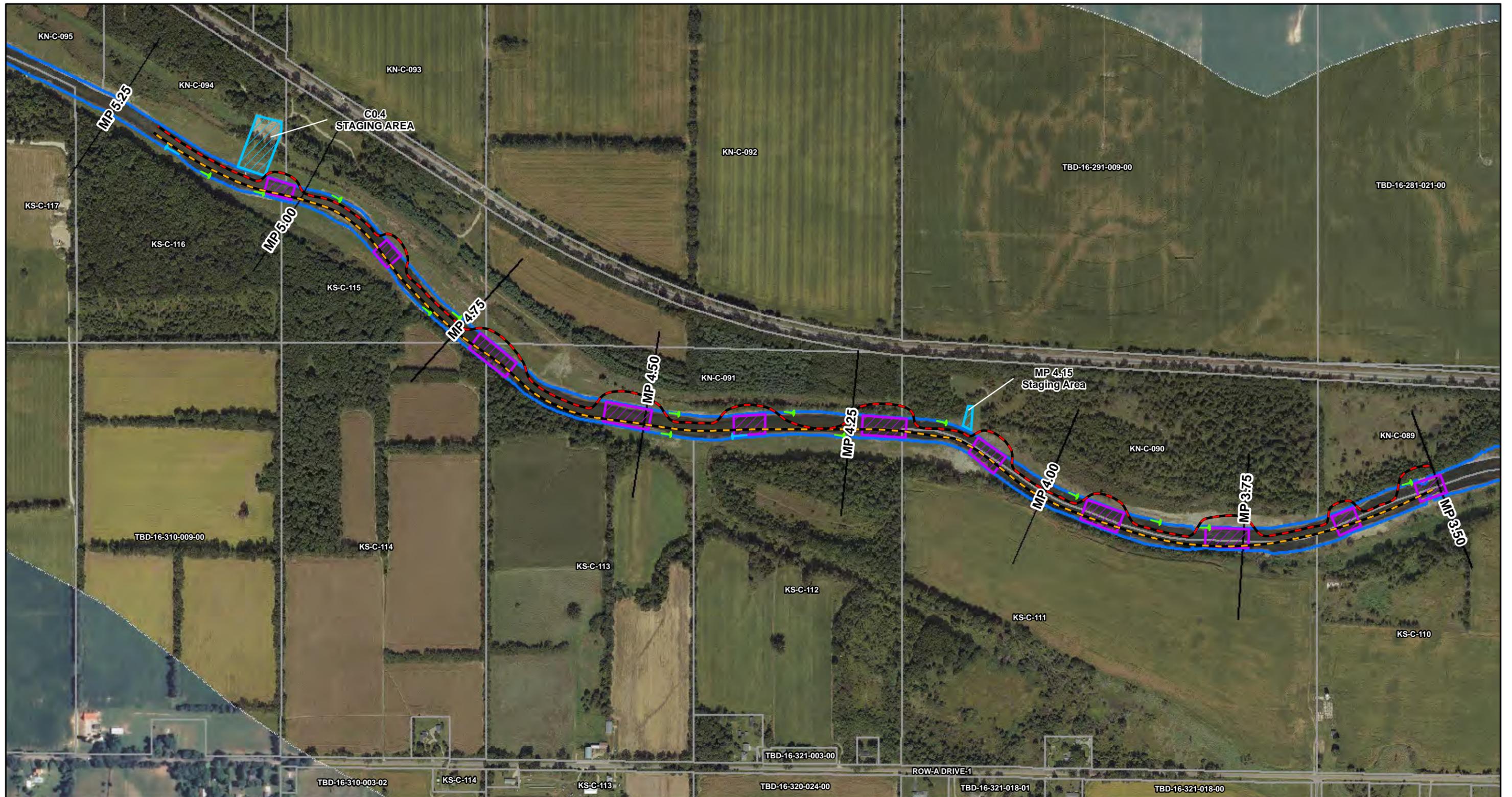
SHADY BEND REGION

(OVERVIEW)

SHEET 1 OF 2

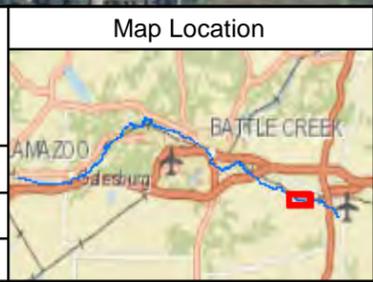
ENBRIDGE LINE 6B MP 608
MARSHALL, MI PIPELINE RELEASE
ENBRIDGE ENERGY, LIMITED PARTNERSHIP

Aerial Photography Date: September 2015 over 2010



ENBRIDGE

Drawn: EN 9/6/2016
 Approved: BP 9/6/2016
 Project #: 60481718



Legend
Large Woody Debris Typical Structures and Count

- Type 1A
- Type 1B
- Type 2
- Type 3
- Toe Wood

Access Route

- Amphibious Excavator
- Boat and Barge

Access/Staging Area
 Ceresco As-Built Riffle Boundary (2014)

