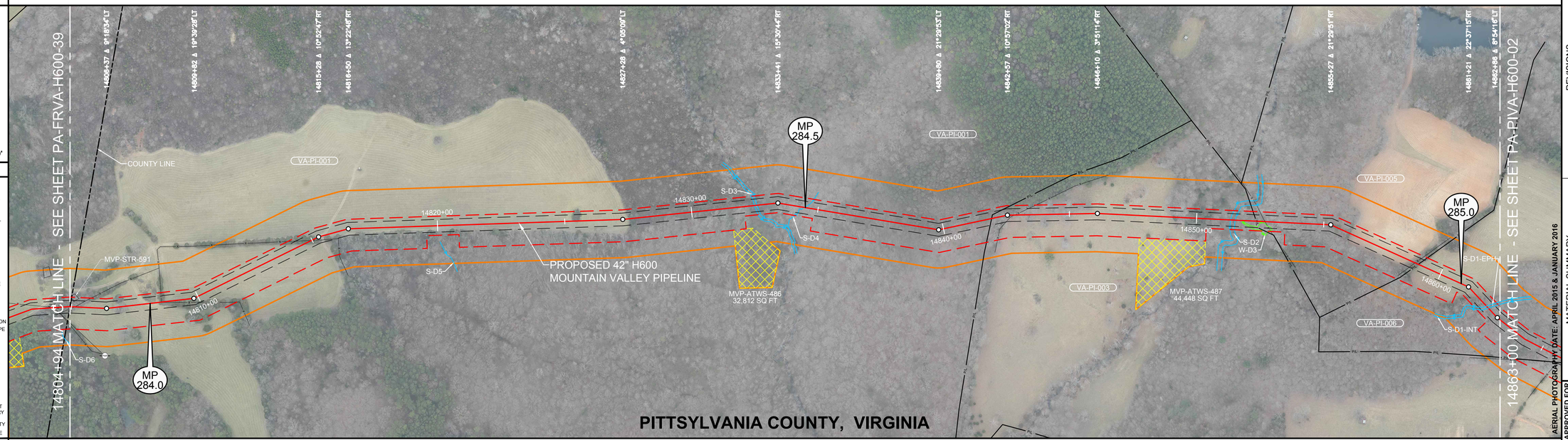
RIGHT-OF-WAY & OWNERSHIP DATA	14804+94	VA-PI-001 3660 LF 3681 SLOPE	VA-PI-001 / VA-PI-003 117 LF 117 SLOPE	VA-PI-003 949 LF 956 SLOPE	VA-PI-005 / VA-PI-003 52 LF 53 SLOPE	VA-PI-005 580 LF 589 SLOPE	VA-PI-005 / VA-PI-006 75 LF 75 SLOPE	VA-PI-006 373 LF 378 SLOPE	14863+00
DESIGN – PIPE / COATING		1		1		1		1	
DESIGN – SLOPE DISTANCE		2752'		1670'		1060'		40' 53'	
DESIGN – CLASS LOCATION / HCA		1							
ENVIRONMENTAL – CONSTRUCTION EXCLUSION	14804+94	TIME OF YEAR RESTRICTION: NO TREE CLEARING APRIL 1ST TO JULY 31ST	T.O.Y.R.: NO CONSTRUCTION WITHIN STREAM S-D3 MARCH 15TH TO MAY 31ST	TIME OF YEAR RESTRICTION: NO TREE CLEARING APRIL 1ST TO JULY 31ST	T.O.Y.R.: NO CONSTRUCTION WITHIN STREAM S-D2 MARCH 15TH TO MAY 31ST	TIME OF YEAR RESTRICTION: NO TREE CLEARING APRIL 1ST TO JULY 31ST			14863+00
ENVIRONMENTAL – WETLAND / STREAM			S-D3 10 LF; S-D4 6 LF		S-D2 18 LF; W-D3 121 LF			S-D1-EPH 11 LF	
ENVIRONMENTAL – .									
ENVIRONMENTAL – .									



OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

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

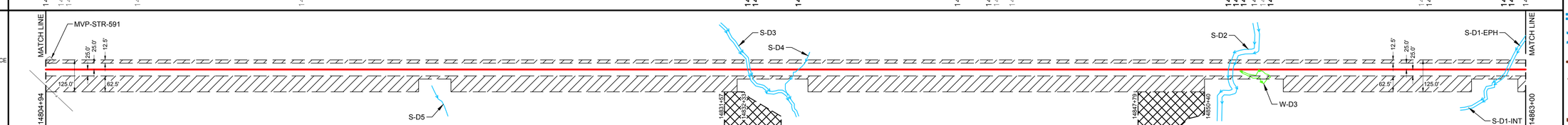
DRAWING NO.	DESCRIPTION
MVP-AR-H600-16	ACCESS ROADS, ANCILLARY SITES, MAINLINE VALVES & LAUNCHER/RECEIVER SITES

