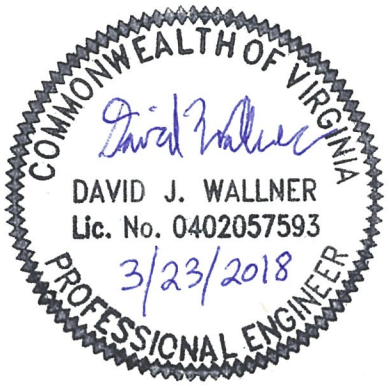
By virtue of this seal and signature, all supporting documents included in this package are accurate and support the design presented herein.



EXISTING TEMPORARY ACCESS ROAD MVP-CR-258.02
EXISTING TEMPORARY ACCESS ROAD MVP-CR-258.01
EXISTING TEMPORARY ACCESS ROAD MVP-MN-258.05
EXISTING TEMPORARY ACCESS ROAD MVP-MN-258.04
EXISTING TEMPORARY ACCESS ROAD MVP-MN-258.03
EXISTING TEMPORARY ACCESS ROAD MVP-MN-266.02
EXISTING PERMANENT ACCESS ROAD MVP-MN-266.03
EXISTING TEMPORARY ACCESS ROAD MVP-MN-268
EXISTING TEMPORARY ACCESS ROAD MVP-MN-266
EXISTING TEMPORARY ACCESS ROAD MVP-MN-270
EXISTING TEMPORARY ACCESS ROAD MVP-GI-256.01
EXISTING PERMANENT ACCESS ROAD MVP-GI-253.01
EXISTING TEMPORARY ACCESS ROAD MVP-GI-243.01
EXISTING TEMPORARY ACCESS ROAD MVP-GI-242.01
EXISTING PERMANENT ACCESS ROAD MVP-GI-253.01
EXISTING TEMPORARY ACCESS ROAD MVP-GI-253.02
EXISTING PERMANENT ACCESS ROAD MVP-GI-256.02
EXISTING TEMPORARY ACCESS ROAD MVP-GI-242
EXISTING TEMPORARY ACCESS ROAD MVP-GI-244
EXISTING TEMPORARY ACCESS ROAD MVP-GI-245.01
EXISTING TEMPORARY ACCESS ROAD MVP-GI-245.02
EXISTING TEMPORARY ACCESS ROAD MVP-GI-249.02
EXISTING TEMPORARY ACCESS ROAD MVP-GI-249.01
EXISTING PERMANENT ACCESS ROAD MVP-GI-249.03
EXISTING PERMANENT ACCESS ROAD MVP-GI-249
EXISTING PERMANENT ACCESS ROAD MVP-MLV-AR-25
MATCHLINE SHEET 13.02ES
Spread G
Spread H

ALL SHEETS IN THIS SPREAD DEVELOPED USING THE FOLLOWING DATA SOURCES: IMAGERY FROM ESRI STREAMING DATA 2014, DELINEATED STREAMS SURVEYED BY TETRA TECH INC. 2014 TO 2017, ELEVATION DATA DERIVED FROM LIDAR PROVIDED BY EQT 2016, SOILS FROM NRCS GRIDDED SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE 2014, FOREST COVER LAND USE FROM THE VGIN LAND COVER DATASET, TRANSPORTATION DATA FROM VITA MAP LAYER 2016, EXISTING AND PROPOSED ROADS WERE SURVEYED BY EQT

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\E&S Version 5.0.0\7157ES13.01(S9).dwg PLOTTED ON: 3/1/2018 1:47 PM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

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4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE
SPREAD 9 - GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

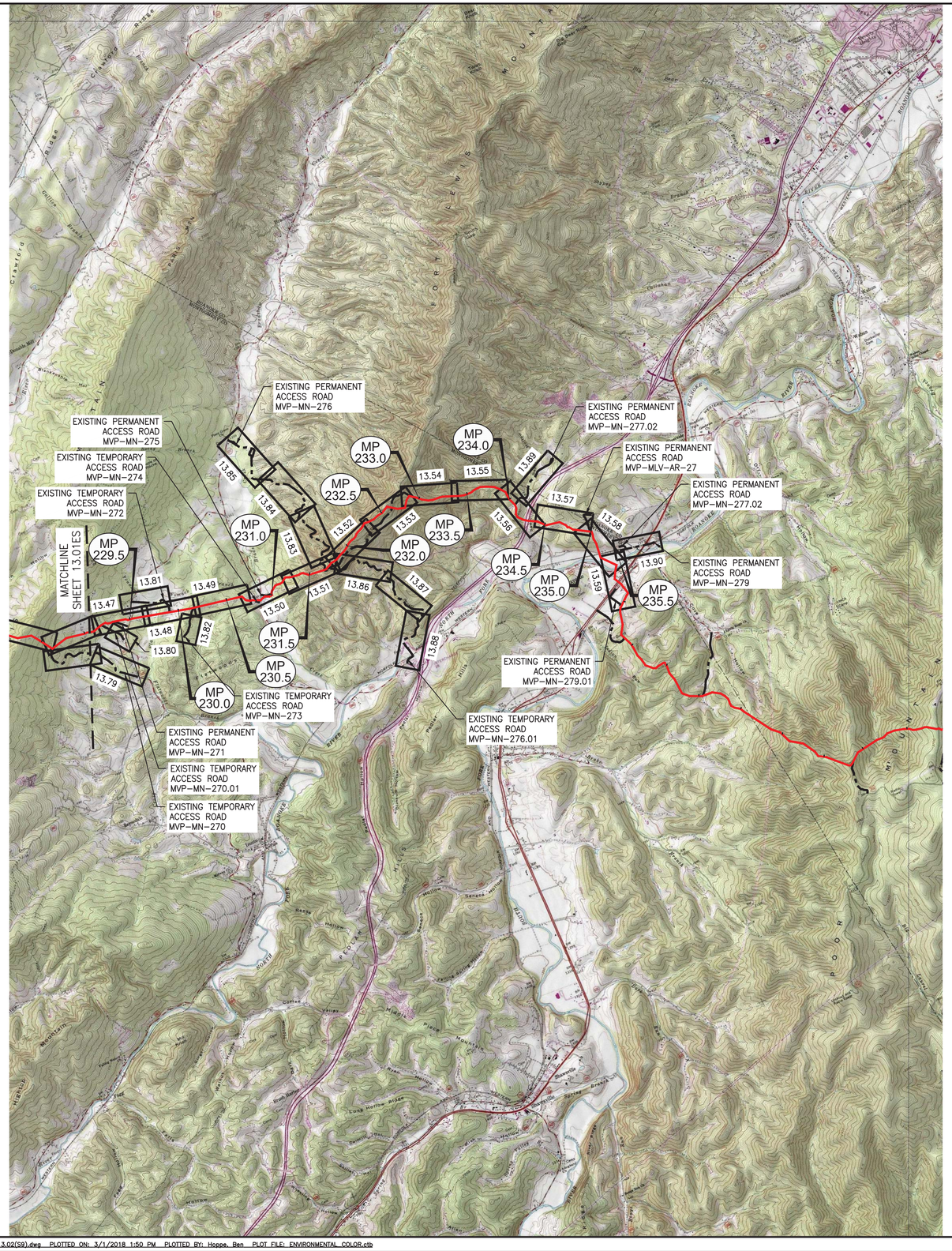
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PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

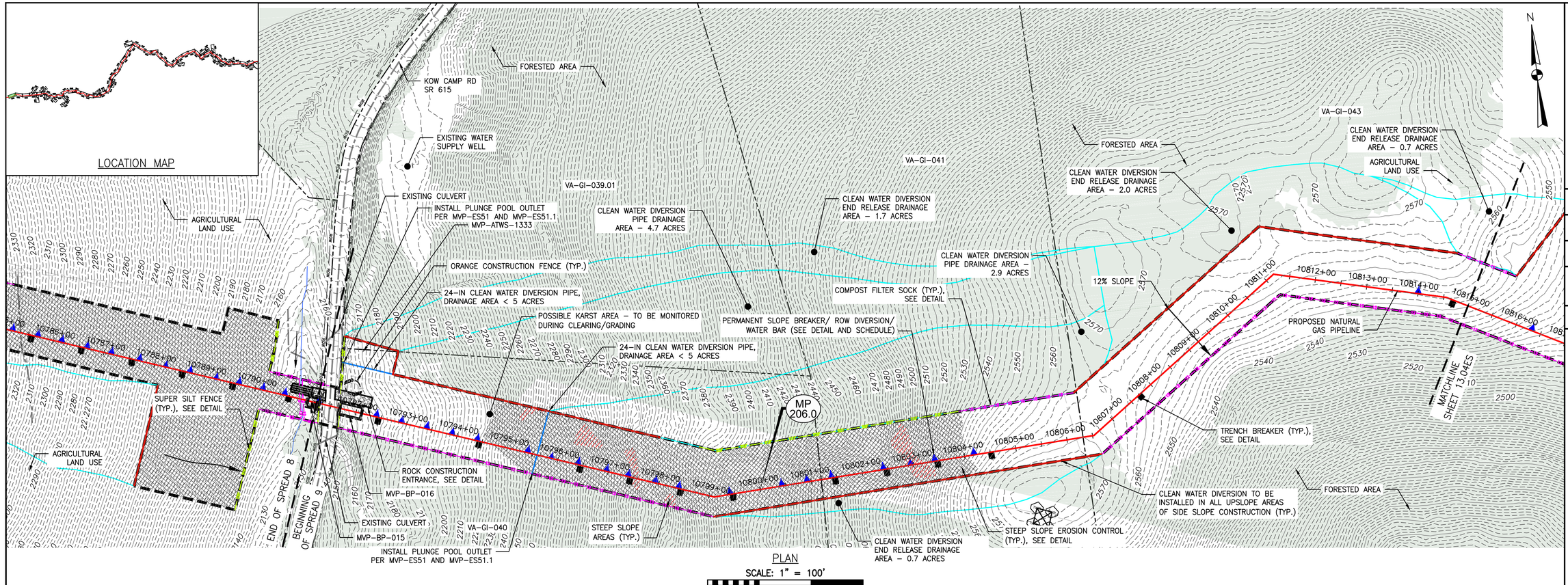
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

SHT. NO. 13.01ES OF 13.91ES


EXISTING PERMANENT ACCESS ROAD MVP–MN–276
EXISTING PERMANENT ACCESS ROAD MVP–MN–275
EXISTING TEMPORARY ACCESS ROAD MVP–MN–274
EXISTING TEMPORARY ACCESS ROAD MVP–MN–272
MATCHLINE SHEET 13.01ES
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EXISTING PERMANENT ACCESS ROAD MVP–MLV–AR–27
EXISTING PERMANENT ACCESS ROAD MVP–MN–277.02
EXISTING PERMANENT ACCESS ROAD MVP–MN–279
EXISTING PERMANENT ACCESS ROAD MVP–MN–279.01
EXISTING TEMPORARY ACCESS ROAD MVP–MN–276.01
EXISTING TEMPORARY ACCESS ROAD MVP–MN–273
EXISTING PERMANENT ACCESS ROAD MVP–MN–271
EXISTING TEMPORARY ACCESS ROAD MVP–MN–270.01
EXISTING TEMPORARY ACCESS ROAD MVP–MN–270
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MP 230.5
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13.84
13.85
13.86
13.87
13.88
13.89
13.90
Cheat Mtn
Shavers Mtn
Fork Mtn
Allegheny Mtn
Back Allegheny Mtn
Cheat Ridge
Shavers Ridge
Fork Ridge
Allegheny Ridge
Back Allegheny Ridge
Crawford
Gauley River
Gauley Mtn
Big Beech Flat
Little Beech Flat
Beech Flat
Sharps Knob
Sharps Run
Sharps Run Trail
Sharps Run Road
Sharps Run Recreation Area
Sharps Run Wildlife Management Area
Sharps Run Campground
Sharps Run Picnic Area
Sharps Run Overlook
Sharps Run Trailhead
Sharps Run Trailhead Parking
Sharps Run Trailhead Parking Lot
Sharps Run Trailhead Parking Area

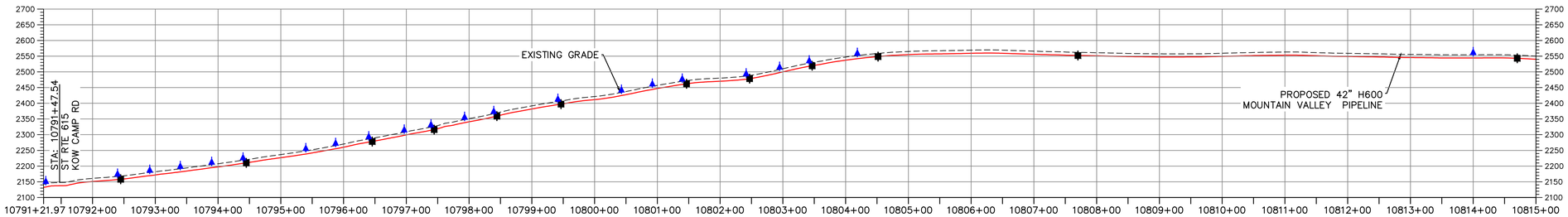
LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
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- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
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5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

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EROSION AND SEDIMENT CONTROL PLANS

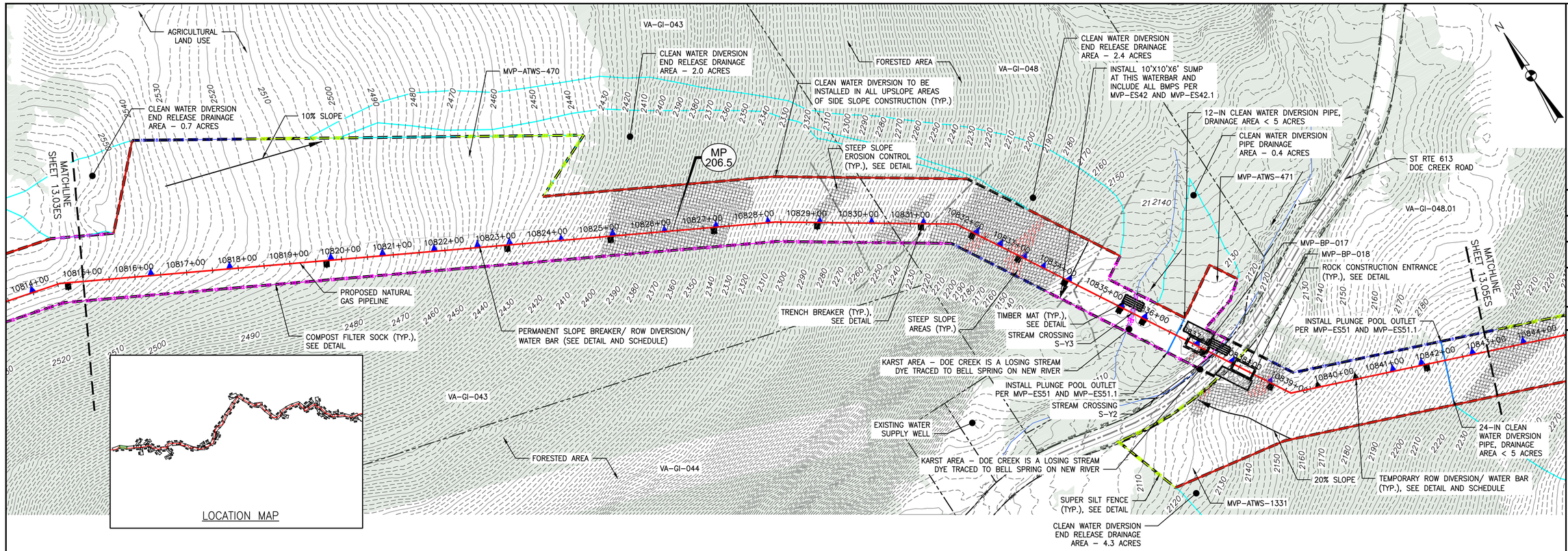
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.03ES OF 13.91ES

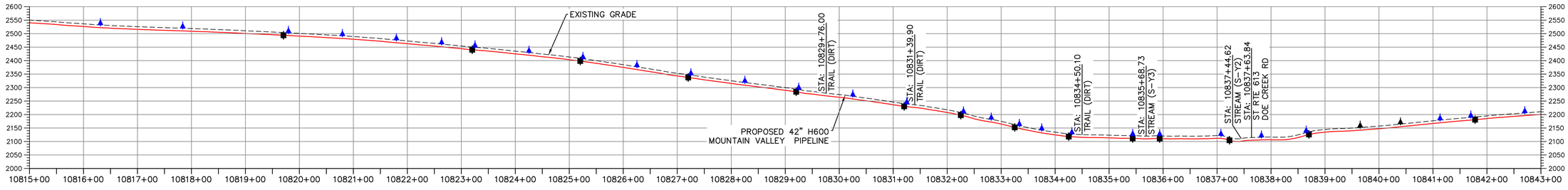
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PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
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- PROPOSED PIPELINE
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- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
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- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
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- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
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- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.04(S9).dwg PLOTTED ON: 8/31/2018 7:08 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

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4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

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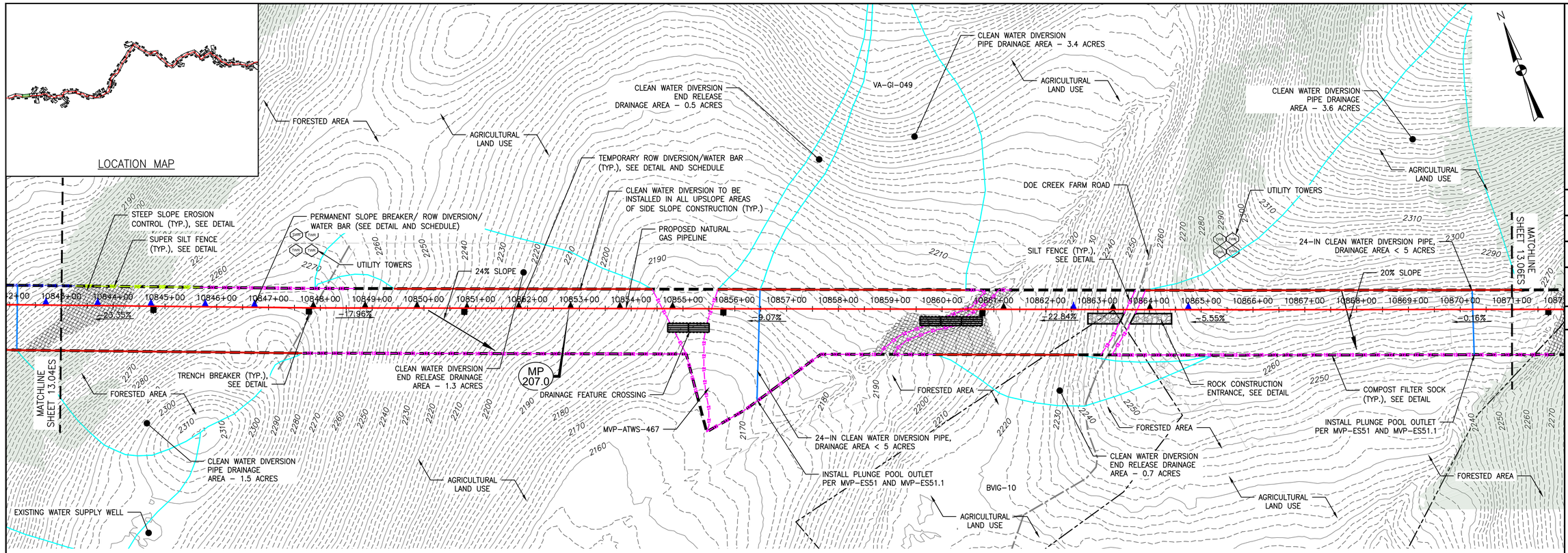
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN

REVISION

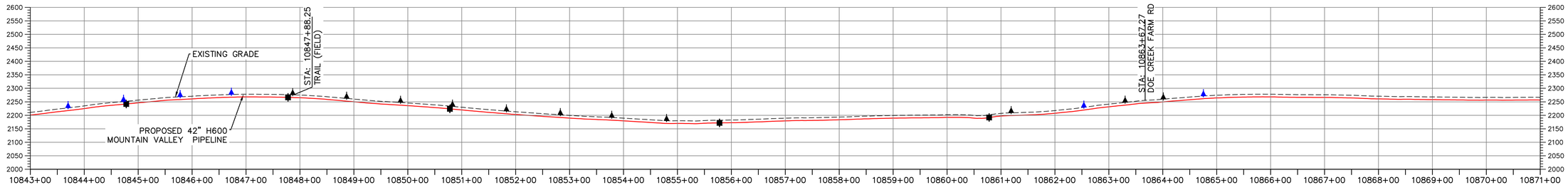
SHT. NO. 13.04ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\E&S Version 5.0.0\7157ES13.05(S9).dwg PLOTTED ON: 3/14/2018 7:48 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
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4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

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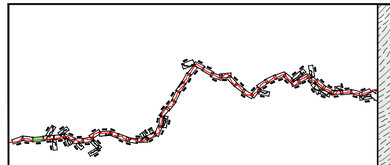
EROSION AND SEDIMENT CONTROL PLANS

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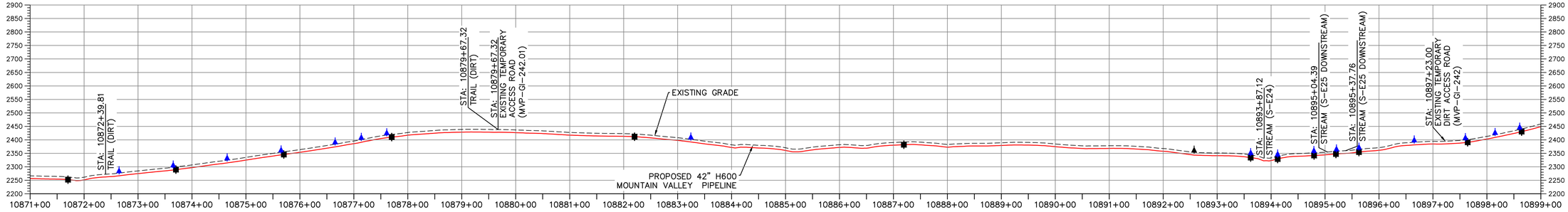
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5

SHT. NO. 13.05ES OF 13.91ES

LOCATION MAP



PLAN
SCALE: 1" = 100'
100 0 100 200



PROFILE
HORIZONTAL SCALE: SCALE: 1" = 100'
100 0 100 200
VERTICAL SCALE: SCALE: 1" = 200'
200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
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- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

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3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
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8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.06(S9).dwg PLOTTED ON: 8/28/2018 7:51 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
7	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
6	4/30/18	KAL	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

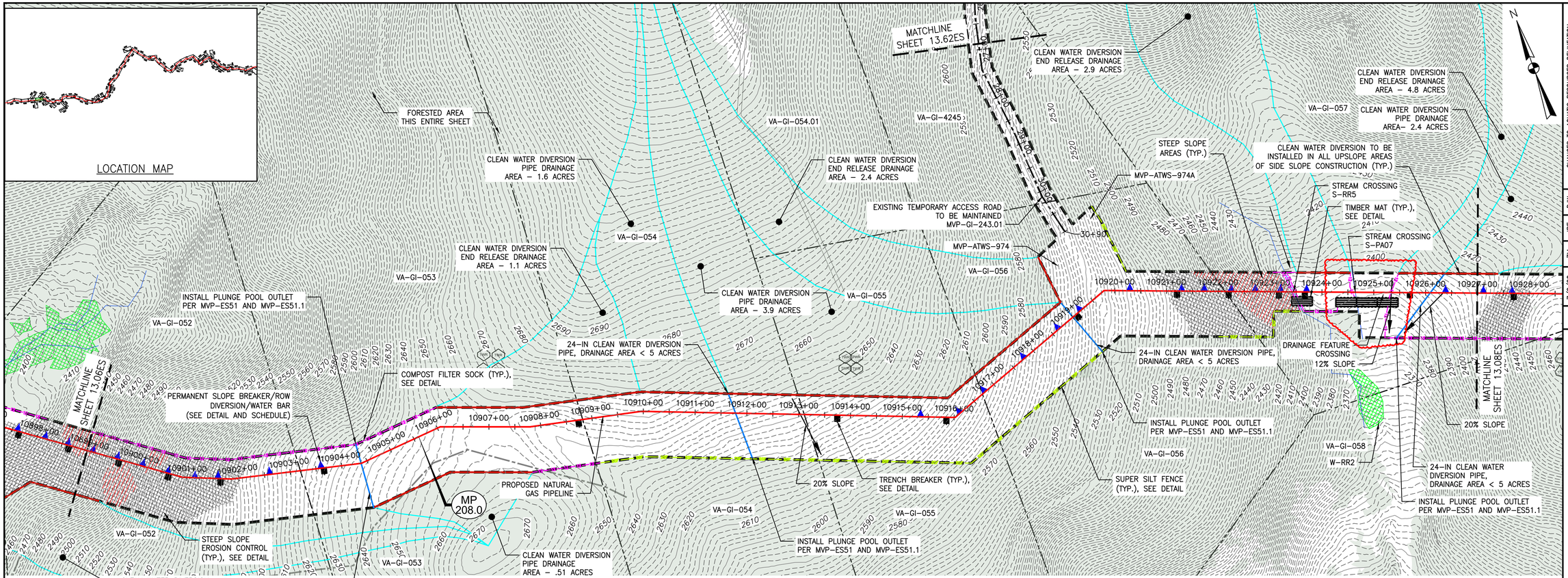
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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

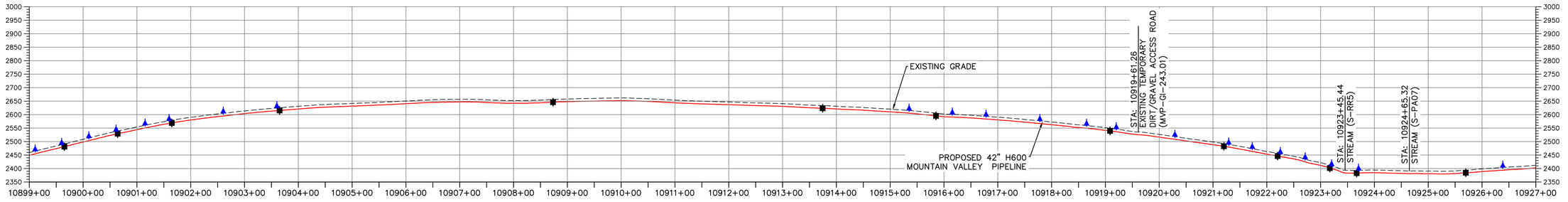
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN

SHT. NO. 13.06ES OF 13.91ES



PLAN
SCALE: 1" = 100'
100 0 100 200



PROFILE
HORIZONTAL SCALE: SCALE: 1" = 100'
100 0 100 200
VERTICAL SCALE: SCALE: 1" = 200'
200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
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- APPALACHIAN NATIONAL SCENIC TRAIL
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NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	7/2/20	ZM	JRE	DJW	CHANGES TO AQUATIC RESOURCES DELINEATION
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/12/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

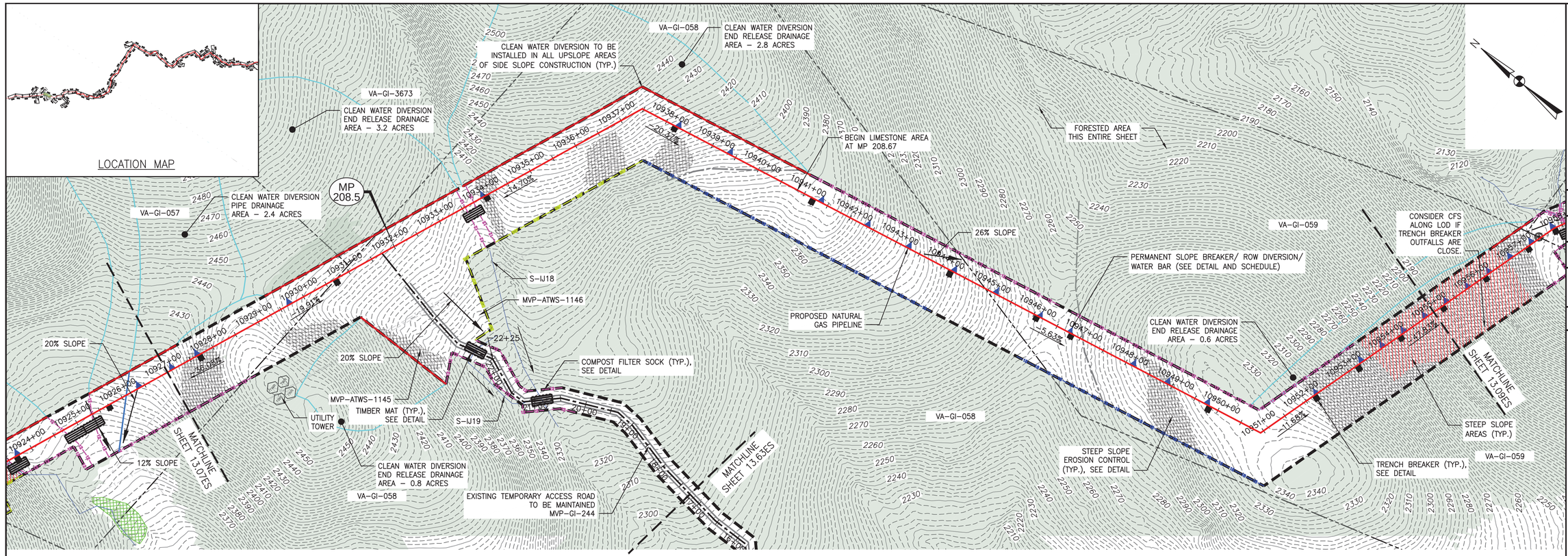
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	7/2/20
SCALE:	AS SHOWN
REVISION	

SHT. NO. 13.07ES OF 13.91ES

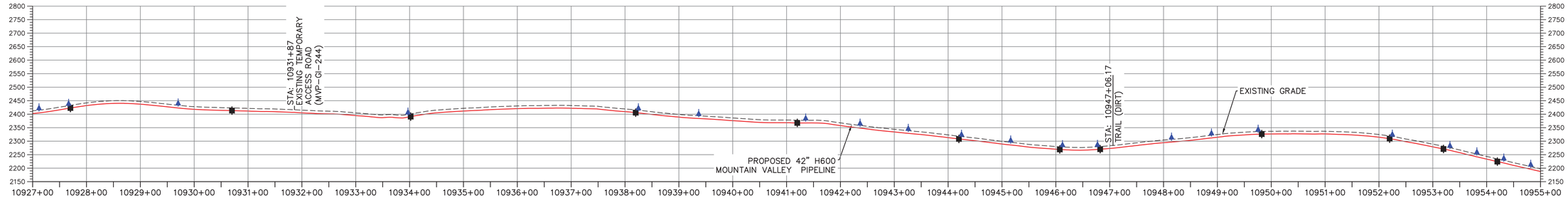
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PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

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NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

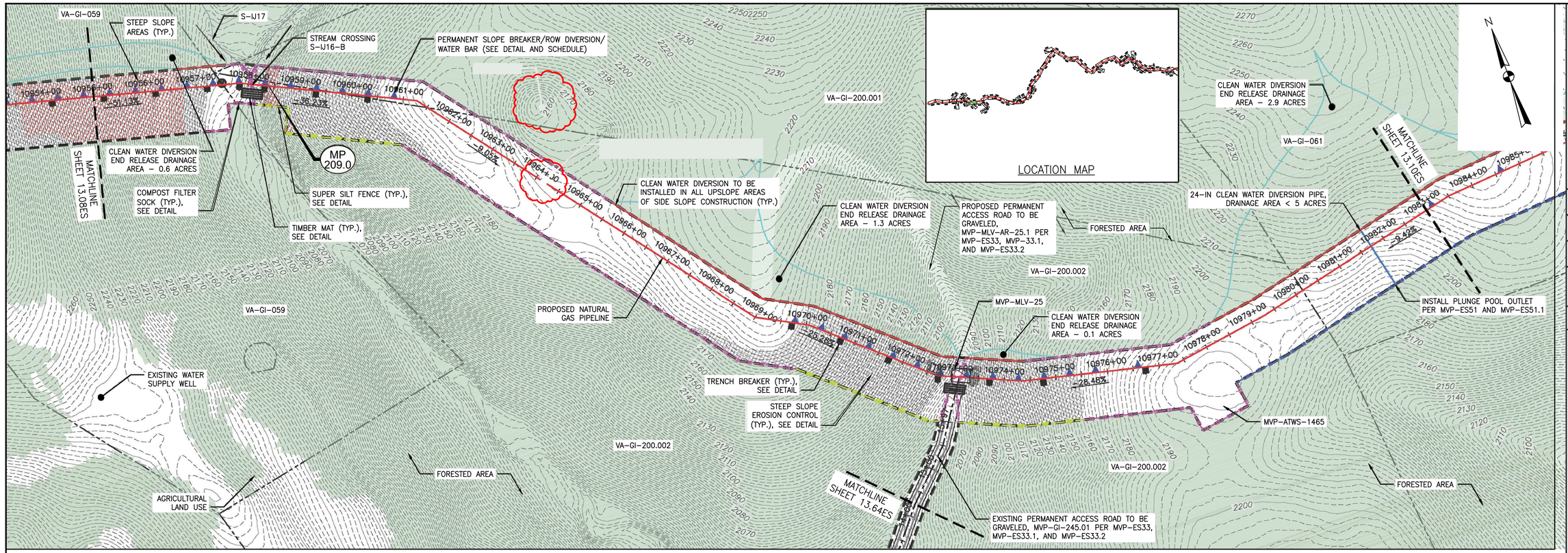
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PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5
SHT. NO.	13.08ES OF 13.91ES

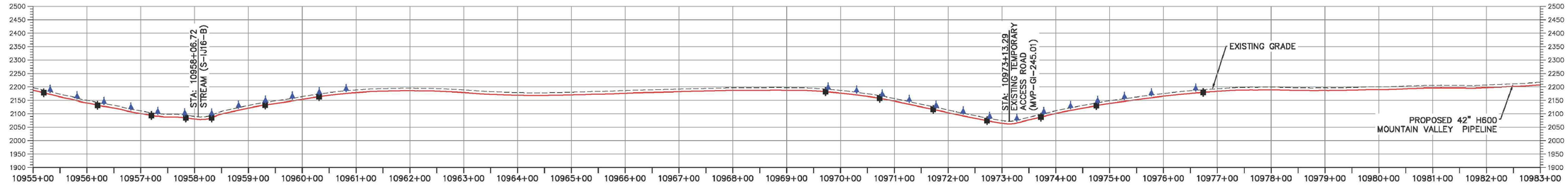
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PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

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- STREAM
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\Approved Karst E&S sheets\E&S SHEETS\7157-13.09(S9).dwg PLOTTED ON: 8/31/2018 10:12 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

NO.:	DATE:	DWN.:	CHKD.:	APP'D.:	DESCRIPTION:
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
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6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

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EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
REVISION	6

SHT. NO. 13.09ES OF 13.91ES

CLEAN WATER DIVERSION END RELEASE DRAINAGE AREA – 2.1 ACRES

CLEAN WATER DIVERSION TO BE INSTALLED IN ALL UPSLOPE AREAS OF SIDE SLOPE CONSTRUCTION (TYP.)

CLEAN WATER DIVERSION END RELEASE DRAINAGE AREA – 0.7 ACRES

FORESTED AREA

AGRICULTURAL LAND USE

MP 209.5

MATCHLINE SHEET 13.09ES

MATCHLINE SHEET 13.11ES

PERMANENT SLOPE BREAKER/ ROW DIVERSION/ WATER BAR (SEE DETAIL AND SCHEDULE)

VA-GI-200.003

MVP-ATWS-1366

THIS AREA TO BE BRIDGED USING TIMBER MATS SUPPORTED USING PIPE BUNDLES, JERSEY BARRIERS, OR SIMILAR TO ALLOW SURFACE WATER TO FLOW ACROSS THE AREA

CLEAN WATER DIVERSION PIPE DRAINAGE AREA – 1.6 ACRES

VA-GI-061

28% SLOPE

COMPOST FILTER SOCK (TYP.), SEE DETAIL

SUPER SILT FENCE (TYP.), SEE DETAIL

FORESTED AREA

VA-GI-066

16% SLOPE

30% SLOPE

PROPOSED NATURAL GAS PIPELINE

TRENCH BREAKER (TYP.), SEE DETAIL

STEEP SLOPE EROSION CONTROL (TYP.), SEE DETAIL

KARST AREA

AGRICULTURAL LAND USE

VA-GI-200.003

CLEAN WATER DIVERSION END RELEASE DRAINAGE AREA – 0.6 ACRES

TIMBER MATS (TYP.)

EXISTING TEMPORARY ACCESS ROAD TO BE MAINTAINED MVP-GI-245.02

MATCHLINE SHEET 13.65ES

FORESTED AREA

AGRICULTURAL LAND USE

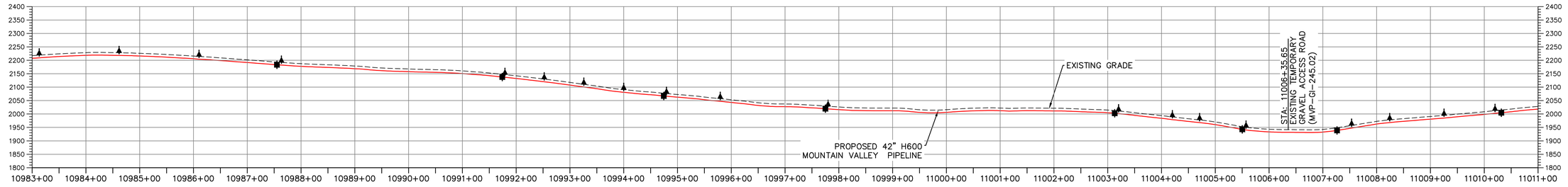
KARST AREA

LOCATION MAP

PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

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- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
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- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
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NOTES:

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6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.10(S9).dwg PLOTTED ON: 11/8/2018 10:54 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
7	10/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

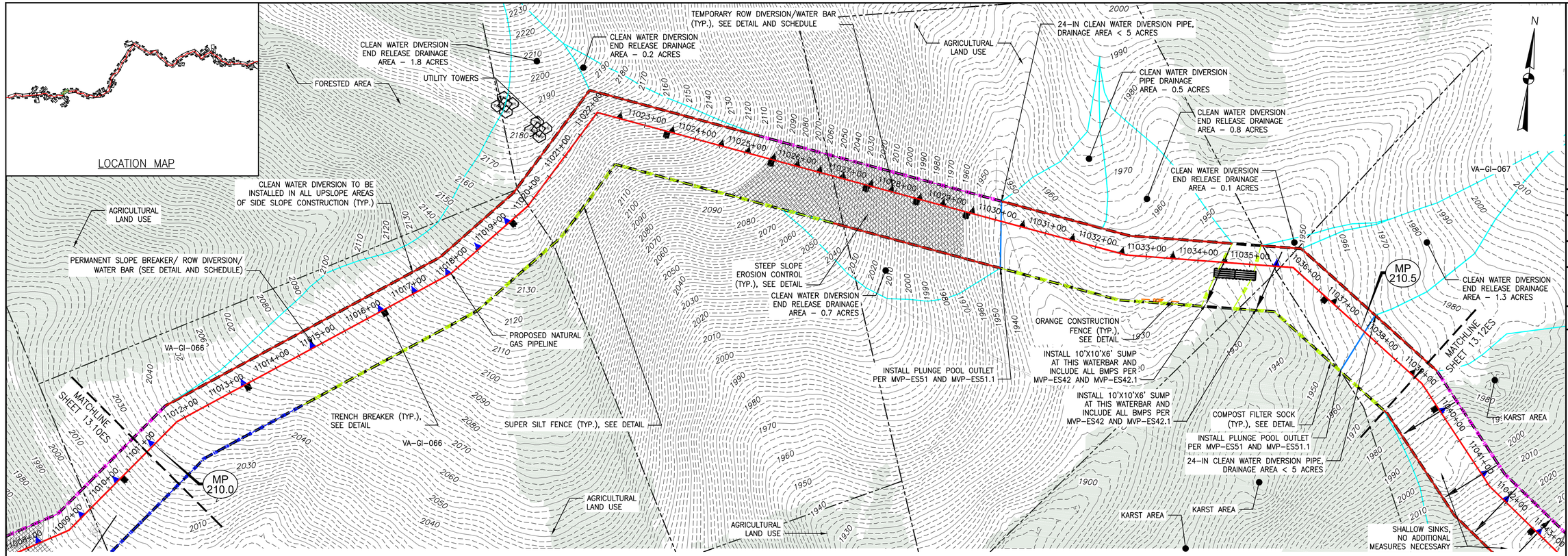
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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	10/23/18
SCALE:	AS SHOWN
REVISION	7

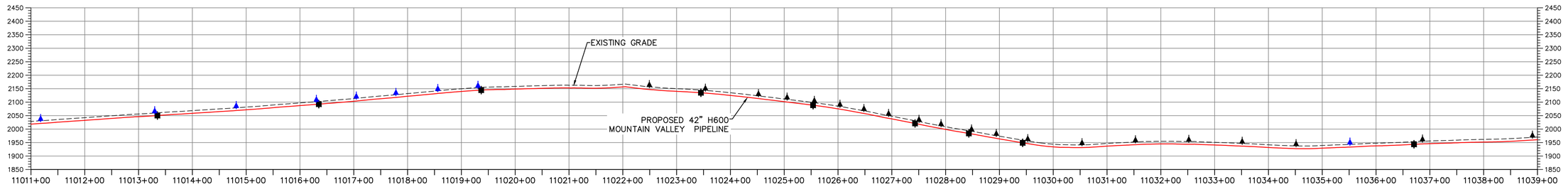
SHT. NO. 13.10ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.11(S9).dwg PLOTTED ON: 8/31/2018 7:45 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
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5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
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2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
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661 ANDERSEN DRIVE
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PITTSBURGH, PA 15220

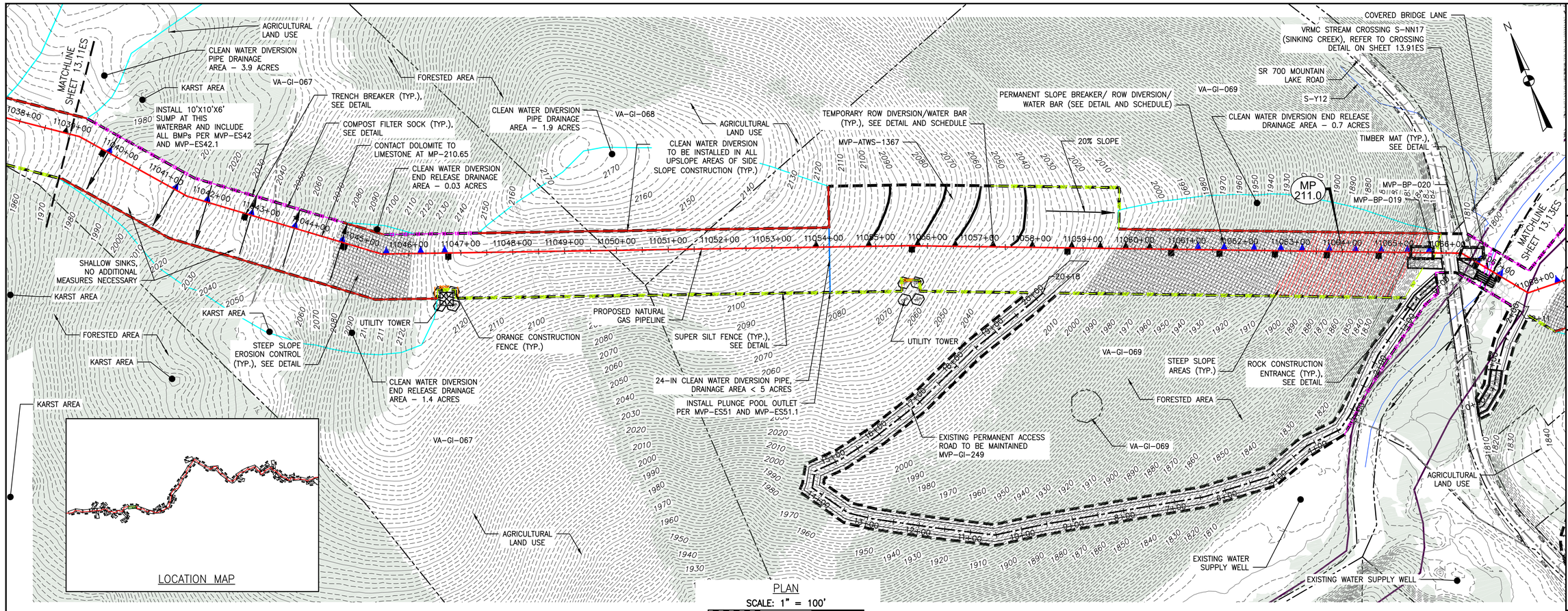
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN

REVISION

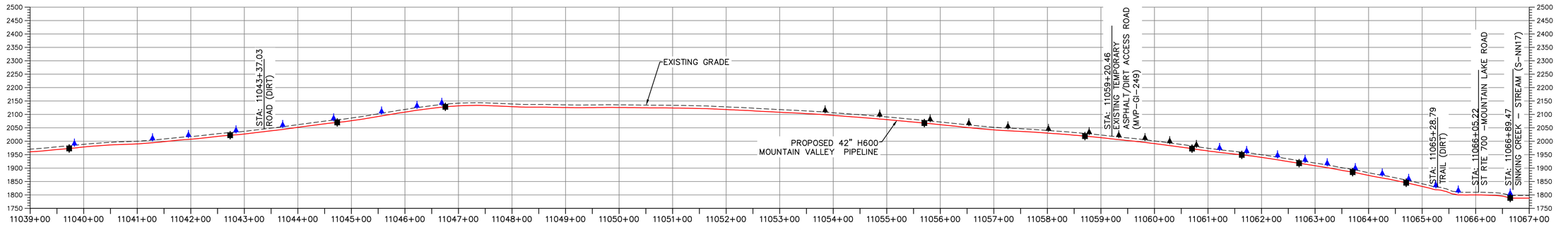
SHT. NO. 13.11ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
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- POND
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- SURFACE WATER FLOW DIRECTION
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.12(S9).dwg PLOTTED ON: 8/31/2018 7:43 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

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5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
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3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

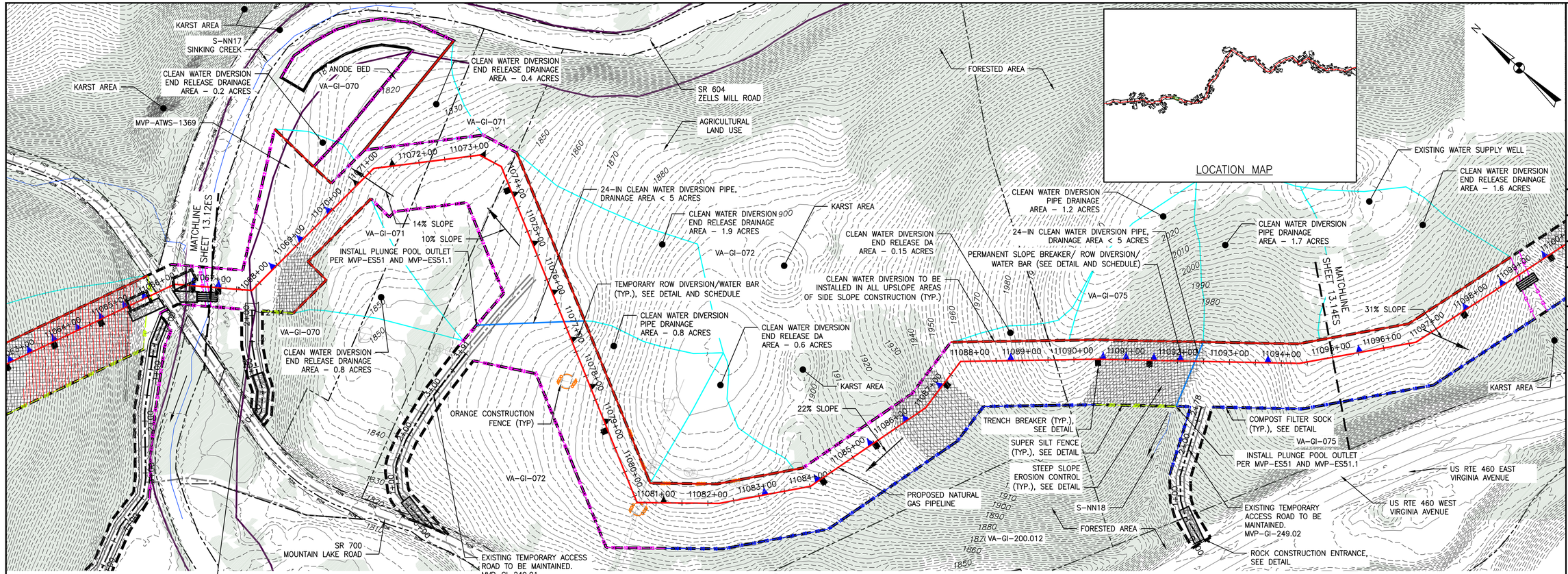
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PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
REVISION	6

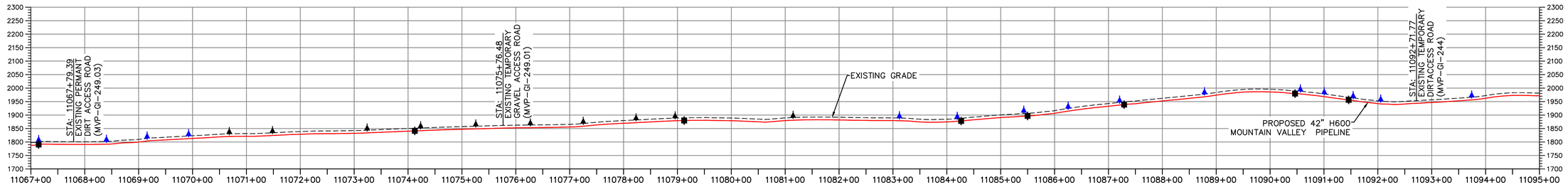
SHT. NO. 13.12ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
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NO.	DATE:	DWN.:	CHK'D.:	APP'D.:	DESCRIPTION:
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REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

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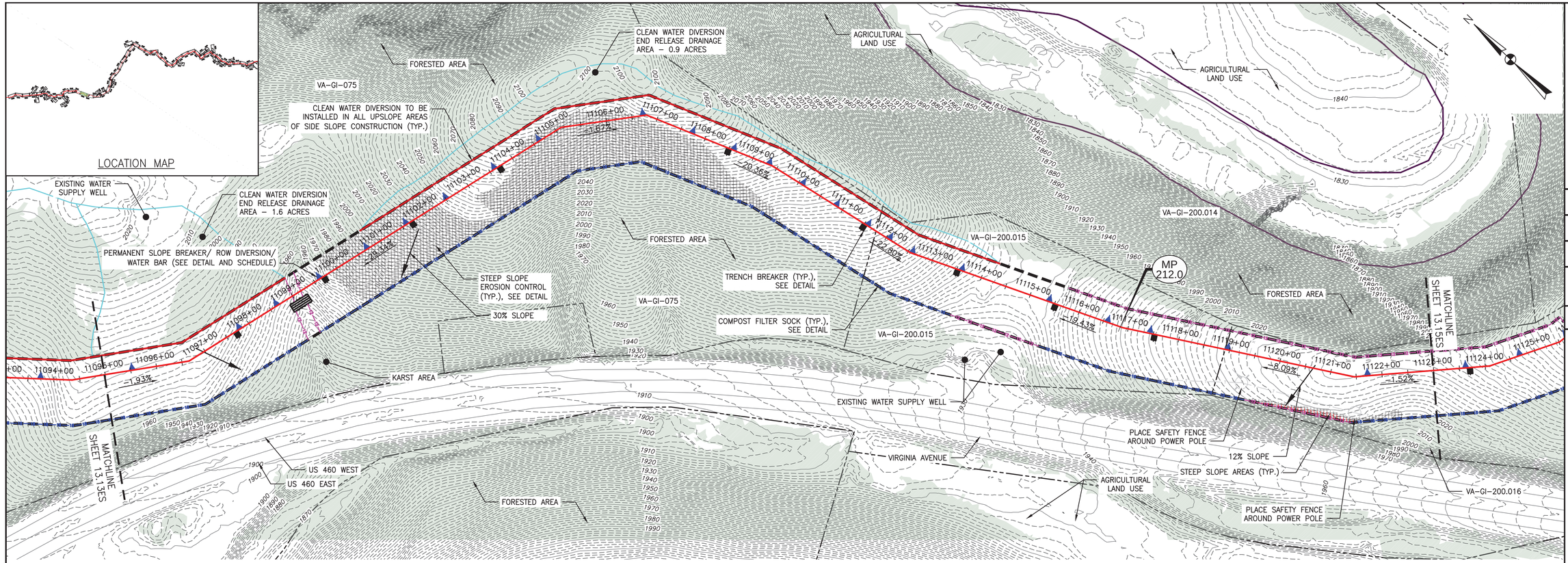
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF PENNSYLVANIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.13ES OF 13.91ES



LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
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5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHK'D.:	APP'D.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

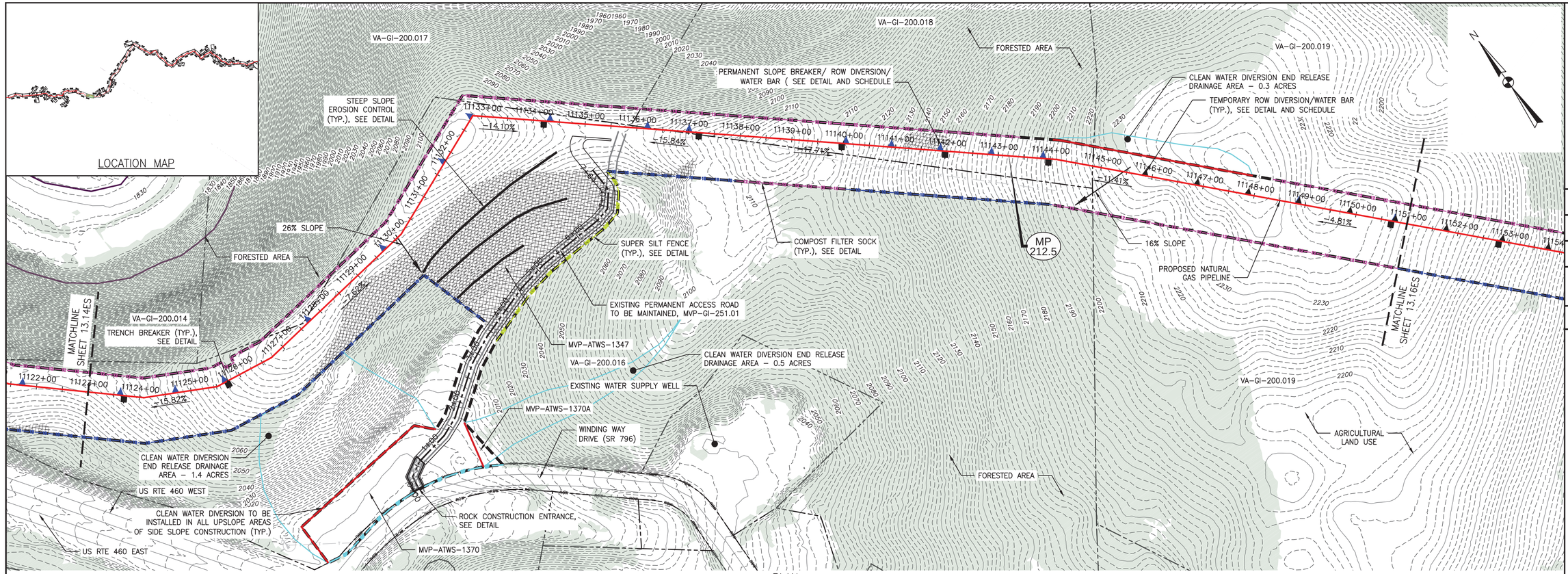
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5

SHT. NO. 13.14ES OF 13.91ES

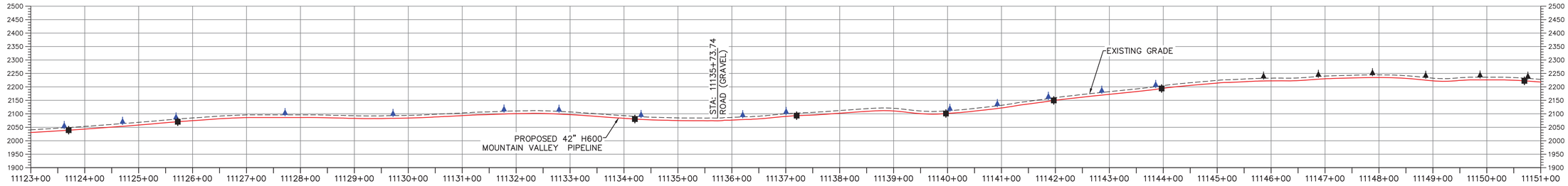
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PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\E&S Version 5.0.0\7157ES13.15(S9).dwg PLOTTED ON: 3/2/2018 8:58 AM PLOTTED BY: Scobilloni, Joy PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

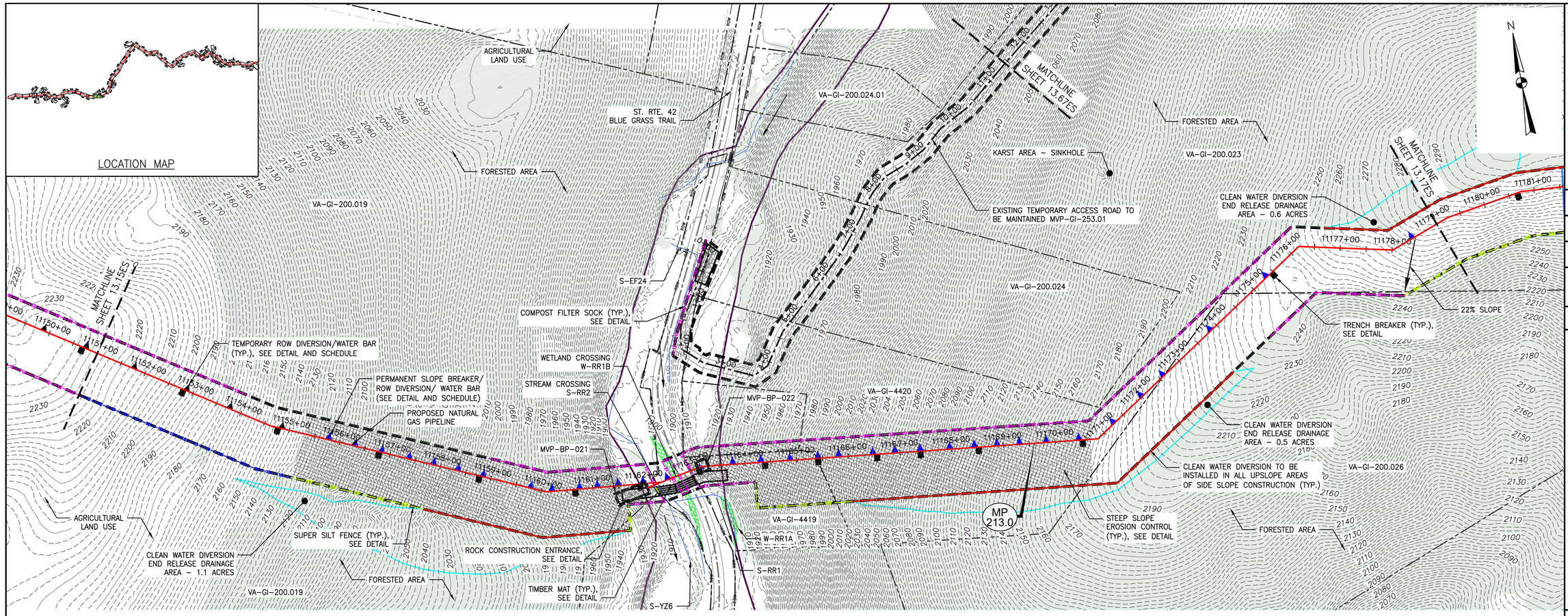
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

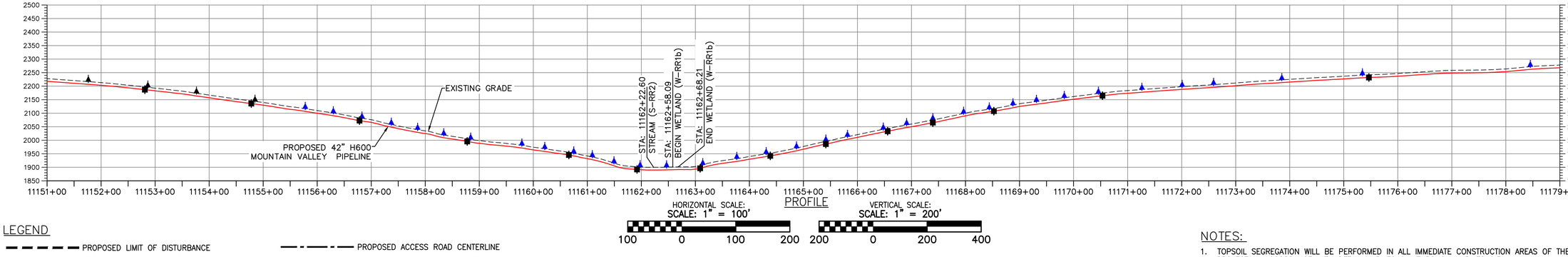
SHT. NO. 13.15ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
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- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
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NOTES:

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8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

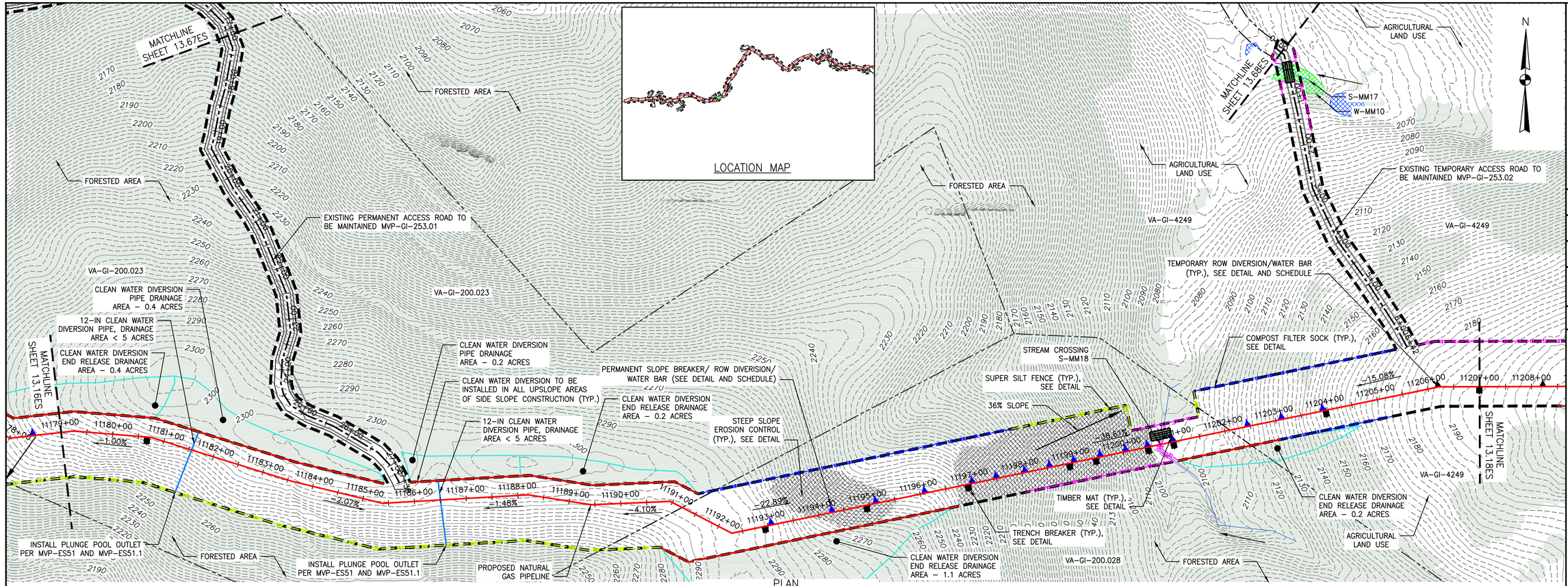
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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

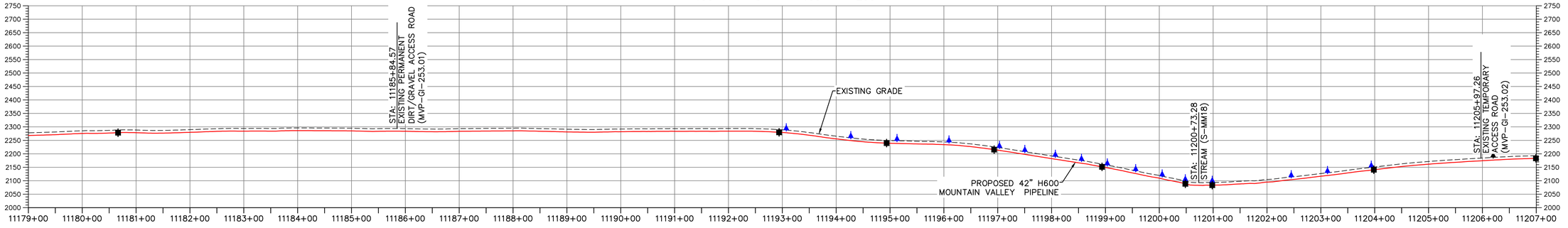
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
REVISION	6
SHT. NO.	13.16ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.16(S9).dwg PLOTTED ON: 8/31/2018 8:03 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
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- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

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4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\E&S Version 5.0.0\7157ES13.17(S9).dwg PLOTTED ON: 3/14/2018 9:41 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

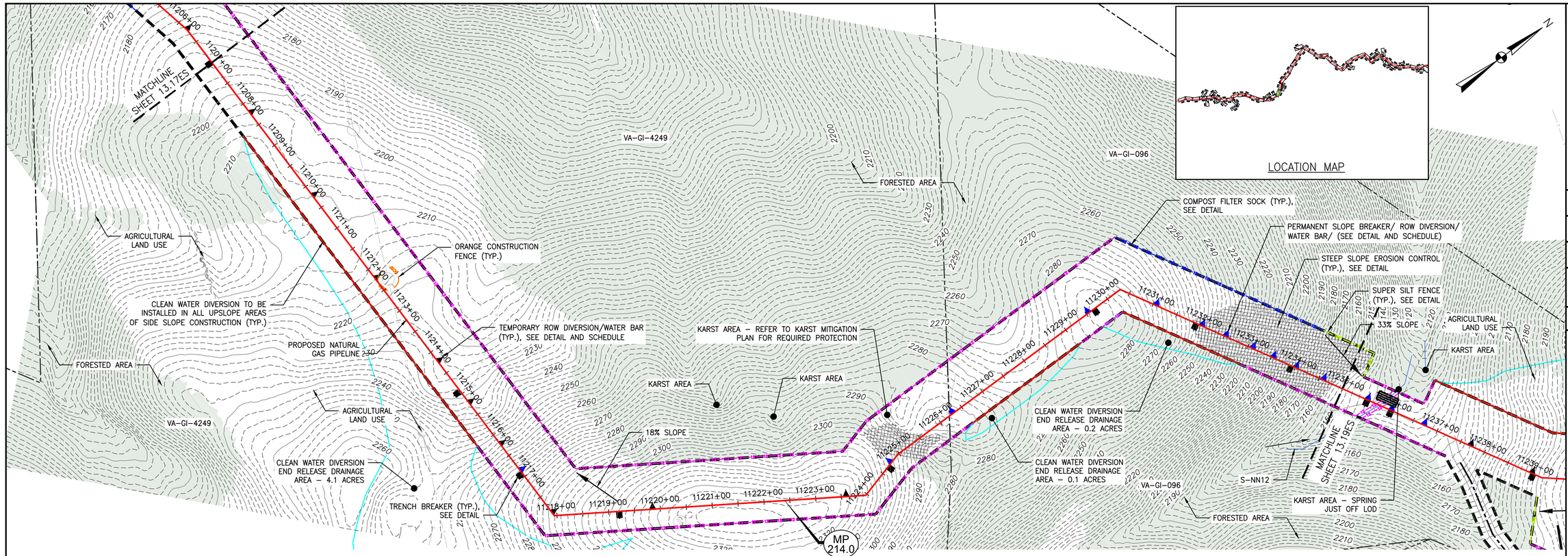
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661 ANDERSEN DRIVE
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PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

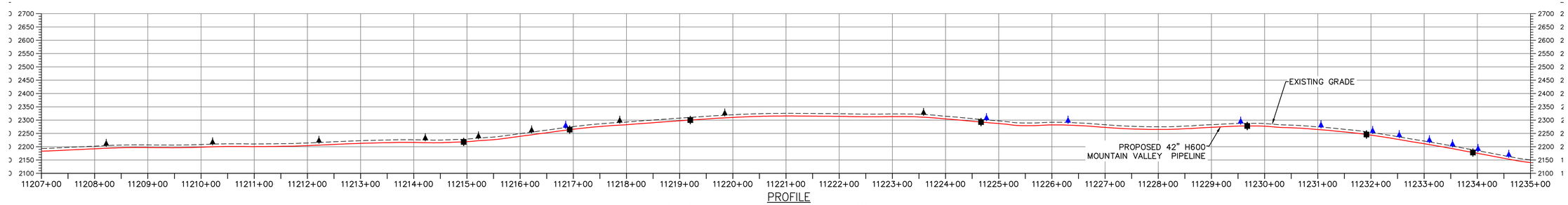
SHT. NO. 13.17ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
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NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
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3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

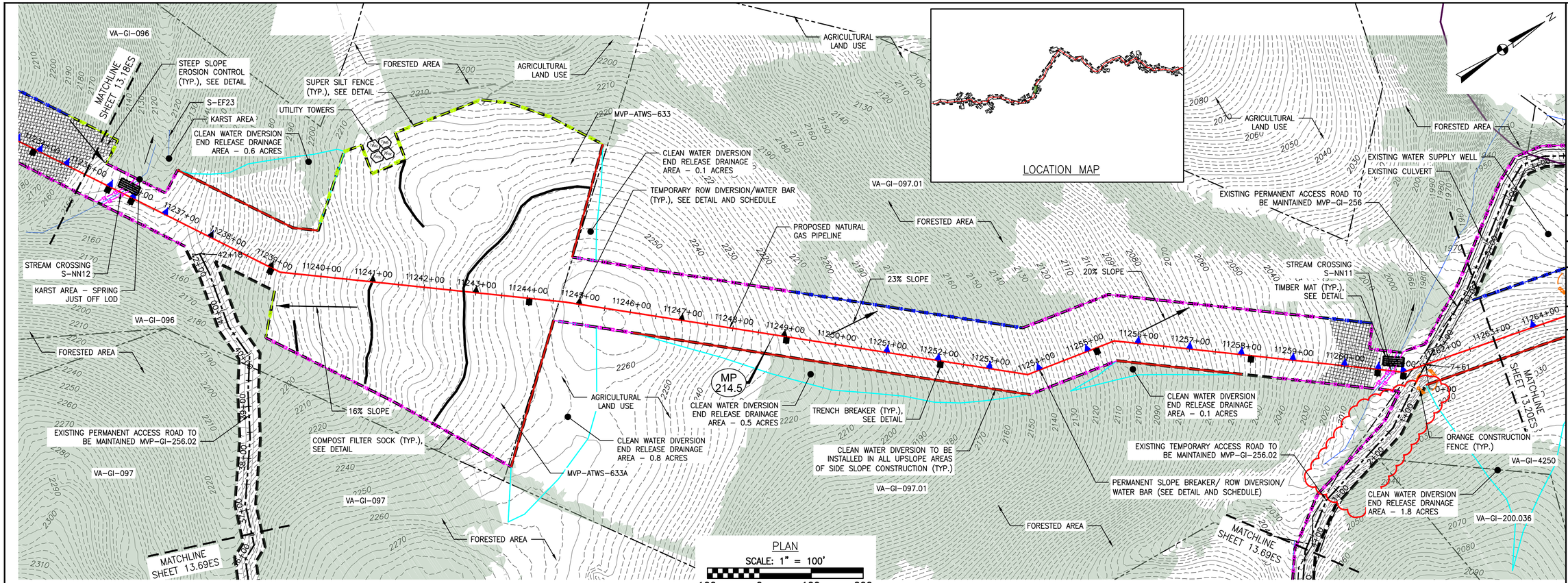
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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

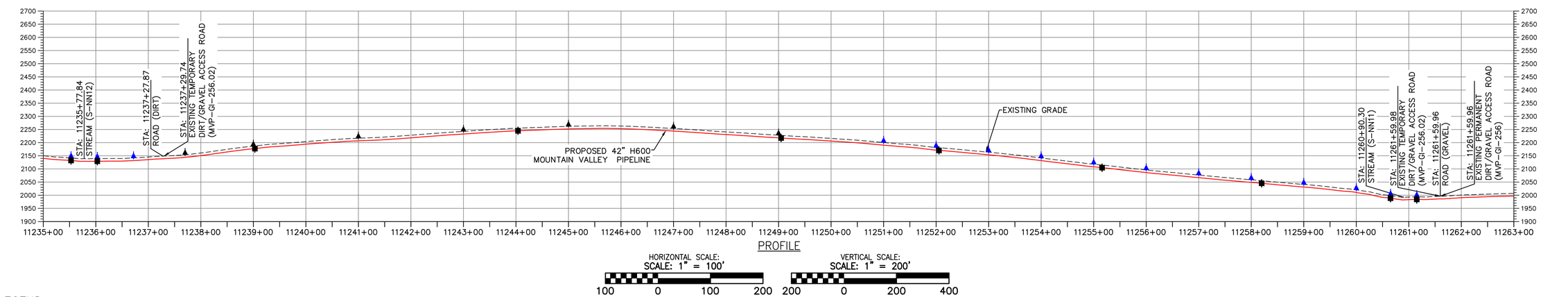
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	
SHT. NO.	13.18ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.18(S9).dwg PLOTTED ON: 8/15/2018 1:06 PM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb





LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	4/30/18	KAL	JRE	DJW	FIELD MODIFICATION
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

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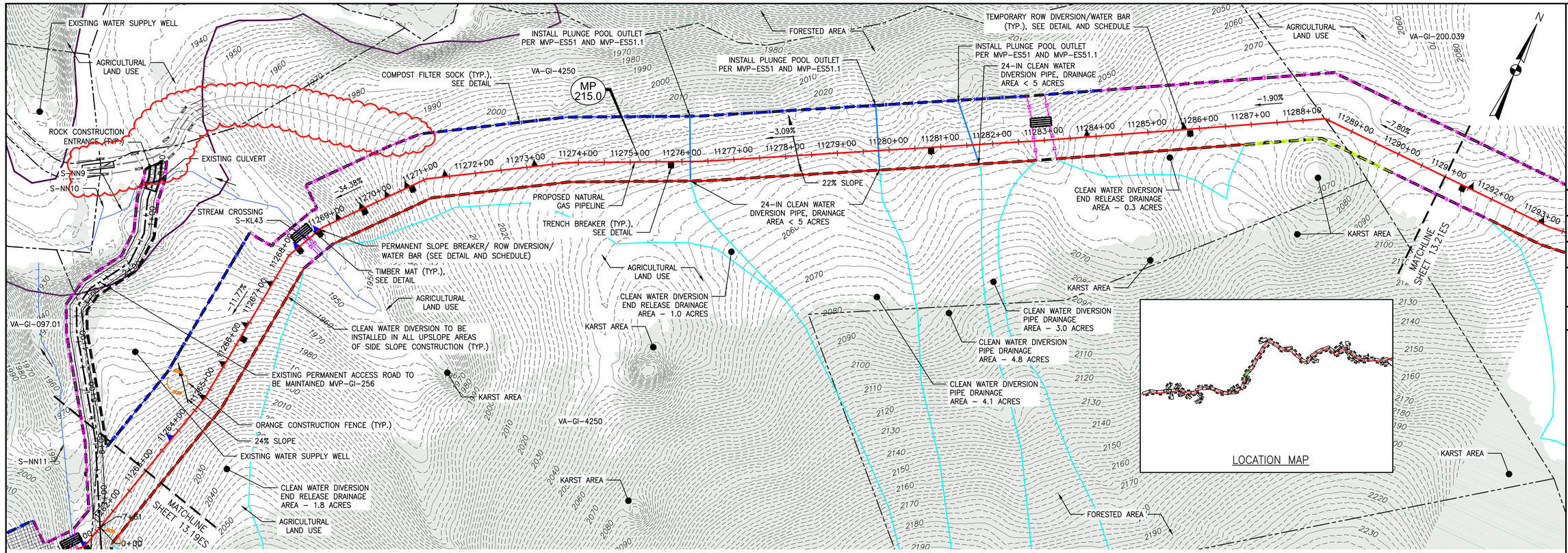
EROSION AND SEDIMENT CONTROL PLANS

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DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
SHT. NO.	13.19ES OF 13.91ES

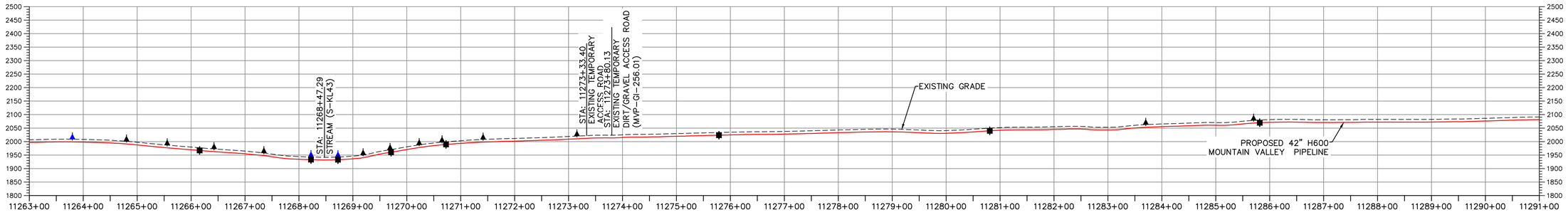
REVISION

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.19(S9).dwg PLOTTED ON: 8/15/2018 1:04 PM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
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- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\7157ES13.20(S9).dwg PLOTTED ON: 8/28/2018 8:17 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
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6	4/30/18	KAL	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

