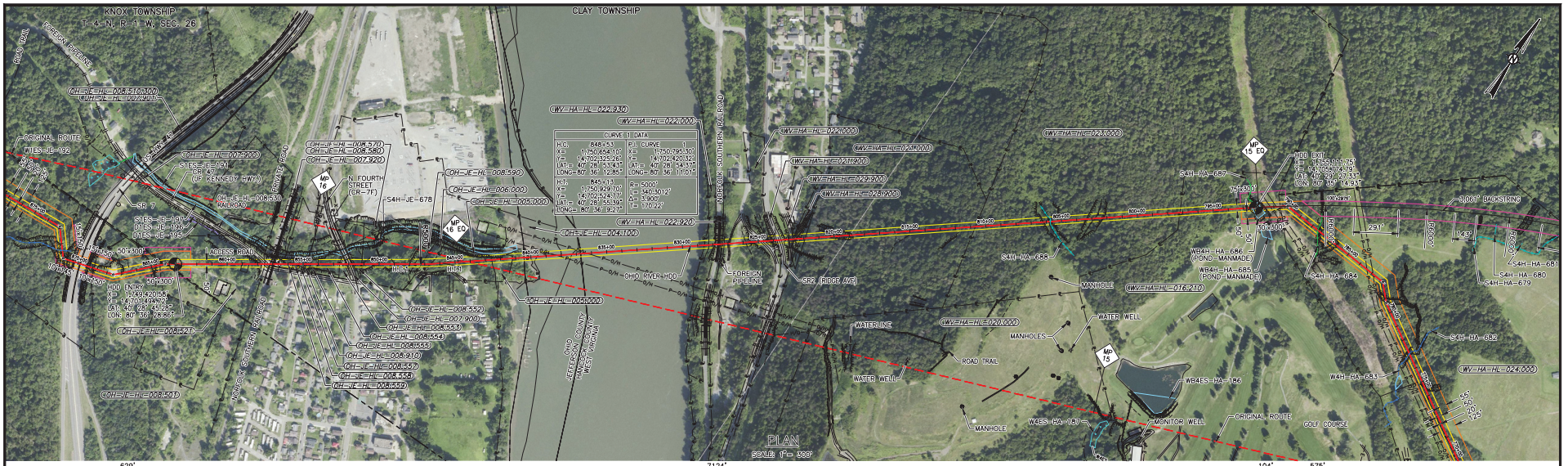
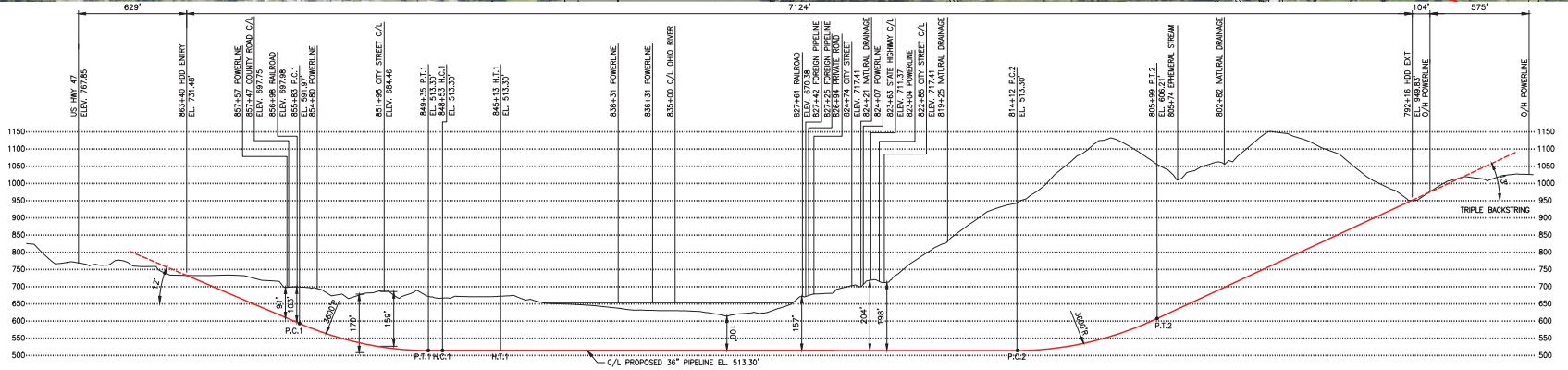
APPENDIX G-2

Horizontal Directional Drill Site-Specific Plan





OHIO RIVER HDD

PROFILE

HORIZONTAL SCALE: 1"= 300'
VERTICAL SCALE: 1"= 150'

SPECIFICATIONS:

CARRIER PIPE: 36.000" O.D. X 0.750" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: TBD
DESIGN FACTOR: 0.5
TRUE LENGTH: 7,190 FT.

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:
- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:
- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE	NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
BG-P3-1018	ALIGNMENT	C	FERC FILING UPDATE	LRW	6-24-15	JHR	JHR
BG-P3-1017	ALIGNMENT	B	FERC FILING UPDATE	MFZ	6-3-15	CRF	JHR
BG-P3-1016	ALIGNMENT	A	PRELIMINARY	LRW	2-10-15	CRF	JHR

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID						
CONSTR.						
CADDS	PLOT DATE:					
	FILE NAME:					

P.I./STA. NO.
ACCOUNT NO.
CONSTRUCTION YEAR 2016

	BY	DATE
DESIGN	JHR	
DRAWN	KMA	9-12-14
ASBUILT		,
FILE NO.		
SCALE: NOTED		

ROVER PIPELINE
An ENERGY TRANSFER Company

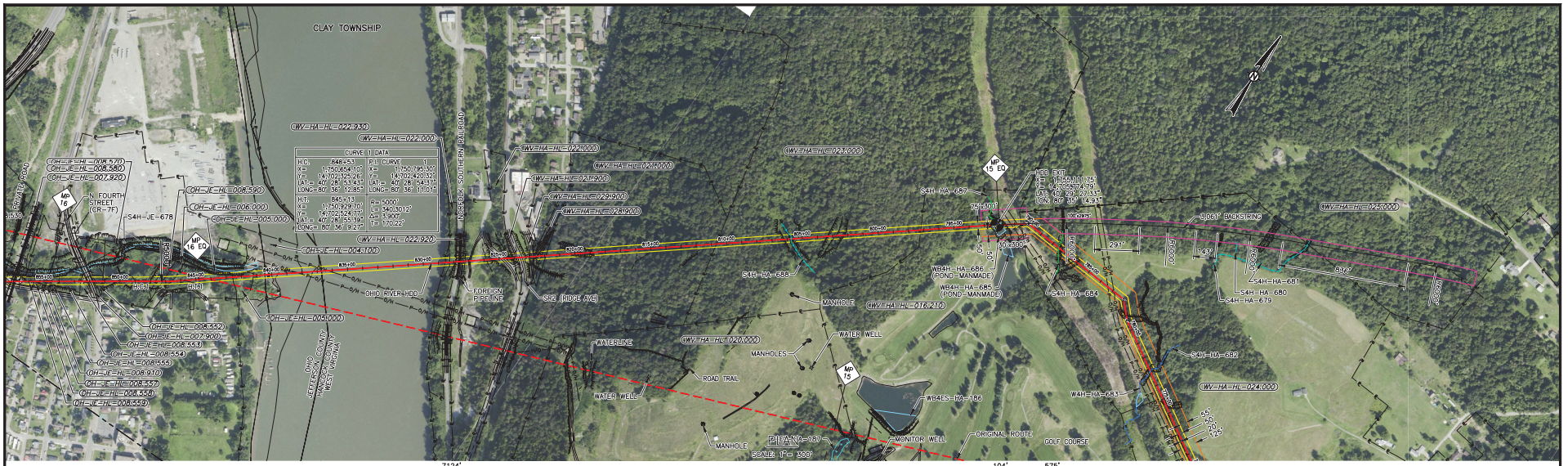
ROVER PIPELINE PROJECT
BURGETTSTOWN LATERAL - 36" NG PIPELINE
OHIO RIVER HDD
M.P. 15.0 TO M.P. 16.1
HANCOCK, WEST VIRGINIA TO JEFFERSON, OHIO

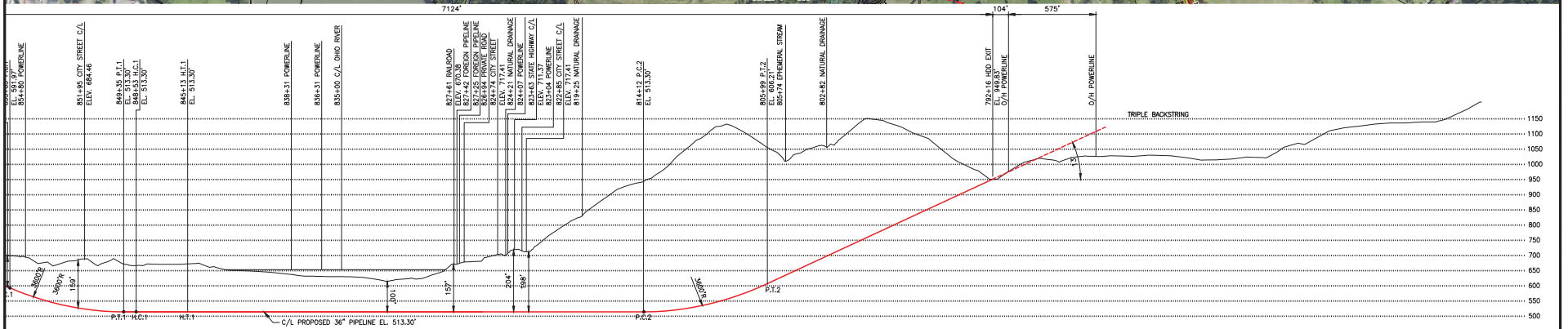
PROJECT NO. 588000000009
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. BG-P4-45
SHEET 1 OF 1
REV. A

06-25-15 13:57 141.38 28 LRW

G2-3

Appendix G-2





OHIO RIVER HDD

PROFILE

HORIZONTAL SCALE: 1"= 300'
VERTICAL SCALE: 1"= 100'

SPECIFICATIONS:

CARRIER PIPE: 36.000" O.D. X 0.750" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN – "TBD" PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: TBD
DESIGN FACTOR: 0.5
TRUE LENGTH: 7,190 FT.