HORIZONTAL STATIONING

14804+94 MATCH LINE END FRANKLIN COUNTY, BEGIN PITTSYLVANIA COUNTY
14805+07 BUILDING - BARN 21LT
14805+12 FENCE - BARBED WIRE
14808+54 FENCE - BARBED WIRE
14814+98 FENCE - BARBED WIRE
14832+48 STREAM BANK(S-D3)
14832+58 STREAM BANK(S-D3)
14834+46 ℄ STREAM(S-D4)
14840+71 PROPERTY LINE
14841+93 PROPERTY LINE
14842+24 PROPERTY CORNER 38RT
14842+85 FENCE - BARBED WIRE
14851+33 STREAM BANK(S-D2)
14851+51 STREAM BANK(S-D2)
14851+78 BEGIN WETLAND(W-D3) 6RT
14852+35 PROPERTY LINE
14852+69 FENCE - BARBED WIRE
14852+99 END WETLAND(W-D3) 51RT
14858+91 FENCE - BARBED WIRE
14859+05 PROPERTY LINE
14862+24 STREAM BANK(S-D2-EPH)
14862+35 STREAM BANK(S-D2-EPH)
14863+00 MATCH LINE

WORK SPACE

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



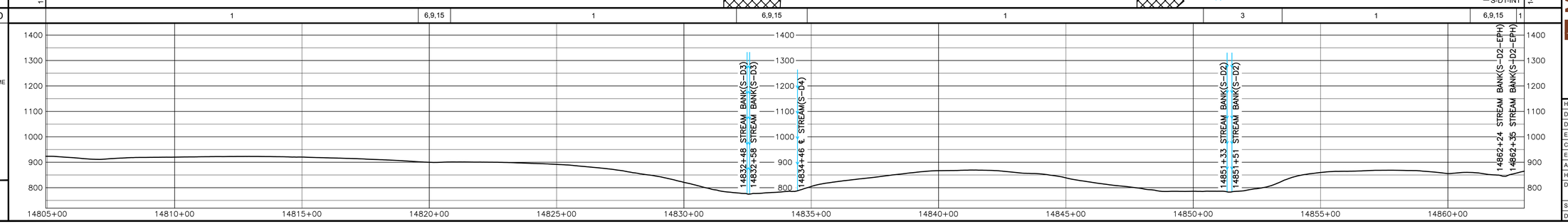
CONSTRUCTION METHOD

14804+94 – 14805+07	14805+07 – 14832+48	14832+48 – 14832+58	14832+58 – 14834+46	14834+46 – 14851+33	14851+33 – 14852+99	14852+99 – 14862+24	14862+24 – 14863+00
1	1	6,9,15	1	6,9,15	1	3	1	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

PROFILE



HOLLAND ENGINEERING
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Holland, Michigan 49423-3786 | Southfield, Michigan 48075
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REVISIONS

REV.	BY	DATE	DESCRIPTION
0	HEI	10-15-15	REV. 4.0 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	09-05-16	REV. 4.1 ISSUED TO FERC
4	HEI	10-14-16	OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

AERIAL PHOTOGRAPHY DATE: APRIL 2015 & JANUARY 2016

MATERIAL SUMMARY

MK. NO.	QTY.	DESCRIPTION
1	9489	42"O.D. X 0.617"W.T. X70 FBE BONDED EPOXY
6	160	42"O.D. X 0.617"W.T. X70 FBE & ARO

TYPE 1 TEST STATION - PIPELINE

APPROVED FOR CONSTRUCTION			APPROVED FOR BIDDING			APPROVED FOR FERC		
REV.	BY	DATE	REV.	BY	DATE	REV.	BY	DATE
-			3	RRR	09-05-16	0	RRR	10-15-15
						4	RRR	10-14-16