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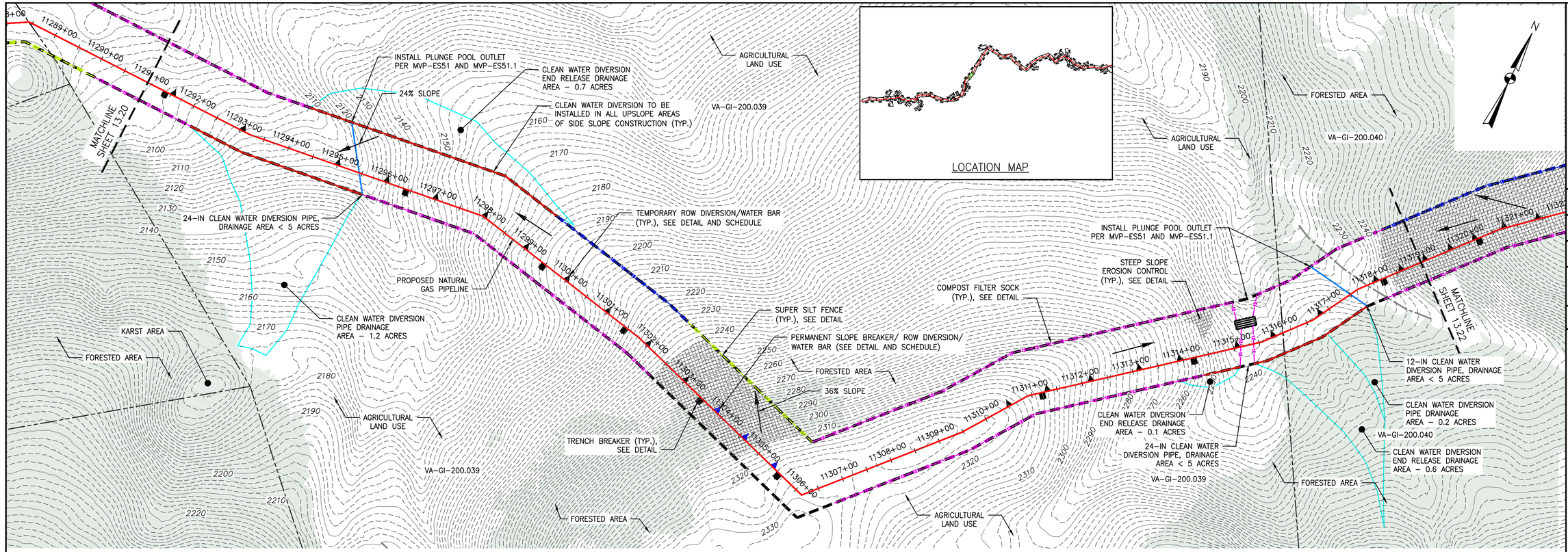
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EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
REVISION	7

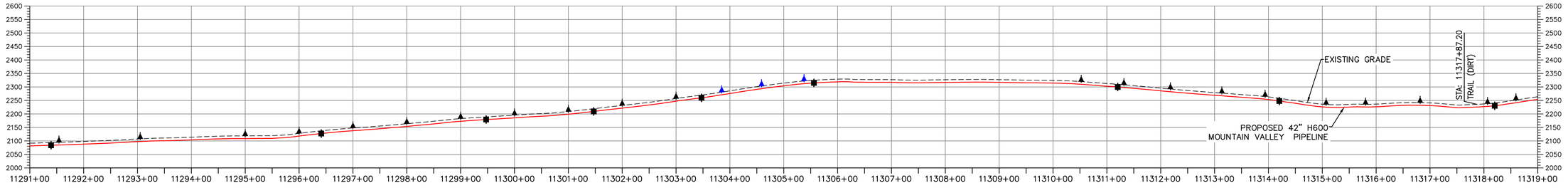
SHT. NO. 13.20ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
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- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
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- STEEP SLOPE AREAS (SEE NOTE 4)
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\E&S Version 5.0.0\7157ES13.21(S9).dwg PLOTTED ON: 3/14/2018 7:36 AM PLOTTED BY: Scabillani, Joy PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
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4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

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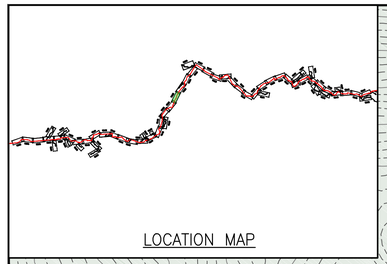
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DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.21ES OF 13.91ES

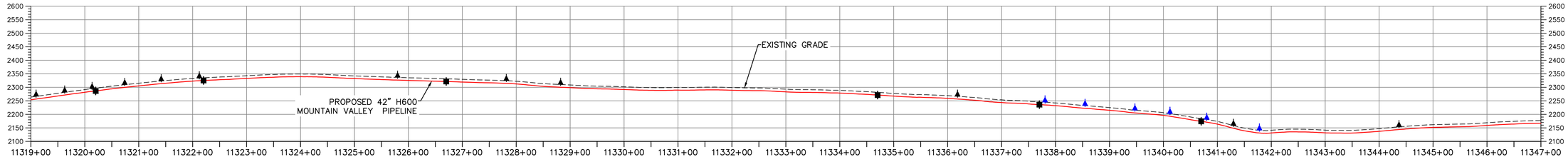


LOCATION MAP

PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- AMST — AMST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- SF — SF — PROPOSED SILT FENCE (SEE NOTE 5)
- SSF — SSF — PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- RFD — RFD — PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- OCSF — ORANGE CONSTRUCTION SAFETY FENCE
- 12 — 12 — 12 — 12 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- 18 — 18 — 18 — 18 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- 24 — 24 — 24 — 24 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.22(S9).dwg PLOTTED ON: 8/31/2018 8:05 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
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CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
REVISION	6

SHT. NO. 13.22ES OF 13.91ES

LOCATION MAP

PLAN
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PROFILE
HORIZONTAL SCALE: SCALE: 1" = 100'
VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
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- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

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2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\7157ES13.23(S9).dwg PLOTTED ON: 8/15/2018 1:10 PM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
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5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

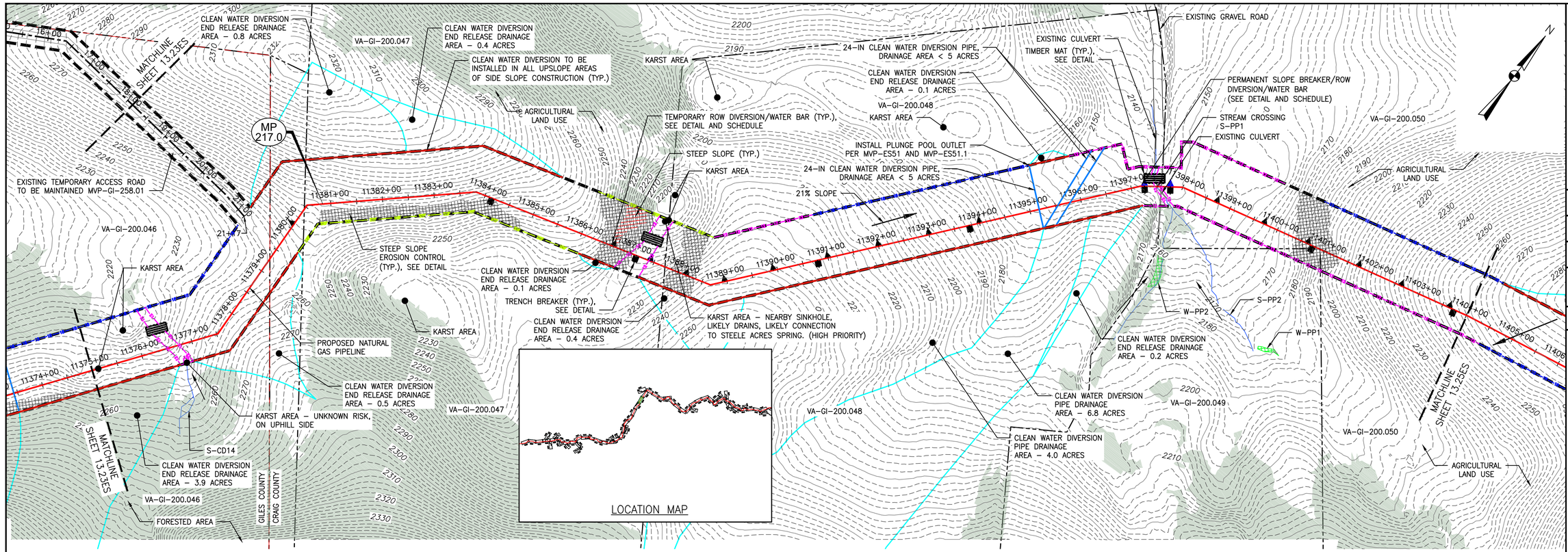
MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

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PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

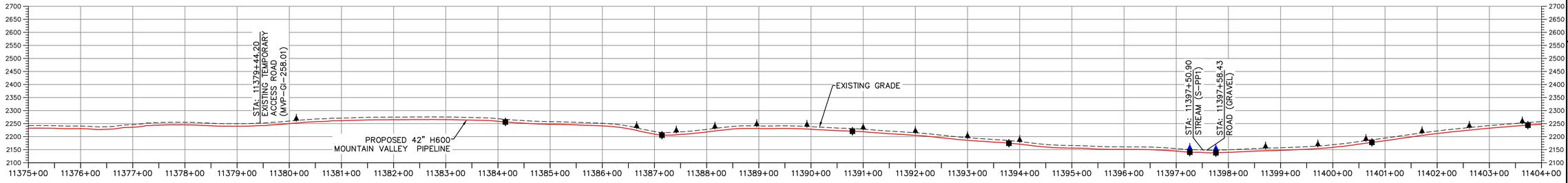
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	
SHT. NO.	13.23ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
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- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
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- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.24(S9).dwg PLOTTED ON: 8/15/2018 1:13 PM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL COLOR.ctb

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4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

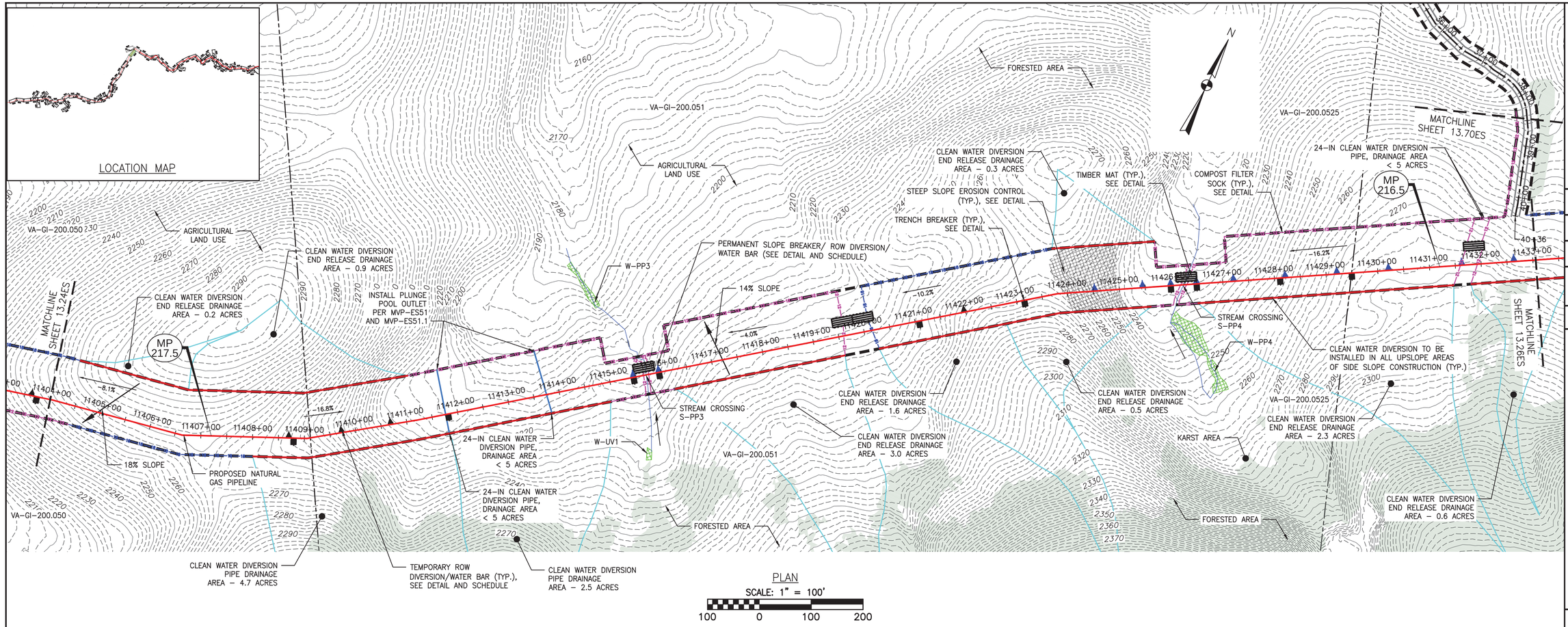
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PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

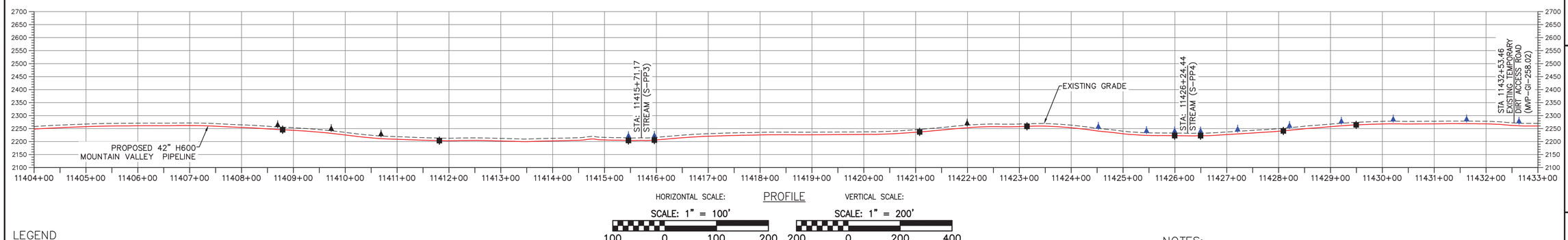
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5
SHT. NO.	13.24ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

PROFILE

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL (ANST)
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL (AFM)
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SF) (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SSF) (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (RFD) (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE (OCSF)
- PROPOSED COMPOST FILTER SOCK (12) (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (18) (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (24) (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
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- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

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NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

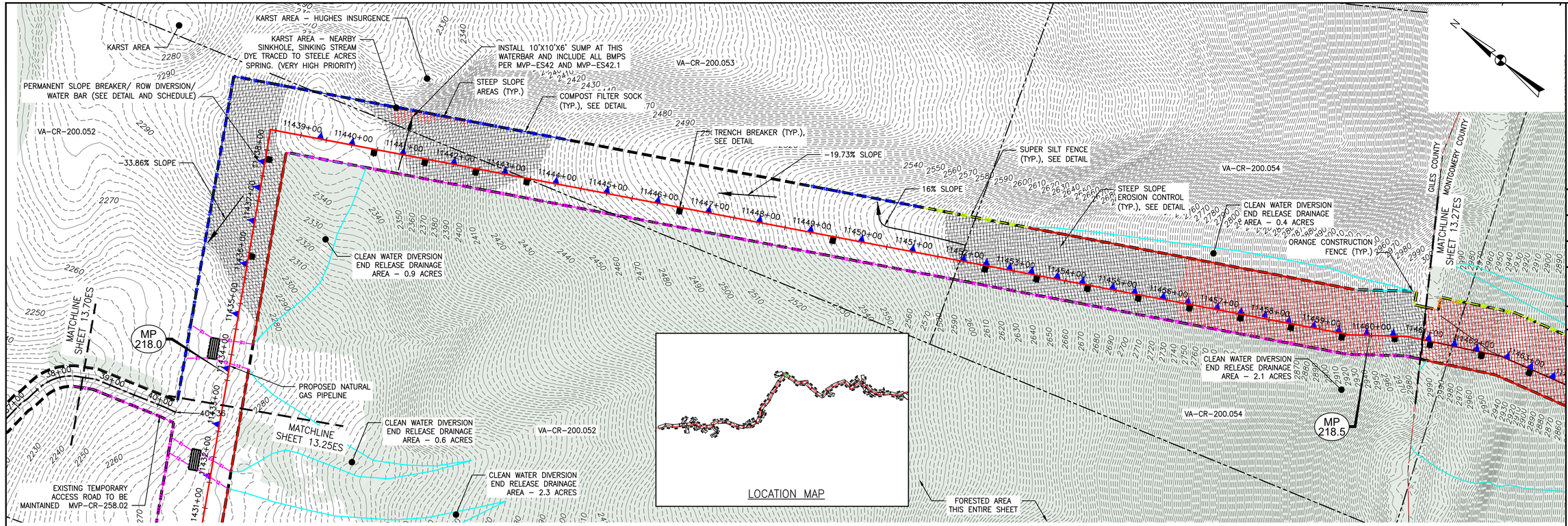
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PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

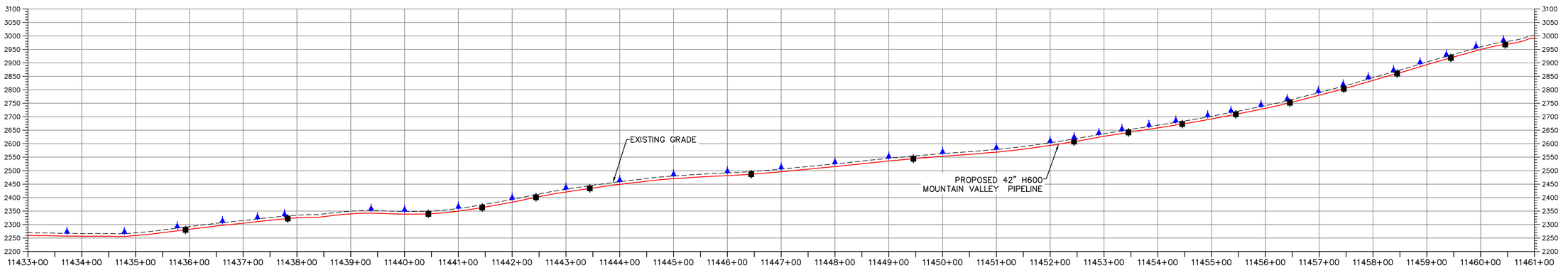
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5
SHT. NO.	13.25ES OF 13.91ES



PLAN

SCALE: 1" = 100'



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
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- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
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- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.26(S9).dwg PLOTTED ON: 8/31/2018 8:16 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

NO.	DATE:	BH	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
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5	3/2/18	KAL	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
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3	1/26/18	KAL	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	KAL	JRE	DJW	PLANS SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

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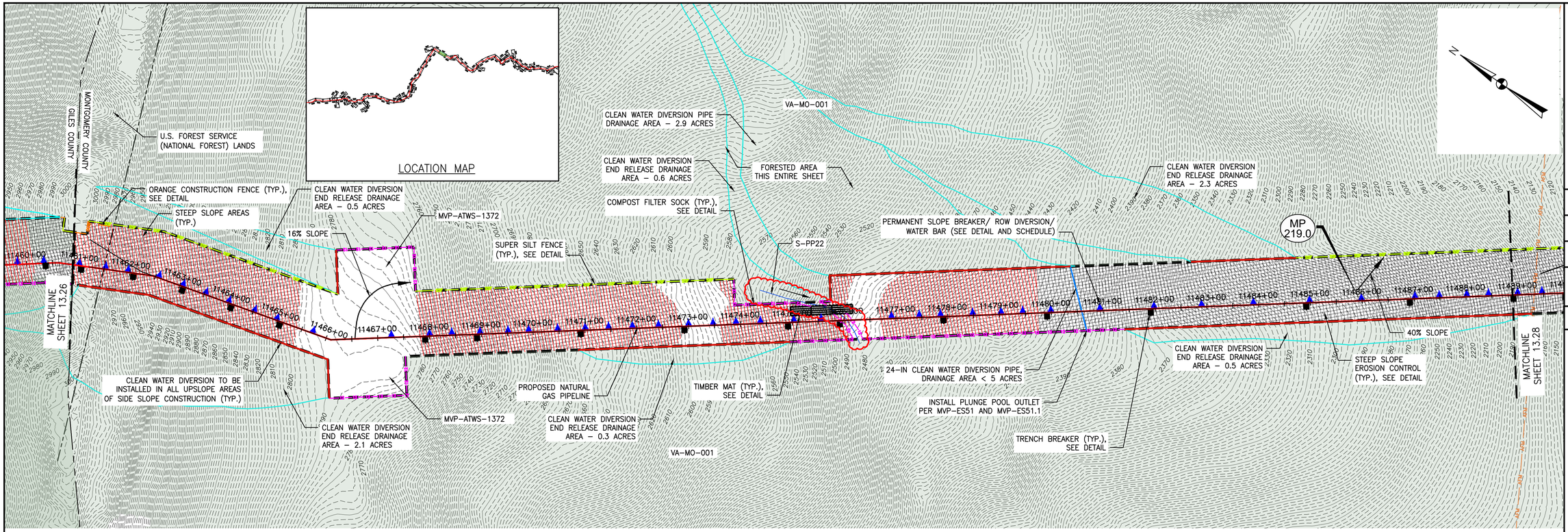
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN

REVISION

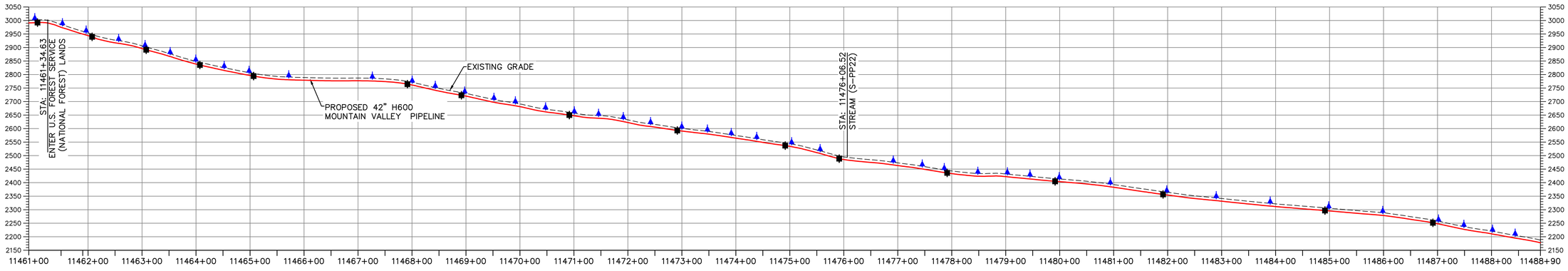
SHT. NO. 13.26ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
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- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
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4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
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6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus_Shale_Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.27(S9).dwg PLOTTED ON: 7/10/2020 10:07 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	7/7/20	BH	JRE	DJW	CHANGES TO AQUATIC RESOURCES DELINEATIONS
5	3/22/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

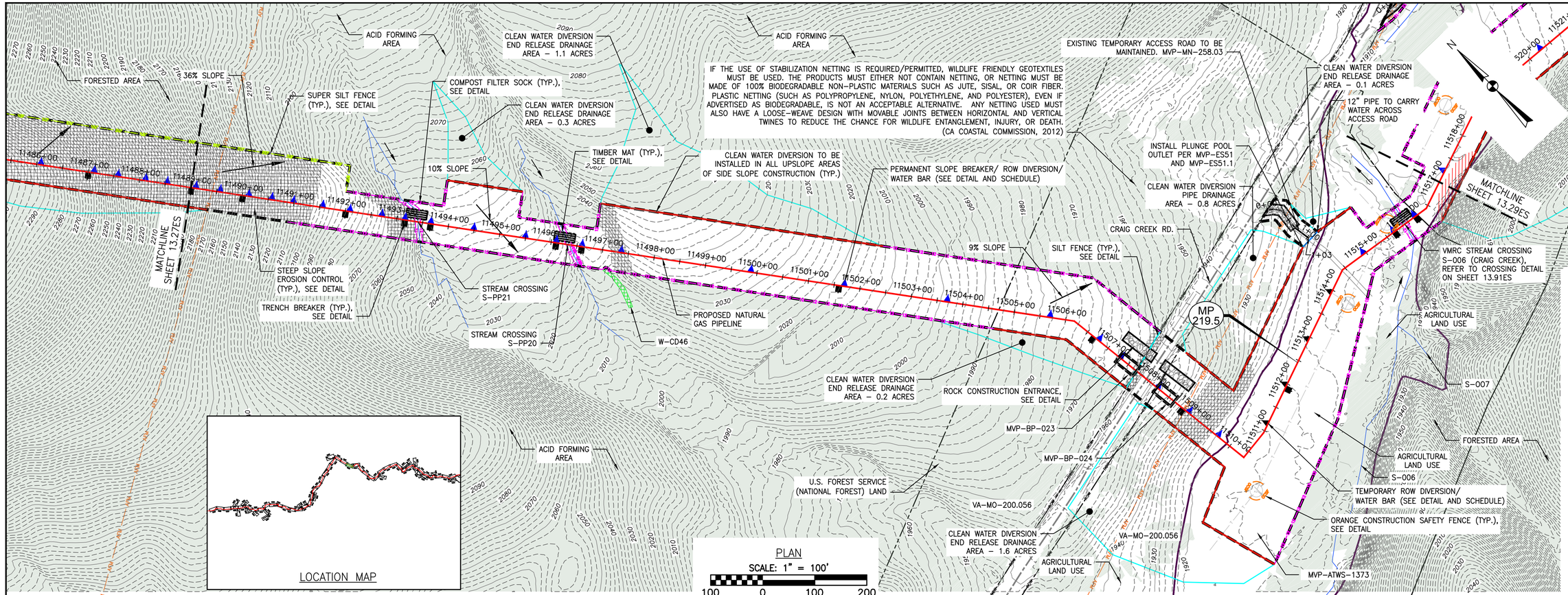
EROSION AND SEDIMENT CONTROL PLANS

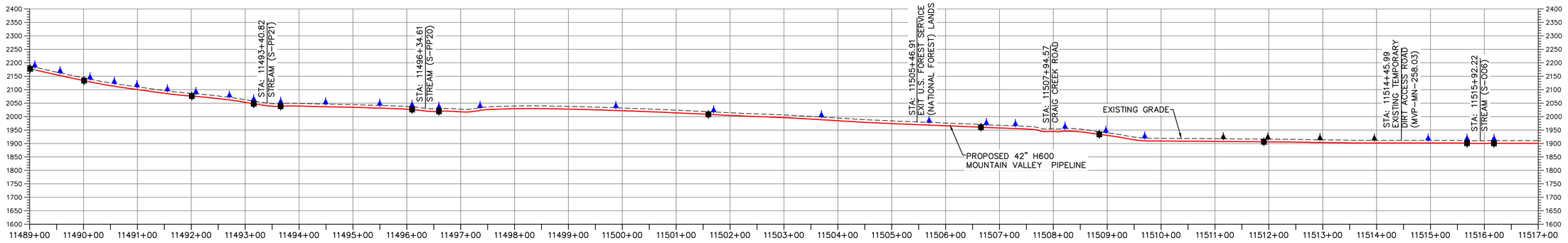
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	BH
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	7/7/20
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.27ES OF 13.91ES





LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
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- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

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1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

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SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

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CANONSBURG, PA 15317

TETRA TECH
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PITTSBURGH, PA 15220

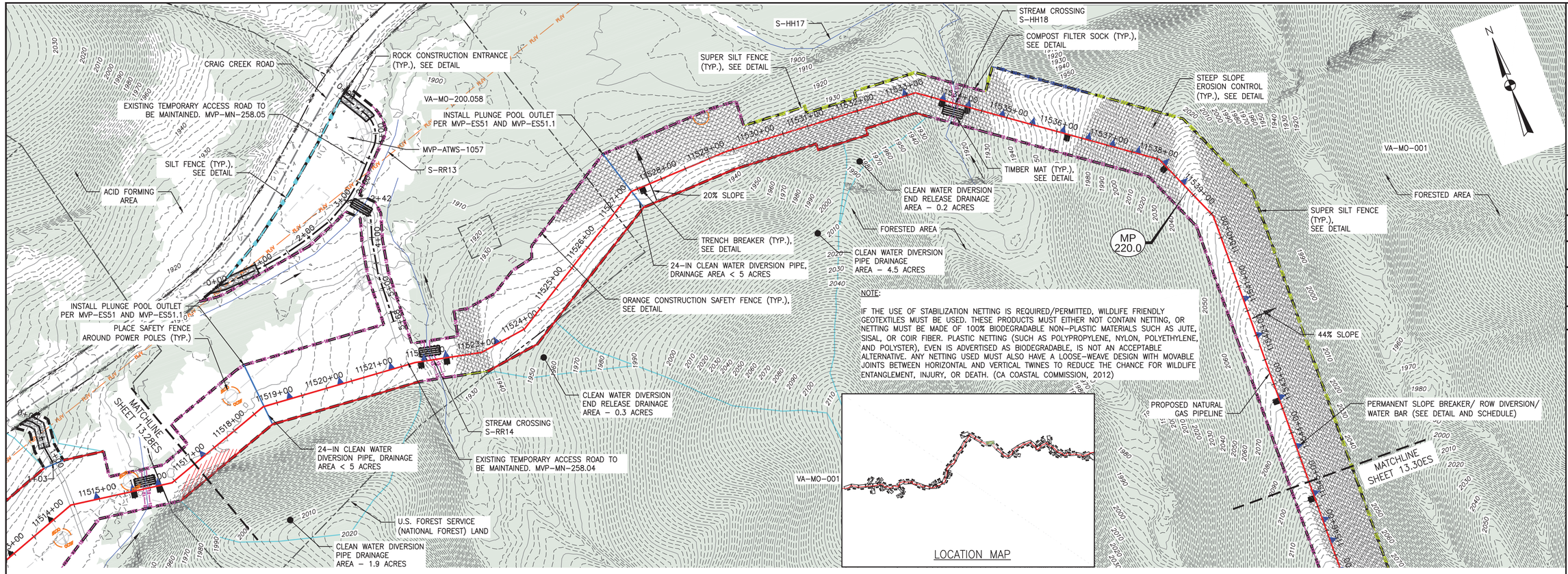
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

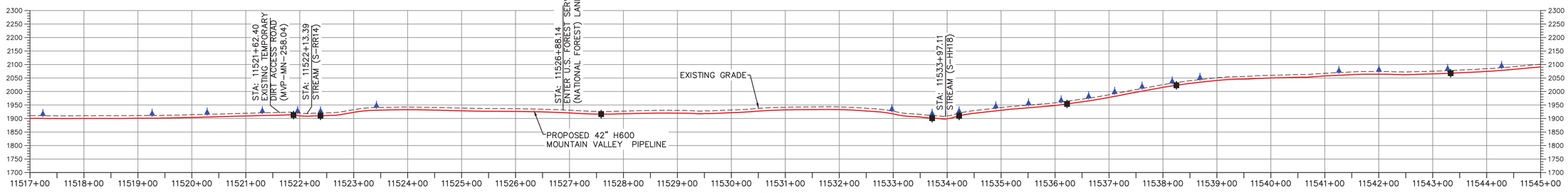
SHT. NO. 13.28ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
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- SURFACE WATER FLOW DIRECTION
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- PROPOSED PIPELINE
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- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
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- STEEP SLOPE AREAS (SEE NOTE 4)
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3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
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EROSION AND SEDIMENT CONTROL PLANS

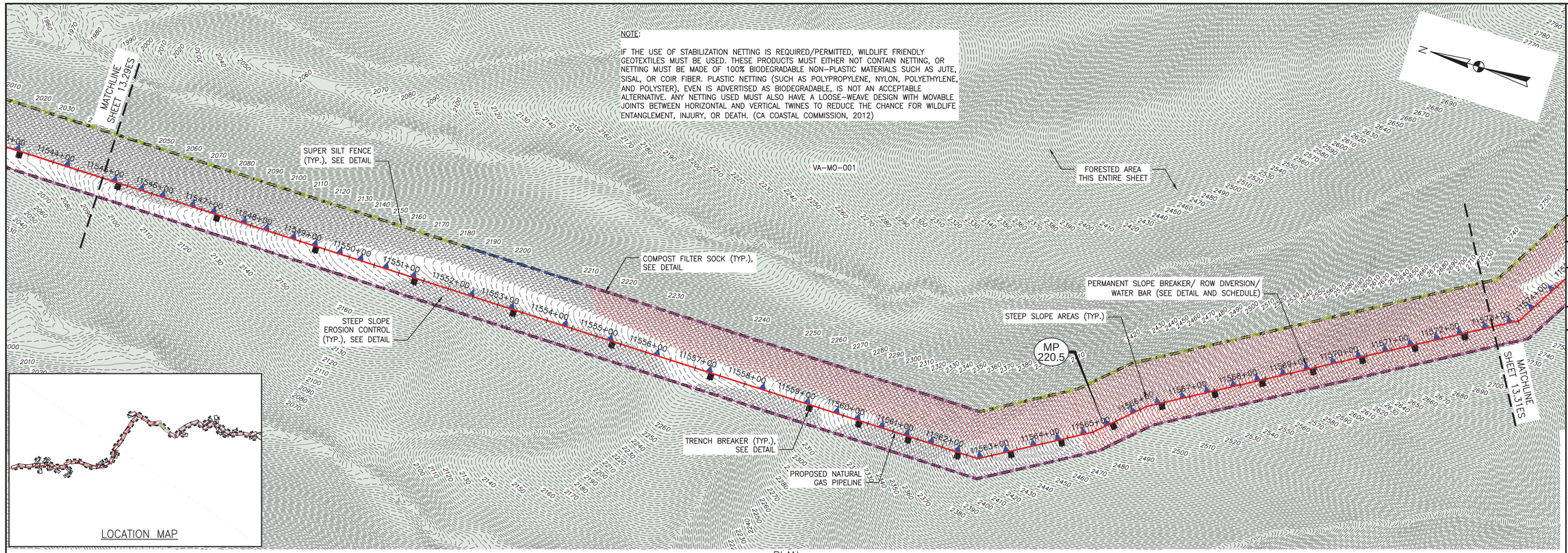
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
SHT. NO.	13.29ES OF 13.91ES

REVISION

NOTE:

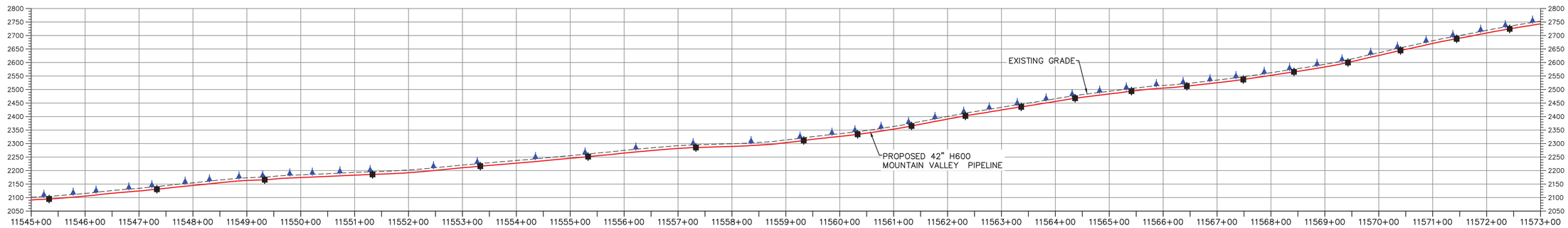
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PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- ANST — ANST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- SF — SF — PROPOSED SILT FENCE (SEE NOTE 5)
- SSF — SSF — PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- RFD — RFD — PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- OCSF — ORANGE CONSTRUCTION SAFETY FENCE
- 12 — 12 — 12 — 12 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 18 — 18 — 18 — 18 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 24 — 24 — 24 — 24 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
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- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
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- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
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REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

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EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
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PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
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DATE:	11/21/2017
SCALE:	AS SHOWN

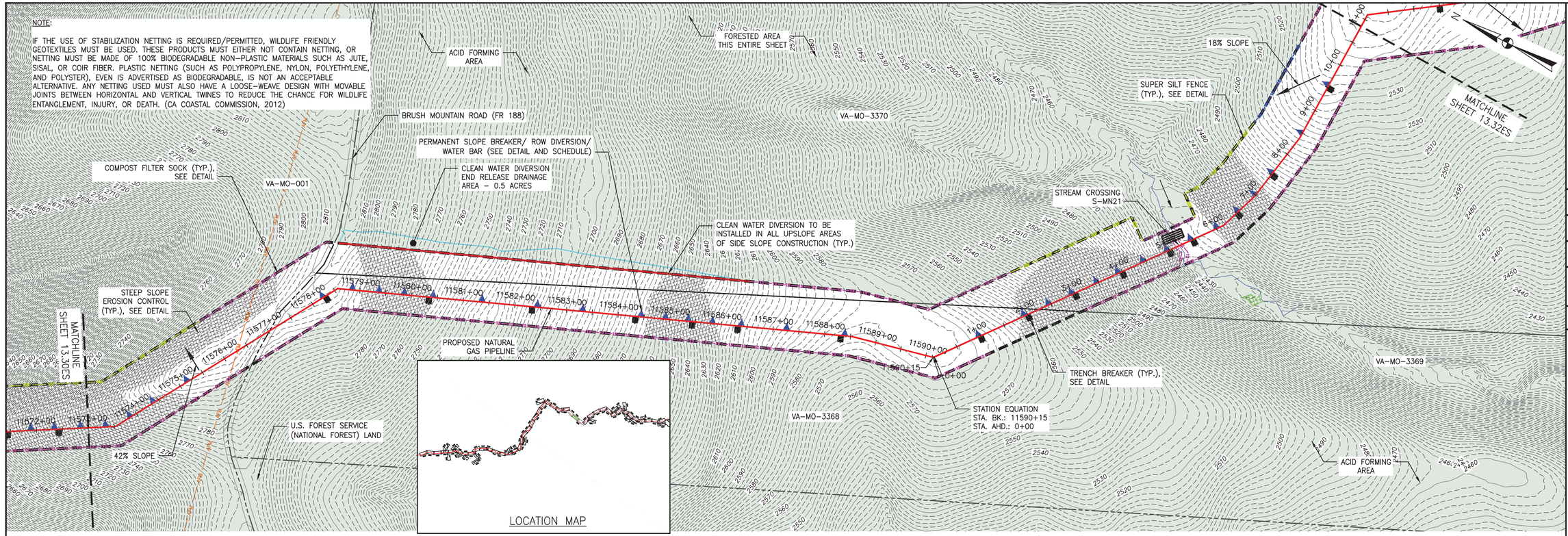
REVISION

SHT. NO. 13.30ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.30(S9).dwg PLOTTED ON: 3/2/2018 8:33 AM PLOTTED BY: Schreibeis, Carly PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NOTE:

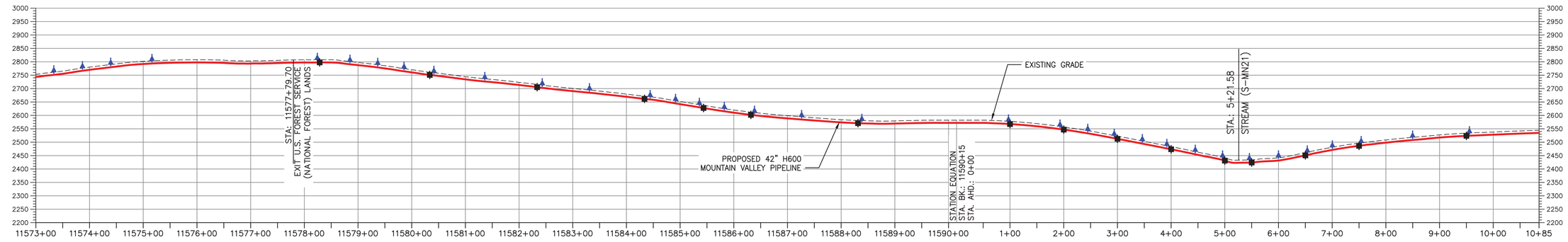
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PLAN

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100 0 100 200



PROFILE

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100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

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- PROPOSED PIPELINE
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5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\E&S Version 5.0.0\7157ES13.31(S9).dwg PLOTTED ON: 3/2/2018 8:34 AM PLOTTED BY: Schreibeis, Carly PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

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5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

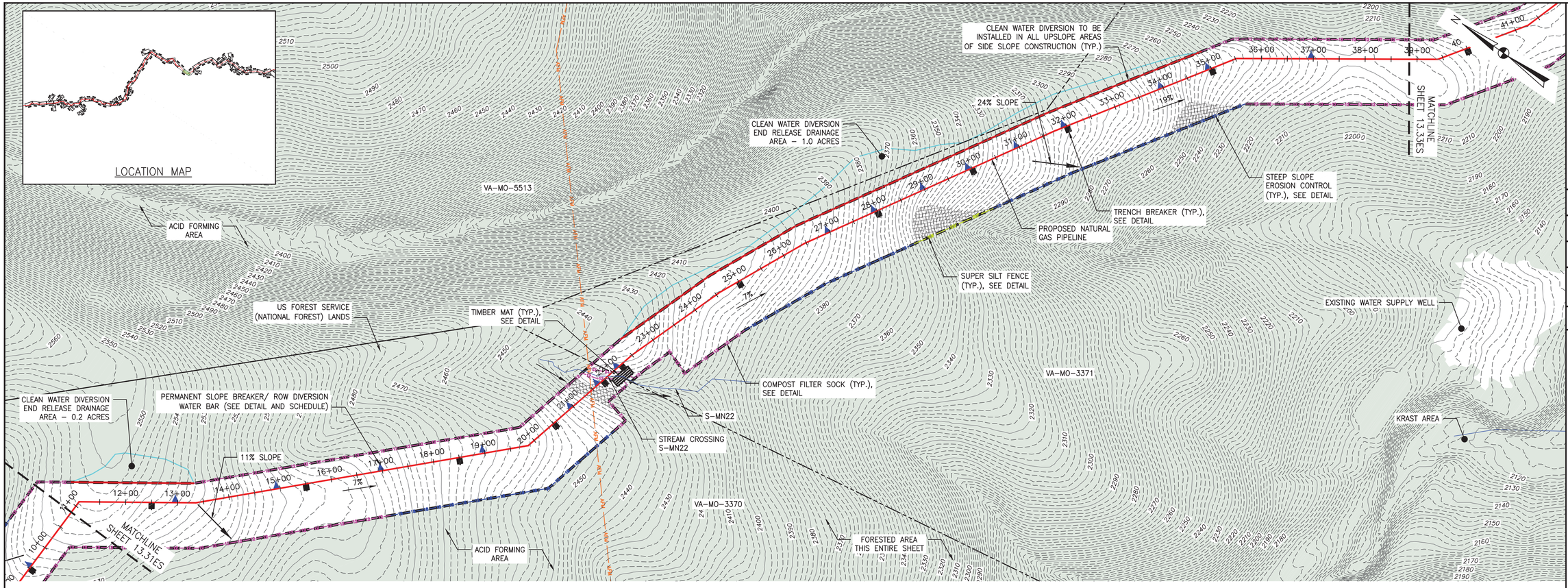
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

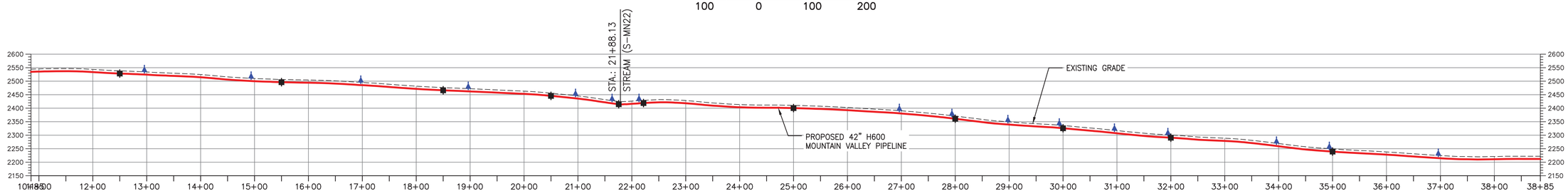
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.31ES OF 13.91ES



PLAN
SCALE: 1" = 100'
100 0 100 200



PROFILE
HORIZONTAL SCALE: SCALE: 1" = 100'
100 0 100 200
VERTICAL SCALE: SCALE: 1" = 200'
200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.32(S9).dwg PLOTTED ON: 3/2/2018 8:51 AM PLOTTED BY: Schreibeis, Carly PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

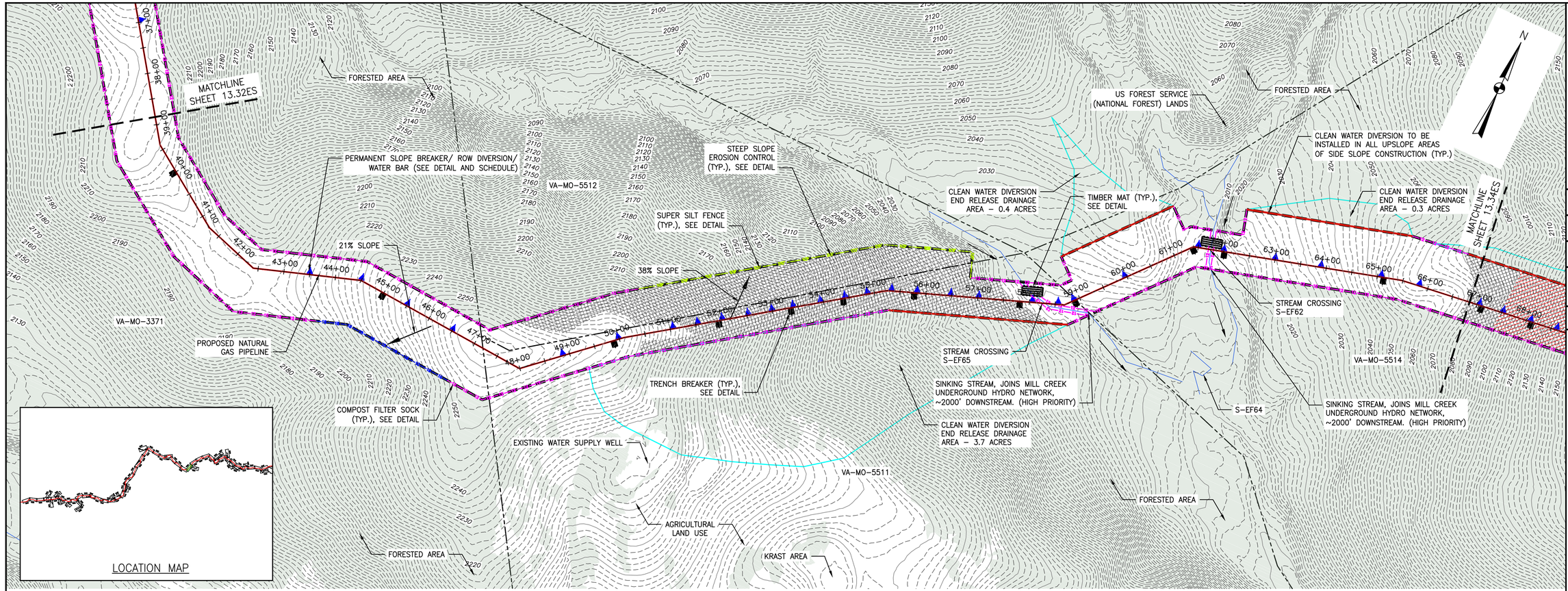
MOUNTAIN VALLEY PIPELINE, LLC
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EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5
SHT. NO.	13.32ES OF 13.91ES

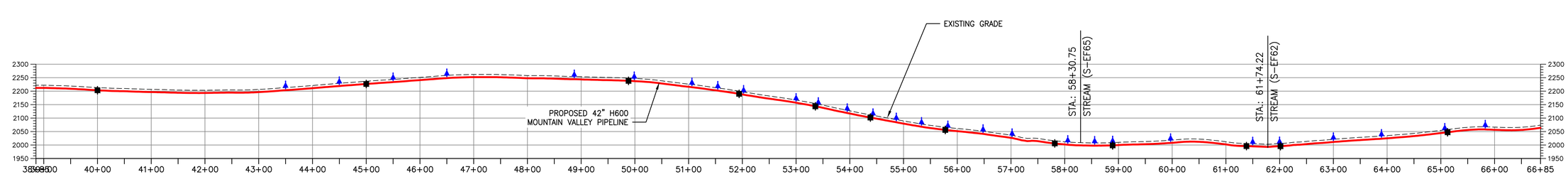


LOCATION MAP

PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- ANST — ANST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- SF — SF — PROPOSED SILT FENCE (SEE NOTE 5)
- SSF — SSF — PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- RFD — RFD — PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ocsf — ORANGE CONSTRUCTION SAFETY FENCE
- 12 — 12 — 12 — 12 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 18 — 18 — 18 — 18 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 24 — 24 — 24 — 24 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
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NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

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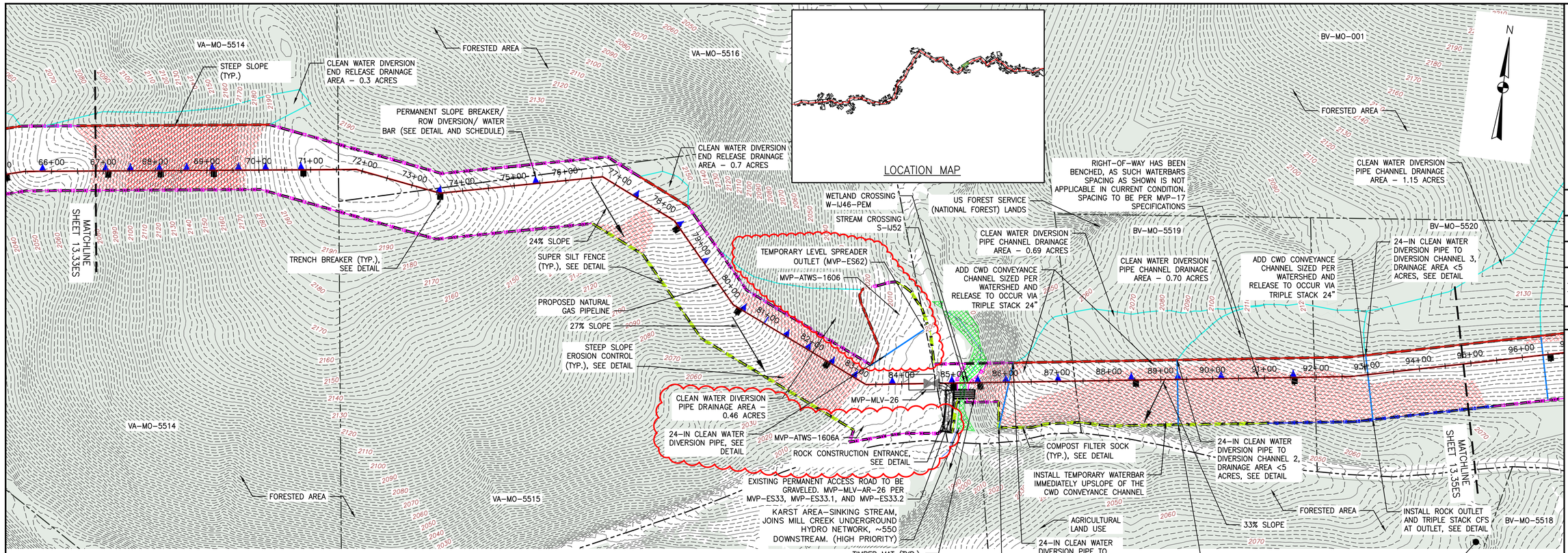
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA — DAVID J. WALLNER — Lic. No. 0402057593 — PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
SHT. NO.	13.33ES OF 13.91ES

REVISION

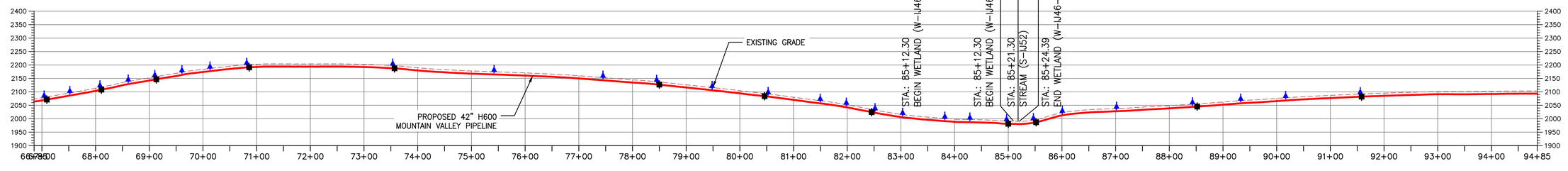
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PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

NOTE:

THE ROW HAS BEEN BENCHED FROM STA 86+00 TO 93+00 (SEE GENERAL DETAILS MVP-ES56.4 THROUGH MVP-ES56.7) WHERE CLEAN WATER DIVERSIONS WITH CLEAN WATER DIVERSION PIPES AND CHANNELS ARE NOW PROPOSED. AS SUCH, THE WATERBAR SPACING AS SHOWN ON THIS PLAN IS NOT APPLICABLE GIVEN THE CURRENT CONDITION. SPACING TO BE IN ACCORDANCE WITH GENERAL DETAIL MVP-17.