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDANCE WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:
- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:
- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
BG-P3-1018	ALIGNMENT
BG-P3-1017	ALIGNMENT
BG-P3-1016	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
B	FERC FILING UPDATE	MFZ	6-3-15	CRF	JHR
A	PRELIMINARY	LRW	2-10-15	CRF	JHR

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
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BID						
CONSTR.						
CADDS	PLOT DATE:					
	FILE NAME:					

P.I./STA. NO.
ACCOUNT NO.

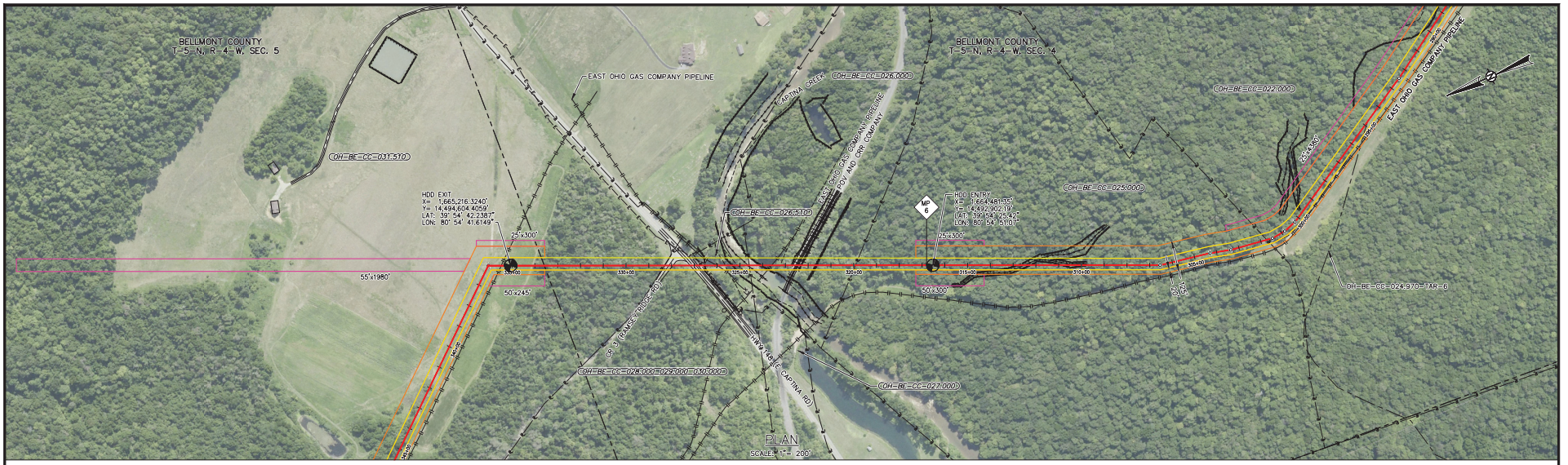
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DESIGN		JHR	
DRAWN		KMA	9-12-14
AS BUILT			
FILE NO.			
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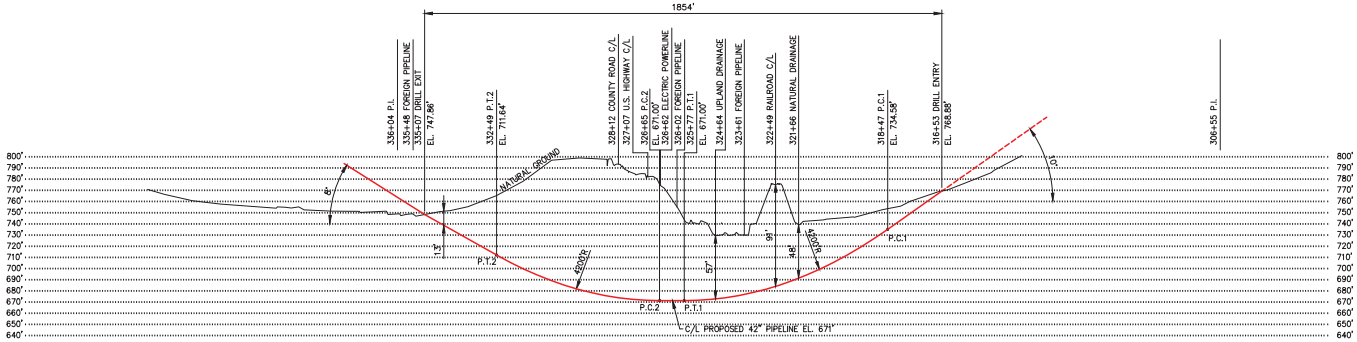
ROVER PIPELINE
An ENERGY TRANSFER Company

ROVER PIPELINE PROJECT
BURGETTSTOWN LATERAL – 36" NG PIPELINE
OHIO RIVER HDD BACKSTRING
M.P. 15.0 TO M.P. 16.1
HANCOCK, WEST VIRGINIA TO JEFFERSON, OHIO

PROJECT NO. 588000000009
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. BG-P4-45_BS
SHEET 1 OF 1
B

24 LRW
06-05-15 15:27 141.38





CAPTINA CREEK HDD
PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 50'

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: TBD
DESIGN FACTOR: 0.5
TRUE LENGTH: 1,865 FT.

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD TRUTRACKER WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:
- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:
- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
CL-P3-1007	ALIGNMENT

NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
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B	FERC FILING	GJD	1-15-15	CRF	JHR
A	FERC DRAFT FILING	GJD	11-21-14	CRF	JHR

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID						
CONSTR.						
CADDS	PLOT DATE:					
	FILE NAME:					

P.I./STA. NO.
ACCOUNT NO.
CONSTRUCTION YEAR 2016

	BY	DATE
DESIGN	JHR	
DRAWN	GJD	11-21-14
AS-BUILT		

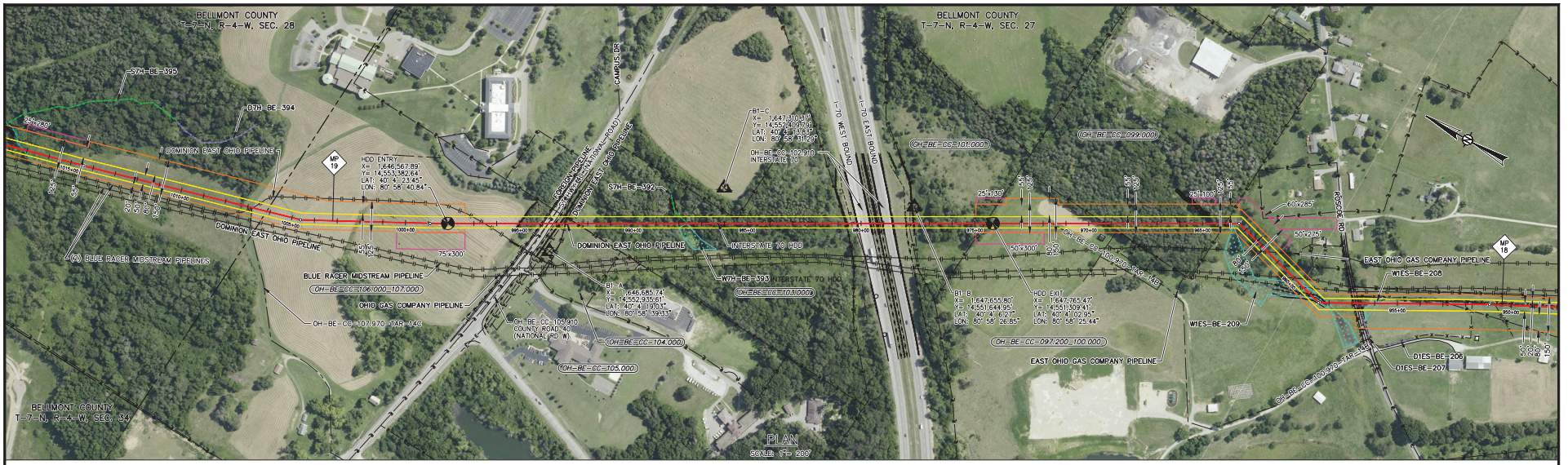
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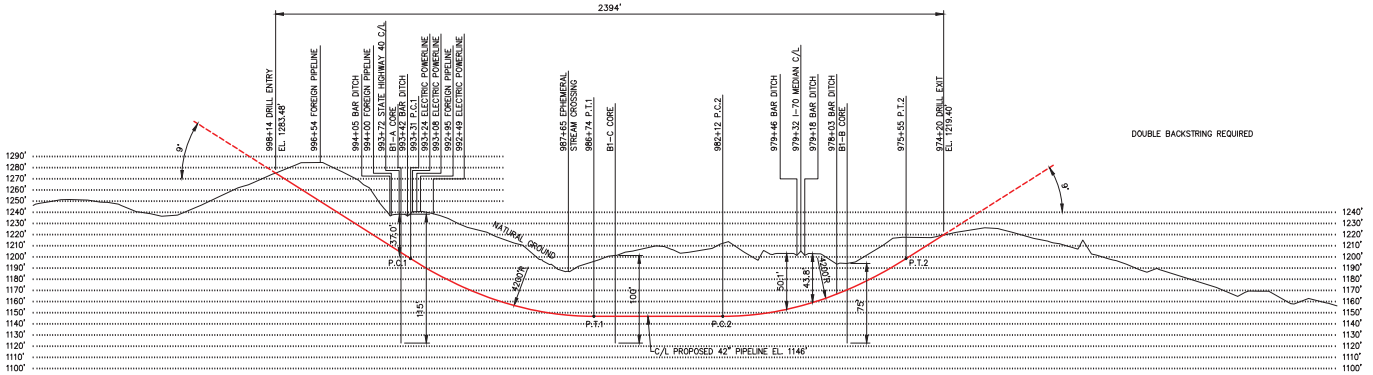
ROVER PIPELINE
An ENERGY TRANSFER Company

ROVER PIPELINE PROJECT
CLARINGTON LATERAL - 42" NG PIPELINE
CAPTINA CREEK HDD
M.P. 6.0 TO M.P. 6.4
ALLEDONIA, OHIO

PROJECT NO. 585000000005
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. CL-P4-41
SHEET 1 OF 1
C

06-05-15 9:05 14:38 9 ADM





INTERSTATE 70 HDD
PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 50'

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: TBD
DESIGN FACTOR: 0.5
TRUE LENGTH: 2,407 FT.