Mountain Valley PIPELINE

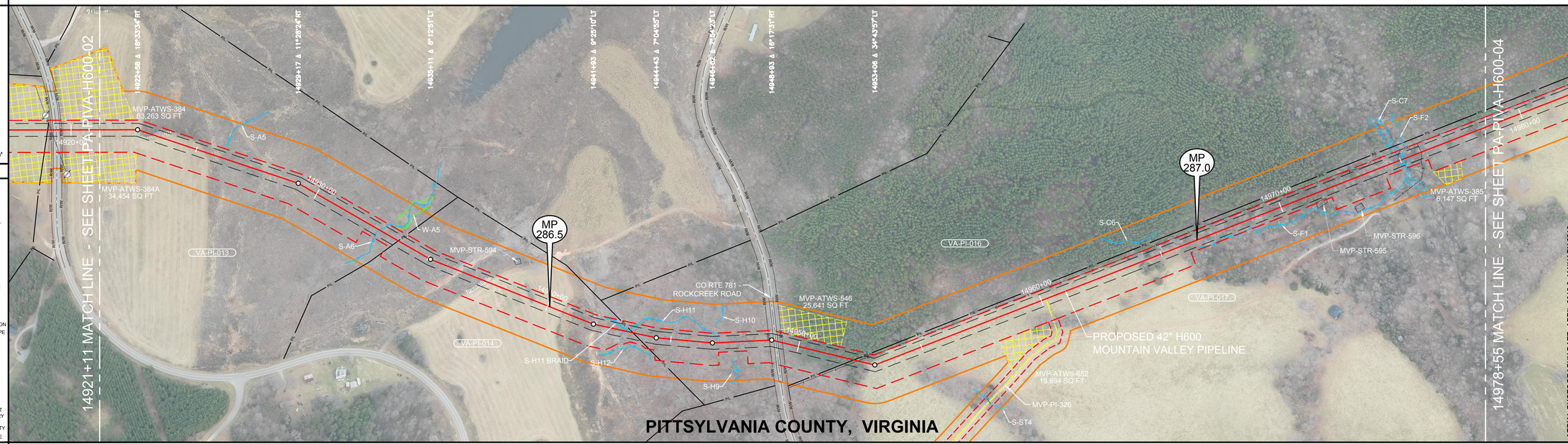
PIPELINE ALIGNMENT

MOUNTAIN VALLEY PROJECT - H600 LINE
SANDY LEVEL PCT.,PITTSYLVANIA CO.,VA.
STA. 14804+94 TO STA. 14863+00

HORZ. SCALE: 1" = 200'	
DRAWN BY: HEI(DRF)	02/11/15
DRAFTING CK:	.
ENGINEERING CK:	.
CONSTRUCTION CK:	.
ENVIRONMENTAL CK:	.
AFE/P.O.NO.:	
HEI PROJECT NO.:	14-10-052
DRAWING NO.:	PA-PIVA-H600 -01
SHEET 310 OF 329	REV. 4
DATE OF PLOT:	10/11/16 10:20 AM

| RIGHT-OF-WAY & OWNERSHIP DATA | | |

RIGHT-OF-WAY & OWNERSHIP DATA																													
	14921+11	VA-PI-013 1224 LF 1228 SLOPE			14933+35	VA-PI-013 / VA-PI-014 47 LF 48 SLOPE	14933+82	VA-PI-014 910 LF 921 SLOPE			14942+92	VA-PI-014 / VA-PI-016 176 LF 177 SLOPE	14944+68	VA-PI-016 415 LF 422 SLOPE		14948+83	CONT'F ROUTE 781 / VA-PI-016	14949+36	VA-PI-016 161 LF 164 SLOPE	14950+97	VA-PI-016 / VA-PI-017 177 LF 178 SLOPE	14952+74	VA-PI-017 2581 LF 2602 SLOPE						14978+55
DESIGN																													
PIPE / COATING	14921+11	1			14932+83	6	14933+03	1								14948+70	4	14949+50	1						14974+82	6	14975+22	1	14978+55
SLOPE DISTANCE		1155'				40'		1587'									80'		2548'							40'		344'	
CLASS LOCATION / HCA		1																											
ENVIRONMENTAL																													
CONSTRUCTION EXCLUSION	14921+11	TIME OF YEAR RESTRICTION: NO TREE CLEARING APRIL 1ST TO JULY 31ST																							T.O.Y.R.: NO CONSTRUCTION WITHIN STREAM S-C7 MARCH 15TH TO MAY 31ST				14978+55
WETLAND / STREAM			S-A5 8 LF			S-A6 5 LF				S-H11 BRAID 3 LF	S-H11 3 LF			S-H9 2 LF										S-F1 147 LF			S-C7 20 LF		
.																													
.																													



PLAN VIEW

0' 100' 200' 400'

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

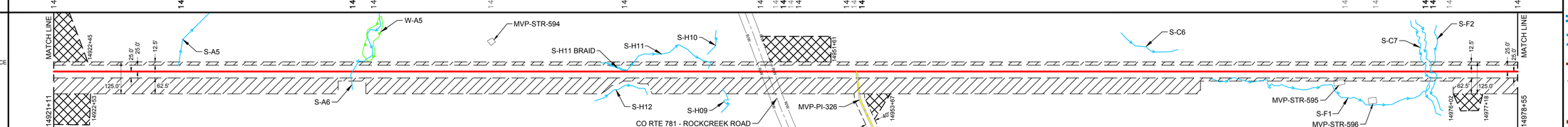
DRAWING NO.	DESCRIPTION
MVP-AR-H600-16	ACCESS ROADS, ANCILLARY SITES, MAINLINE VALVES & LAUNCHER/RECEIVER SITES
MVP-QDAR-H600-108	ACCESS ROAD DETAIL MAP

HORIZONTAL STATIONING

14921+11 MATCH LINE | 14925+99 ℄ STREAM(S-A5)24'LT | 14932+83 ℄ STREAM(S-A6) | 14933+66 PROPERTY LINE | 14938+26 BUILDING - BARN 103'LT | 14943+50 PROPERTY LINE | 14948+84 RIGHT-OF-WAY | 14949+01 EDGE OF GRAVEL | 14949+10 ℄ CO RTE 781 - ROCKCREEK ROAD | 14949+36 EDGE OF GRAVEL | 14949+36 RIGHT-OF-WAY | 14952+21 PROPERTY LINE | 14952+26 POWER WIRE | 14952+61 ACCESS RD - TEMPORARY(MVP-PI-326) | 14971+77 BUILDING - BARN 33'RT | 14972+98 BUILDING - BARN 101'RT | 14974+92 STREAM BANK(S-C7) | 14975+12 STREAM BANK(S-C7) | 14975+87 FENCE - WIRE | 14978+55 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