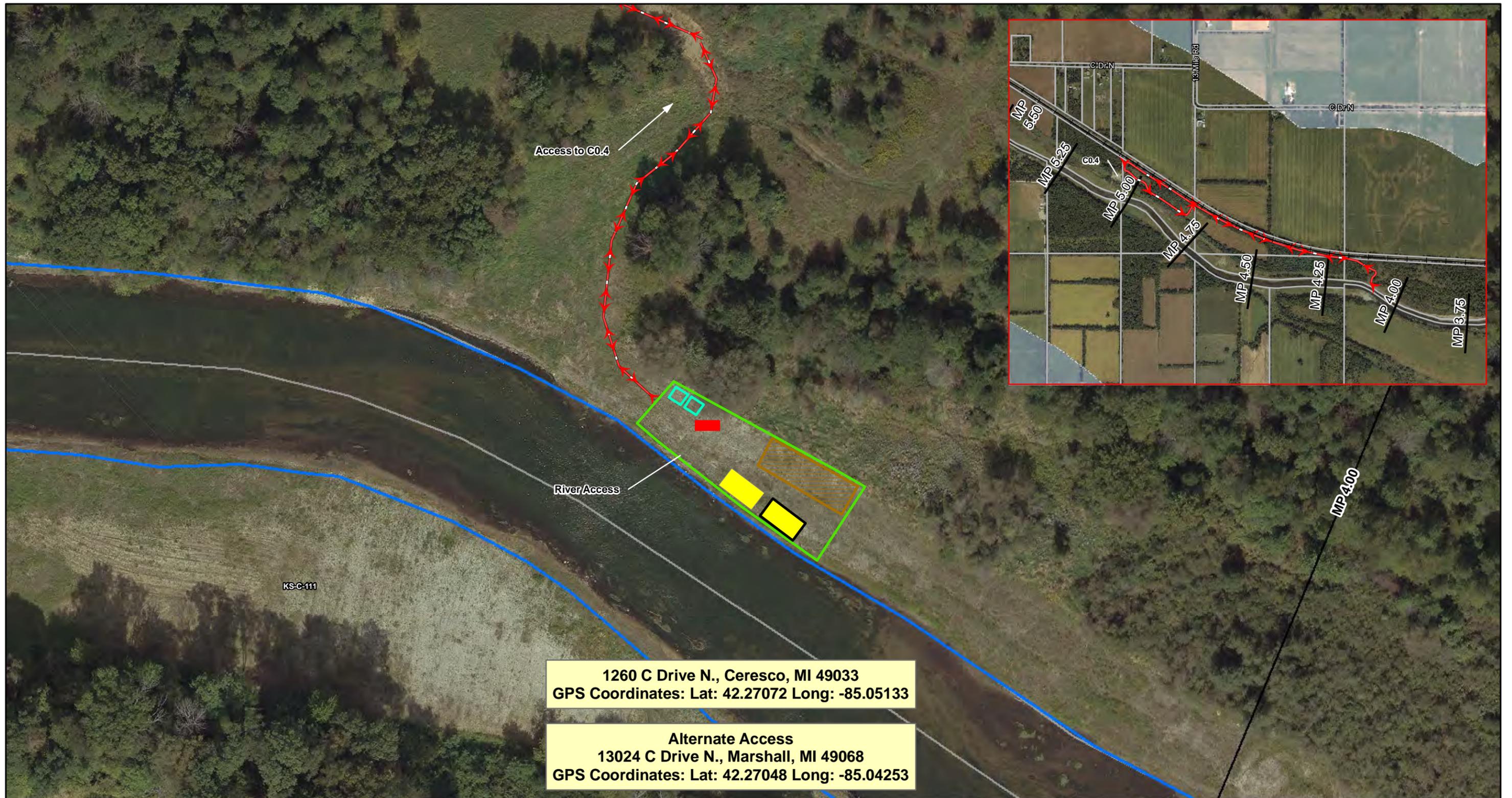
Quarter Mile Grid Segments
 Approximate River Bank
 Parcel

0 300 600 1,200
 Scale in Feet

FIGURE 4
 LARGE WOODY DEBRIS ADDENDUM
 CERESCO RESTORATION REACH
 (OVERVIEW)
 SHEET 1 OF 3

ENBRIDGE LINE 6B MP 608
 MARSHALL, MI PIPELINE RELEASE
 ENBRIDGE ENERGY, LIMITED PARTNERSHIP

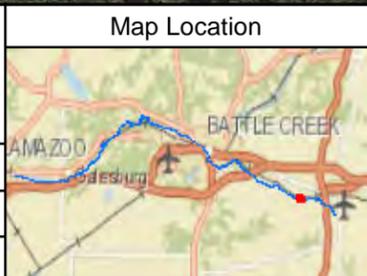
Aerial Photography Date: September 2015 over 2010



1260 C Drive N., Ceresco, MI 49033
 GPS Coordinates: Lat: 42.27072 Long: -85.05133

Alternate Access
 13024 C Drive N., Marshall, MI 49068
 GPS Coordinates: Lat: 42.27048 Long: -85.04253