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD TRUTRACKER WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE	NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
		D	FERC FILING UPDATE	ADM	6-03-15	JHR	JHR
		C	FERC FILING	GJD	1-15-15	CRF	JHR
		B	GEOTECHNICAL CORE COLLECTION	RBR	11-7-14	CRF	JHR
CL-P3-1021	ALIGNMENT	A	FERC DRAFT FILING	NLM	11-5-14	CRF	JHR

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID						
CONSTR.						
CADDS	PLOT DATE:					
	FILE NAME:					

P.I./STA. NO.
ACCOUNT NO.
CONSTRUCTION YEAR 2016

	BY	DATE
DESIGN	JHR	
DRAWN	KMA	10-1-14
AS-BUILT		

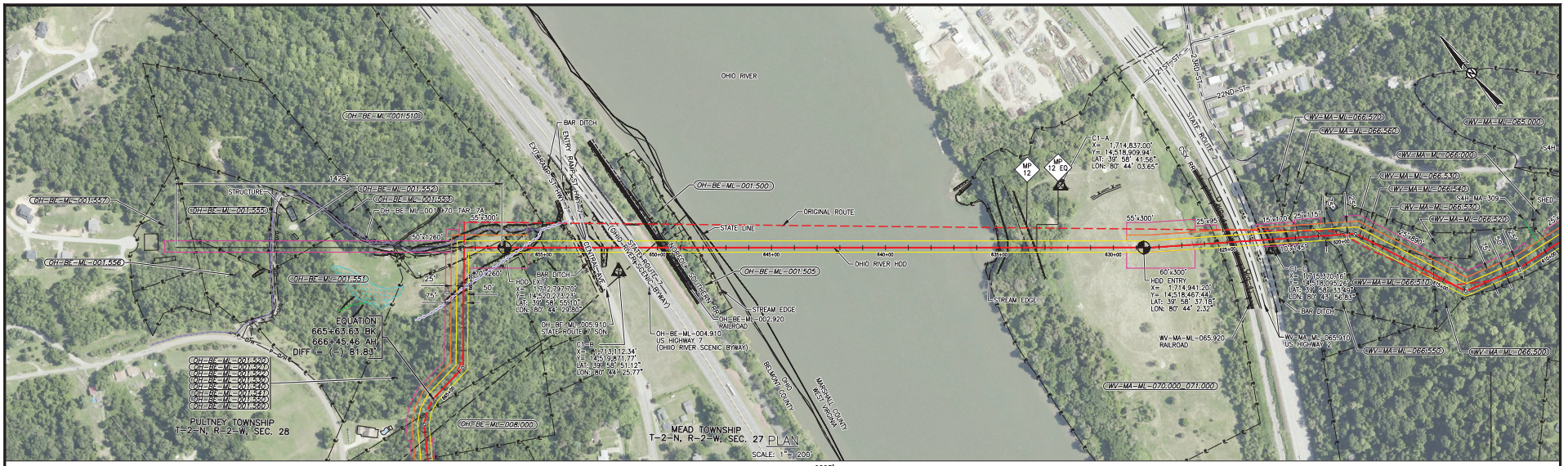
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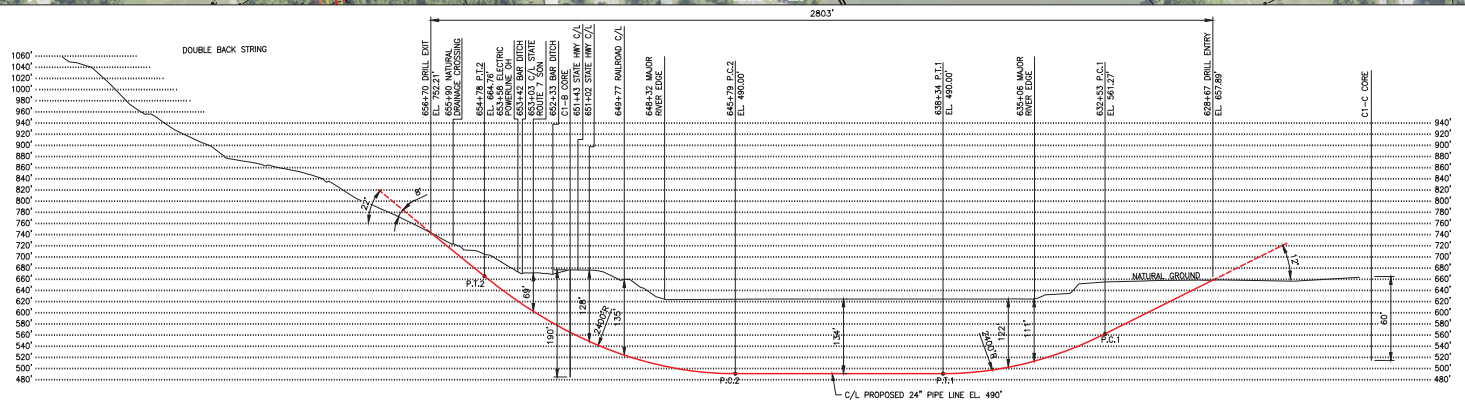
ROVER PIPELINE
An ENERGY TRANSFER Company

ROVER PIPELINE PROJECT
CLARINGTON LATERAL - 42" NG PIPELINE
INTERSTATE 70 HDD
M.P. 18.4 TO M.P. 18.9
BELMONT, OHIO

PROJECT NO. 585000000005
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. CL-P4-42
SHEET 1 OF 1

06-05-15 9:09 14:38 17 ADM





SPECIFICATIONS:

CARRIER PIPE: 24.000" O.D. X 0.532" W.T. X-65
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: TBD
DESIGN FACTOR: 0.5
TRUE LENGTH: 2,858 FT.

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:
- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:
- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE	NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
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		D	FERC FILING UPDATE	LRW	6-03-15	CRF	JHR
		C	FERC FILING	MFZ	1-15-15	CRF	JHR
MJ-P3-1014	ALIGNMENT	B	GEOTECHNICAL CORE COLLECTION	GJD	11-7-14	CRF	JHR
MJ-P3-1013	ALIGNMENT	A	FERC DRAFT FILING	KMA	11-5-14	CRF	JHR

DWG. STATUS: PREL'Y / BID / CONSTR. / CADDS

	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID						
CONSTR.						

PLOT DATE:
FILE NAME:

P.L./STA. NO.
ACCOUNT NO.
CONSTRUCTION YEAR 2016

	BY	DATE
DESIGN	JHR	
DRAWN	KMA	9-17-14
ASBUILT		

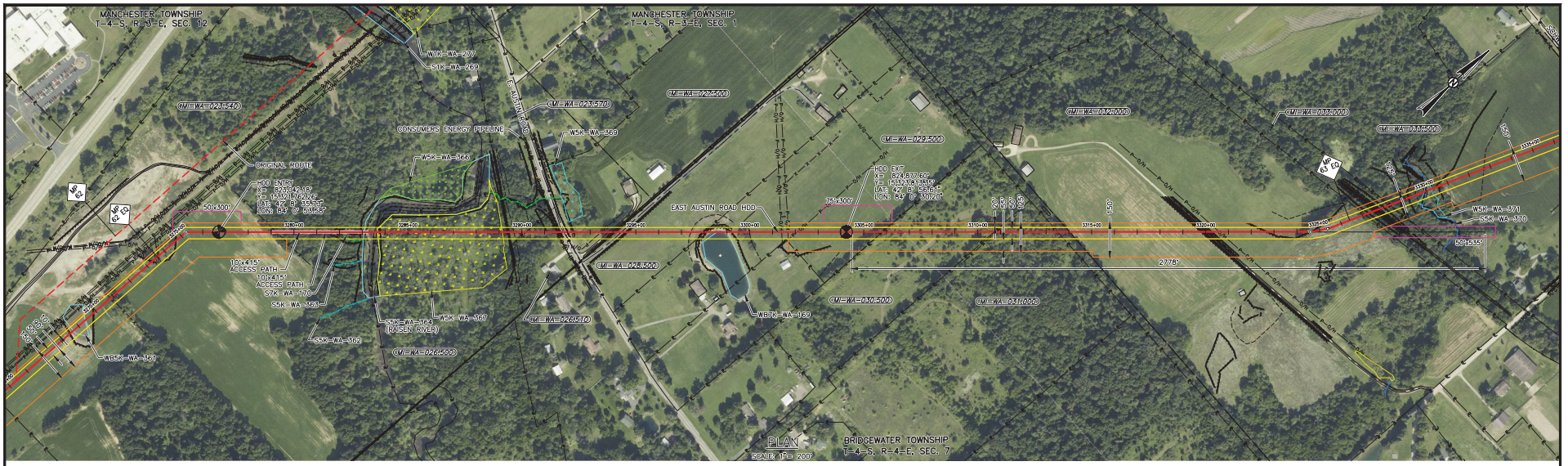
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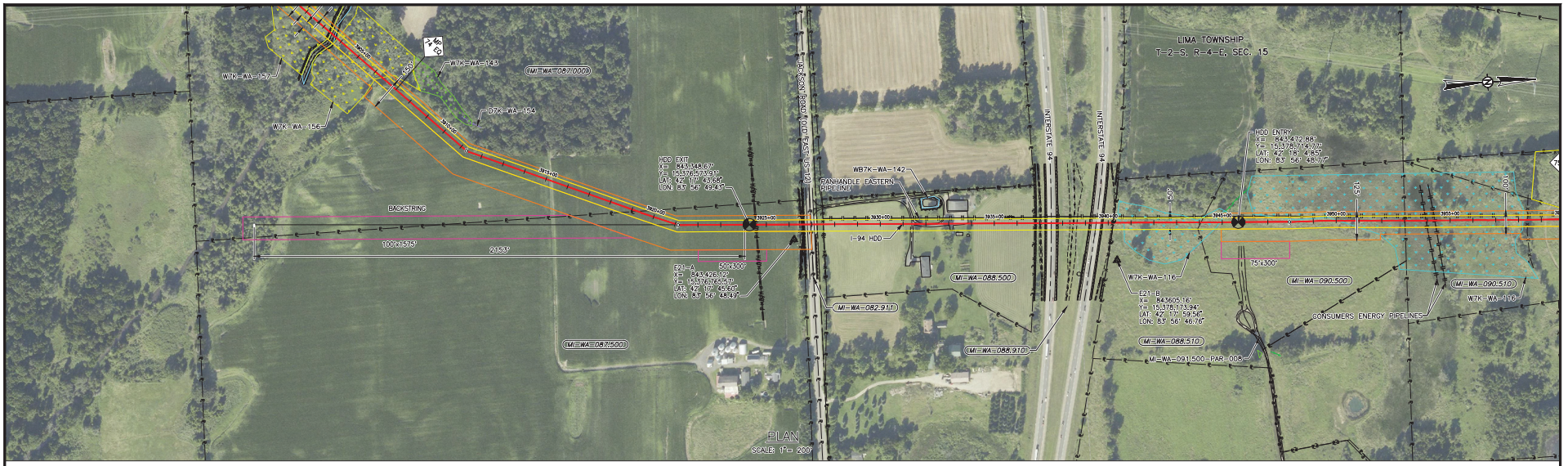
ROVER PIPELINE
An ENERGY TRANSFER Company

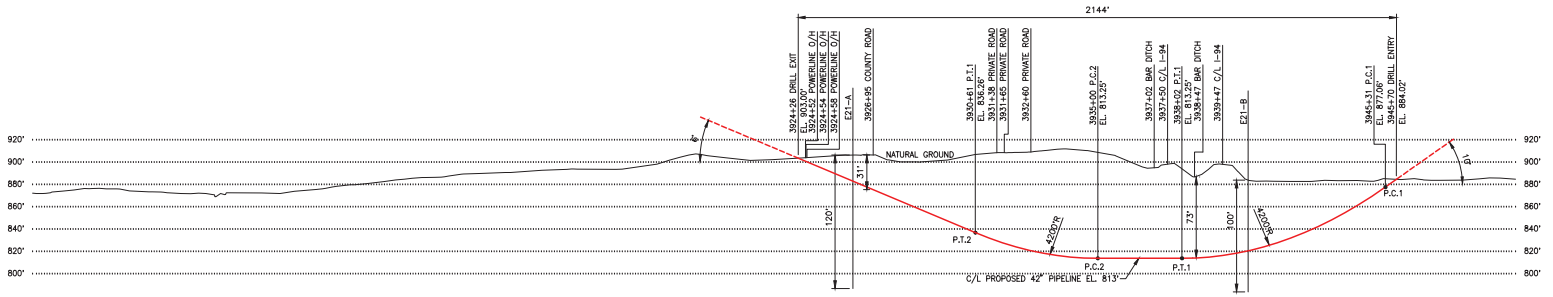
ROVER PIPELINE PROJECT
MAJORSVILLE LATERAL - 24" NG PIPELINE
OHIO RIVER HDD
M.P. 11.9 TO M.P. 12.4
MARSHALL, WEST VIRGINIA - BELMONT, OHIO

PROJECT NO. 585000000021
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. MJ-P4-46
SHEET 1 OF 1
E

06-25-15 18:13 141.38 29 RBR


MANCHESTER TOWNSHIP
T-4-S, R-3-E, SEC. 12
MANCHESTER TOWNSHIP
T-4-S, R-3-E, SEC. 1
BRIDGEWATER TOWNSHIP
T-4-S, R-4-E, SEC. 7
PLAN
SCALE 1"= 200'
E. AUSTIN RD.
CONSUMERS ENERGY PIPELINE
ORIGINAL ROUTE
HDD ENTRY
N= 824174.18'
E= 1332218.42'
LAT. 42° 8' 55.5"
LONG 84° 0' 58.5"
HDD EXIT
N= 824177.60'
E= 1332218.33'
LAT. 42° 8' 55.5"
LONG 84° 0' 33.12"
EAST AUSTIN ROAD HDD
WBK-WA-369
WBK-WA-370
WBK-WA-371
WBK-WA-372
WBK-WA-373
WBK-WA-374
WBK-WA-375
WBK-WA-376
WBK-WA-377
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WBK-WA-401
WBK-WA-402
WBK-WA-403
WBK-WA-404
WBK-WA-405
WBK-WA-406
WBK-WA-407
WBK-WA-408





I-94 HDD
PROFILE
HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 50'

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: TBD
DESIGN FACTOR: 0.5
TRUE LENGTH: 2.153'

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:
- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:
- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
MK-P3-8020	ALIGNMENT
MK-P3-8019	ALIGNMENT

NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
C	FERC FILING UPDATE	LRW	6-3-15	CRF	JHR
B	FOR REVIEW	MFZ	3-30-15	CRF	JHR
A	PRELIMINARY	LRW	1-13-15	CRF	JHR

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	APPROVED BY	APPROVED DATE
PREL'Y						
BID						
CONSTR.						
CADDS	PLOT DATE:					
	FILE NAME:					

P.I./STA. NO.
ACCOUNT NO.
CONSTRUCTION YEAR 2016

	BY	DATE
DESIGN	JHR	
DRAWN	KMA	9-29-14
AS-BUILT		
FILE NO.		
SCALE: NOTED		

ROVER PIPELINE
Actively Transporting

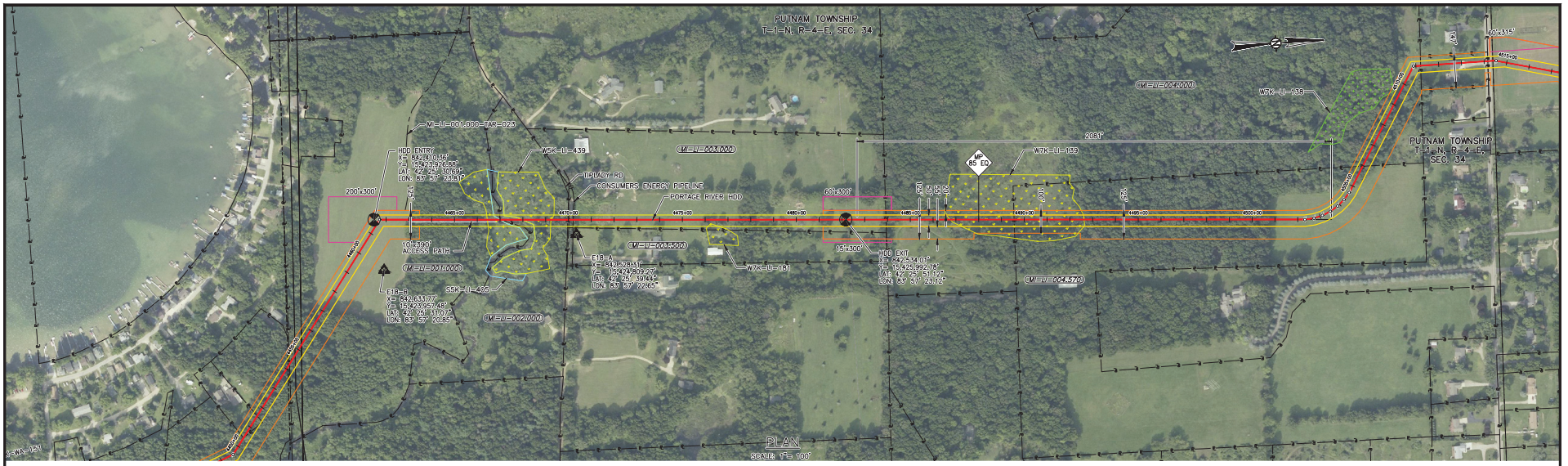
ROVER PIPELINE PROJECT
MARKET SEGMENT - 42" NG PIPELINE
I-94 HDD
M.P. 74.3 TO M.P. 74.7
WASHTENAW, MICHIGAN