1 | 6,9,15 | 1 | 6,9,15 | 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
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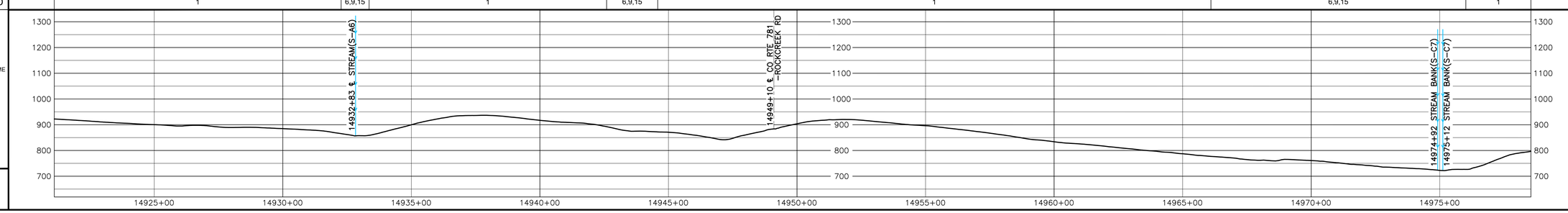
14 - PARALLEL TO POWER LINE
15 - WATERBODY X-ING OPEN CUT - DRY/DAM & PUMP
33 - SIDE HILL CONSTRUCTION

PROFILE



OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

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REVISIONS

REV.	BY	DATE	DESCRIPTION
0	HEI	10-14-15	REV. 4.0 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	09-02-16	REV. 4.1 ISSUED TO FERC
4	HEI	10-14-16	OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

AERIAL PHOTOGRAPHY DATE: APRIL 2015 & JANUARY 2016

MATERIAL SUMMARY

MK. NO.	QTY.	DESCRIPTION
1	9434	42"O.D. X 0.617"W.T. X70, FBE & ARO
4	80	42"O.D. X 0.740"W.T. X70, FBE & ARO
6	80	42"O.D. X 0.957"W.T. X70, FBE & ARO
	1	TYPE 1 TEST STATION - PIPELINE

APPROVED FOR CONSTRUCTION		
REV.	BY	DATE
-	-	-

APPROVED FOR BIDDING		
REV.	BY	DATE
3	RRR	09-02-16

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

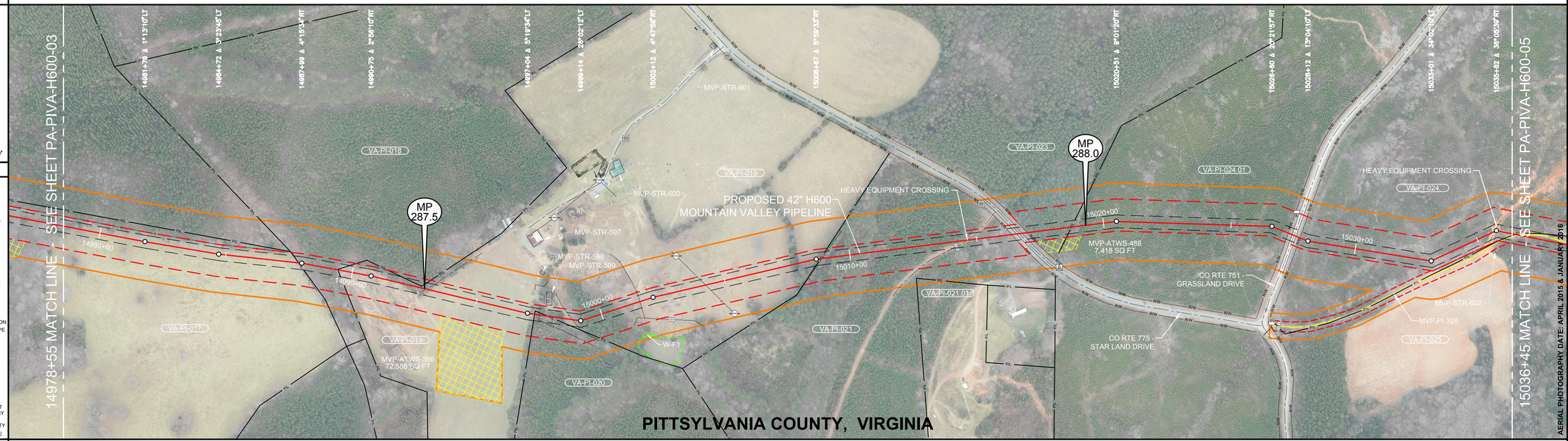
Mountain Valley PIPELINE

PIPELINE ALIGNMENT

MOUNTAIN VALLEY PROJECT - H600 LINE
SANDY LEVEL PCT.,PITTSYLVANIA CO.,VA.
STA. 14921+11 TO STA. 14978+55

HORZ. SCALE: 1" = 200'	
DRAWN BY: HEI(DRF)	02/11/15
DRAFTING CK:	-
ENGINEERING CK:	-
CONSTRUCTION CK.	-
ENVIRONMENTAL CK.	-
AFE/P.O.NO.:	
HEI PROJECT NO.:	14-10-052
DRAWING NO.:	PA-PIVA-H600 -03
SHEET 312 OF 329	REV. 4
DATE OF PLOT:	10/11/16 10:21 AM