Drawn:	EN	9/6/2016
Approved:	BP	9/6/2016
Project #:	60481718	



Legend	
	Amphibious Excavator
	Conventional Excavator
	Portable Sanitation Facility
	Security
	Staged Wood
	Laydown Area
	Traffic Route
	Quarter Mile Grid Segments
	Approximate River Bank
	Parcel

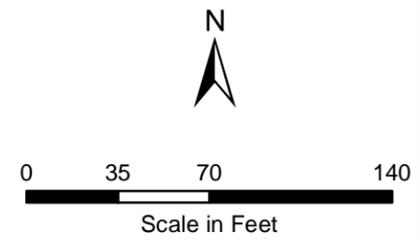


FIGURE 4
 LARGE WOODY DEBRIS ADDENDUM
 STAGING AREA - MP 4.15
 SHEET 2 OF 3

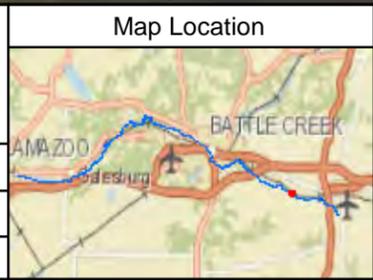
ENBRIDGE LINE 6B MP 608
 MARSHALL, MI PIPELINE RELEASE
 ENBRIDGE ENERGY, LIMITED PARTNERSHIP



1260 C Drive N., Ceresco, MI 49033
 GPS Coordinates: Lat: 42.27072 Long: -85.05133

Alternate Access
 13024 C Drive N., Marshall, MI 49068
 GPS Coordinates: Lat: 42.27048 Long: -85.04253

Drawn:	EN	9/6/2016
Approved:	BP	9/6/2016
Project #:	60481718	



Legend	
	Amphibious Excavator
	Conventional Excavator
	Portable Sanitation Facility
	Security
	Staged Wood
	Traffic Route
	Quarter Mile Grid Segments
	Approximate River Bank
	Parcel

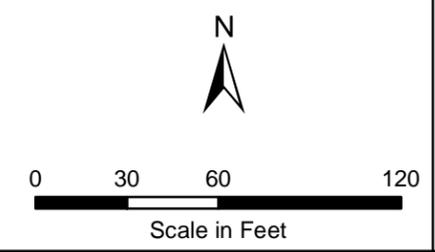


FIGURE 4
 LARGE WOODY DEBRIS ADDENDUM
 STAGING AREA - C0.4
 SHEET 3 OF 3

ENBRIDGE LINE 6B MP 608
 MARSHALL, MI PIPELINE RELEASE
 ENBRIDGE ENERGY, LIMITED PARTNERSHIP

Tables

Table 1. Proposed Large Woody Debris Structure Locations Removed
 Enbridge Line 6B MP 608 Marshall, MI Pipeline Release
 Enbridge Energy, Limited Partnership

Structure Type	Number of Structures	Structure Locations
Type 1A - Log Vane	3	MP 36.17 LDB, MP 36.19 LDB, and MP 36.21 LDB
Type 1B - Habitat Log	18	MP 35.29 LDB, MP 35.30 LDB, MP 35.31 LDB, MP 35.32 LDB, MP 35.33 LDB, MP 35.34 LDB, and All Structures in Delta Powerline Region
Type 2 - Wooden Wing Deflector	6	MP 35.57 LDB, MP 35.61 LDB, MP 35.69 LDB, MP 36.07 RDB, MP 36.11 RDB, and MP 36.04 RDB
Type 3 - APEX Jam	1	MP 35.42 LDB

Footnotes:

LDB = Left Descending Bank

MP = Mile Post

RDB = Right Descending Bank

Table 2. Proposed Large Woody Debris Installation Schedule - Revised
 Enbridge Line 6B MP 608 Marshall, MI Pipeline Release
 Enbridge Energy, Limited Partnership

Task	2016									
	September				October					
	9/5	9/12	9/19	9/26	10/3	10/10	10/17	10/24	10/31	
MP 19.25 to Fort Custer Bridge										
Shady Bend										
MP 31.75 to 35th Street Bridge										
Ceresco Restoration Reach & Upstream of Ceresco Restoration Reach										
Contingency/Demobilization										

Footnotes:
 MP = Mile Post

Table 3. Enbridge ROW Access Tracking Spreadsheet - LWD Installation
 Enbridge Line 6B MP 608 Marshall, MI Pipeline Release
 Enbridge Energy, Limited Partnership