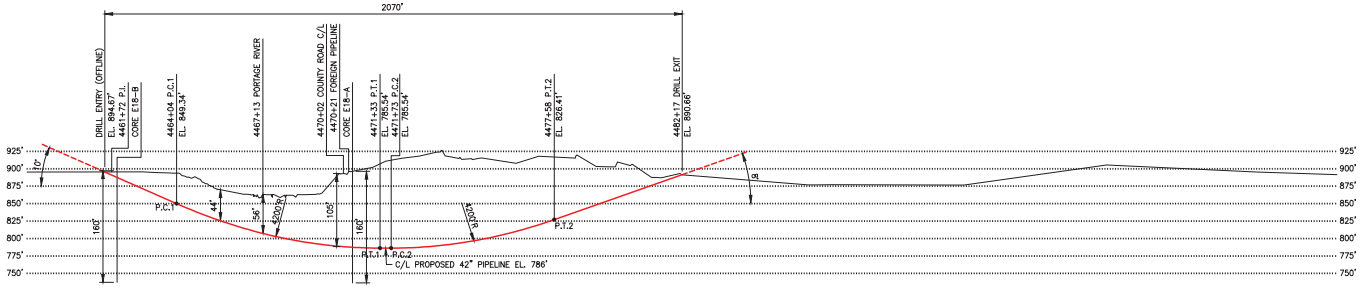
PROJECT NO. 585000000005
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. MK-P4-22B
SHEET 1 OF 1
C

06-05-15 8:51 14138 14 NLM

G2-9

Appendix G-2





PORTAGE RIVER HDD

PROFILE

HORIZONTAL SCALE: 1"= 100'
VERTICAL SCALE: 1"= 40'

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: TBD
DESIGN FACTOR: 0.5
TRUE LENGTH: 2,081 FT.

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD TRUTRACKER WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:
- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:
- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE	NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
		E	FERC FILING UPDATE	RBR	6-24-15	JHR	JHR
		D	FERC FILING UPDATE	LRW	6-3-15	CRF	JHR
		C	FOR REVIEW	LRW	3-30-15	CRF	JHR
		B	FOR REVIEW	NLM	2-23-15	JHR	JHR
MK-P3-8031	ALIGNMENT	A	PRELIMINARY	LRW	11-5-14	CRF	JHR

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID						
CONSTR.						
CADDS	PLOT DATE:					
	FILE NAME:					

P.I./STA. NO.
ACCOUNT NO.
CONSTRUCTION YEAR 2016

	BY	DATE
DESIGN	JHR	
DRAWN	LRW	10-1-14
ASBUILT		

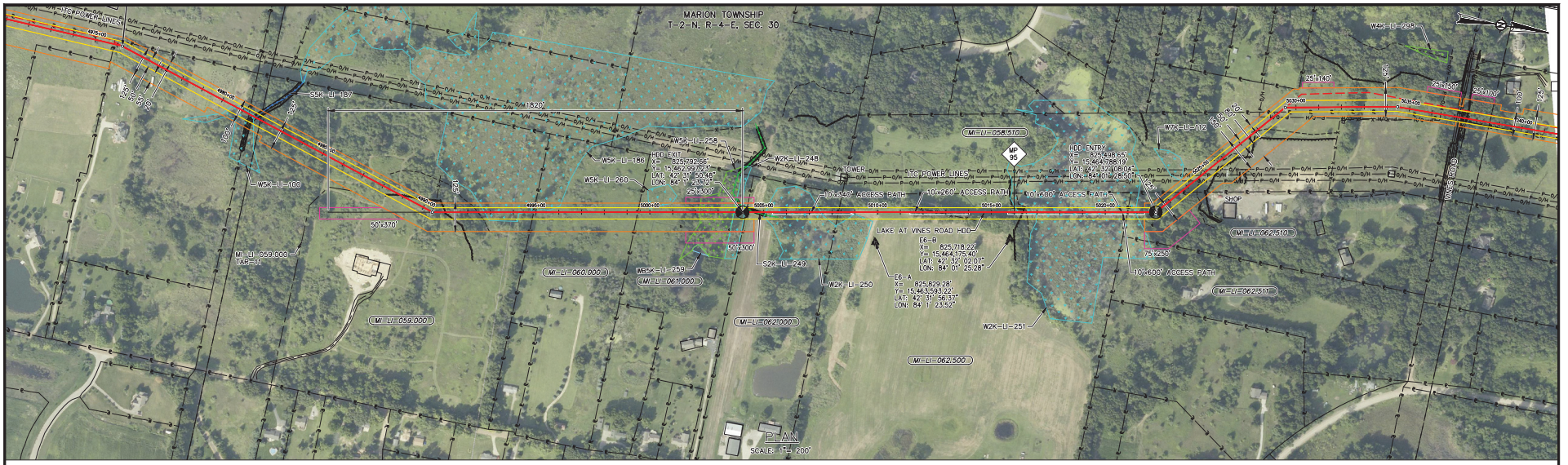
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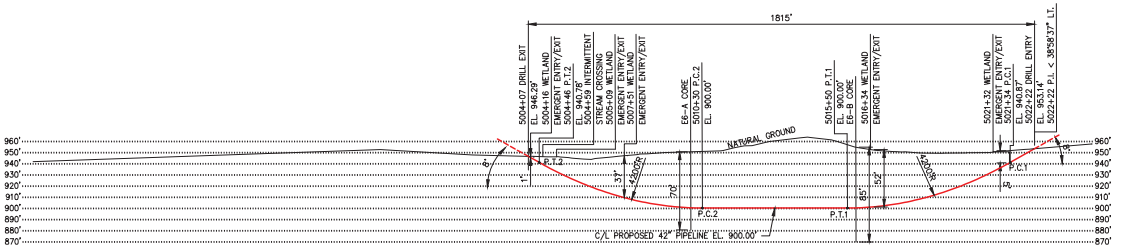
ROVER PIPELINE
An ENERGY TRANSFER Company

ROVER PIPELINE PROJECT
42" MARKET SEGMENT - NG PIPELINE
PORTAGE RIVER HDD
M.P. 84.5 TO M.P. 84.9
LIVINGSTON, MICHIGAN

PROJECT NO. 14138
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. MK-P4-23B
SHEET 1 OF 1
E

06-23-15 10:29 12 RBR





LAKE AT VINES ROAD HDD
PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 50'

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN – "TBD" PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: TBD
DESIGN FACTOR: 0.5
TRUE LENGTH: 1,820 FT.

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD TRUTRACKER WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
MK-P3-8042	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
E	FERC FILING UPDATE	RBR	6-24-15	JHR	JHR
D	FERC FILING UPDATE	LRW	6-3-15	CRF	JHR
C	FERC FILING	GJD	1-15-15	CRF	JHR
B	GEOTECHNICAL CORE COLLECTION	RBR	11-7-14	CRF	JHR
A	FERC DRAFT FILING	NLM	11-5-14	CRF	JHR

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID						
CONSTR.						
CADDS	PLOT DATE:					
	FILE NAME:					

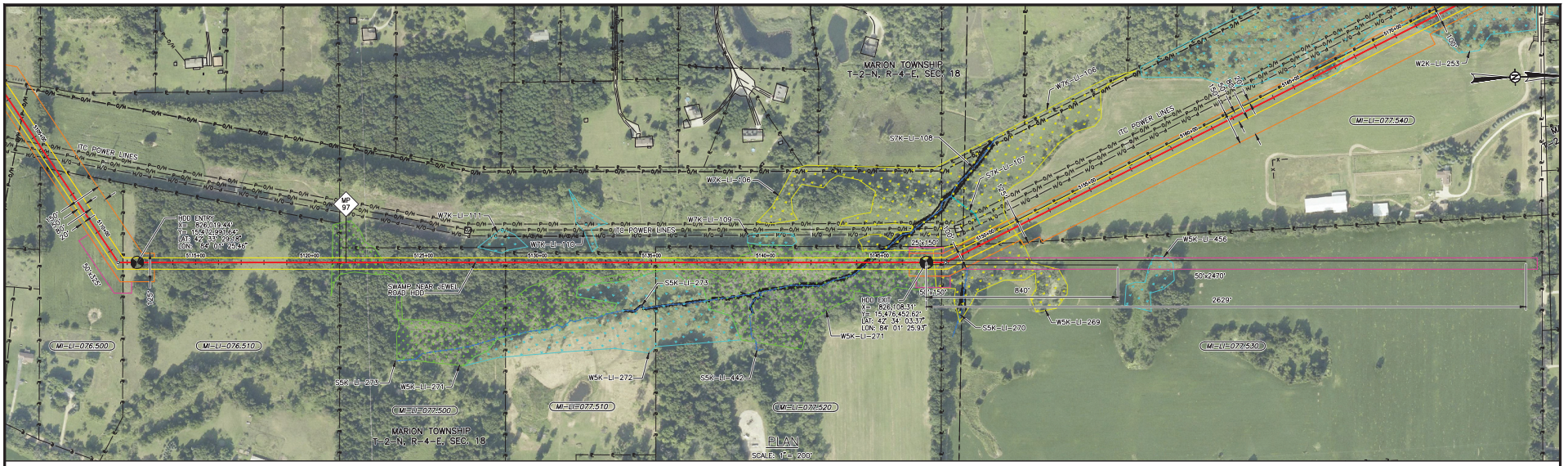
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CONSTRUCTION YEAR		2016
	BY	DATE
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ASBUILT		
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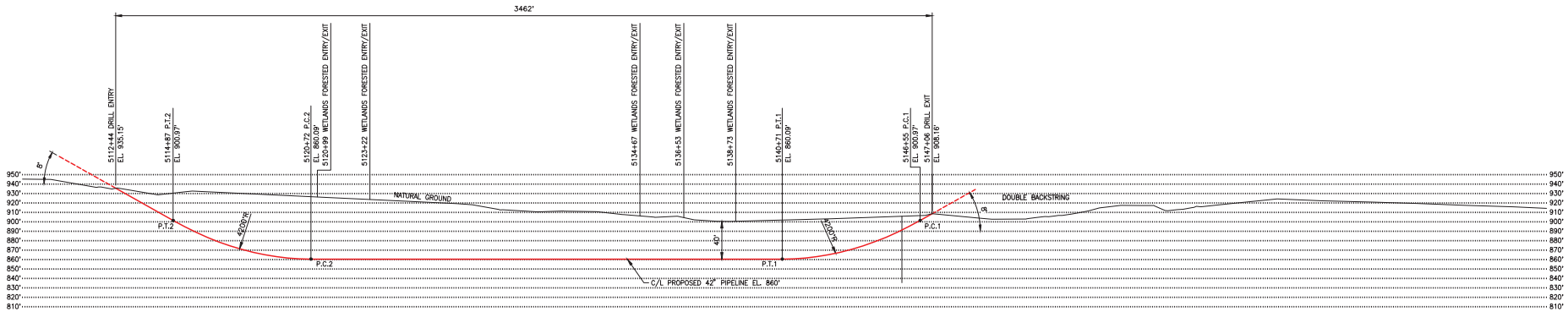
ROVER PIPELINE
An ENERGY TRANSFER Company