RIGHT-OF-WAY & OWNERSHIP DATA		
		VA-PI-017 898 LF 900 SLOPE; VA-PI-018 / VA-PI-017 125 LF 125 SLOPE; VA-PI-018 63 LF 64 SLOPE; VA-PI-018 / VA-PI-019 65 LF 65 SLOPE; VA-PI-019 127 LF 127 SLOPE; VA-PI-018 / VA-PI-019 173 LF 174 SLOPE; VA-PI-019 426 LF 427 SLOPE; VA-PI-018 / VA-PI-019 233 LF 234 SLOPE; VA-PI-019 831 LF 834 SLOPE; VA-PI-019 / VA-PI-020 122 LF 122 SLOPE; VA-PI-021 693 LF 697 SLOPE; COUNTY RTE. 775 / VA-PI-021 31 LF 31 SLOPE; VA-PI-023 / COUNTY ROUTE 775 / VA-PI-021 54 LF 55 SLOPE; VA-PI-023 / COUNTY ROUTE 775 30 LF 30 SLOPE; VA-PI-023 124 LF 124 SLOPE; VA-PI-023 / VA-PI-024.01 82 LF 82 SLOPE; VA-PI-024.01 797 LF 804 SLOPE; VA-PI-024 / COUNTY ROUTE 757 / VA-PI-024 818 LF 826 SLOPE; VA-PI-024 / VA-PI-025 48 LF 49 SLOPE
DESIGN — PIPE / COATING		1; 2; 1; 4; 1; 2; 1
DESIGN — SLOPE DISTANCE		3602'; 40'; 146'; 80'; 1014'; 80'; 768'; 40'; 52'
DESIGN — CLASS LOCATION / HCA		1
ENVIRONMENTAL — CONSTRUCTION EXCLUSION		TIME OF YEAR RESTRICTION: NO TREE CLEARING APRIL 1ST TO JULY 31ST
ENVIRONMENTAL — WETLAND / STREAM		
ENVIRONMENTAL — .		
ENVIRONMENTAL — .		



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
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- ROAD RIGHT-OF-WAY
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- GAS VALVE
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- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- CATCH BASIN - CULVERT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- LIMITS OF DISTURBANCE

REFERENCE DRAWINGS

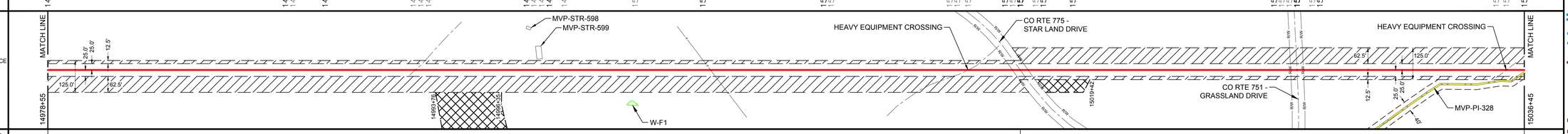
DRAWING NO.	DESCRIPTION
MVP-AR-H600-16	ACCESS ROADS, ANCILLARY SITES, MAINLINE VALVES & LAUNCHER/RECEIVER SITES

HORIZONTAL STATIONING

14978+55 MATCH LINE; 14987+86 PROPERTY LINE; 14987+87 FENCE – WIRE; 14989+42 PROPERTY LINE; 14992+88 EDGE OF DIRT; 14992+96 ℄ FIELD ROAD(DIRT); 14993+04 EDGE OF DIRT; 14997+32 PROPERTY LINE; 14997+51 FENCE – BARBED WIRE; 14997+71 BUILDING – BARN 42'LT; 14997+83 PROPERTY LINE; 14998+81 FENCE – BARBED WIRE; 15001+58 FENCE – BARBED WIRE; 15004+23 OHP LINE; 15008+84 PROPERTY LINE; 15008+90 FENCE – BARBED WIRE; 15014+17 GATE POST 15'RT; 15014+22 GATE POST 30'RT; 15014+64 ℄ DRIVEWAY(DIRT) HEAVY EQUIPMENT CROSSING; 15016+38 RIGHT–OF–WAY; 15016+54 EDGE OF ASPHALT; 15016+69 ℄ CO RTE 775 – STAR LAND DRIVE; 15016+79 EDGE OF ASPHALT; 15016+99 RIGHT–OF–WAY; 15018+74 PROPERTY LINE; 15027+29 RIGHT–OF–WAY; 15027+35 EDGE OF GRAVEL; 15027+45 EDGE OF GRAVEL; 15027+54 ℄ CO RTE 751 – GRASSLAND DRIVE; 15027+62 TOP OF GRAVEL; 15027+73 RIGHT–OF–WAY; 15035+35 DEER STAND 66'RT; 15035+75 ℄ FIELD ROAD(DIRT) HEAVY EQUIPMENT CROSSING; 15036+45 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