Mile Post	Parcel ID	Land Owner	Access Verification
14.20	0168-00-001-0	RIVER OAKS APARTMENTS, LLC	OK FOR LWD
14.21	10-018-001-00	CALHOUN COUNTY LAND BANK	OK FOR LWD
14.22	0168-00-001-0	RIVER OAKS APARTMENTS, LLC	OK FOR LWD
14.23	10-018-001-00	CALHOUN COUNTY LAND BANK	OK FOR LWD
14.23	0168-00-001-0	RIVER OAKS APARTMENTS, LLC	OK FOR LWD
14.25	0168-00-001-0	RIVER OAKS APARTMENTS, LLC	OK FOR LWD
14.27	10-018-001-00	CALHOUN COUNTY LAND BANK	OK FOR LWD
14.28	0168-00-001-0	RIVER OAKS APARTMENTS, LLC	OK FOR LWD
14.29	10-560-119-00	JONES DAVID PL.	NO ACCESS - PROPERTY DOES NOT EXTEND TO RIVER
14.29	0168-00-001-0	RIVER OAKS APARTMENTS, LLC	OK FOR LWD
14.30	10-560-120-00	GARCIA, BRAULIO & RUTH MARY	NO ACCESS - PROPERTY DOES NOT EXTEND TO RIVER
14.30	0168-00-001-0	RIVER OAKS APARTMENTS, LLC	OK FOR LWD
14.31	10-560--COMMON AREA	COMMON AREA 1	OK FOR LWD
14.32	0168-00-001-0	RIVER OAKS APARTMENTS, LLC	OK FOR LWD
14.34	10-560--COMMON AREA	COMMON AREA 1	OK FOR LWD
14.37	10-560-127-00	RHOADES, KATHY K.	OK FOR LWD
14.37	0168-00-001-0	RIVER OAKS APARTMENTS, LLC	OK FOR LWD
14.40	0168-00-001-0	RIVER OAKS APARTMENTS, LLC	OK FOR LWD
14.42	10-560-132-00	RHOADES, HAROLD A. (POUR-OVER TRUST)	OK FOR LWD
14.44	0168-00-001-0	RIVER OAKS APARTMENTS, LLC	OK FOR LWD
14.45	10-560-135-00	RHOADES, HAROLD A. (POUR-OVER TRUST)	OK FOR LWD
14.46	10-560-137-00	WOODARD, PATRICIA	OK FOR LWD
14.47	10-560-137-00	WOODARD, PATRICIA	OK FOR LWD
14.48	10-560-139-00	DAMON, BRIAN M & SARA J	OK FOR LWD
14.51	6120-00-000-0	OAK RIDGE OFFICE PARK	OK FOR LWD
14.51	0168-00-001-0	RIVER OAKS APARTMENTS, LLC	OK FOR LWD
14.52	6120-00-000-0	OAK RIDGE OFFICE PARK	OK FOR LWD
14.53	6120-00-000-0	OAK RIDGE OFFICE PARK	OK FOR LWD
14.55	6120-00-000-0	OAK RIDGE OFFICE PARK	OK FOR LWD
14.55	0063-00-030-0	FLAMM PROPERTIES BATTLE CREEK LLC	OK FOR LWD
14.56	0063-00-030-0	FLAMM PROPERTIES BATTLE CREEK LLC	OK FOR LWD
14.57	0063-00-030-0	FLAMM PROPERTIES BATTLE CREEK LLC	OK FOR LWD
14.60	6120-00-000-0	OAK RIDGE OFFICE PARK	OK FOR LWD
14.62	0063-00-025-0	OAK HILL CEMETERY ASSN	OK FOR LWD
14.62	0063-00-025-0	OAK HILL CEMETERY ASSN	OK FOR LWD
14.62	6120-00-000-0	OAK RIDGE OFFICE PARK	OK FOR LWD
14.63	0063-00-025-0	OAK HILL CEMETERY ASSN	OK FOR LWD
14.63	6120-00-000-0	OAK RIDGE OFFICE PARK	OK FOR LWD
14.64	6120-00-000-0	OAK RIDGE OFFICE PARK	OK FOR LWD
14.65	6120-00-000-0	OAK RIDGE OFFICE PARK	OK FOR LWD
14.66	0063-00-025-0	OAK HILL CEMETERY ASSN	OK FOR LWD
14.67	0063-00-025-0	OAK HILL CEMETERY ASSN	OK FOR LWD
14.67	0063-00-025-0	OAK HILL CEMETERY ASSN	OK FOR LWD
14.68	0063-00-025-0	OAK HILL CEMETERY ASSN	OK FOR LWD
14.68	0063-00-025-0	OAK HILL CEMETERY ASSN	OK FOR LWD
14.68	0063-00-025-0	OAK HILL CEMETERY ASSN	OK FOR LWD
14.69	0063-00-025-0	OAK HILL CEMETERY ASSN	OK FOR LWD
14.69	6120-00-000-0	OAK RIDGE OFFICE PARK	OK FOR LWD
14.70	0063-00-025-0	OAK HILL CEMETERY ASSN	OK FOR LWD
14.70	6120-00-000-0	OAK RIDGE OFFICE PARK	OK FOR LWD
14.71	0063-00-025-0	OAK HILL CEMETERY ASSN	OK FOR LWD
14.71	6120-00-000-0	OAK RIDGE OFFICE PARK	OK FOR LWD
14.72	0063-00-025-0	OAK HILL CEMETERY ASSN	OK FOR LWD
14.72	0063-00-025-0	OAK HILL CEMETERY ASSN	OK FOR LWD
14.73	0063-00-030-0	FLAMM PROPERTIES BATTLE CREEK LLC	OK FOR LWD
14.74	0063-00-025-0	OAK HILL CEMETERY ASSN	OK FOR LWD
14.74	0063-00-030-0	FLAMM PROPERTIES BATTLE CREEK LLC	OK FOR LWD
14.75	6120-00-000-0	OAK RIDGE OFFICE PARK	OK FOR LWD
14.75	0063-00-030-0	FLAMM PROPERTIES BATTLE CREEK LLC	OK FOR LWD
14.77	ROW	MDOT	OK FOR LWD
14.80	0063-00-030-0	FLAMM PROPERTIES BATTLE CREEK LLC	OK FOR LWD