ROVER PIPELINE PROJECT
MARKET SEGMENT – 42" NG PIPELINE
LAKE AT VINES ROAD HDD
M.P. 94.8 TO M.P. 95.1
LIVINGSTON, MICHIGAN

PROJECT NO. 585000000005
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. MK-P4-27
SHEET 1 OF 1
E

06-23-15 10:40 14138 22 RBR





SWAMP NEAR JEWELL ROAD HDD
PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 50'

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN – "TBD" PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: TBD
DESIGN FACTOR: 0.5
TRUE LENGTH: 3,468.8 FT.

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD TRUTRACKER WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
MK-P3-8045	ALIGNMENT
MK-P3-8044	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
C	FERC FILING UPDATE	LRW	6-3-15	CRF	JHR
B	FERC FILING	MFZ	1-15-15	CRF	JHR
A	FERC DRAFT FILING AND GEOTECHNICAL CORE COLLECTION	GJD	11-7-14	CRF	JHR

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID						
CONSTR.						
CADDS	PLOT DATE:					
	FILE NAME:					

P.J./STA. NO.
ACCOUNT NO.
CONSTRUCTION YEAR 2016

	BY	DATE
DESIGN	JHR	
DRAWN	GJD	11-11-14
AS-BUILT		

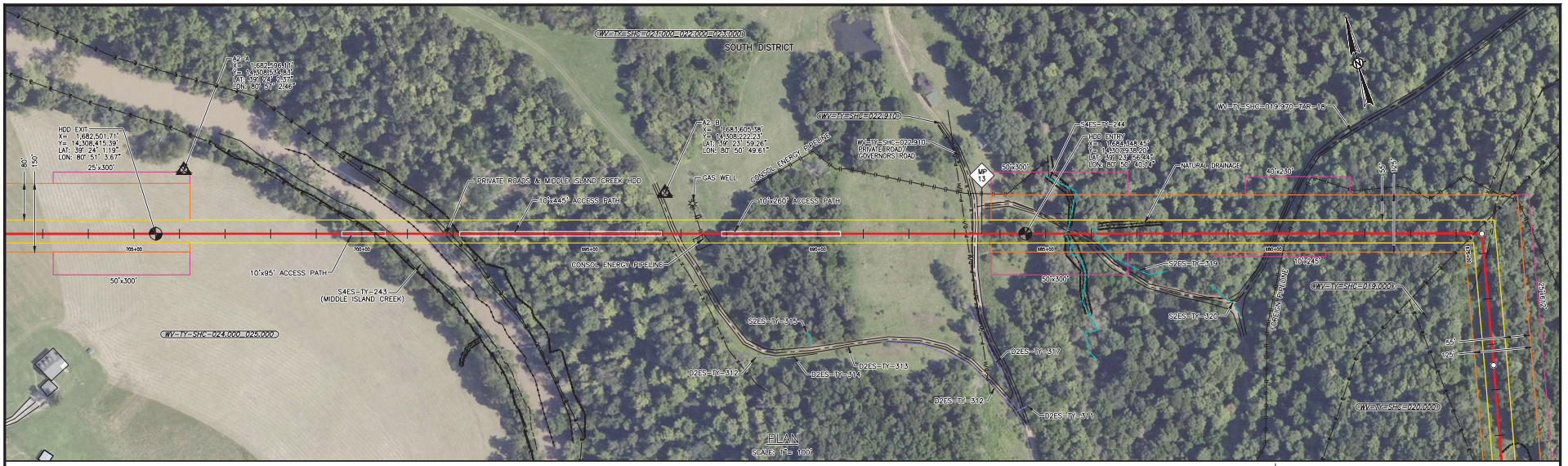
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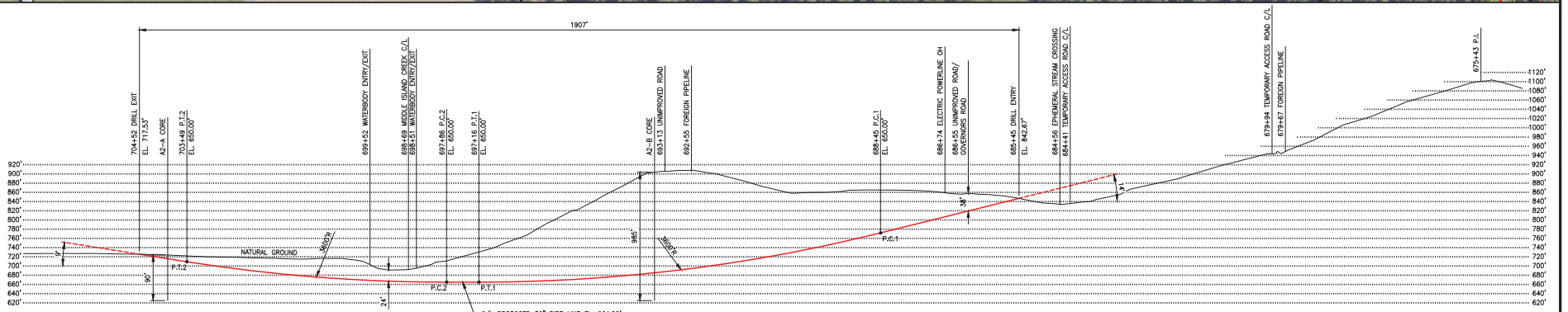
ROVER PIPELINE
An ENERGY TRANSFER Company

ROVER PIPELINE PROJECT
MARKET SEGMENT – 42" NG PIPELINE
SWAMP NEAR JEWELL ROAD HDD
M.P. 96.8 TO M.P. 97.5
LIVINGSTON, MICHIGAN

PROJECT NO. 585000000005
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. MK-P4-28
SHEET 1 OF 1
REV. 0

06-05-15 10:33 14138 13 NLM





PRIVATE ROADS & MIDDLE ISLAND CREEK HDD
PROFILE

HORIZONTAL SCALE: 1"= 100'
VERTICAL SCALE: 1"= 100'

SPECIFICATIONS:

CARRIER PIPE: 36.000" O.D. X 0.750" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN – TBD PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: TBD
DESIGN FACTOR: 0.5
TRUE LENGTH: 1,929 FT.

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:
- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:
- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
SW-P3-15	ALIGNMENT
SW-P3-14	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
D	FERC FILING UPDATE	LRW	6-03-15	CRF	JHR
C	FERC FILING	KMA	1-15-15	JHR	JHR
B	GEOTECHNICAL CORE COLLECTION	RBR	11-7-14	CRF	JHR
A	FERC DRAFT FILING	NLM	11-5-14	CRF	JHR

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID						
CONSTR.						
CADDS	PLOT DATE:					
	FILE NAME:					

