RIGHT-OF-WAY & OWNERSHIP DATA

Station	Tract(s)	Length
1061+55	WV-HA-065	472 LF / 475 SLOPE
1066+27	WV-HA-066	245 LF / 247 SLOPE
1068+72	WV-HA-066 / WV-HA-065	169 LF / 170 SLOPE
1070+41	WV-HA-065	684 LF / 692 SLOPE
1077+25	WV-HA-065.01 / WV-HA-065	106 LF / 110 SLOPE
1078+31	WV-HA-065.01	573 LF / 577 SLOPE
1084+04	WV-HA-065.01 / WV-HA-065.02	516 LF / 517 SLOPE
1089+20	WV-HA-065.02	133 LF / 135 SLOPE
1090+53	WV-HA-065.03	294 LF / 297 SLOPE
1093+47	WV-HA-065.01 / WV-HA-065.03	548 LF / 575 SLOPE
1098+69	COUNTY ROUTE 5/4	34 LF - 36 SLOPE
1099+03	WV-HA-065.01 / WV-HA-065.04	72 LF / 80 SLOPE
1099+75	WV-HA-065.01	648 LF / 683 SLOPE
1106+23	WV-HA-065.06 / WV-HA-065.01 / WV-HA-065.04	59 LF / 62 SLOPE
1106+82	WV-HA-065.06 / WV-HA-065.05 / WV-HA-065.04	72 LF / 73 SLOPE
1107+54	WV-HA-065.06 / WV-HA-065.05	54 LF / 57 SLOPE
1108+08	WV-HA-065.05	73 LF / 78 SLOPE
1108+81	WV-HA-065.06 / WV-HA-065.05	785 LF / 795 SLOPE
1117+19	WV-HA-065.06	85 LF / 86 SLOPE
1118+04	WV-HA-065.06 / WV-HA-076	34 LF / 35 SLOPE
1118+38	WV-HA-072 / WV-HA-065.06 / WV-HA-076	27 LF / 27 SLOPE
1118+65		

DESIGN

	1061+55 – 1098+66	1098+66 – 1099+06	1099+06 – 1100+45	1100+45 – 1100+84	1100+84 – 1118+65
PIPE / COATING	1	4	1	6	1
SLOPE DISTANCE	3791'	40'	147'	40'	1787'
CLASS LOCATION / HCA	1				

EQUATION: 1096+05 BACK= 1095+79 AHEAD

EQUATION: 1110+21 BACK = 1110+74 AHEAD

ENVIRONMENTAL

CONSTRUCTION EXCLUSION	1061+55 – 1118+65: TIME OF YEAR RESTRICTION: NO TREE CLEARING APRIL 1ST TO JULY 31ST
WETLAND / STREAM	S-RR22 13 LF
.	
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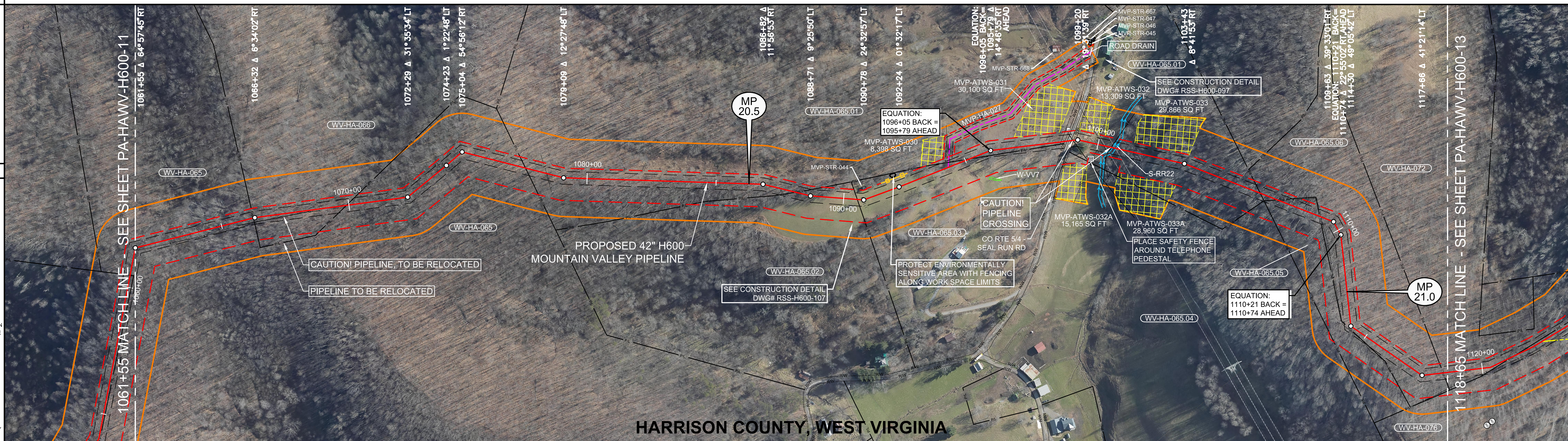


0' 100' 200' 400'

PLAN VIEW

LEGEND

- STUDY CORRIDOR
- PROPOSED 42"PIPELINE
- NON-SURVEYED C/L
- 500' TICK MARK
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- ANCILLARY SITE
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- C/L ROAD
- C/L RAILROAD
- DELINEATED STREAM
- DELINEATED WETLAND
- BARRACADE FENCE
- PI SYMBOL
- PROPOSED TEST STATION
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- SIGN
- TOWER LEG
- TREE
- GUY ANCHOR
- TANK
- GAS VALVE
- WELL - GAS/OIL/WATER/ MONITORING
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- CATCH BASIN - CULVERT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- LIMITS OF DISTURBANCE

REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION
RSS-H600-097	RESIDENTIAL SITE SPECIFIC
RSS-H600-107	RESIDENTIAL SITE SPECIFIC
MVP-AR-H600-02	ACCESS ROADS, ANCILLARY SITES, MAINLINE VALVES & LAUNCHER/RECEIVER SITES

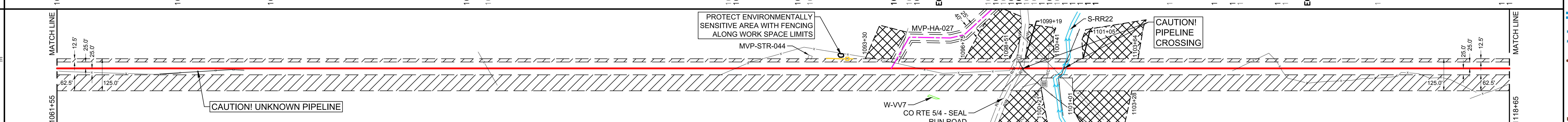
OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