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
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- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
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NOTES:

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NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	5/3/21	ZM	JRE	DJW	ADDRESS VADEQ COMMENTS
–	3/25/20	BH	JRE	DJW	FIELD MOD MP 222.7 (ATWS-1606 AND ATWS-1606A)
7	4/30/18	BH	JRE	DJW	FIELD MODIFICATION
6	2/12/19	BH	JRE	DJW	FIELD MODIFICATION - MP 226.3 (ACCESS ROAD MVP-MH-286)
5	3/5/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

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TETRA TECH

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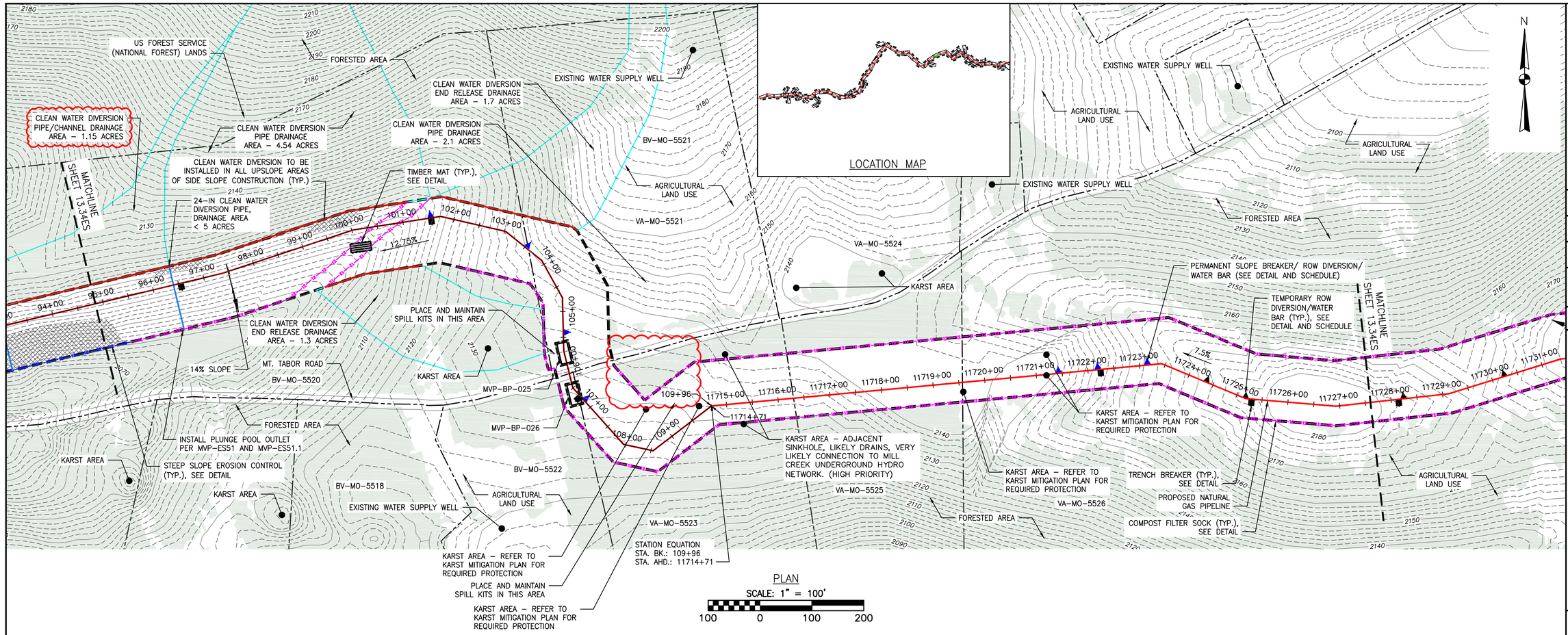
661 ANDERSEN DRIVE
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EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 57593
5/3/2021
PROFESSIONAL ENGINEER

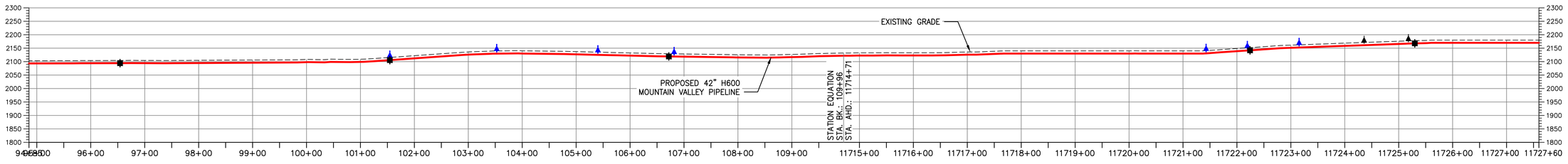
DRAWN BY:	BH
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	5/3/21
SCALE:	AS SHOWN
REVISION	7
SHT. NO.	13.34ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus_Shale_Projects\EQT\7157_-_MVP_Construction_Spread_9\13_-_Montgomery\E&S\7157ES13.34(S9).dwg PLOTTED ON: 5/3/2021 11:57 AM PLOTTED BY: Rickabaugh, Greg PLOT FILE: ENVIRONMENTAL_COLOR.ctb



LOCATION MAP

PLAN
SCALE: 1" = 100'
100 0 100 200



PROFILE
HORIZONTAL SCALE: SCALE: 1" = 100'
VERTICAL SCALE: SCALE: 1" = 200'
100 0 100 200
200 0 200 400

LEGEND

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- EXISTING ROAD/TRAIL
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- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
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- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
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- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
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8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
7	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
6	4/30/18	KAL	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
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2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

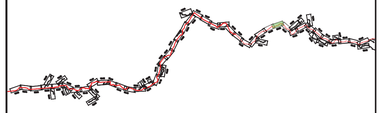
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PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

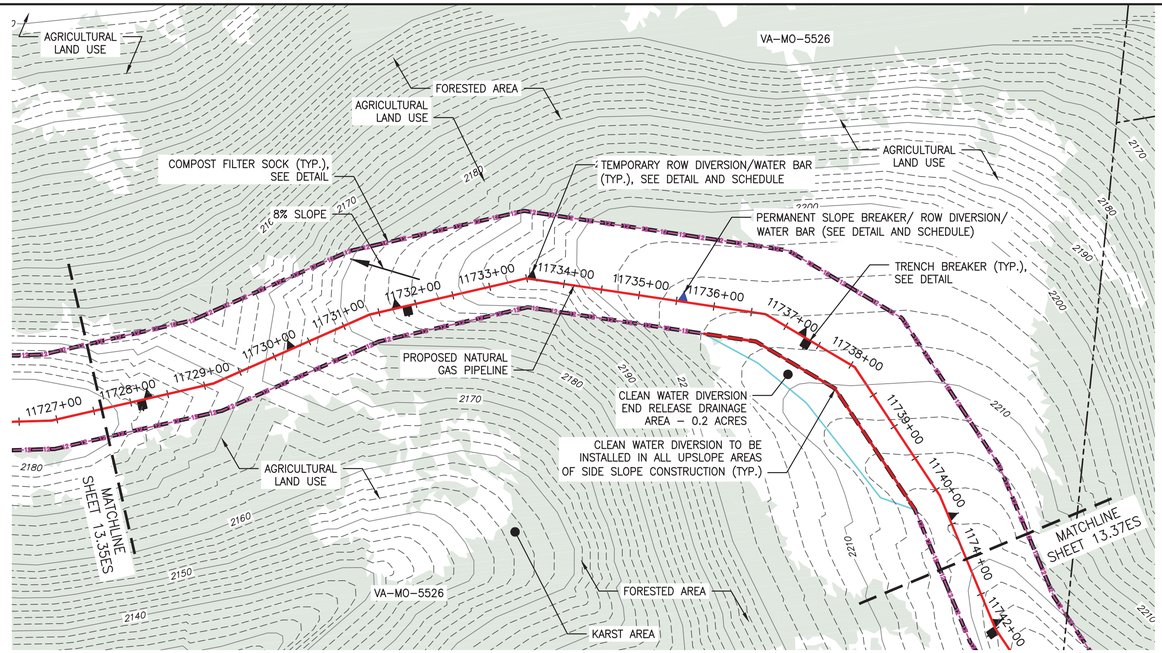
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
REVISION	
SHT. NO.	13.35ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.35(S9).dwg PLOTTED ON: 8/29/2018 10:45 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb



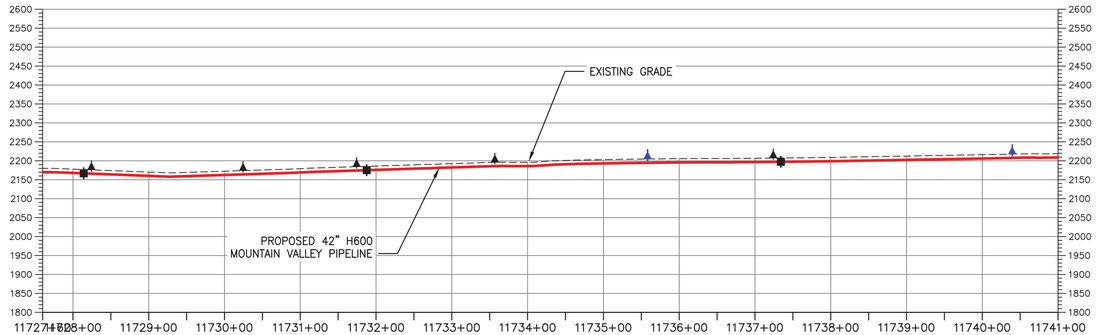
LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE:

SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE:

SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\E&S Version 5.0.0\7157ES13.36(S9).dwg PLOTTED ON: 3/2/2018 9:02 AM PLOTTED BY: Schreibeis, Carly PLOT FILE: ENVIRONMENTAL_COLOR.ctb

N

REVISIONS:

NO.	DATE:	DWN.:	CHKD.:	APP'D.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

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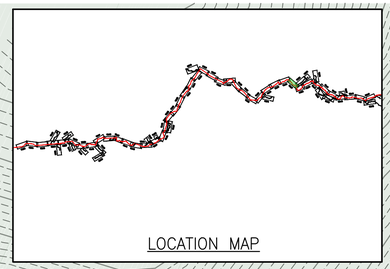
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF PENNSYLVANIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

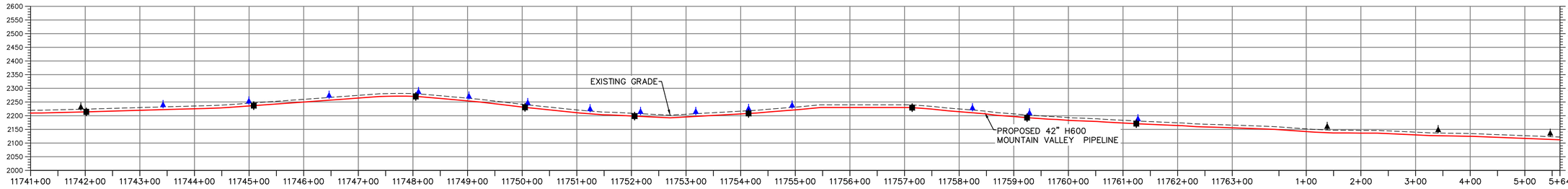
SHT. NO. 13.36ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.37(S9).dwg PLOTTED ON: 7/19/2018 10:19 AM PLOTTED BY: Zindren, Dan PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	4/30/18	KAL	JRE	DJW	FIELD MODIFICATION
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
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Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

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661 ANDERSEN DRIVE
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PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
SHT. NO.	13.37ES OF 13.91ES

REVISION

MATCHLINE SHEET 13.37ES

MATCHLINE SHEET 13.73ES

MATCHLINE SHEET 13.39ES

MVP-ATWS-1456A

AGRICULTURAL LAND USE

VA-MO-5528

-13.70% SLOPE

FORESTED AREA

PERMANENT SLOPE BREAKER/ ROW DIVERSION/ WATER BAR (SEE DETAIL AND SCHEDULE)

16% SLOPE

TRENCH BREAKER (TYP.), SEE DETAIL

KARST AREA

FORESTED AREA

MP 224.5

11+36

11774+71

15% SLOPE

POND CROSSING P-KL2

TIMBER MAT (TYP.), SEE DETAIL

STEEP SLOPE EROSION CONTROL (TYP.), SEE DETAIL

CLEAN WATER DIVERSION TO BE INSTALLED IN ALL UPSLOPE AREAS OF SIDE SLOPE CONSTRUCTION (TYP.)

CLEAN WATER DIVERSION END RELEASE DRAINAGE AREA – 0.1 ACRES

PROPOSED NATURAL GAS PIPELINE

VA-MO-5529

COMPOST FILTER SOCK (TYP.), SEE DETAIL

KARST AREA – REFER TO KARST MITIGATION PLAN FOR REQUIRED PROTECTION

KARST AREA

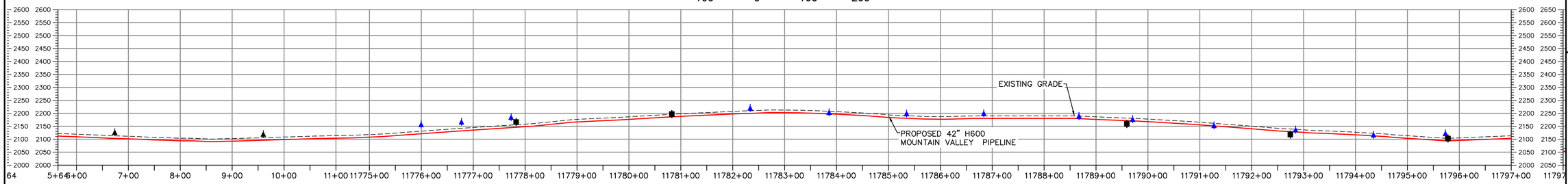
CLEAN WATER DIVERSION END RELEASE DRAINAGE AREA – 0.7 ACRES

LOCATION MAP

PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

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REVISIONS:

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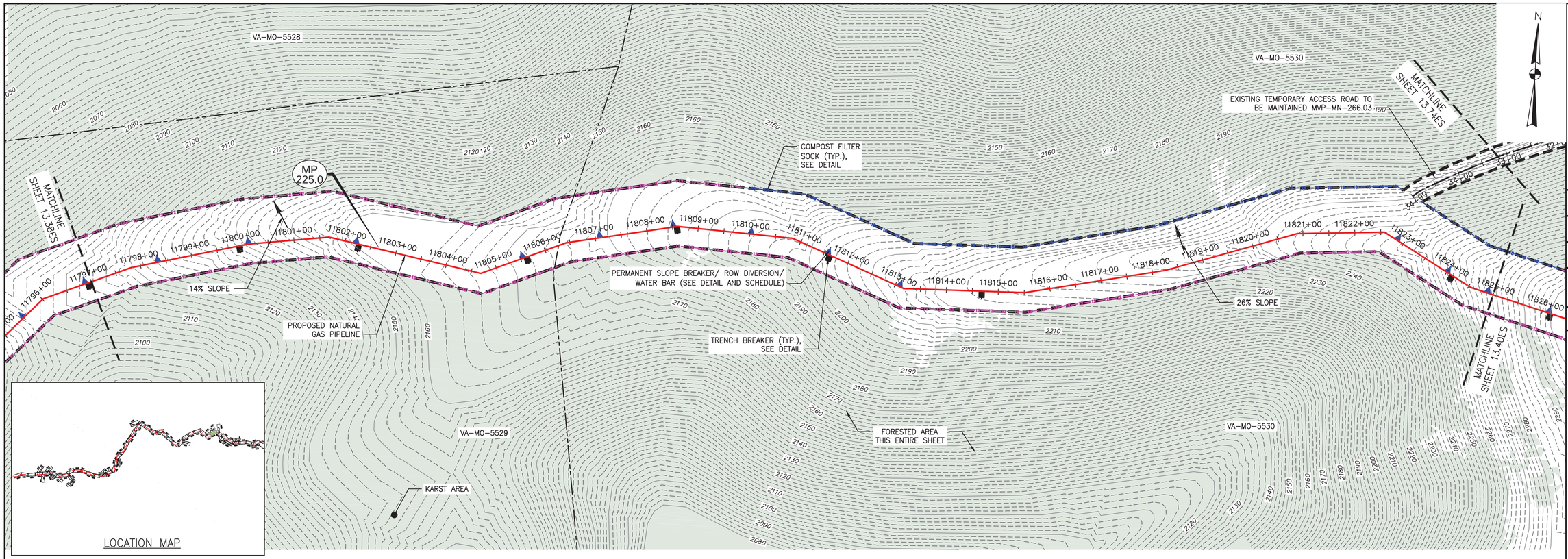
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COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN

SHT. NO. 13.38ES OF 13.91ES

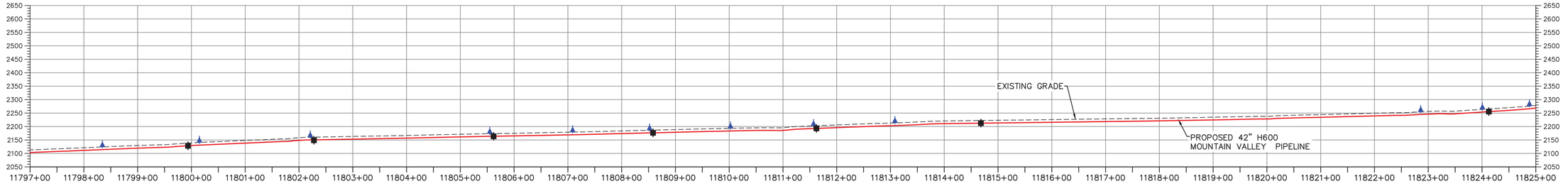
TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.38(S9).dwg PLOTTED ON: 9/13/2018 9:42 AM PLOTTED BY: Zindren, Dan PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

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100 0 100 200

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200 0 200 400

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8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

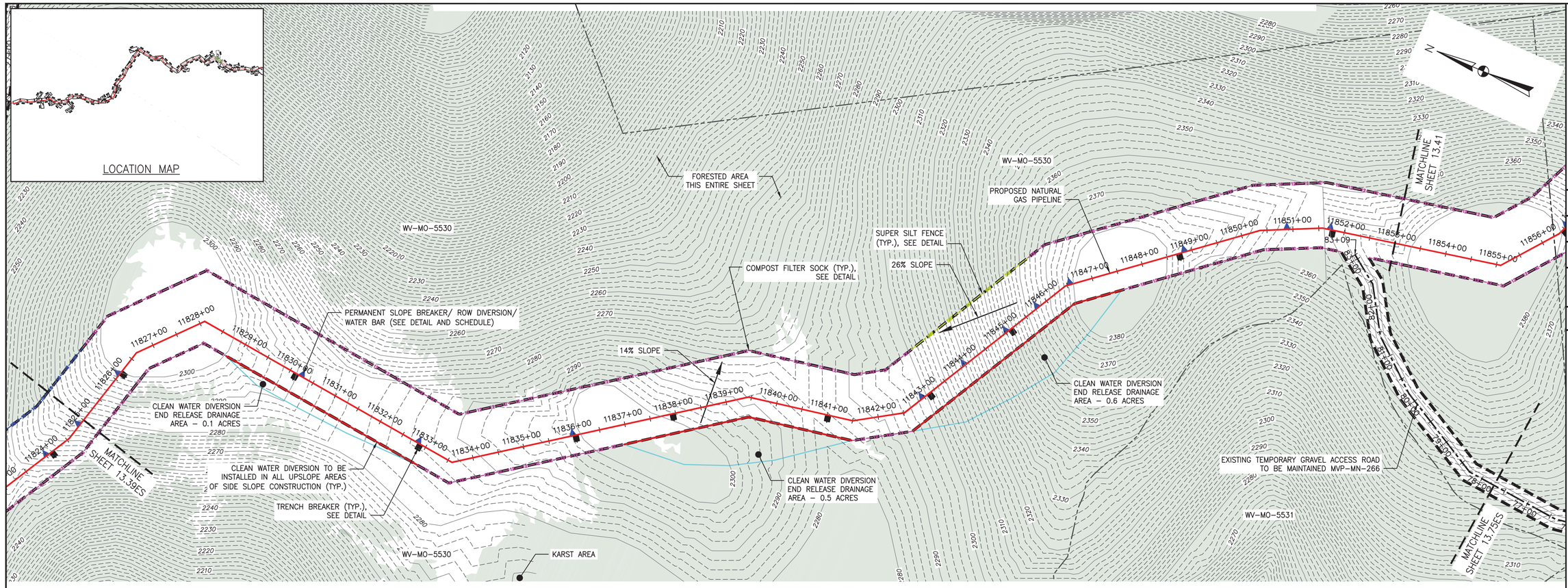
MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

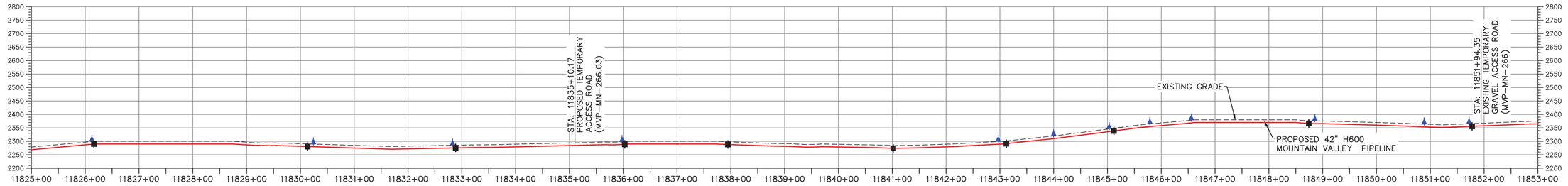
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5
SHT. NO.	13.39ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
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- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
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- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.40(S9).dwg PLOTTED ON: 3/2/2018 9:54 AM PLOTTED BY: Schreibeis, Carly PLOT FILE: ENVIRONMENTAL_COLOR.ctb

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2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

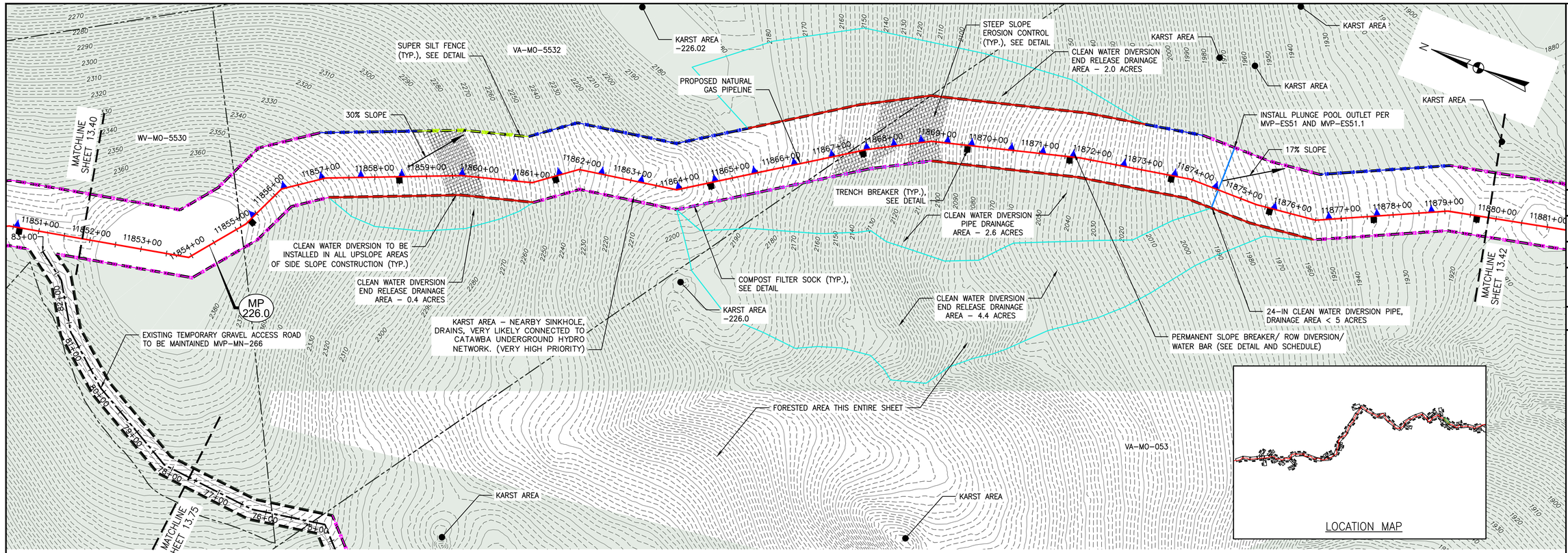
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EROSION AND SEDIMENT CONTROL PLANS