P.I./STA. NO.
ACCOUNT NO.
CONSTRUCTION YEAR 2016

	BY	DATE
DESIGN	JHR	
DRAWN	KMA	9-11-14
AS-BUILT		

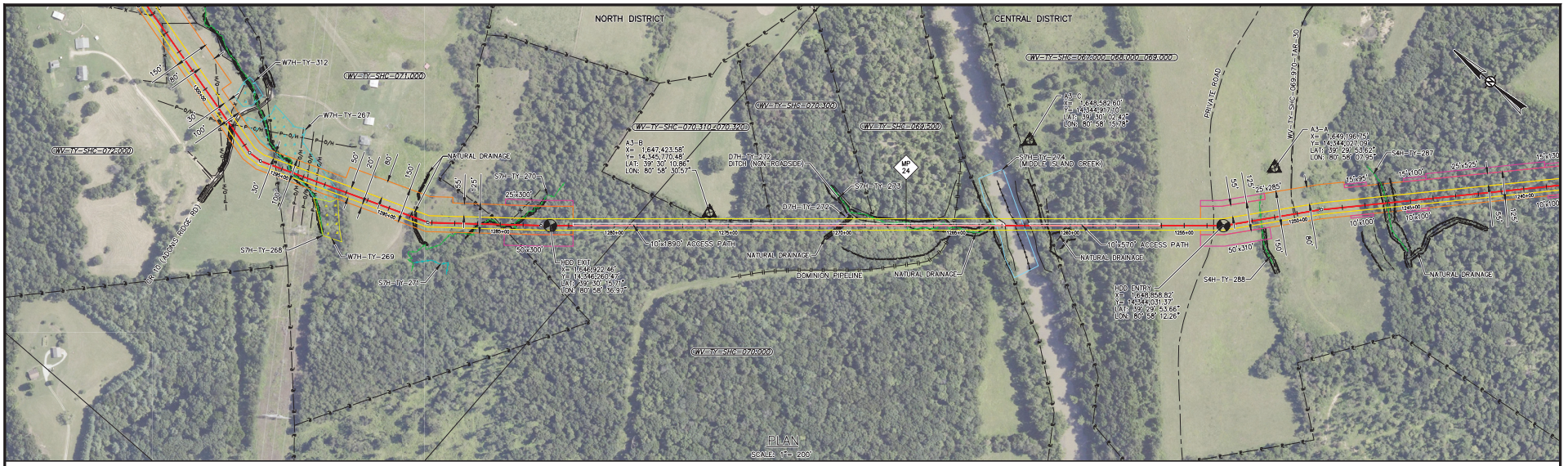
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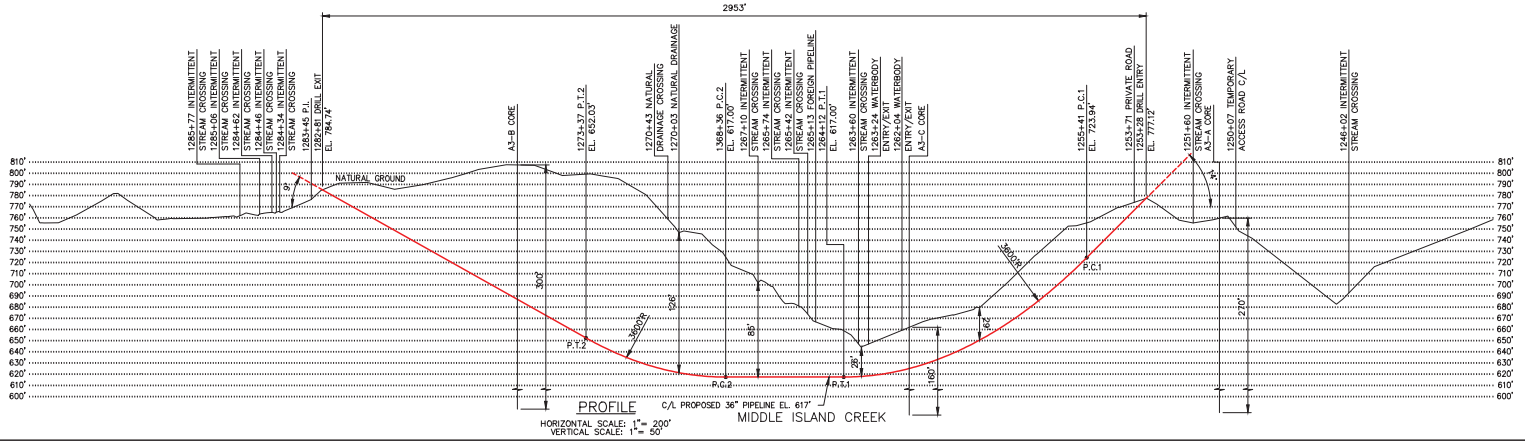
ROVER PIPELINE
An ENERGY TRANSFER Company

ROVER PIPELINE PROJECT
SHERWOOD LATERAL – 36" NG PIPELINE
PRIVATE ROADS & MIDDLE ISLAND CREEK HDD
M.P. 13.0 TO M.P. 13.3
TYLER COUNTY, WEST VIRGINIA

PROJECT NO. 585000000003
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. SW-P4-38
SHEET 1 OF 1
REV. 0

06-05-15 7:14 141.38 19 ADM





SPECIFICATIONS:

CARRIER PIPE: 36.000" O.D. X 0.750" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN – "TBD" PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: TBD
DESIGN FACTOR: 0.5
TRUE LENGTH: 2,979 FT.

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD TRUTRACKER WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:
- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:
- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE	NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
		D	FERC FILING UPDATE	ADM	6-03-15	JHR	JHR
		C	FERC FILING	MFZ	1-15-15	CRF	JHR
		B	GEOTECHNICAL CORE COLLECTION	GJD	11-7-14	CRF	JHR
SW-P3-1026	ALIGNMENT	A	FERC DRAFT FILING	KMA	9-4-14	CRF	JHR

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID						
CONSTR.						
CADDS	PLOT DATE:					
	FILE NAME:					

P.I./STA. NO.
ACCOUNT NO.
CONSTRUCTION YEAR 2016

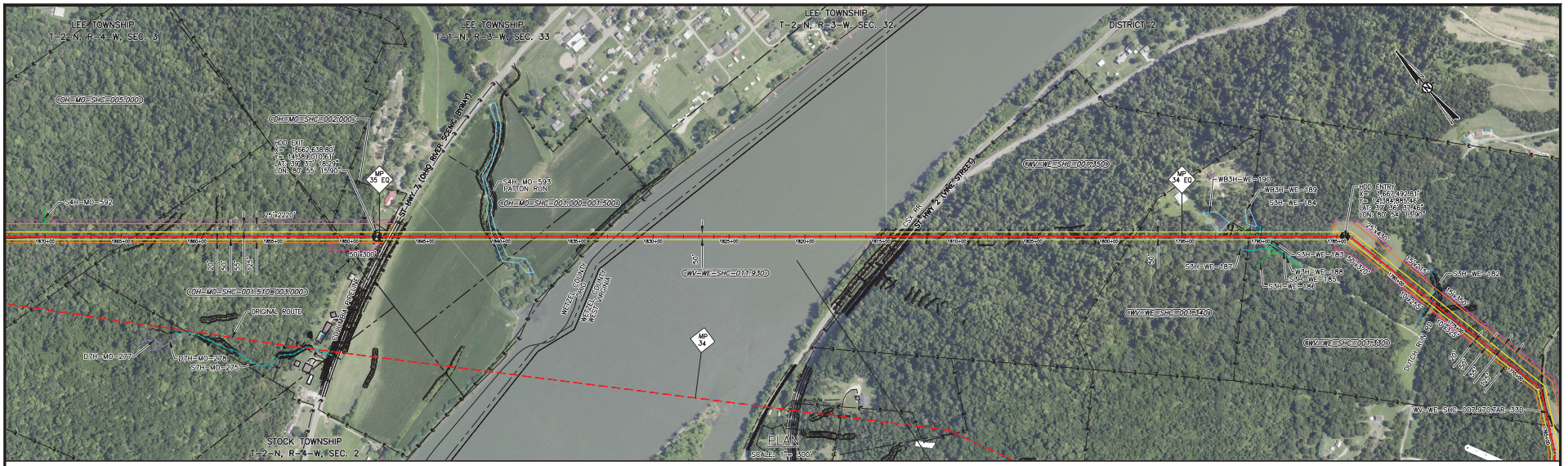
	BY	DATE
DESIGN	JHR	
DRAWN	KMA	9-12-14
AS BUILT		
FILE NO.		
SCALE: NOTED		

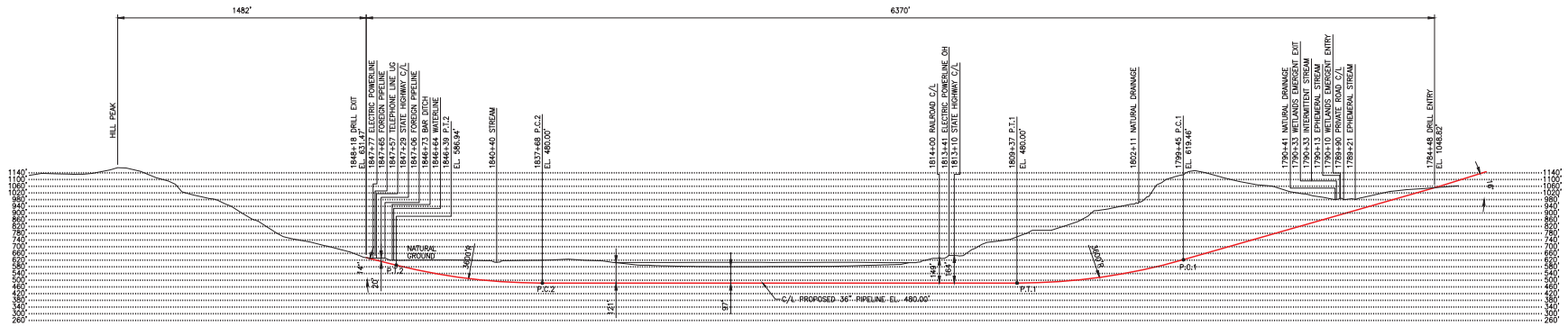
ROVER PIPELINE
An ENERGY TRANSFER Company

ROVER PIPELINE PROJECT
SHERWOOD LATERAL – 36" NG PIPELINE
MIDDLE ISLAND CREEK HDD
M.P. 23.7 TO M.P. 24.3
TYLER COUNTY, WEST VIRGINIA

PROJECT NO. 585000000003
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. SW-P4-39
SHEET 1 OF 1
1

06-05-15 8:05 14138 16 ADM





OHIO RIVER HDD
PROFILE
HORIZONTAL SCALE: 1" = 300'
VERTICAL SCALE: 1" = 300'

SPECIFICATIONS:

CARRIER PIPE: 36.000" O.D. X 0.75" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: TBD
DESIGN FACTOR: 0.5
TRUE LENGTH: 6,780 FT.