HORIZONTAL STATIONING

- 1061+55 MATCH LINE
- 1066+27 PROPERTY LINE
- 1069+90 PROPERTY LINE
- 1077+57 PROPERTY LINE
- 1078+42 FENCE – BARBED WIRE
- 1088+12 FENCE – BARBED WIRE
- 1088+12 PROPERTY LINE
- 1090+53 PROPERTY LINE
- 1091+01 BUILDING – DEER BLIND 36'LT
- 1094+29 ACCESS RD – PERMANENT (MVP–HA–027)
- 1095+14 FENCE – BARBED WIRE
- 1095+15 PROPERTY LINE
- EQUATION: 1096+05 BACK = 1095+79 AHEAD
- 1098+55 FENCE – BARBED WIRE
- 1098+69 RIGHT–OF–WAY
- 1098+78 EDGE OF ASPHALT
- 1098+83 7"F1157(EQT)
- 1098+86 ℄ CO RTE 5/4–SEAL RUN RD
- 1098+86 LINE MARKER 28'LT
- 1098+94 EDGE OF ASPHALT
- 1199+01 PIPELINE – EQT – 8"F1157
- 1099+03 RIGHT–OF–WAY
- 1099+85 PEDESTAL – TELEPHONE 60'RT
- 1100+02 UNGRD UTILITY – TELEPHONE
- 1100+22 OHP LINE
- 1100+52 PIPELINE – FOREIGN–DOMINION
- 1100+58 STREAM BANK(S–RR22)
- 1100+71 STREAM BANK(S–RR22)
- 1104+82 PROPERTY CORNER 53'RT
- 1106+58 PROPERTY LINE
- 1107+29 PROPERTY LINE
- 1107+42 FENCE – BARBED WIRE
- 1109+05 PROPERTY LINE
- 1109+11 FENCE – BARBED WIRE
- EQUATION: 1110+21 BK =1110+74 AHD
- 1113+50 PROPERTY CORNER 38'RT
- 1118+48 PROPERTY LINE
- 1118+65 MATCH LINE

WORK SPACE

- PROPOSED PIPELINE
- EXISTING PIPELINE
- ACCESS ROAD TEMPORARY WORK SPACE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE(TWS)
- ADD. TEMPORARY WORK SPACE(ATWS)



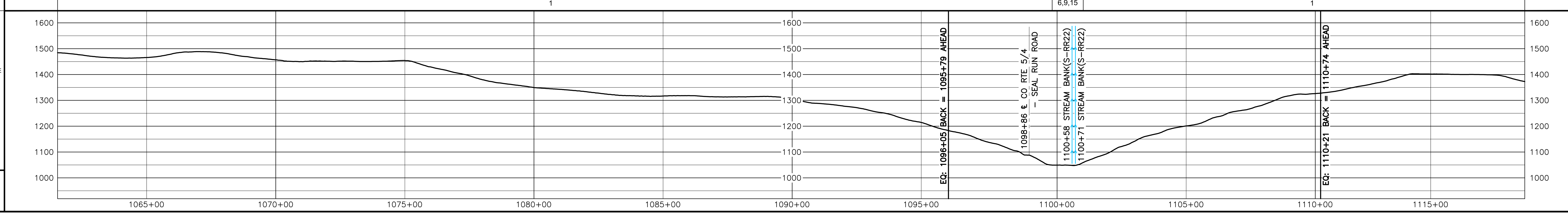
CONSTRUCTION METHOD

1061+55 – 1098+66	1098+66 – 1100+84	1100+84 – 1118+65
1	6,9,15	1

CONSTRUCTION METHOD KEY

- 1 - TYPICAL R/W WORKING SIDE RIGHT
- 1.1 - TYPICAL R/W WORKING SIDE RIGHT
- 2 - TYPICAL R/W WORKING SIDE LEFT
- 2.1 - TYPICAL R/W WORKING SIDE LEFT
- 3 - TYPICAL WETLAND X-ING
- 4 - ROAD X-ING - BORE
- 5 - RAILROAD X-ING - BORE
- 6 - WATERBODY X-ING OPEN CUT - FLUME
- 7 - PARALLEL TO POWER LINE
- 8 - RIDGE CONSTRUCTION
- 9 - WATERBODY X-ING OPEN CUT - WET DITCH
- 10 - HDD ENTRY PLAN
- 11 - HDD EXIT PLAN
- 12 - HDD CONSTRUCTION
- 13 - PARALLEL TO POWER LINE
- 14 - PARALLEL TO POWER LINE
- 15 - WATERBODY X-ING OPEN CUT - DRY/DAM & PUMP
- 33 - SIDE HILL CONSTRUCTION
- 34 - 2-TONE SIDE HILL CONSTRUCTION

PROFILE



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REVISIONS

REV.	BY	DATE	DESCRIPTION
0	HEI	10-15-15	REV. 4.0.0 ISSUED TO FERC
1	HEI	01-11-16	FERC DATA REQUEST No.1
2	HEI	04-14-16	FERC DATA REQUEST No.2
3	HEI	09-03-16	REV. 4.1.13 ISSUED FOR BID
4	HEI	10-14-16	OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

MATERIAL SUMMARY

MK. NO.	QTY.	DESCRIPTION
1	5725	42"O.D. X 0.617"W.T., X-70, FUSION BONDED EPOXY
4	40	42"O.D. X 0.740"W.T., X-70, FBE & ARO
6	40	42"O.D. X 0.617"W.T., X-70, FBE & ARO
		TYPE 1 TEST STATION - PIPELINE
		TYPE 4 TEST STATION - FOREIGN CROSSING

APPROVED FOR CONSTRUCTION

REV.	BY	DATE
.	.	.