Table 3. Enbridge ROW Access Tracking Spreadsheet - LWD Installation
 Enbridge Line 6B MP 608 Marshall, MI Pipeline Release
 Enbridge Energy, Limited Partnership

Mile Post	Parcel ID	Land Owner	Access Verification
14.83	9030-00-018-1	FLAMM PROPERTIES BATTLE CREEK LLC	OK FOR LWD
14.86	ROW-I194	STATE OF MICHIGAN	OK FOR LWD
19.29	0133-00-012-0	CITY OF BATTLE CREEK	OK FOR LWD
19.30	0133-00-012-0	CITY OF BATTLE CREEK	OK FOR LWD
19.31	0133-00-012-0	CITY OF BATTLE CREEK	OK FOR LWD
19.33	0133-00-012-0	CITY OF BATTLE CREEK	OK FOR LWD
19.34	0133-00-012-0	CITY OF BATTLE CREEK	OK FOR LWD
19.35	0133-00-012-0	CITY OF BATTLE CREEK	OK FOR LWD
19.36	0133-00-012-0	CITY OF BATTLE CREEK	OK FOR LWD
19.45	4290-00-045-0	CITY OF BATTLE CREEK	OK FOR LWD
19.48	4290-00-045-0	CITY OF BATTLE CREEK	OK FOR LWD
19.51	4290-00-045-0	CITY OF BATTLE CREEK	OK FOR LWD
19.55	0133-00-021-0	CITY OF BATTLE CREEK	OK FOR LWD
19.56	0133-00-021-0	CITY OF BATTLE CREEK	OK FOR LWD
19.57	0133-00-021-0	CITY OF BATTLE CREEK	OK FOR LWD
19.59	0133-00-021-0	CITY OF BATTLE CREEK	OK FOR LWD
19.60	0133-00-021-0	CITY OF BATTLE CREEK	OK FOR LWD
19.61	0133-00-021-0	CITY OF BATTLE CREEK	OK FOR LWD
19.63	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.63	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.66	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.67	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.67	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.68	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.68	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.69	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.73	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.74	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.74	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.75	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.75	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.76	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.78	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.79	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.80	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.80	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.85	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.89	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.90	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.92	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
19.98	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
2.72	16-330-003-00	CERES FARMS, LLC	OK FOR LWD
2.73	16-330-003-00	CERES FARMS, LLC	OK FOR LWD
2.76	16-330-003-00	CERES FARMS, LLC	OK FOR LWD
2.88	16-330-003-00	CERES FARMS, LLC	OK FOR LWD
2.92	16-330-003-00	CERES FARMS, LLC	OK FOR LWD
2.94	16-468-102-00	BINKLEY, SHAWN & SHANNON	OK FOR LWD
2.96	16-330-003-00	CERES FARMS, LLC	OK FOR LWD
20.02	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
20.05	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
20.06	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
20.07	0133-00-026-0	CITY OF BATTLE CREEK	OK FOR LWD
26.72	04-26-380-061	BRADLEY, CHARLES A. & JUDY K.	NO ACCESS
26.74	04-26-380-011	BOSTWICK, LAURENCE F. & KIMBERLY M.	OK FOR LWD
26.75	04-26-380-011	BOSTWICK, LAURENCE F. & KIMBERLY M.	OK FOR LWD
26.77	04-26-380-019	NORTHSLOPE PROPERTIES LLC	OK FOR LWD
26.90	04-26-460-010	FRENCH, WILLIAM; THUNDER, JERRY; & THE LIVING TRUST OF PATRICIA HUNTINGTON	OK FOR LWD
26.91	04-26-460-010	FRENCH, WILLIAM; THUNDER, JERRY; & THE LIVING TRUST OF PATRICIA HUNTINGTON	OK FOR LWD

Table 3. Enbridge ROW Access Tracking Spreadsheet - LWD Installation
 Enbridge Line 6B MP 608 Marshall, MI Pipeline Release
 Enbridge Energy, Limited Partnership