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
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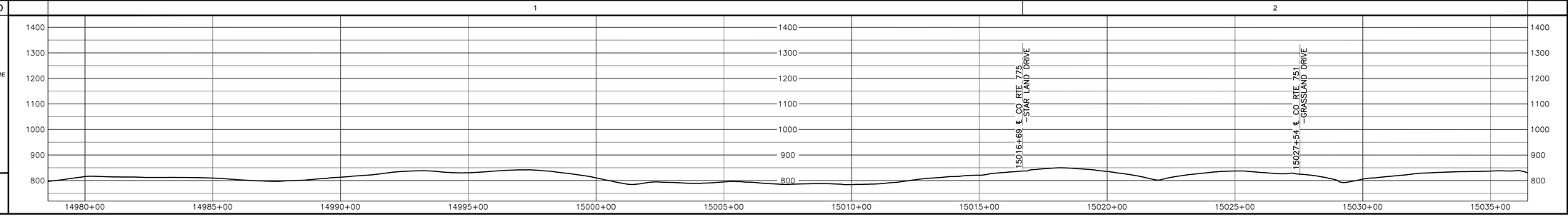
12 - HDD CONSTRUCTION
13 - PARALLEL TO POWER LINE
14 - PARALLEL TO POWER LINE
15 - WATERBODY X-ING OPEN CUT - DRY/DAM & PUMP
33 - SIDE HILL CONSTRUCTION

PROFILE



OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

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26850 Evergreen Rd. Suite 430
Southfield, Michigan 48076
T 248-357-7220 F 248-357-7049
www.hollandengineering.com

REVISIONS

REV.	BY	DATE	DESCRIPTION
0	HEI	10-14-15	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	09-05-16	REV. 4.1.0 ISSUED TO FERC
4	HEI	10-14-16	OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

AERIAL PHOTOGRAPHY DATE: APRIL 2015 & JANUARY 2016

MATERIAL SUMMARY

MK. NO.	QTY.	DESCRIPTION
1	5492	42"O.D. X 0.617"W.T. X 70 FUSION BONDED EPOXY
2	80	42"O.D. X 0.740"W.T. X 70 FUSION BONDED EPOXY
4	160	42"O.D. X 0.740"W.T. X 70, FBE & ARO
	1	TYPE 1 TEST STATION - PIPELINE

APPROVED FOR CONSTRUCTION

REV.	BY	DATE
.	.	.

APPROVED FOR BIDDING

REV.	BY	DATE
3	RRR	09-05-16

APPROVED FOR FERC

REV.	BY	DATE
0	RRR	10-15-15
4	RRR	09-14-16

Mountain Valley PIPELINE

PIPELINE ALIGNMENT

MOUNTAIN VALLEY PROJECT - H600 LINE
SANDY LEVEL PCT.,PITTSYLVANIA CO.,VA.
STA. 14978+55 TO STA. 15036+45

HORZ. SCALE: 1" = 200'	
DRAWN BY: HEI(DRF)	02/11/15
DRAFTING CK:	.
ENGINEERING CK:	.
CONSTRUCTION CK:	.
ENVIRONMENTAL CK:	.
AFE/P.O.NO.:	
HEI PROJECT NO.:	14-10-052
DRAWING NO.:	PA-PIVA-H600 -04
SHEET 313 OF 329	REV. 4
DATE OF PLOT:	10/13/16 9:34 AM

RIGHT-OF-WAY & OWNERSHIP DATA		VA-PI-024 / VA-PI-025 — 310 LF, 312 SLOPE; VA-PI-025 — 2105 LF, 2107 SLOPE; VA-PI-024 / VA-PI-025 — 46 LF, 46 SLOPE; VA-PI-025 — 2186 LF, 2213 SLOPE; PIGG RIVER — 92 LF, 92 SLOPE; VA-PI-026 — 520 LF, 555 SLOPE; VA-PI-026 / VA-PI-026.01 — 431 LF, 452 SLOPE; VA-PI-026 — 71 LF, 73 SLOPE
DESIGN — PIPE / COATING		1
DESIGN — SLOPE DISTANCE		3197'
DESIGN — CLASS LOCATION / HCA		1
ENVIRONMENTAL — CONSTRUCTION EXCLUSION		TIME OF YEAR RESTRICTION: NO TREE CLEARING APRIL 1ST TO JULY 31ST
ENVIRONMENTAL — WETLAND / STREAM		S-E12 — 3 LF
ENVIRONMENTAL — .		
ENVIRONMENTAL — .		