APPROVED FOR BIDDING

REV.	BY	DATE
3	RRR	09-03-16

APPROVED FOR FERC

REV.	BY	DATE
0	RRR	10-15-15
4	RRR	10-14-16

Mountain Valley PIPELINE

PIPELINE ALIGNMENT
MOUNTAIN VALLEY PROJECT - H600 LINE
TENMILE DIST.,HARRISON CO.,W.V.
STA. 1061+55 TO STA. 1118+65

HORZ. SCALE: 1" = 200'	
DRAWN BY: HEI(DRF)	10/7/2016
DRAFTING CK:	
ENGINEERING CK:	
CONSTRUCTION CK:	
ENVIRONMENTAL CK:	
AFE/P.O.NO.:	
HEI PROJECT NO.: 14-10-052	
DRAWING NO.: PA-HAWV-H600 -12	
SHEET 22 OF 329	REV. 4
DATE OF PLOT: 10/12/2016 8:30 AM	

RIGHT-OF-WAY & OWNERSHIP DATA

Station	Owner (upper)	Owner (lower)	Length
1118+65 – 1124+70	WV-HA-072	WV-HA-076	605 LF / 608 SLOPE
1124+70 – 1125+64	WV-HA-072 / WV-HA-075	WV-HA-076	93 LF / 94 SLOPE
1125+64 – 1126+20	WV-HA-072	WV-HA-075	57 LF / 57 SLOPE
1126+20 – 1126+62	WV-HA-075		42 LF / 43 SLOPE
1126+62 – 1128+16	WV-HA-074	WV-HA-075	155 LF / 155 SLOPE
1128+16 – 1131+75	WV-HA-075		358 LF / 366 SLOPE
1131+75 – 1135+87	WV-HA-075	WV-HA-076	412 LF / 421 SLOPE
1135+87 – 1140+24	WV-HA-076		437 LF / 457 SLOPE
1140+24 – 1140+55	COUNTY ROUTE 5/6 31 LF - 32 SLOPE		
1140+55 – 1153+47 (EQUATION: 1144+01 BACK = 1145+09 AHEAD)	WV-HA-077		1183 LF / 1244 SLOPE
1153+47 – 1155+51	WV-HA-078	WV-HA-077	204 LF / 206 SLOPE
1155+51 – 1158+05	WV-HA-077		254 LF / 255 SLOPE
1158+05 – 1160+16	WV-HA-078	WV-HA-077	211 LF / 215 SLOPE
1160+16 – 1171+01	WV-HA-078	WV-HA-079	1085 LF / 1094 SLOPE
1171+01 – 1173+02	WV-HA-078		201 LF / 202 SLOPE
1173+02 – 1177+33	WV-HA-078	WV-HA-080	431 LF / 432 SLOPE
1177+33 – 1177+56	WV-HA-078 / WV-HA-081	WV-HA-080	23 LF / 23 SLOPE

DESIGN

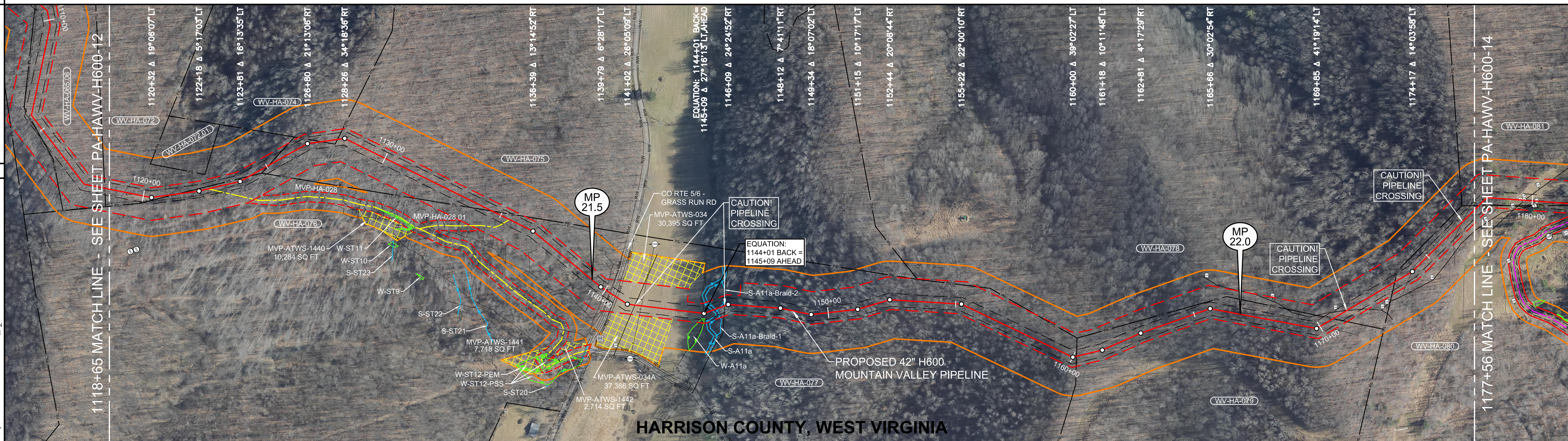
Item	1118+65 – 1140+20	1140+20 – 1140+60	1140+60 – 1145+30	1145+30 – 1145+70	1145+70 – 1177+56
PIPE / COATING	1	4	1	6	1
SLOPE DISTANCE	2196'	40'	365'	40'	3260'
CLASS LOCATION / HCA	1				

ENVIRONMENTAL

CONSTRUCTION EXCLUSION (1118+65 – 1177+56): TIME OF YEAR RESTRICTION: NO TREE CLEARING APRIL 1ST TO JULY 31ST

WETLAND / STREAM	W-A11a	S-A11a	S-A11a-Braid-2	S-A11a-Braid-1
	18 LF	14 LF	6 LF	6 LF

PLAN VIEW



LEGEND

- STUDY CORRIDOR
- PROPOSED 42"PIPELINE
- NON-SURVEYED C/L
- 500' TICK MARK
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- ANCILLARY SITE
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- C/L ROAD
- C/L RAILROAD
- DELINEATED STREAM
- DELINEATED WETLAND
- BARRACADE FENCE
- PI SYMBOL
- PROPOSED TEST STATION
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- SIGN
- TOWER LEG
- TREE
- GUY ANCHOR
- TANK
- GAS VALVE
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- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- CATCH BASIN - CULVERT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- LIMITS OF DISTURBANCE

OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION
MVP-AR-H600-02	ACCESS ROADS, ANCILLARY SITES, MAINLINE VALVES & LAUNCHER/RECEIVER SITES