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:
- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH

ENVIRONMENTAL LEGEND:
- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE	NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
SW-P3-1037	ALIGNMENT	B	FERC FILING UPDATE	LRW	6-03-15	CRF	JHR
SW-P3-1036	ALIGNMENT	A	FERC FILING	KMA	1-15-15	CRF	JHR

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID						
CONSTR.						
CADDS	PLOT DATE:					
	FILE NAME:					

P.I./STA. NO.
ACCOUNT NO.
CONSTRUCTION YEAR 2016

	BY	DATE
DESIGN	JHR	
DRAWN	KMA	10-17-14
AS-BUILT		

FILE NO.
SCALE: NOTED

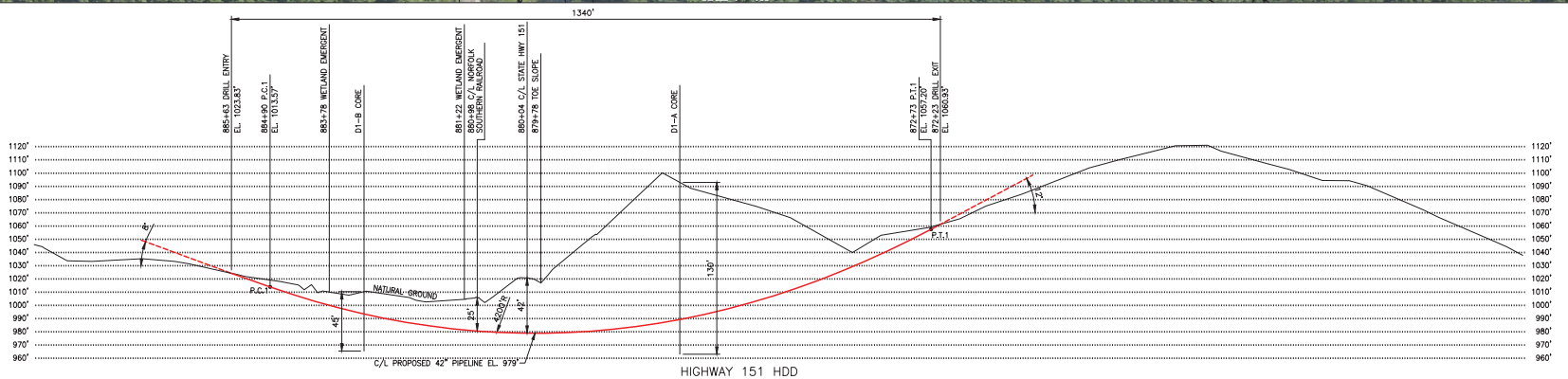
ROVER PIPELINE
An ENERGY TRANSFER Company

ROVER PIPELINE PROJECT
SHERWOOD LATERAL - 36" NG PIPELINE
OHIO RIVER HDD
M.P. 33.8 TO M.P. 35.0
WETZEL, WEST VIRGINIA TO MONROE, OHIO

PROJECT NO. 585000000003
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. SW-P4-40
SHEET 1 OF 1
REV. B

06-05-15 8:57 141.38 21 ADM





SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: TBD
DESIGN FACTOR: 0.5
TRUE LENGTH: 1,348 FT.

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD TRUTRACKER WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:
- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:
- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE	NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
		D	FERC FILING UPDATE	KMA	6-3-15	JHR	JHR
		C	FERC FILING	KMA	1-15-15	JHR	JHR
ML-P3-1019	ALIGNMENT	B	GEOTECHNICAL CORE COLLECTION	GJD	11-7-14	CRF	JHR
ML-P3-1018	ALIGNMENT	A	FERC DRAFT FILING	MFZ	11-5-14	CRF	JHR

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID						
CONSTR.						
CADDS	PLOT DATE:					
	FILE NAME:					

P.I./STA. NO.
ACCOUNT NO.
CONSTRUCTION YEAR 2016

	BY	DATE
DESIGN	JHR	
DRAWN	NLM	10-1-14
ASBUILT		

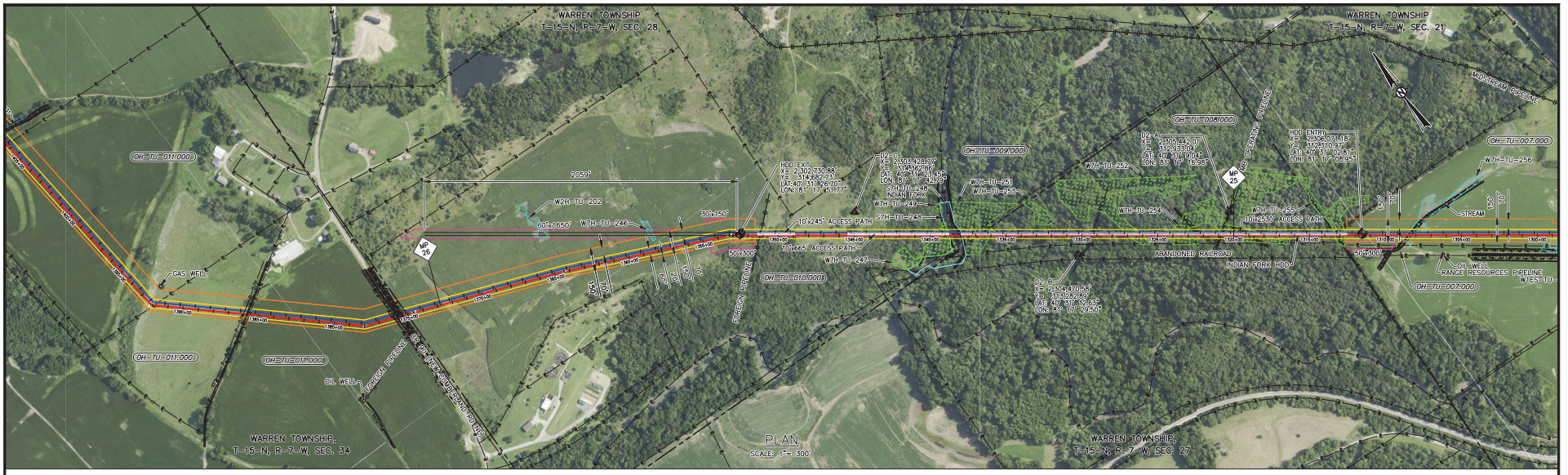
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SCALE: NOTED

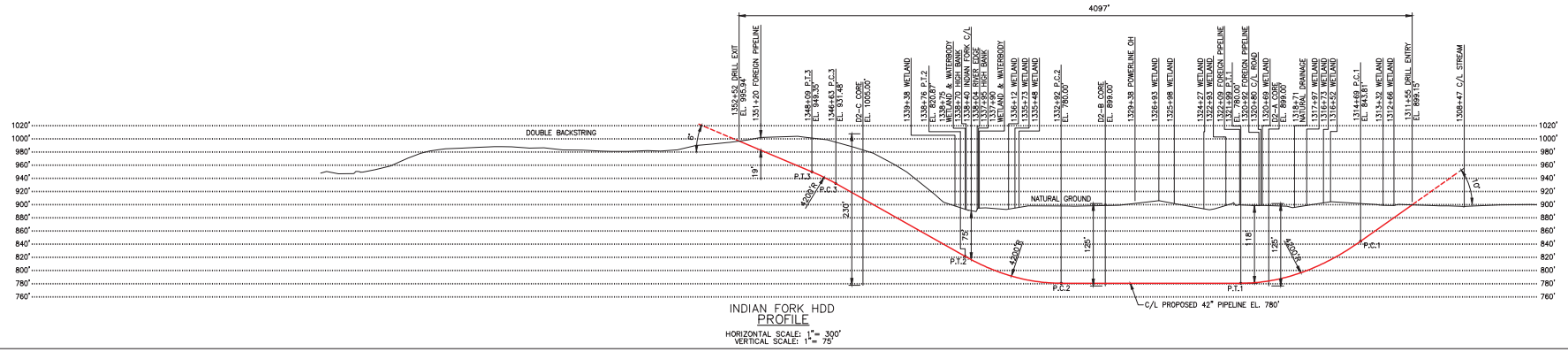
ROVER PIPELINE
An ENERGY TRANSFER Company

ROVER PIPELINE PROJECT
SUPPLY CONNECTOR LINE A & B - 42" NG PIPELINE
HIGHWAY 151 HDD
M.P. 16.5 TO M.P. 16.8
SENECA COUNTY, OHIO

PROJECT NO. 585000000001
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-01
SHEET 1 OF 1
1

06-05-15 9:03 14138 15 KMA





INDIAN FORK HDD
PROFILE

HORIZONTAL SCALE: 1"= 300'
VERTICAL SCALE: 1"= 75'

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: TBA
DESIGN FACTOR: 0.5
TRUE LENGTH: 4,118 FT.

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE	NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
		E	FERC FILING UPDATE	RBR	6-24-15	JHR	JHR
		D	FERC FILING UPDATE	LRW	6-3-15	CRF	JHR
		C	FERC FILING	MFZ	1-15-15	CRF	JHR
ML-P3-2008	ALIGNMENT	B	GEOTECHNICAL CORE COLLECTION	GJD	11-7-14	CRF	JHR
ML-P3-2007	ALIGNMENT	A	FERC FILING	MFZ	11-5-14	CRF	JHR

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID						
CONSTR.						
CADDS	PLOT DATE:					
	FILE NAME:					

P.J./STA. NO.
ACCOUNT NO.
CONSTRUCTION YEAR 2016

	BY	DATE
DESIGN	JHR	
DRAWN	NLM	9-18-14
ASBUILT		

FILE NO.
SCALE: NOTED

ROVER PIPELINE
An ENERGY TRANSFER Company

ROVER PIPELINE PROJECT
MAINLINE - 42" NG PIPELINE
INDIAN FORK HDD
M.P. 24.8 TO M.P. 25.6
TUSCARAWAS COUNTY, OHIO

PROJECT NO. 585000000001
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-02
SHEET 1 OF 1
E

06-23-15 11:54 14138 32 RBR

G2-17

Appendix G-2