Mile Post	Parcel ID	Land Owner	Access Verification
26.96	04-35-130-010	FRENCH, WILLIAM; THUNDER, JERRY; & THE LIVING TRUST OF PATRICIA HUNTINGTON	OK FOR LWD
27.06	04-35-130-010	FRENCH, WILLIAM; THUNDER, JERRY; & THE LIVING TRUST OF PATRICIA HUNTINGTON	OK FOR LWD
27.09	04-35-130-010	FRENCH, WILLIAM; THUNDER, JERRY; & THE LIVING TRUST OF PATRICIA HUNTINGTON	OK FOR LWD
3.03	16-330-003-00	CERES FARMS, LLC	OK FOR LWD
3.08	16-330-003-00	CERES FARMS, LLC	OK FOR LWD
3.15	16-330-015-00	CERES FARMS, LLC	OK FOR LWD
3.20	16-330-015-00	CERES FARMS, LLC	OK FOR LWD
3.22	16-330-015-00	CERES FARMS, LLC	OK FOR LWD
3.24	16-330-015-00	CERES FARMS, LLC	OK FOR LWD
3.54	16-330-015-00	CERES FARMS, LLC	OK FOR LWD
3.80	16-320-003-00	CERES FARMS, LLC	OK FOR LWD
3.86	16-320-003-00	CERES FARMS, LLC	OK FOR LWD
3.96	16-320-003-00	CERES FARMS, LLC	OK FOR LWD
31.83	08-09-351-010	EMMONS, DAN & MICHAEL	OK FOR LWD
31.86	08-09-351-010	EMMONS, DAN & MICHAEL	OK FOR LWD
31.93	08-09-351-010	EMMONS, DAN & MICHAEL	OK FOR LWD
31.96	08-09-351-010	EMMONS, DAN & MICHAEL	OK FOR LWD
32.01	08-09-351-010	EMMONS, DAN & MICHAEL	OK FOR LWD
32.03	08-09-351-010	EMMONS, DAN & MICHAEL	OK FOR LWD
32.23	08-17-376-060	BECKER, LINDA D. (LIVING TRUST)	OK FOR LWD
32.27	08-17-251-013	HOWARD, CHRISTOPHER G. & DEBRA L.	OK FOR LWD
32.28	08-17-201-010	EMMONS, DAN & MICHAEL	OK FOR LWD
32.29	08-17-251-013	HOWARD, CHRISTOPHER G. & DEBRA L.	OK FOR LWD
32.29	08-17-201-010	EMMONS, DAN & MICHAEL	OK FOR LWD
32.30	08-17-251-013	HOWARD, CHRISTOPHER G. & DEBRA L.	OK FOR LWD
32.30	08-17-201-010	EMMONS, DAN & MICHAEL	OK FOR LWD
32.31	08-17-251-013	HOWARD, CHRISTOPHER G. & DEBRA L.	OK FOR LWD
32.32	08-17-251-013	HOWARD, CHRISTOPHER G. & DEBRA L.	OK FOR LWD
32.33	08-17-251-013	HOWARD, CHRISTOPHER G. & DEBRA L.	OK FOR LWD
32.35	08-17-251-013	HOWARD, CHRISTOPHER G. & DEBRA L.	OK FOR LWD
32.38	08-17-251-013	HOWARD, CHRISTOPHER G. & DEBRA L.	OK FOR LWD
32.38	08-17-201-010	EMMONS, DAN & MICHAEL	OK FOR LWD
32.47	08-17-251-012	HOWARD, CHRISTOPHER G. & DEBRA L.	OK FOR LWD
32.48	08-17-251-012	HOWARD, CHRISTOPHER G. & DEBRA L.	OK FOR LWD
32.49	08-17-251-012	HOWARD, CHRISTOPHER G. & DEBRA L.	OK FOR LWD
32.49	08-17-201-010	EMMONS, DAN & MICHAEL	OK FOR LWD
32.50	08-17-251-012	HOWARD, CHRISTOPHER G. & DEBRA L.	OK FOR LWD
32.51	08-17-251-012	HOWARD, CHRISTOPHER G. & DEBRA L.	OK FOR LWD
32.51	08-17-201-010	EMMONS, DAN & MICHAEL	OK FOR LWD
32.71	08-17-201-010	EMMONS, DAN & MICHAEL	OK FOR LWD
32.73	08-17-201-010	EMMONS, DAN & MICHAEL	OK FOR LWD
32.75	08-17-201-010	EMMONS, DAN & MICHAEL	OK FOR LWD
32.77	08-17-201-010	EMMONS, DAN & MICHAEL	OK FOR LWD
32.81	08-17-251-042	YARGER, MARK & HEIDI	OK FOR LWD
32.81	08-17-201-010	EMMONS, DAN & MICHAEL	OK FOR LWD
32.83	08-17-251-042	YARGER, MARK & HEIDI	OK FOR LWD
32.83	08-17-201-010	EMMONS, DAN & MICHAEL	OK FOR LWD
32.84	08-17-201-010	EMMONS, DAN & MICHAEL	OK FOR LWD
32.85	08-17-201-010	EMMONS, DAN & MICHAEL	OK FOR LWD
32.91	08-17-201-010	EMMONS, DAN & MICHAEL	OK FOR LWD
33.09	08-17-101-020	TROFF, FREDERIC S. (REVOCABLE FAMILY TRUST)	OK FOR LWD
33.10	08-17-101-020	TROFF, FREDERIC S. (REVOCABLE FAMILY TRUST)	OK FOR LWD
33.11	08-17-101-020	TROFF, FREDERIC S. (REVOCABLE FAMILY TRUST)	OK FOR LWD
33.11	08-17-401-011	BECKER, LINDA D. (LIVING TRUST)	OK FOR LWD
33.12	08-17-401-011	BECKER, LINDA D. (LIVING TRUST)	OK FOR LWD