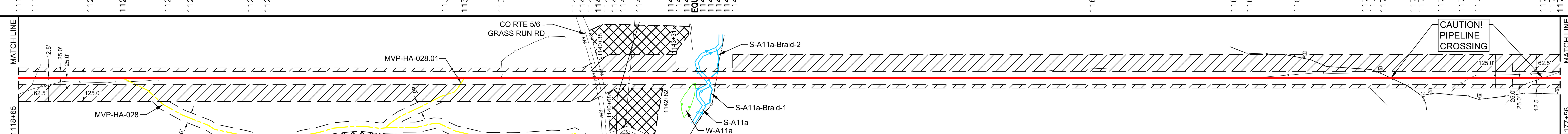
OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

HORIZONTAL STATIONING

- 1118+65 MATCH LINE
- 1119+26 FENCE - BARBED WIRE
- 1121+33 PROPERTY LINE
- 1122+55 ACCESS RD -TEMPORARY(MVP-HA-028)
- 1124+24 PROPERTY LINE
- 1125+09 PROPERTY LINE
- 1127+35 PROPERTY LINE
- 1127+98 PROPERTY LINE
- 1134+63 PROPERTY LINE
- 1135+38 ACCESS RD -TEMPORARY (MVP-HA-028.01)
- 1136+75 FENCE - BARBED WIRE 3'LT
- 1140+20 FENCE - BARBED WIRE
- 1140+24 RIGHT-OF-WAY
- 1140+33 EGDE OF GRAVEL
- 1140+40 ℄ CO RTE 5/6 - GRASS RUN RD
- 1140+46 EDGE OF GRAVEL
- 1140+55 RIGHT-OF-WAY
- 1141+32 PIPELINE - FOREIGN - 16" DOMINION(TL-283)
- 1141+57 OHP LINE
- 1143+83 BEGIN WETLAND(W-A11a) 38'RT
- 1143+98 FIELD LINE
- 1144+01 END WETLAND(W-A11a) 21'RT
- EQUATION: 1144+01 BACK = 1145+09 AHEAD
- 1145+43 STREAM BANK(S-A11a)
- 1145+57 STREAM BANK(S-A11a)
- 1145+59 ℄ STREAM(S-A11a-Braid-1) 27'RT
- 1145+75 ℄ STREAM(S-A11a-Braid-2)
- 1145+94 PIPELINE - FOREIGN - UNKNOWN
- 1160+15 PROPERTY LINE
- 1165+59 FENCE - METAL
- 1165+98 FENCE - METAL
- 1167+96 LINE MARKER 78'LT
- 1170+59 PROPERTY LINE
- 1170+82 LINE MARKER 19'LT
- 1171+21 PIPELINE - FOREIGN-CNX(2")
- 1172+40 LINE MARKER 70'RT
- 1172+64 LINE MARKER 64'RT
- 1173+37 PROPERTY LINE
- 1174+15 FENCE - BARBED WIRE
- 1174+44 LINE MARKER 80'RT
- 1176+91 (MARKWEST) PIPELINE
- 1177+55 LINE MARKER 69'RT
- 1177+56 MATCH LINE

WORK SPACE

- PROPOSED PIPELINE
- EXISTING PIPELINE
- ACCESS ROAD TEMPORARY WORK SPACE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE(TWS)
- ADD. TEMPORARY WORK SPACE(ATWS)



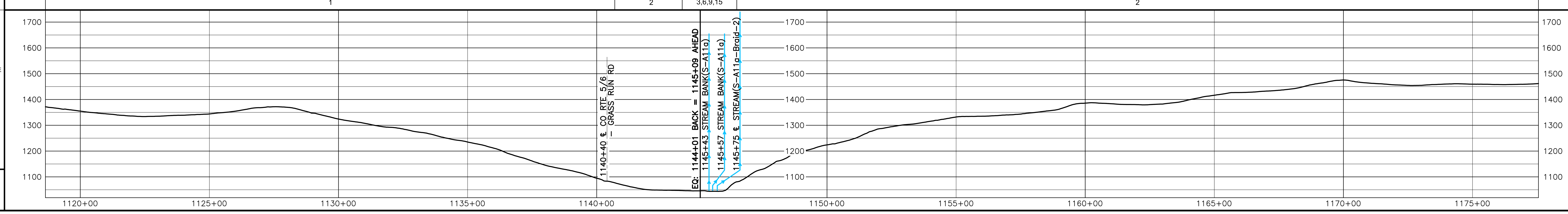
CONSTRUCTION METHOD

1118+65 – 1140+20	1140+20 – 1145+30	1145+30 – 1145+70	1145+70 – 1177+56
1	2	3,6,9,15	2

CONSTRUCTION METHOD KEY

1 - TYPICAL R/W WORKING SIDE RIGHT
1.1 - TYPICAL R/W WORKING SIDE RIGHT
2 - TYPICAL R/W WORKING SIDE LEFT
2.1 - TYPICAL R/W WORKING SIDE LEFT
3 - TYPICAL WETLAND X-ING
4 - ROAD X-ING - BORE
5 - RAILROAD X-ING - BORE
6 - WATERBODY X-ING OPEN CUT - FLUME
7 - PARALLEL TO POWER LINE
8 - RIDGE CONSTRUCTION
9 - WATERBODY X-ING OPEN CUT - WET DITCH
10 - HDD ENTRY PLAN
11 - HDD EXIT PLAN
12 - HDD CONSTRUCTION
13 - PARALLEL TO POWER LINE
14 - PARALLEL TO POWER LINE
15 - WATERBODY X-ING OPEN CUT - DRY/DAM & PUMP
33 - SIDE HILL CONSTRUCTION
34 - 2-TONE SIDE HILL CONSTRUCTION

PROFILE



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REVISIONS

REV.	BY	DATE	DESCRIPTION
0	HEI	10-15-15	REV. 4.0.0 ISSUED TO FERC
1	HEI	01-11-16	FERC DATA REQUEST No.1
2	HEI	04-14-16	FERC DATA REQUEST No.2
3	HEI	09-03-16	REV. 4.1.13 ISSUED FOR BID
4	HEI	10-14-16	OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

MATERIAL SUMMARY

MK. NO.	QTY.	DESCRIPTION
1	5821	42"O.D. X 0.617"W.T., X-70, FUSION BONDED EPOXY
4	40	42"O.D. X 0.740"W.T., X-70, FBE & ARO
6	40	42"O.D. X 0.617"W.T., X-70, FBE & ARO
		TYPE 1 TEST STATION - PIPELINE
		TYPE 4 TEST STATION - FOREIGN CROSSING

APPROVED FOR CONSTRUCTION

REV.	BY	DATE
.	.	.