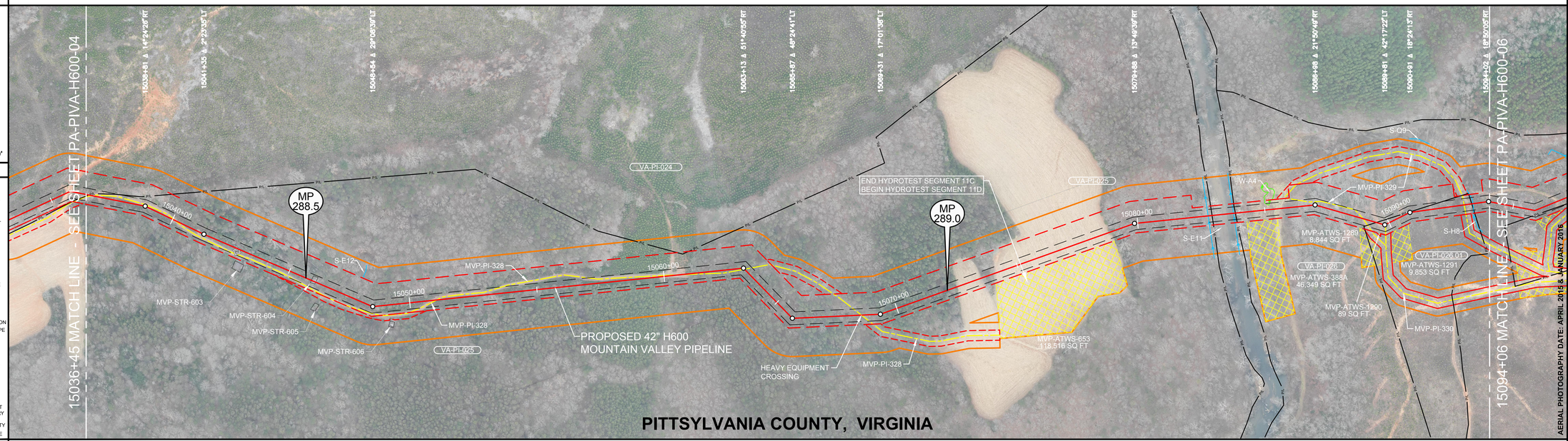
DESIGN — PIPE / COATING		2
DESIGN — SLOPE DISTANCE		40'
DESIGN — CLASS LOCATION / HCA		
ENVIRONMENTAL — CONSTRUCTION EXCLUSION		
ENVIRONMENTAL — WETLAND / STREAM		
ENVIRONMENTAL — .		
ENVIRONMENTAL — .		

DESIGN — PIPE / COATING		1
DESIGN — SLOPE DISTANCE		1414'
DESIGN — CLASS LOCATION / HCA		
ENVIRONMENTAL — CONSTRUCTION EXCLUSION		
ENVIRONMENTAL — WETLAND / STREAM		S-E11 — 100 LF
ENVIRONMENTAL — .		
ENVIRONMENTAL — .		

DESIGN — PIPE / COATING		6
DESIGN — SLOPE DISTANCE		120'
DESIGN — CLASS LOCATION / HCA		
ENVIRONMENTAL — CONSTRUCTION EXCLUSION		T.O.Y.R.: NO CONSTRUCTION MARCH 15TH - JUNE 15TH AND AUG 15TH - SEPT 30TH & MUSSEL RELOCATION TO BE COMPLETED ONLY BETWEEN MAY 1ST AND SEPT 30TH WITHIN STREAM S-E11
ENVIRONMENTAL — WETLAND / STREAM		W-A4 — 30 LF
ENVIRONMENTAL — .		
ENVIRONMENTAL — .		

DESIGN — PIPE / COATING		1
DESIGN — SLOPE DISTANCE		991'
DESIGN — CLASS LOCATION / HCA		
ENVIRONMENTAL — CONSTRUCTION EXCLUSION		TIME OF YEAR RESTRICTION: NO TREE CLEARING APRIL 1ST TO JULY 31ST
ENVIRONMENTAL — WETLAND / STREAM		
ENVIRONMENTAL — .		
ENVIRONMENTAL — .		

DESIGN — PIPE / COATING		6 / 1
DESIGN — SLOPE DISTANCE		40' / 48'
DESIGN — CLASS LOCATION / HCA		
ENVIRONMENTAL — CONSTRUCTION EXCLUSION		
ENVIRONMENTAL — WETLAND / STREAM		S-H8 — 6 LF
ENVIRONMENTAL — .		
ENVIRONMENTAL — .		



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

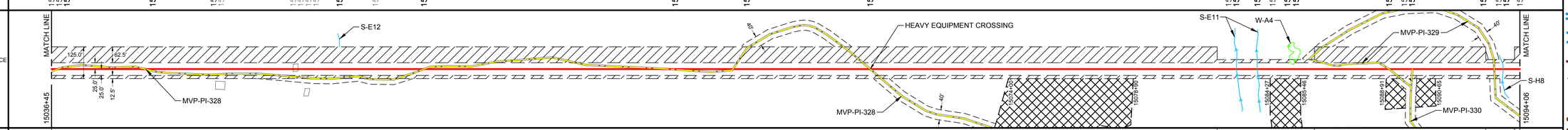
DRAWING NO.	DESCRIPTION
MVP-AR-H600-16	ACCESS ROADS, ANCILLARY SITES, MAINLINE VALVES & LAUNCHER/RECEIVER SITES
MVP-QDAR-H600-108	ACCESS ROAD DETAIL MAP