Table 3. Enbridge ROW Access Tracking Spreadsheet - LWD Installation
 Enbridge Line 6B MP 608 Marshall, MI Pipeline Release
 Enbridge Energy, Limited Partnership

Mile Post	Parcel ID	Land Owner	Access Verification
33.13	08-17-401-011	BECKER, LINDA D. (LIVING TRUST)	OK FOR LWD
33.15	08-17-401-011	BECKER, LINDA D. (LIVING TRUST)	OK FOR LWD
33.17	08-17-101-020	TROFF, FREDERIC S. (REVOCABLE FAMILY TRUST)	OK FOR LWD
33.19	08-17-401-011	BECKER, LINDA D. (LIVING TRUST)	OK FOR LWD
33.26	08-17-376-052	HAVLOCK, TIMOTHY J. & KRIS	OK FOR LWD
33.29	08-17-101-020	TROFF, FREDERIC S. (REVOCABLE FAMILY TRUST)	OK FOR LWD
33.29	08-17-376-040	HOFFMAN, JAMES E. & ROZELLA S.	OK FOR LWD
33.33	08-17-101-020	TROFF, FREDERIC S. (REVOCABLE FAMILY TRUST)	OK FOR LWD
33.35	08-17-101-020	TROFF, FREDERIC S. (REVOCABLE FAMILY TRUST)	OK FOR LWD
33.36	08-17-376-021	THELEN, DEREK	OK FOR LWD
33.37	08-17-376-021	THELEN, DEREK	OK FOR LWD
33.38	08-17-376-021	THELEN, DEREK	OK FOR LWD
33.40	08-17-376-021	THELEN, DEREK	OK FOR LWD
33.43	08-17-376-010	CELL, MICHAEL	OK FOR LWD
33.45	08-17-376-010	CELL, MICHAEL	OK FOR LWD
33.46	08-17-351-110	BORN, MARTIN & CATHERINE	OK FOR LWD
33.47	08-17-351-110	BORN, MARTIN & CATHERINE	OK FOR LWD
33.50	08-17-351-100	SIMONDS, JAMES & BEVERLY	OK FOR LWD
33.51	08-17-351-090	HERNANDEZ, GUADALUPE	OK FOR LWD
33.52	08-17-351-090	HERNANDEZ, GUADALUPE	OK FOR LWD
33.53	08-17-351-090	HERNANDEZ, GUADALUPE	OK FOR LWD
33.56	08-17-351-086	FELTCH, JAMES D. & BREANN M.	OK FOR LWD
33.57	08-17-351-086	FELTCH, JAMES D. & BREANN M.	OK FOR LWD
33.58	08-17-351-082	SALADA, MICHAEL & JUDITH (LIVING TRUST)	OK FOR LWD
33.61	08-17-351-082	SALADA, MICHAEL & JUDITH (LIVING TRUST)	OK FOR LWD
33.64	08-17-101-020	TROFF, FREDERIC S. (REVOCABLE FAMILY TRUST)	OK FOR LWD
33.65	08-17-351-071	SALADA, MICHAEL & JUDITH (LIVING TRUST)	OK FOR LWD
33.66	08-17-101-020	TROFF, FREDERIC S. (REVOCABLE FAMILY TRUST)	OK FOR LWD
33.67	08-17-351-071	SALADA, MICHAEL & JUDITH (LIVING TRUST)	OK FOR LWD
33.67	08-17-101-020	TROFF, FREDERIC S. (REVOCABLE FAMILY TRUST)	OK FOR LWD
33.68	08-17-351-071	SALADA, MICHAEL & JUDITH (LIVING TRUST)	OK FOR LWD
33.68	08-17-101-020	TROFF, FREDERIC S. (REVOCABLE FAMILY TRUST)	OK FOR LWD
33.69	08-17-351-071	SALADA, MICHAEL & JUDITH (LIVING TRUST)	OK FOR LWD
33.78	08-19-226-011	OSTERHOUSE, ANGELINE M. & GERALDINE	OK FOR LWD
33.83	08-19-226-011	OSTERHOUSE, ANGELINE M. & GERALDINE	OK FOR LWD
33.90	08-19-226-011	OSTERHOUSE, ANGELINE M. & GERALDINE	OK FOR LWD
33.91	08-19-226-011	OSTERHOUSE, ANGELINE M. & GERALDINE	OK FOR LWD
33.92	08-19-226-011	OSTERHOUSE, ANGELINE M. & GERALDINE	OK FOR LWD
33.94	08-19-226-011	OSTERHOUSE, ANGELINE M. & GERALDINE	OK FOR LWD
34.19	08-19-210-031	BALKEMA, JOSHUA	OK FOR LWD
34.23	08-19-210-031	BALKEMA, JOSHUA	OK FOR LWD
34.40	08-19-201-030	JONES, SHANE & DOORLAG, BRIANNE	OK FOR LWD
34.41	08-19-201-030	JONES, SHANE & DOORLAG, BRIANNE	OK FOR LWD
34.42	08-19-205-070	MUEHLENBECK, CARL SR. & JANICE	OK FOR LWD
34.42	08-19-201-030	JONES, SHANE & DOORLAG, BRIANNE	OK FOR LWD
34.46	08-19-201-030	JONES, SHANE & DOORLAG, BRIANNE	OK FOR LWD
34.47	08-19-201-030	JONES, SHANE & DOORLAG, BRIANNE	OK FOR LWD
34.48	08-19-201-030	JONES, SHANE & DOORLAG, BRIANNE	OK FOR LWD
34.65	08-19-126-060	CARTER, ROBERT & BEVERLY	OK FOR LWD
34.69	08-19-126-025	HOPKINS, DANIEL V.	OK FOR LWD
34.77	08-19-176-010	BLAKESLEE, RICHARD & JILLYNE	OK FOR LWD
34.78	08-19-176-010	BLAKESLEE, RICHARD & JILLYNE	OK FOR LWD
34.79	08-19-176-010	BLAKESLEE, RICHARD & JILLYNE	OK FOR LWD