APPROVED FOR BIDDING

REV.	BY	DATE
3	RRR	09-03-16

APPROVED FOR FERC

REV.	BY	DATE
0	RRR	10-15-15
4	RRR	10-14-16

Mountain Valley PIPELINE

PIPELINE ALIGNMENT
MOUNTAIN VALLEY PROJECT - H600 LINE
TENMILE DIST.,HARRISON CO.,W.V.
STA. 1118+65 TO STA. 1177+56

HORZ. SCALE: 1" = 200'	
DRAWN BY: HEI(DRF)	10/7/2016
DRAFTING CK:	
ENGINEERING CK:	
CONSTRUCTION CK:	
ENVIRONMENTAL CK:	
AFE/P.O.NO.:	
HEI PROJECT NO.: 14-10-052	
DRAWING NO.: PA-HAWV-H600-13	
SHEET 23 OF 329	REV. 4
DATE OF PLOT: 10/10/2016 5:28 PM	

RIGHT-OF-WAY & OWNERSHIP DATA

Station	Tract	Length
1177+56 – 1177+69	WV-HA-078 / WV-HA-081 / WV-HA-080	13 LF, 13 SLOPE
1177+69 – 1189+34	WV-HA-081 / WV-HA-080	1165 LF, 1174 SLOPE
1189+34 – 1199+63	WV-HA-081	1029 LF, 1042 SLOPE
1199+63 – 1208+22	WV-HA-081 / WV-HA-082	859 LF, 867 SLOPE
1208+22 – 1209+04	WV-HA-081 / WV-HA-082 / WV-HA-083	82 LF, 82 SLOPE
1209+04 – 1210+47	WV-HA-081 / WV-HA-083	143 LF, 144 SLOPE
1210+47 – 1217+31	WV-HA-083 (EQUATION: 1213+70 BK= 1213+50 AHD=)	705 LF, 742 SLOPE
1217+31 – 1217+61	COUNTY ROUTE 5/7	30 LF - 31 SLOPE
1217+61 – 1227+72	WV-HA-085	1011 LF, 1081 SLOPE

DESIGN

	1177+56 – 1217+26	1217+26 – 1217+66	1217+66 – 1218+60	1218+60 – 1219+00	1219+00 – 1227+72
PIPE / COATING	1	4	1	6	1
SLOPE DISTANCE	4058'	40'	96'	40'	939'
CLASS LOCATION / HCA	1				

ENVIRONMENTAL

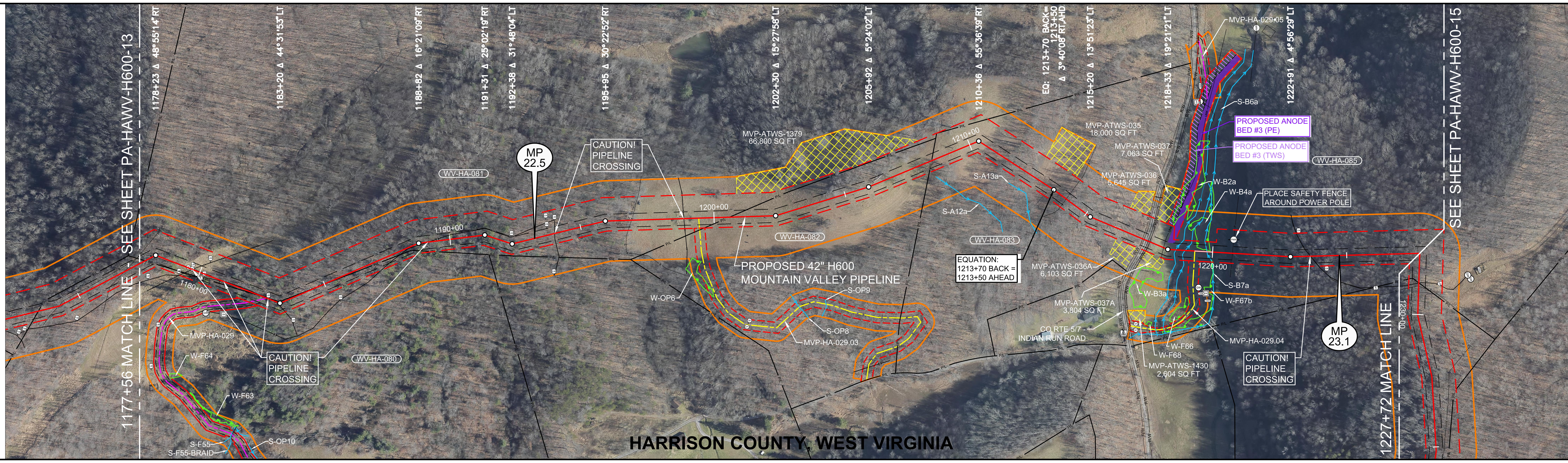
CONSTRUCTION EXCLUSION (1177+56 – 1227+72): TIME OF YEAR RESTRICTION: NO TREE CLEARING APRIL 1ST TO JULY 31ST

WETLAND / STREAM:

S-B6a	W-B4a	S-B7a	W-F67b
35 LF	52 LF	4 LF	6 LF

PLAN VIEW

0' 100' 200' 400'



AERIAL PHOTOGRAPHY DATE: APRIL 2015

LEGEND

- STUDY CORRIDOR
- PROPOSED 42"PIPELINE
- NON-SURVEYED C/L
- 500' TICK MARK
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- ANCILLARY SITE
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- C/L ROAD
- C/L RAILROAD
- DELINEATED STREAM
- DELINEATED WETLAND
- BARRACADE FENCE
- PI SYMBOL
- PROPOSED TEST STATION
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- SIGN
- TOWER LEG
- TREE
- GUY ANCHOR
- TANK
- GAS VALVE
- WELL - GAS/OIL/WATER/ MONITORING
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- CATCH BASIN - CULVERT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- LIMITS OF DISTURBANCE

REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION
MVP-AR-H600-02	ACCESS ROADS, ANCILLARY SITES, MAINLINE VALVES & LAUNCHER/RECEIVER SITES
MVP-QDAR-H600-09	ACCESS ROAD DETAIL MAP