HORIZONTAL STATIONING

15036+45 MATCH LINE
15036+57 PROPERTY LINE
15036+70 ACCESS RD – TEMPORARY (MVP–PI–328)
15040+12 ACCESS RD – TEMPORARY
15042+81 PEDESTAL – UNKNOWN 11'RT
15042+89 BUILDING–HOUSE–FALLING DOWN 47'RT
15045+93 BUILDING–HOUSE–FALLING DOWN 10'RT
15045+93 BUILDING – SHED FALLING DOWN
15046+12 BUILDING – SHED FALLING DOWN
15046+59 BUILDING–HOUSE–FALLING DOWN 76'RT
15047+75 ℄ STREAM(S–E12)87'LT
15049+16 BUILDING – SHED 63'RT
15051+06 ACCESS RD – TEMPORARY (MVP–PI–328)
15060+62 ACCESS RD – TEMPORARY (MVP–PI–328)
15063+18 ACCESS RD – TEMPORARY (MVP–PI–328)
15068+57 ACCESS RD – TEMPORARY (MVP–PI–328), HEAVY EQUIPMENT CROSSING
15082+93 PROPERTY LINE – PIGG RIVER
15082+83 STREAM BANK(S–E11)
15083+83 STREAM BANK(S–E11) – PIGG RIVER
15083+84 PROPERTY LINE
15085+01 BEGIN WETLAND(W–A4) 29' LT
15085+31 END WETLAND(W–A4) 38' LT
15088+93 ACCESS RD – TEMPORARY (MVP–PI–329)
15089+47 PROPERTY LINE
15089+84 ACCESS RD – TEMPORARY (MVP–PI–330)
15093+05 ACCESS RD – TEMPORARY (MVP–PI–329)
15093+35 PROPERTY LINE
15093+40 ℄ STREAM(S–H8)
15094+06 MATCH LINE

WORK SPACE

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



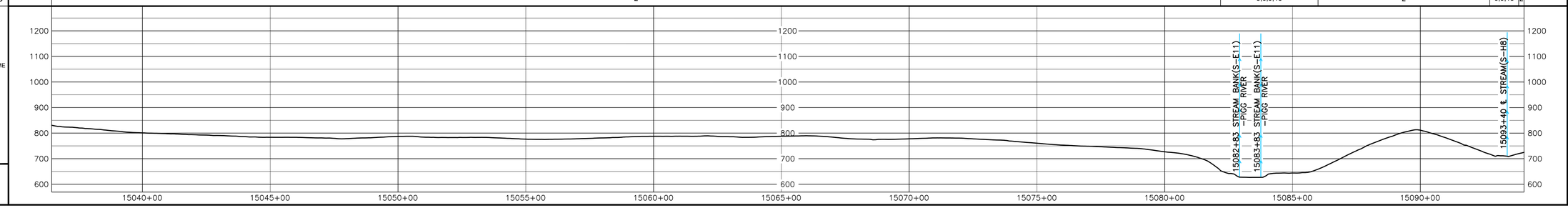
CONSTRUCTION METHOD

2 | 3,6,9,15 | 2 | 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

PROFILE



OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

HOLLAND ENGINEERING
220 Hoover Boulevard, Suite 2 | 26555 Evergreen Rd. Suite 430
Holland, Michigan 49423-3766 | Southfield, Michigan 48076
T 616.396.3000 F 616.392.1087 | T 248.207.1220 F 248.207.1949
www.hollandengineering.com

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	09-02-16	REV. 4.1.0 ISSUED TO FERC
4	HEI	10-14-16	OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

AERIAL PHOTOGRAPHY DATE: APRIL 2013 & JANUARY 2016

MATERIAL SUMMARY

MK. NO.	QTY.	DESCRIPTION
1	9490	42"O.D. X 0.617"W.T. X 70 FUSION BONDED EPOXY
2	40	42"O.D. X 0.740"W.T. X 70 FUSION BONDED EPOXY
6	160	42"O.D. X 0.617"W.T. X 70, FBE & ARO
		TYPE 1 TEST STATION - PIPELINE

APPROVED FOR BIDDING			
REV.	BY	DATE	
3	RRR	09-02-16	

APPROVED FOR CONSTRUCTION			
REV.	BY	DATE	
-	-	-	

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
SANDY LEVEL PCT.,PITTSYLVANIA CO.,VA.
STA. 15036+45 TO STA. 15094+06

HORZ. SCALE: 1" = 200'	
DRAWN BY: HEI(DRF)	02/11/15
DRAFTING CK:	.
ENGINEERING CK:	.
CONSTRUCTION CK:	.
ENVIRONMENTAL CK:	.
AFE/P.O.NO.:	
HEI PROJECT NO.:	14-10-052
DRAWING NO.:	PA-PIVA-H600 -05
SHEET 314 OF 329	REV. 4
DATE OF PLOT: 10/11/16 10:22 AM	