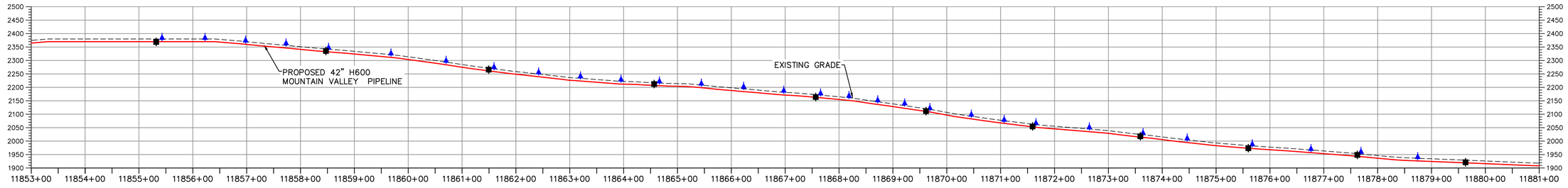
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5
SHT. NO.	13.40ES OF 13.91ES



PLAN

SCALE: 1" = 100'



HORIZONTAL SCALE: SCALE: 1" = 100'

PROFILE

VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
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- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
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- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
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- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.41(S9).dwg PLOTTED ON: 8/31/2018 8:26 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

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4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
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FOSTER PLAZA 7
PITTSBURGH, PA 15220

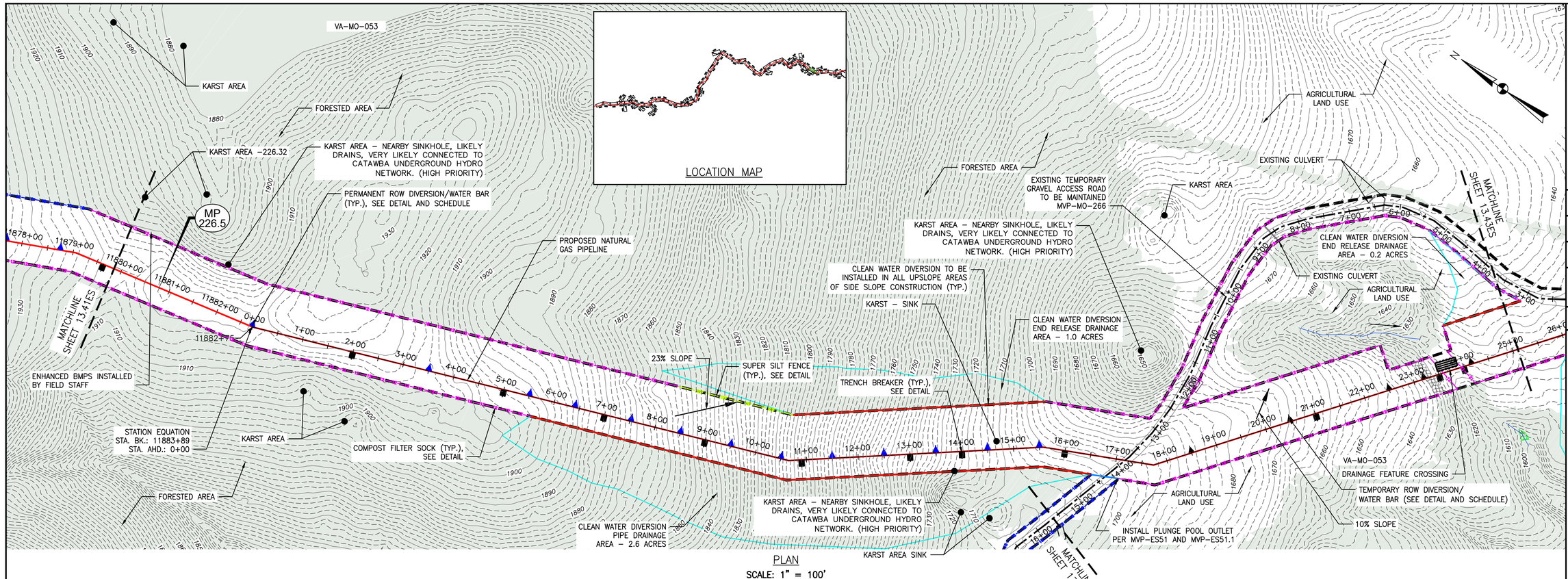
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN

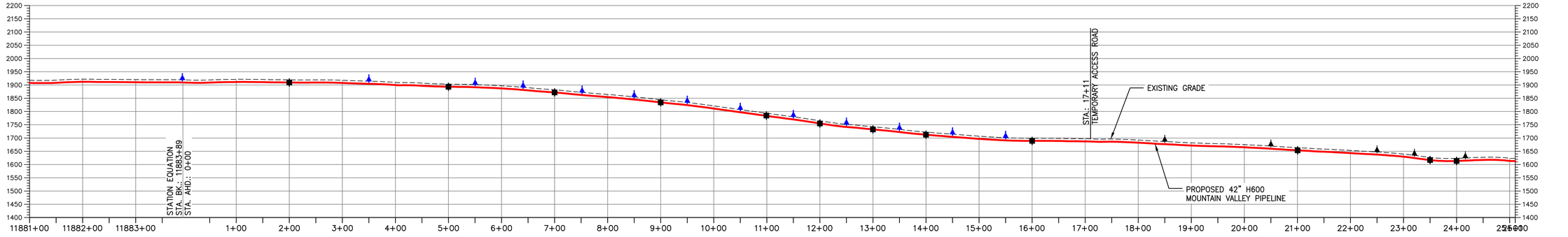
REVISION

SHT. NO. 13.41ES OF 13.91ES



PLAN

SCALE: 1" = 100'



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
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REVISIONS:

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
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2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

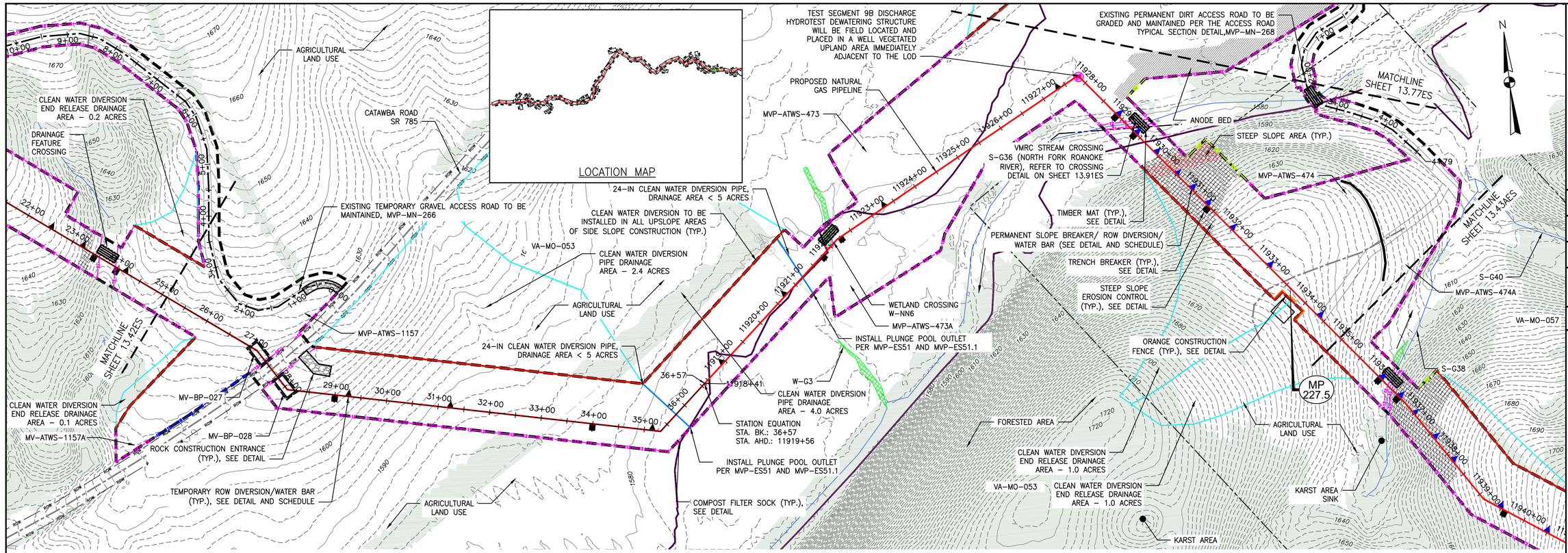
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PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
SHT. NO.	13.42ES OF 13.91ES

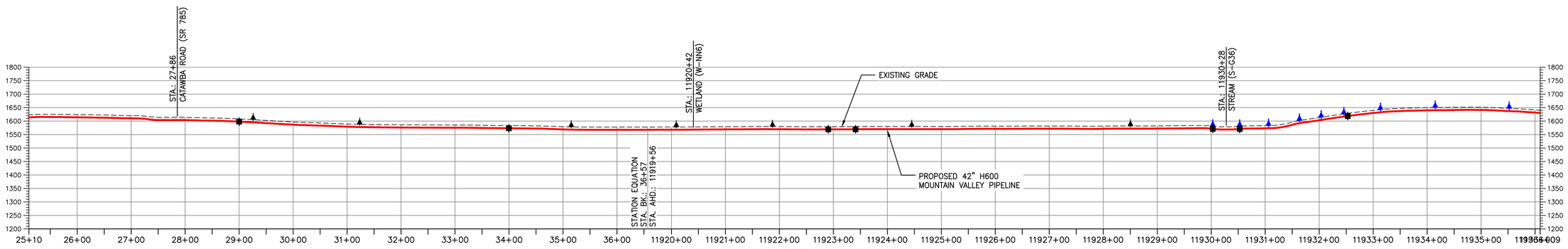
REVISION



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.43(S9).dwg PLOTTED ON: 8/31/2018 8:30 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

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Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

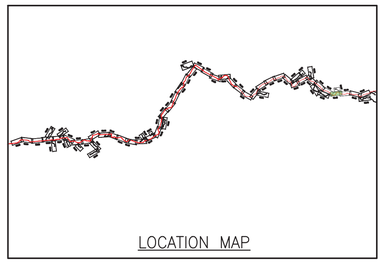
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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

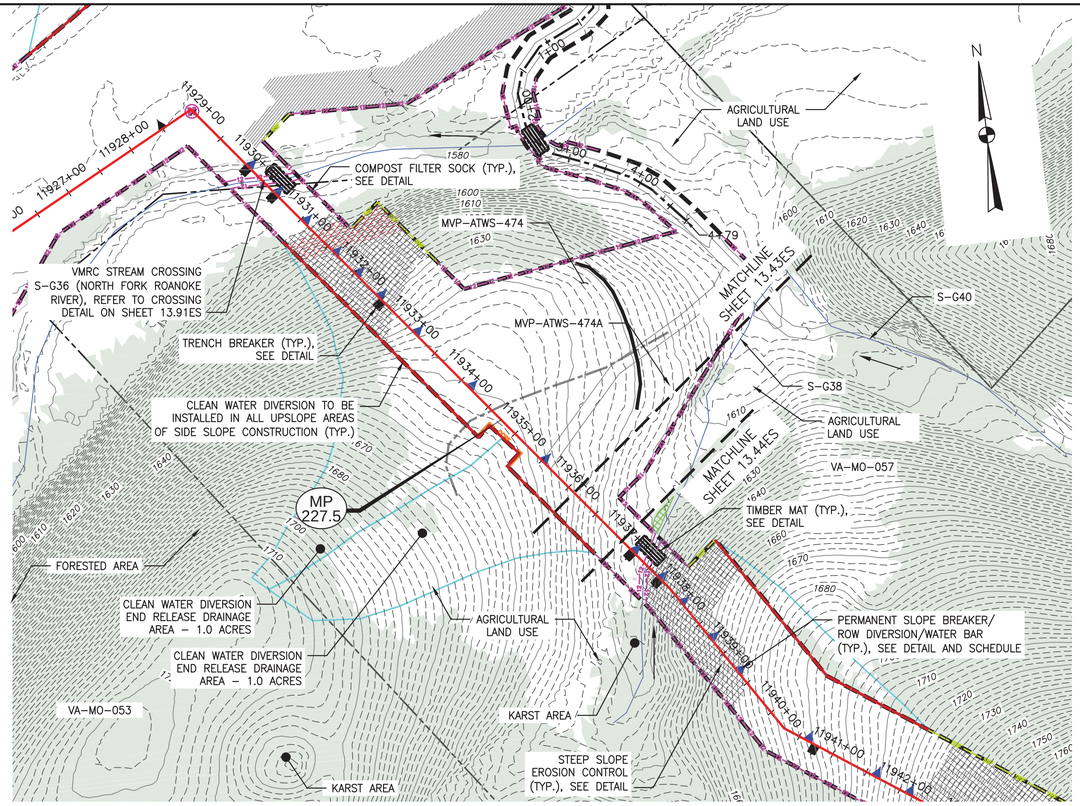
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
REVISION	
SHT. NO.	13.43ES OF 13.91ES



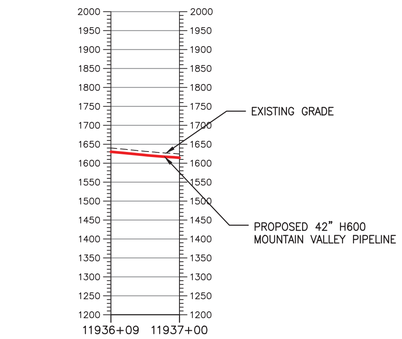
LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
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- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
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5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
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7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

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PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

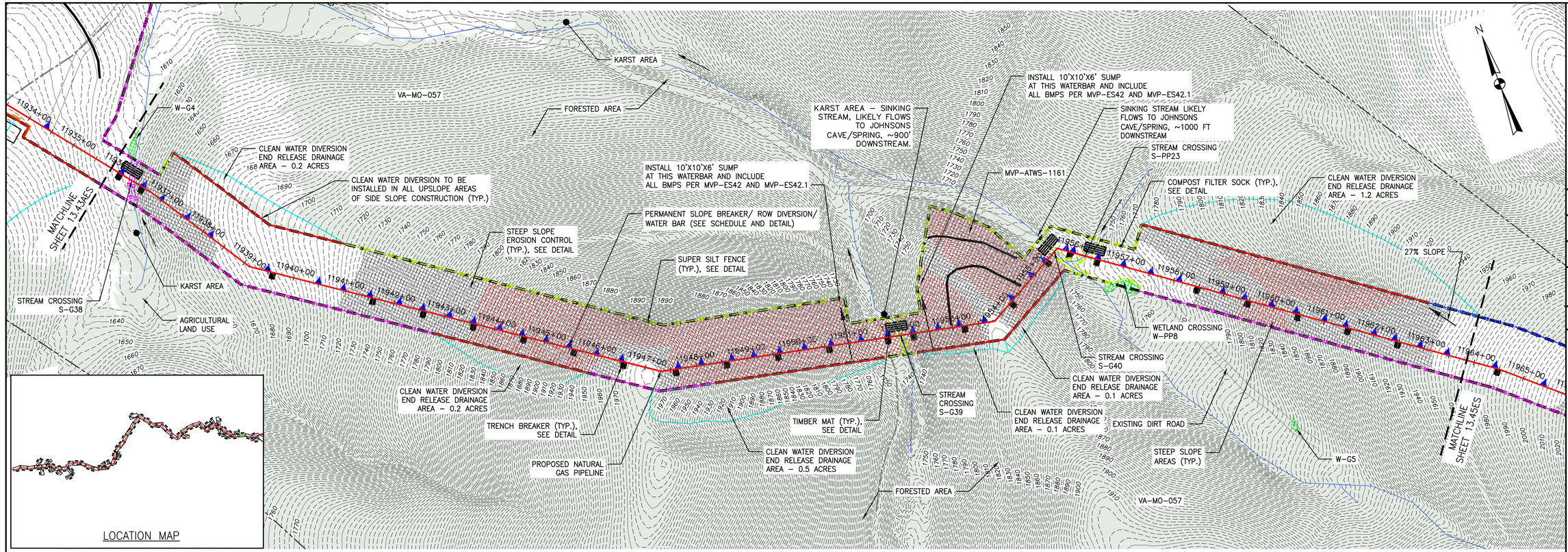
COMMONWEALTH OF PENNSYLVANIA
DAVID J. WALLNER
Lic. No. 040205793
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.43AES OF 13.91ES

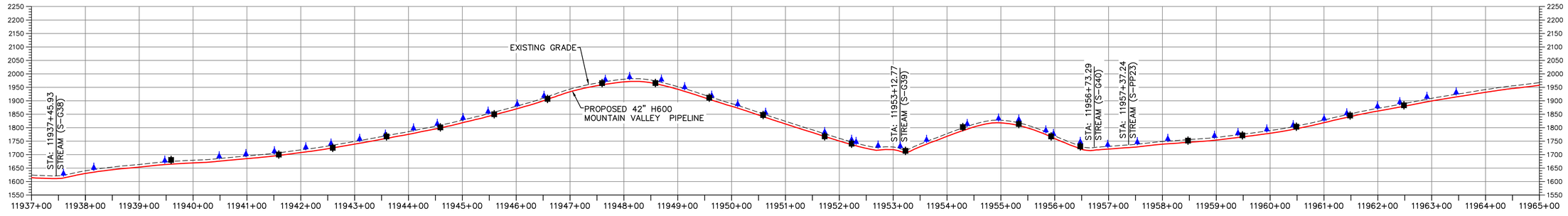
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PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.44(S9).dwg PLOTTED ON: 8/31/2018 8:40 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL COLOR.ctb

REVISIONS:

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3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

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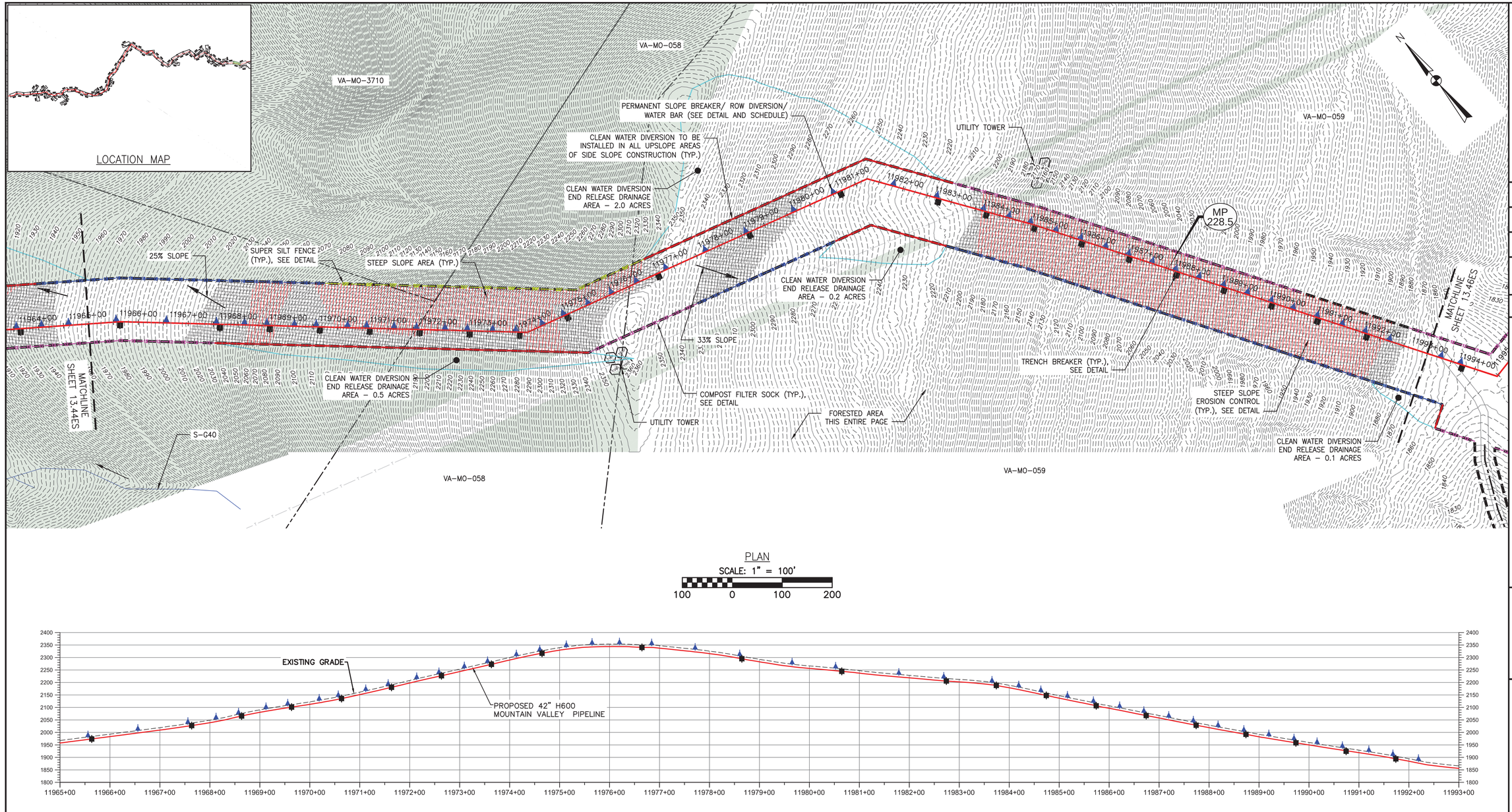
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
REVISION	6

SHT. NO. 13.44ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200

PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.45(S9).dwg PLOTTED ON: 3/2/2018 9:26 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb

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4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

TETRA TECH

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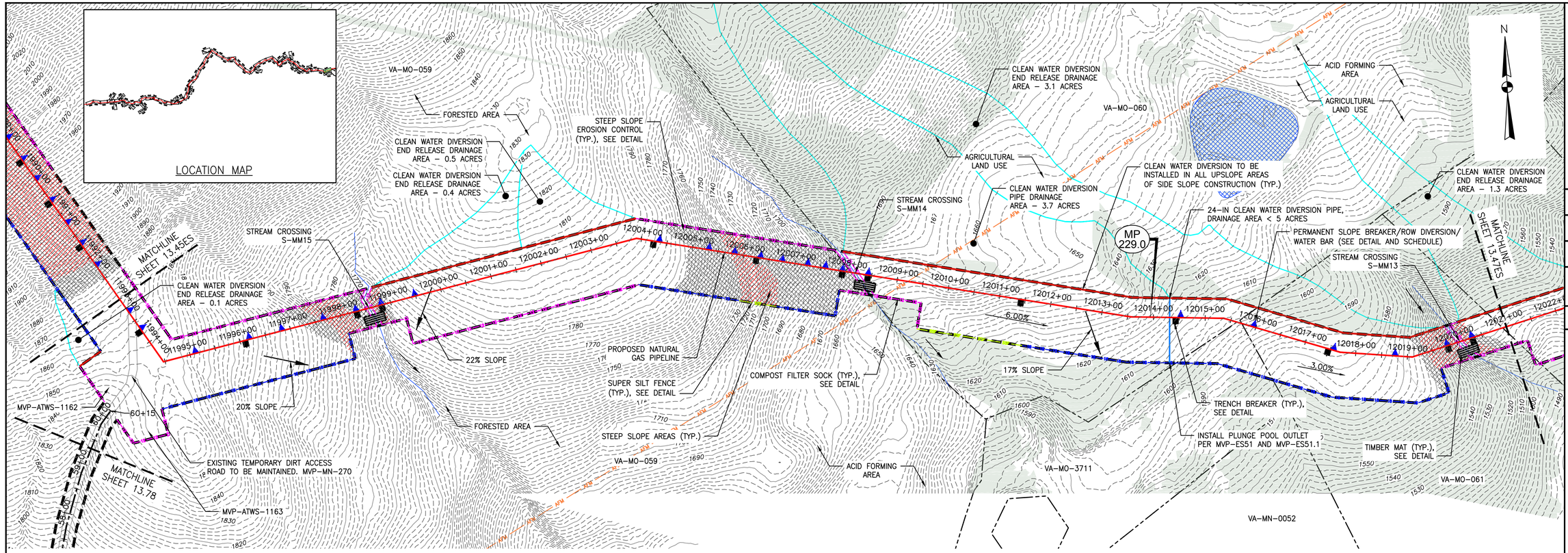
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
SHT. NO.	13.45ES OF 13.91ES

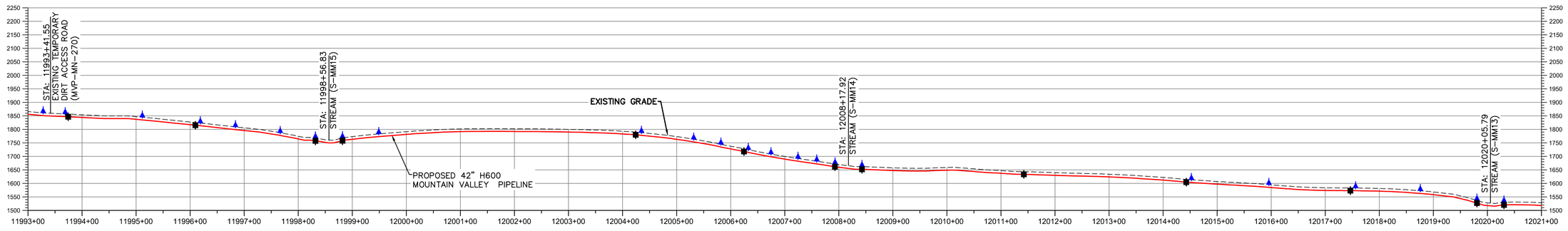
MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.46(S9).dwg PLOTTED ON: 3/14/2018 8:23 AM PLOTTED BY: Scabilloni, Joy PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
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REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
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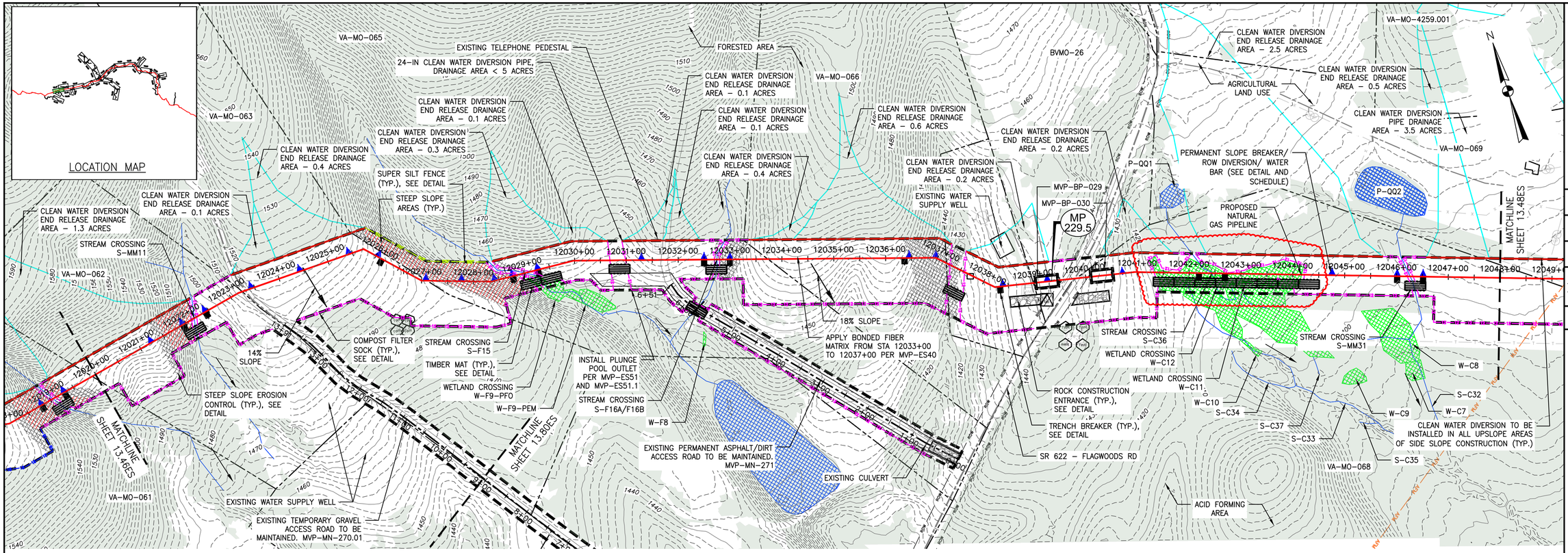
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DRAWN BY:	KAL
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DATE:	11/21/2017
SCALE:	AS SHOWN