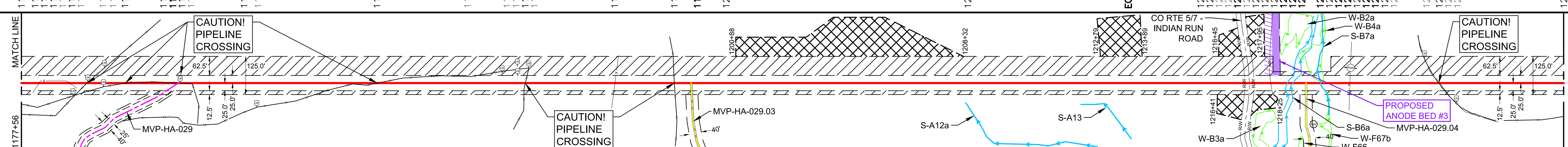
OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

HORIZONTAL STATIONING

1177+56 MATCH LINE
1177+78 PROPERTY LINE
1178+13 FENCE - BARBED WIRE
1179+10 FENCE - BARBED WIRE
1179+31 LINE MARKER 38'RT
1179+69 PIPELINE-FOREIGN-MARKWEST LIBERTY
1179+71 LINE MARKER 4'LT
1180+22 LINE MARKER 12'RT
1180+23 LINE MARKER 49'LT
1180+94 PIPELINE - FOREIGN - CNX(2")
1182+50 PROPERTY LINE
1182+71 ACCESS RD - PERMANENT(MVP-HA-029)
1182+72 PIPELINE - FOREIGN - CNX(2")
1182+74 LINE MARKER 2'RT
1184+83 PROPERTY LINE
1185+29 LINE MARKER 83'RT
1189+17 PIPELINE - FOREIGN - CNX(2")
1192+27 LINE MARKER 23'LT
1193+76 LINE MARKER 26'LT
1193+80 LINE MARKER 58'LT
1194+01 PIPELINE - FOREIGN - CNX(2")
1194+10 LINE MARKER 45'LT
1196+93 FENCE - BARBED WIRE
1198+88 PIPELINE - FOREIGN - UNKNOWN
1199+43 ACCESS RD - TEMPORARY (MVP-HA-029.03)
1200+57 PROPERTY LINE
1208+46 PROPERTY LINE
EQUATION: 1213+70 BK = 1213+50 AHD
1214+07 FENCE - BARBED WIRE
1217+30 RIGHT-OF-WAY
1217+34 ℄ BAR DITCH
1217+37 EDGE OF ASPHALT
1217+45 ℄ CO RTE 5/7-INDIAN RUN RD
1217+52 EDGE OF ASPHALT
1217+59 FENCE - BARBED WIRE
1217+60 RIGHT-OF-WAY
1218+15 UNGERGROUND UTIL-UNKNOWN
1218+63 STREAM BANK(S-B6a)
1218+98 STREAM BANK(S-B6a)
1219+34 ACCESS RD - TEMPORARY (MVP-HA-029.04)
1219+39 BEGIN WETLAND(W-B4a)33'LT
1219+55 WELL - GAS 135'RT
1219+79 ℄ STREAM(S-B7a)
1219+91 END WETLAND(W-B4a)3'LT
1219+93 ℄ DRAIN
1219+96 BEGIN WETLAND(W-F67b)29'RT
1220+02 END WETLAND(W-F67b)38'RT
1220+73 OHP LINE
1220+75 POWER POLE 51'LT
1223+23 LINE MARKER 82'LT
1223+65 PIPELINE - FOREIGN - WACO
1223+68 ℄ FIELD ROAD(DIRT)
1224+24 LINE MARKER 63'RT
1227+72 MATCH LINE

WORK SPACE

- PROPOSED PIPELINE
- EXISTING PIPELINE
- ACCESS ROAD TEMPORARY WORK SPACE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE(TWS)
- ADD. TEMPORARY WORK SPACE(ATWS)



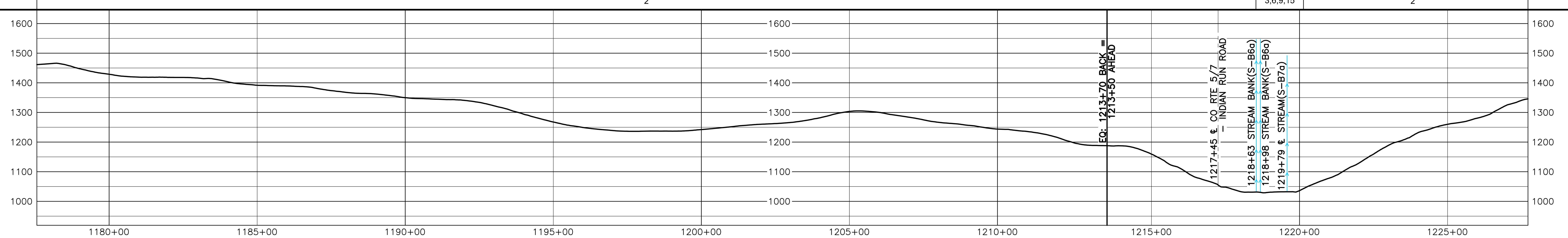
CONSTRUCTION METHOD

1177+56 – 1217+66	1217+66 – 1219+00	1219+00 – 1227+72
2	3,6,9,15	2

CONSTRUCTION METHOD KEY

1 - TYPICAL R/W WORKING SIDE RIGHT
1.1 - TYPICAL R/W WORKING SIDE RIGHT
2 - TYPICAL R/W WORKING SIDE LEFT
2.1 - TYPICAL R/W WORKING SIDE LEFT
3 - TYPICAL WETLAND X-ING
4 - ROAD X-ING - BORE
5 - RAILROAD X-ING - BORE
6 - WATERBODY X-ING OPEN CUT - FLUME
7 - PARALLEL TO POWER LINE
8 - RIDGE CONSTRUCTION
9 - WATERBODY X-ING OPEN CUT - WET DITCH
10 - HDD ENTRY PLAN
11 - HDD EXIT PLAN
12 - HDD CONSTRUCTION
13 - PARALLEL TO POWER LINE
14 - PARALLEL TO POWER LINE
15 - WATERBODY X-ING OPEN CUT - DRY/DAM & PUMP
33 - SIDE HILL CONSTRUCTION
34 - 2-TONE SIDE HILL CONSTRUCTION

PROFILE



REVISIONS

REV.	BY	DATE	DESCRIPTION
0	HEI	10-15-15	REV. 4.0.0 ISSUED TO FERC
1	HEI	01-11-16	FERC DATA REQUEST No.1
2	HEI	04-14-16	FERC DATA REQUEST No.2
3	HEI	09-03-16	REV. 4.1.13 ISSUED FOR BID
4	HEI	10-14-16	OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

MATERIAL SUMMARY

MK. NO.	QTY.	DESCRIPTION
1	5093	42"O.D. X 0.617"W.T., X-70, FUSION BONDED EPOXY
4	40	42"O.D. X 0.740"W.T., X-70, FBE & ARO
6	40	42"O.D. X 0.617"W.T., X-70, FBE & ARO
		TYPE 1 TEST STATION - PIPELINE
		TYPE 4 TEST STATION - FOREIGN CROSSING

APPROVED FOR CONSTRUCTION

REV.	BY	DATE
.	.	.