Table 3. Enbridge ROW Access Tracking Spreadsheet - LWD Installation
 Enbridge Line 6B MP 608 Marshall, MI Pipeline Release
 Enbridge Energy, Limited Partnership

Mile Post	Parcel ID	Land Owner	Access Verification
34.81	08-19-176-010	BLAKESLEE, RICHARD & JILLYNE	OK FOR LWD
34.86	08-19-176-010	BLAKESLEE, RICHARD & JILLYNE	OK FOR LWD
34.90	08-19-176-010	BLAKESLEE, RICHARD & JILLYNE	OK FOR LWD
35.32	07-24-226-281	ROELOF, WAYNE & PHILLIP	OK FOR LWD
35.34	07-24-226-091	SMITH, WILLIAM & LINDA	OK FOR LWD
35.37	07-24-226-091	SMITH, WILLIAM & LINDA	OK FOR LWD
35.75	07-24-448-010	JASON KLOOSTER	OK FOR LWD
35.76	07-24-448-010	JASON KLOOSTER	OK FOR LWD
35.77	07-24-448-010	JASON KLOOSTER	OK FOR LWD
35.79	07-24-448-010	JASON KLOOSTER	OK FOR LWD
35.82	07-24-448-010	JASON KLOOSTER	OK FOR LWD
35.84	07-24-448-010	JASON KLOOSTER	OK FOR LWD
35.85	07-24-448-010	JASON KLOOSTER	OK FOR LWD
35.86	07-24-448-010	JASON KLOOSTER	OK FOR LWD
35.93	07-24-448-010	JASON KLOOSTER	OK FOR LWD
35.94	07-24-448-010	JASON KLOOSTER	OK FOR LWD
35.95	07-24-448-010	JASON KLOOSTER	OK FOR LWD
35.99	07-24-448-010	JASON KLOOSTER	OK FOR LWD
36.00	07-24-455-030	DOORLAG, DONALD D. & DIANE L.	OK FOR LWD
36.01	07-24-455-030	DOORLAG, DONALD D. & DIANE L.	OK FOR LWD
36.05	07-24-455-020	PATTERSON, WAYNE C & DEENA J	OK FOR LWD
4.14	16-320-003-00	CERES FARMS, LLC	OK FOR LWD
4.26	16-320-024-02	WINTER, NORMAN & JANICE	OK FOR LWD
4.32	16-320-012-00	GLOTFELTY, PHILIP III	OK FOR LWD
4.39	16-320-024-02	WINTER, NORMAN & JANICE	OK FOR LWD
4.46	16-320-012-00	GLOTFELTY, PHILIP III	OK FOR LWD
4.47	16-320-018-00	MAISNER, JACOB C.	OK FOR LWD
4.76	16-301-006-00	GLOTFELTY, PHILIP III	OK FOR LWD
4.79	16-301-009-00	VANDENHEEDE, MARK R. & JOANNE	OK FOR LWD
4.96	16-301-006-00	GLOTFELTY, PHILIP III	OK FOR LWD
5.05	16-301-003-00	VANDENHEEDE, MARK & JOANNE	OK FOR LWD
5.12	16-301-003-00	VANDENHEEDE, MARK & JOANNE	OK FOR LWD
5.17	16-301-003-00	VANDENHEEDE, MARK & JOANNE	OK FOR LWD
25.40	04-25-360-010	FRENCH, WILLIAM; THUNDER, JERRY; & THE LIVING TRUST OF PATRICIA HUNTINGTON	OK FOR LWD

Footnotes:

LWD = Large Woody Debris