APPROVED FOR BIDDING

REV.	BY	DATE
3	RRR	09-03-16

APPROVED FOR FERC

REV.	BY	DATE
0	RRR	10-15-15
4	RRR	10-14-16

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www.hollandengineering.com

Mountain Valley PIPELINE

PIPELINE ALIGNMENT
MOUNTAIN VALLEY PROJECT - H600 LINE TENMILE DIST.,HARRISON CO.,W.V. STA. 1177+56 TO STA. 1227+72

HORZ. SCALE: 1" = 200'	
DRAWN BY: HEI(DRF)	10/7/2016
DRAFTING CK:	
ENGINEERING CK:	
CONSTRUCTION CK:	
ENVIRONMENTAL CK:	
AFE/P.O.NO.:	
HEI PROJECT NO.: 14-10-052	
DRAWING NO.: PA-HAWV-H600-14	
SHEET 24 OF 329	REV. 4
DATE OF PLOT: 10/10/2016 5:28 PM	

RIGHT-OF-WAY & OWNERSHIP DATA

1227+72	WV-HA-085	1228+65	WV-HA-085 / WV-HA-086	1229+43	WV-HA-086	1232+90	WV-HA-088 / WV-HA-086	1239+58	WV-HA-088 / WV-HA-087 / WV-HA-086	1240+54	WV-HA-088 / WV-HA-087	1248+35	WV-HA-088	1251+47
	93 LF 94 SLOPE		78 LF 79 SLOPE		347 LF 351 SLOPE		668 LF 672 SLOPE		96 LF 96 SLOPE		781 LF 785 SLOPE		312 LF 319 SLOPE	

DESIGN

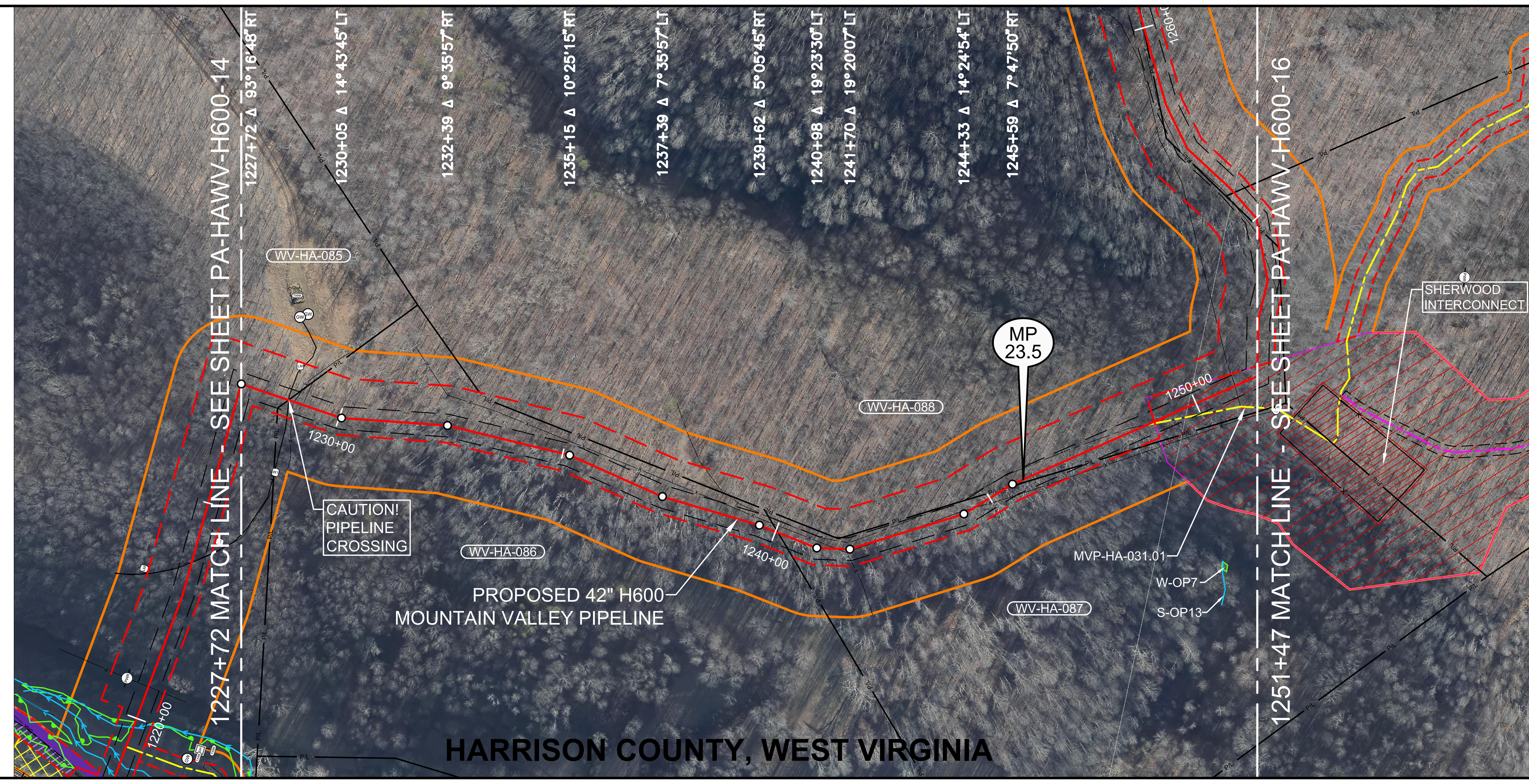
	1227+72 – 1251+47
PIPE / COATING	1
SLOPE DISTANCE	2396'
CLASS LOCATION / HCA	1

ENVIRONMENTAL

	1227+72 – 1251+47
CONSTRUCTION EXCLUSION	TIME OF YEAR RESTRICTION: NO TREE CLEARING APRIL 1ST TO JULY 31ST
WETLAND / STREAM	
.	
.	

0' 100' 200' 400'

PLAN VIEW



LEGEND

- STUDY CORRIDOR
- PROPOSED 42"PIPELINE
- NON-SURVEYED C/L
- 500' TICK MARK
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- ANCILLARY SITE
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- C/L ROAD
- C/L RAILROAD
- DELINEATED STREAM
- DELINEATED WETLAND
- BARRACADE FENCE
- PI SYMBOL
- PROPOSED TEST STATION
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- SIGN
- TOWER LEG
- TREE
- GUY ANCHOR
- TANK
- GAS VALVE
- WELL - GAS/OIL/WATER/ MONITORING
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- CATCH BASIN - CULVERT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- LIMITS OF DISTURBANCE

AERIAL PHOTOGRAPHY DATE: APRIL 2015

OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION
MVP-AR-H600-02	ACCESS ROADS, ANCILLARY SITES, MAINLINE VALVES & LAUNCHER/RECEIVER SITES
MVP-QDAR-H600-09	ACCESS ROAD DETAIL MAP
CD-ATWS-H600-001	CONSTRUCTION DETAILS ATWS SITE SPECIFIC

HORIZONTAL STATIONING

- 1227+72 MATCH LINE
- 1228+46 WELL – GAS 181'LT
- 1228+61 WELL – GAS 193'LT
- 1228+81 PROPERTY LINE
- 1228+82 PIPELINE – FOREIGN – WACO
- 1228+87 LINE MARKER 64'LT
- 1228+94 FENCE – BARBED WIRE
- 1240+05 PROPERTY LINE
- 1241+40 FENCE – BARBED WIRE
- 1242+92 FENCE – BARBED WIRE
- 1244+59 FENCE – BARBED WIRE
- 1245+43 PROPERTY LINE
- 1248+64 EDGE OF DIRT
- 1248+82 ACCESS ROAD–TEMPORARY (MVP–HA–031.01)
- 1249+00 EDGE OF DIRT
- 1251+47 MATCH LINE

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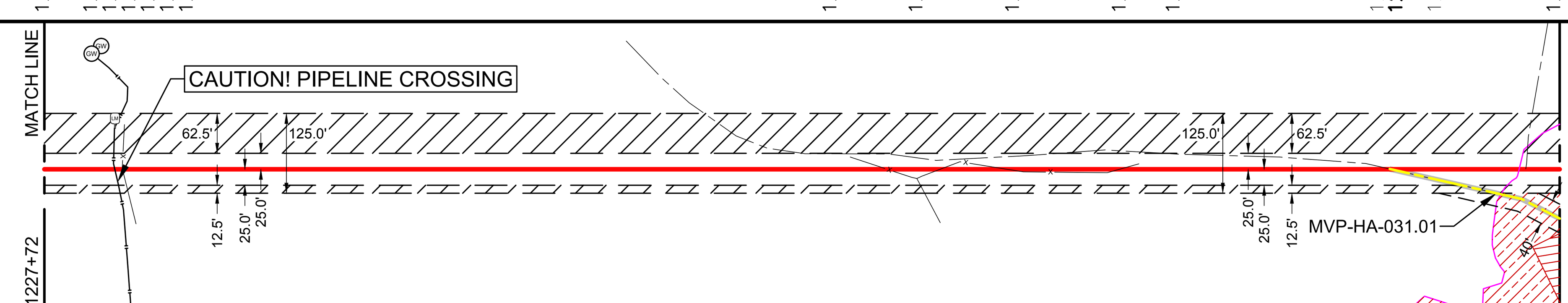

CONSTRUCTION METHOD

2

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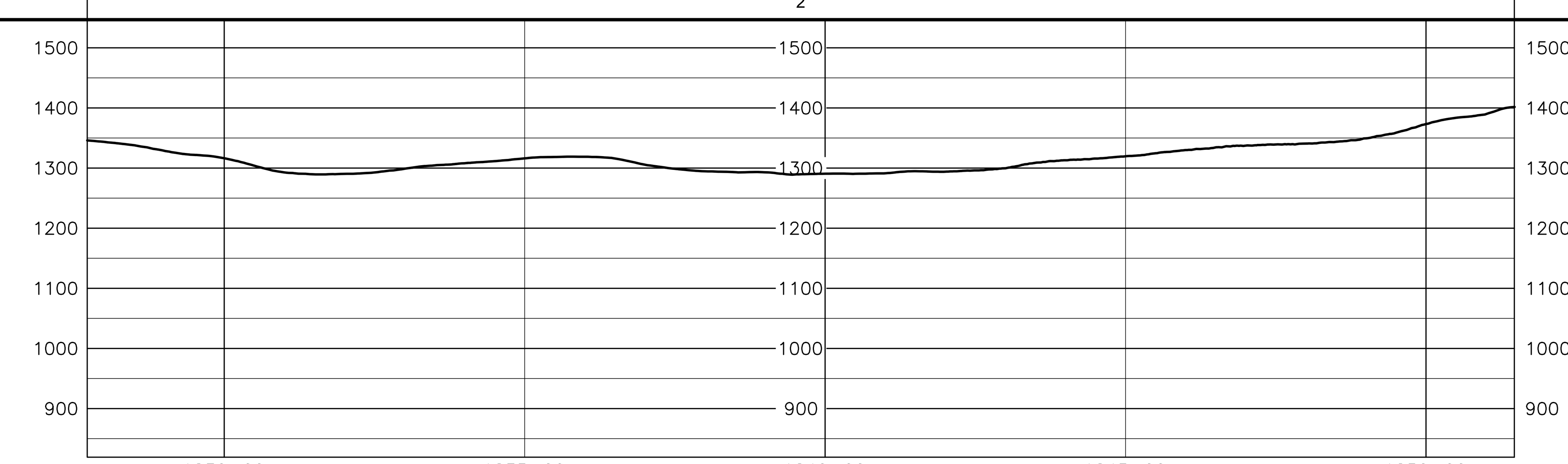
PROFILE



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APPROVED FOR BIDDING

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APPROVED FOR FERC

REV.	BY	DATE
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Mountain Valley PIPELINE

PIPELINE ALIGNMENT
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TENMILE DIST.,HARRISON CO.,W.V.
STA. 1227+72 TO STA. 1251+47

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HEI PROJECT NO.: 14-10-052	
DRAWING NO.: PA-HAWV-H600 -15	
SHEET 25 OF 329	REV. 4
DATE OF PLOT: 10/10/2016 5:29 PM	