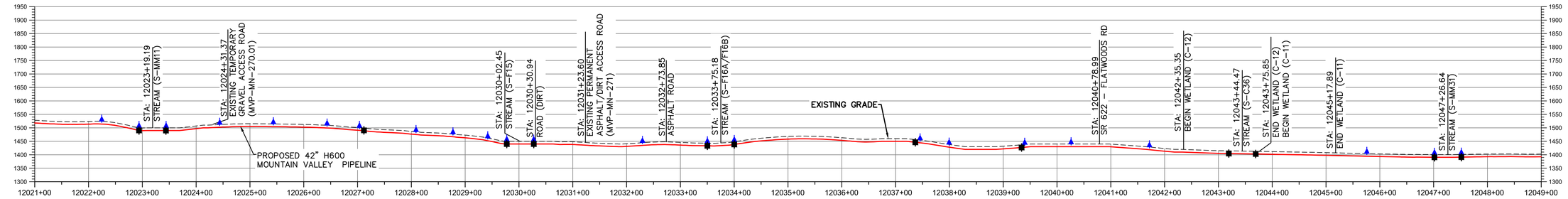
SHT. NO. 13.46ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE:

SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE:

SCALE: 1" = 200'

200 0 200 400

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- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
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- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.47(S9).dwg PLOTTED ON: 7/13/2020 10:34 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL COLOR.ctb

NO:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	7/7/20	ZM	JRE	DJW	CHANGES TO AQUATIC RESOURCES DELINEATIONS
5	3/12/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

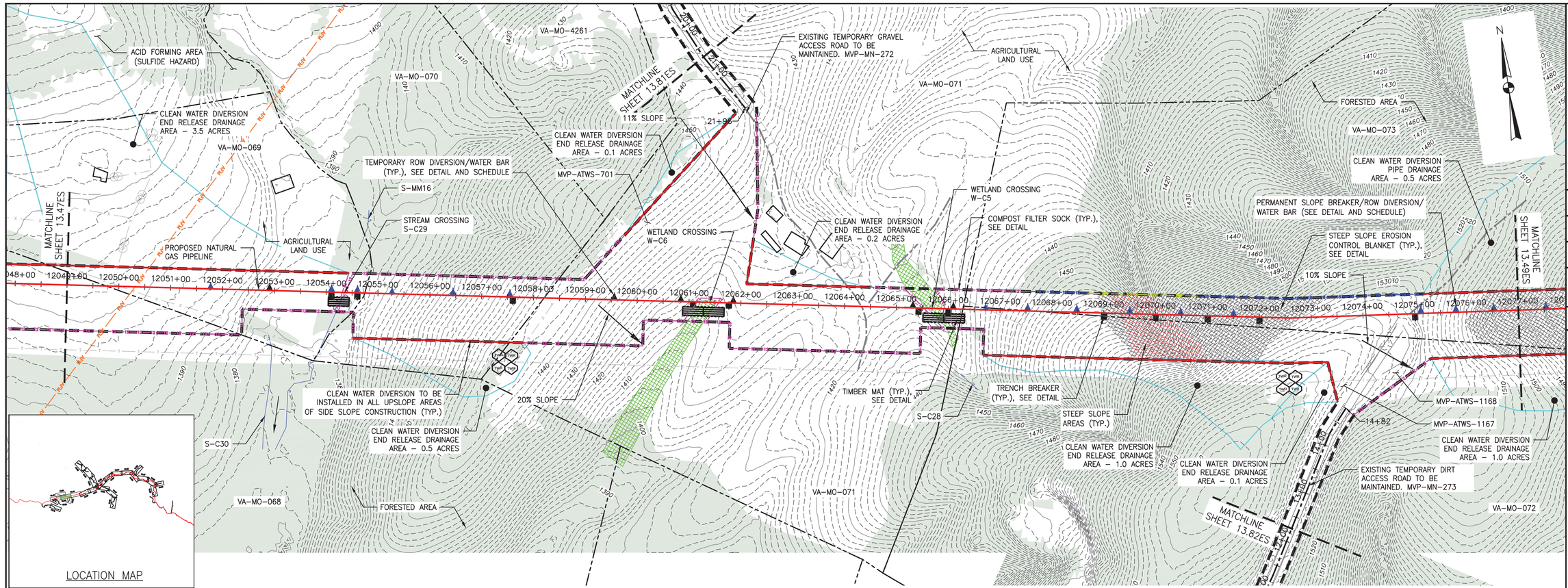
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EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF PENNSYLVANIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	BH
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	7/7/20
SCALE:	AS SHOWN
REVISION	
SHT. NO.	13.47ES OF 13.91ES

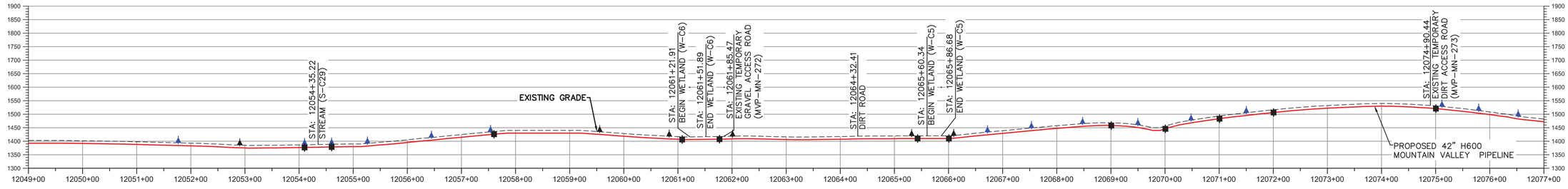


LOCATION MAP

PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
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NOTES:

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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.48(S9).dwg PLOTTED ON: 3/2/2018 9:57 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

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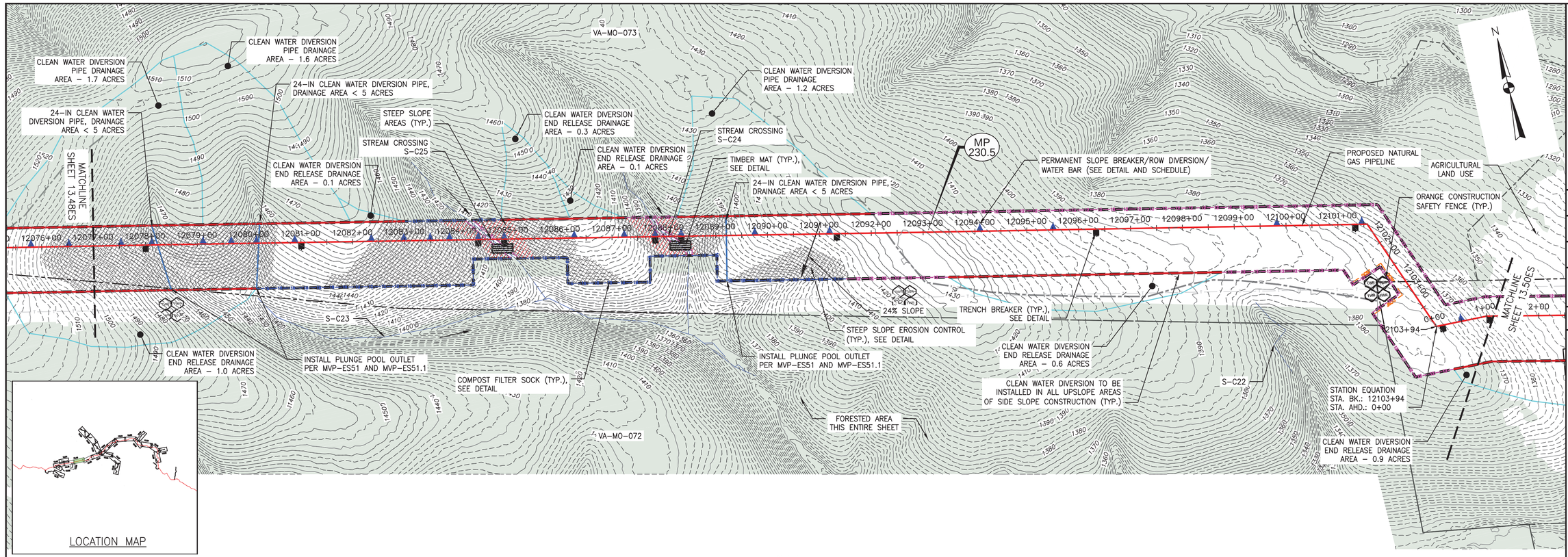
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

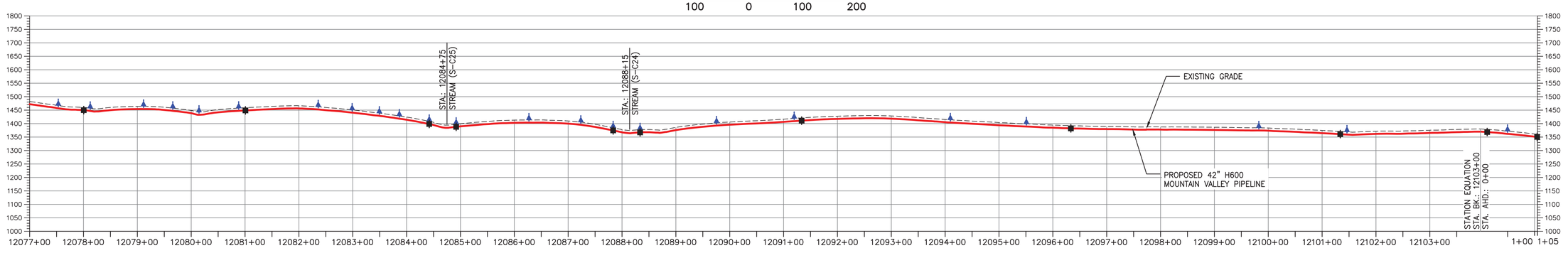
REVISION

SHT. NO. 13.48ES OF 13.91ES



LOCATION MAP

PLAN
SCALE: 1" = 100'
100 0 100 200



PROFILE
HORIZONTAL SCALE: SCALE: 1" = 100'
100 0 100 200
VERTICAL SCALE: SCALE: 1" = 200'
200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
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- EXISTING COUNTY LINE
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- STEEP SLOPE AREAS (SEE NOTE 4)
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.49(S9).dwg PLOTTED ON: 3/2/2018 10:05 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.:	DATE:	DWN.:	CHK'D.:	APP'D.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

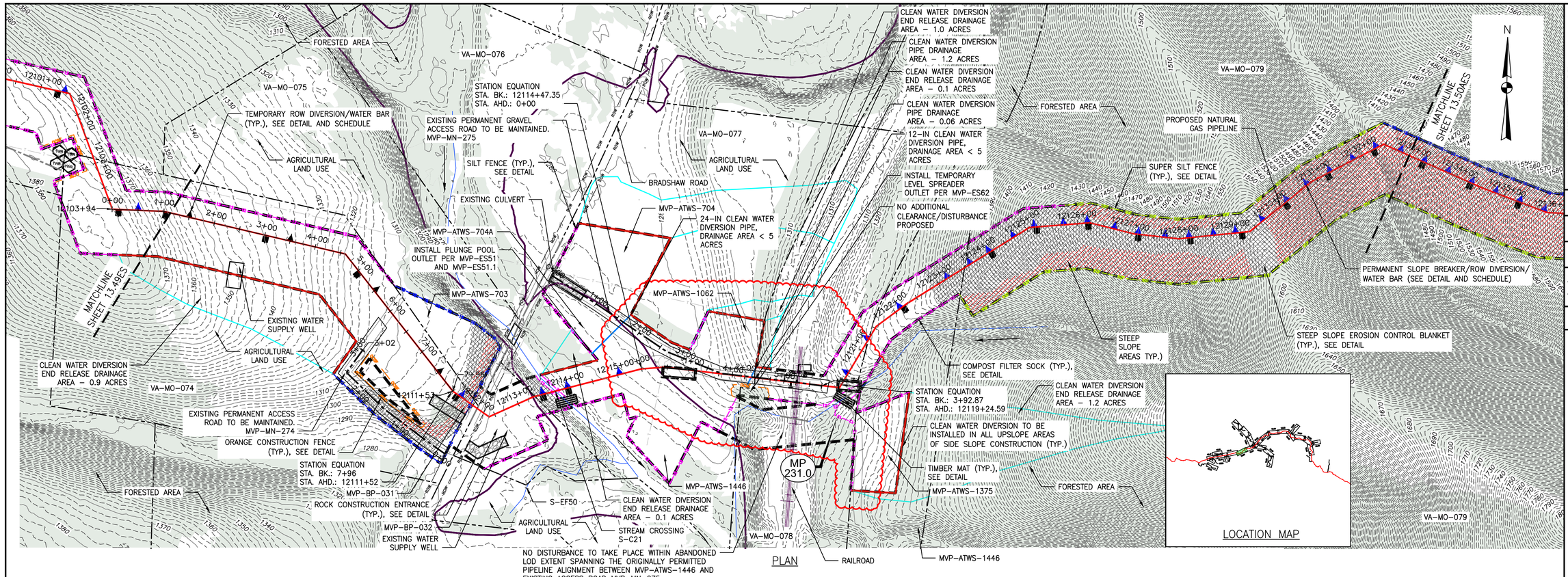
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PITTSBURGH, PA 15220

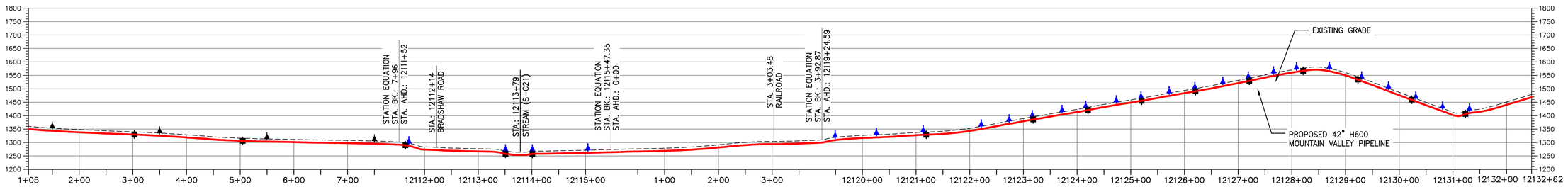
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5

SHT. NO. 13.49ES OF 13.91ES





LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
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- ORANGE CONSTRUCTION SAFETY FENCE
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- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

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NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	1/11/21	ZM	JRE	DJW	ADDRESS VADEQ COMMENTS
–	8/5/20	ZM	JRE	DJW	FIELD MODIFICATION MP 230.8 (PIPELINE REROUTE)
5	3/12/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
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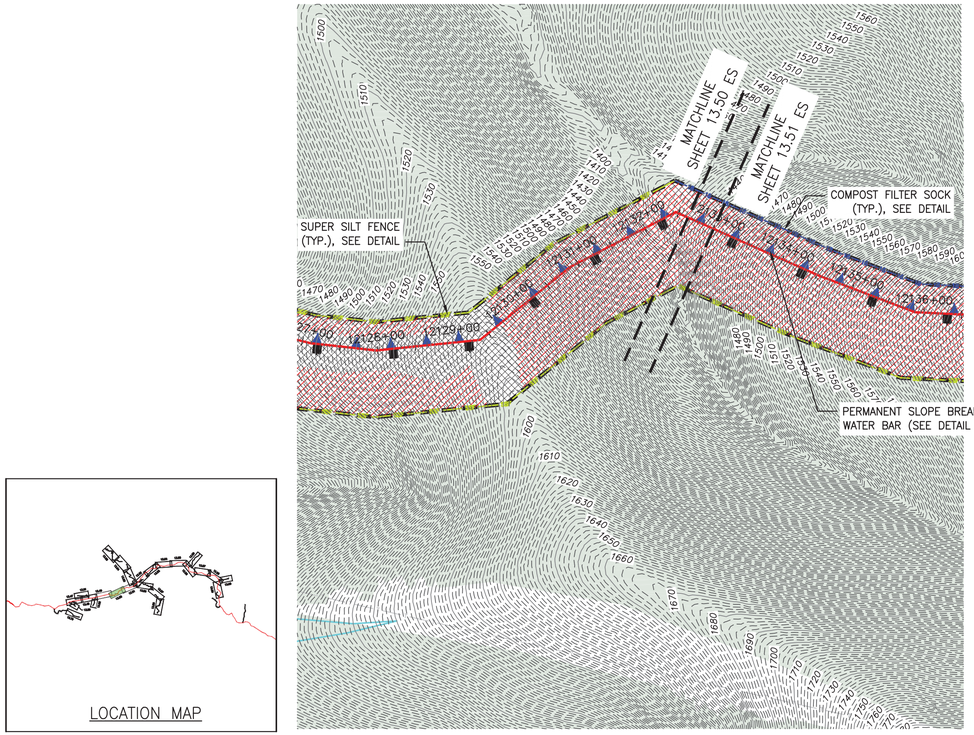
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	BH
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	1/11/21
SCALE:	AS SHOWN
REVISION	

SHT. NO. 13.50ES OF 13.91ES

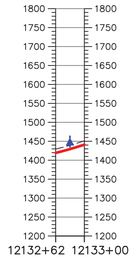
TETRA TECH CAD FILE PATH: R:_Marcellus_Shale_Projects\EQT\7157_-_MVP_Construction_Spread_9\13_-_Montgomery\E&S\7157ES13.50(S9).dwg PLOTTED ON: 1/15/2021 9:58 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LOCATION MAP

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
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4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

N

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4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
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2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

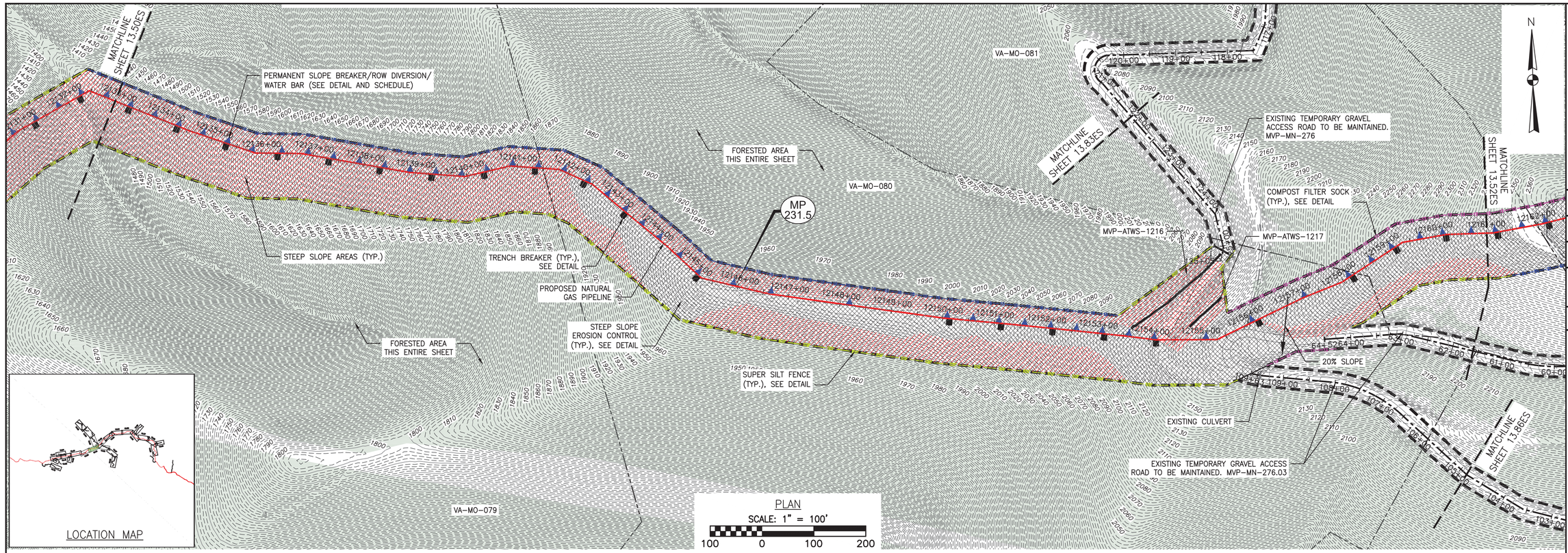
EROSION AND SEDIMENT CONTROL PLANS

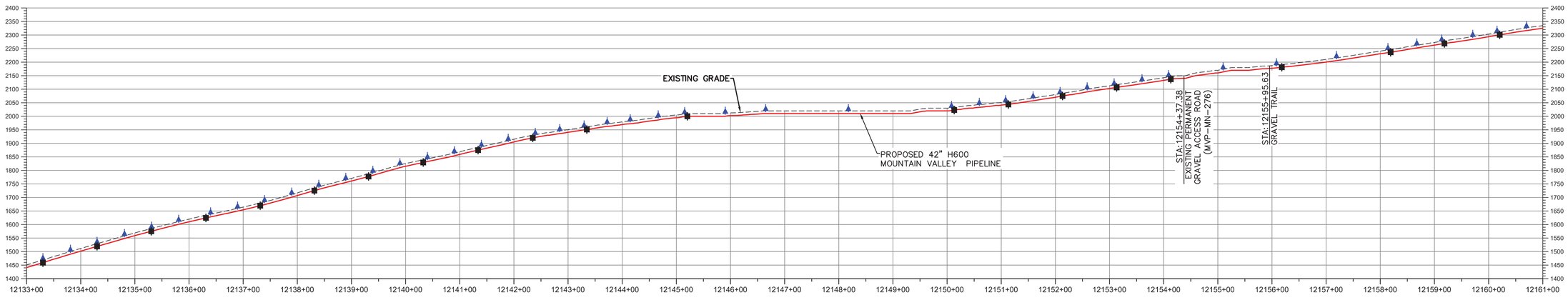
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5

SHT. NO. 13.50AES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.50A(S9).dwg PLOTTED ON: 3/1/2018 2:19 PM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb





LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
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- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
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- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
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- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
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- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

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REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

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EROSION AND SEDIMENT CONTROL PLANS

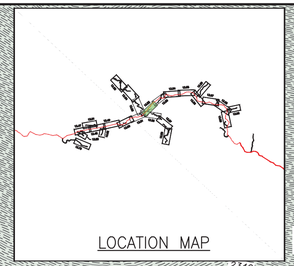
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.51ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.51(S9).dwg PLOTTED ON: 3/1/2018 2:20 PM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



VA-MO-080

PERMANENT SLOPE BREAKER/ROW DIVERSION/ WATER BAR (SEE DETAIL AND SCHEDULE)

MP 232.0

MATCHLINE SHEET 13.51ES

MATCHLINE SHEET 13.53ES

PROPOSED NATURAL GAS PIPELINE

22% SLOPE

25% SLOPE

TRENCH BREAKER (TYP.), SEE DETAIL

STEEP SLOPE EROSION CONTROL (TYP.), SEE DETAIL

COMPOST FILTER SOCK (TYP.), SEE DETAIL

STEEP SLOPE AREAS (TYP.)

SUPER SILT FENCE (TYP.), SEE DETAIL

FORESTED AREA THIS ENTIRE SHEET

VA-MO-082

EXISTING TEMPORARY GRAVEL ACCESS ROAD TO BE MAINTAINED. MVP-MN-276.03

FORESTED AREA THIS ENTIRE SHEET

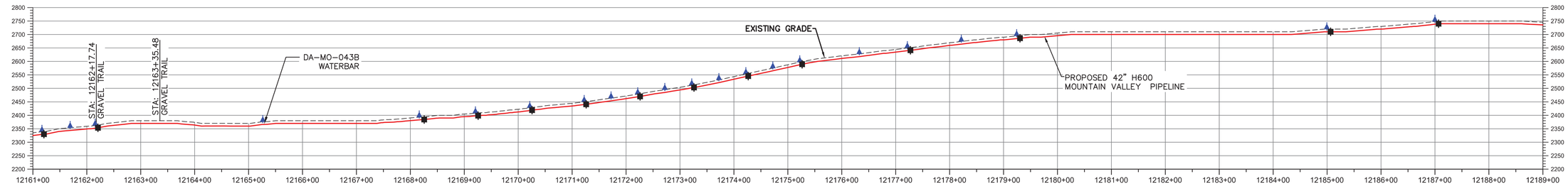
BVMO-29

N

PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\E&S Version 5.0.0\7157ES13.52(S9).dwg PLOTTED ON: 3/1/2018 2:22 PM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

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REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

TETRA TECH
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PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

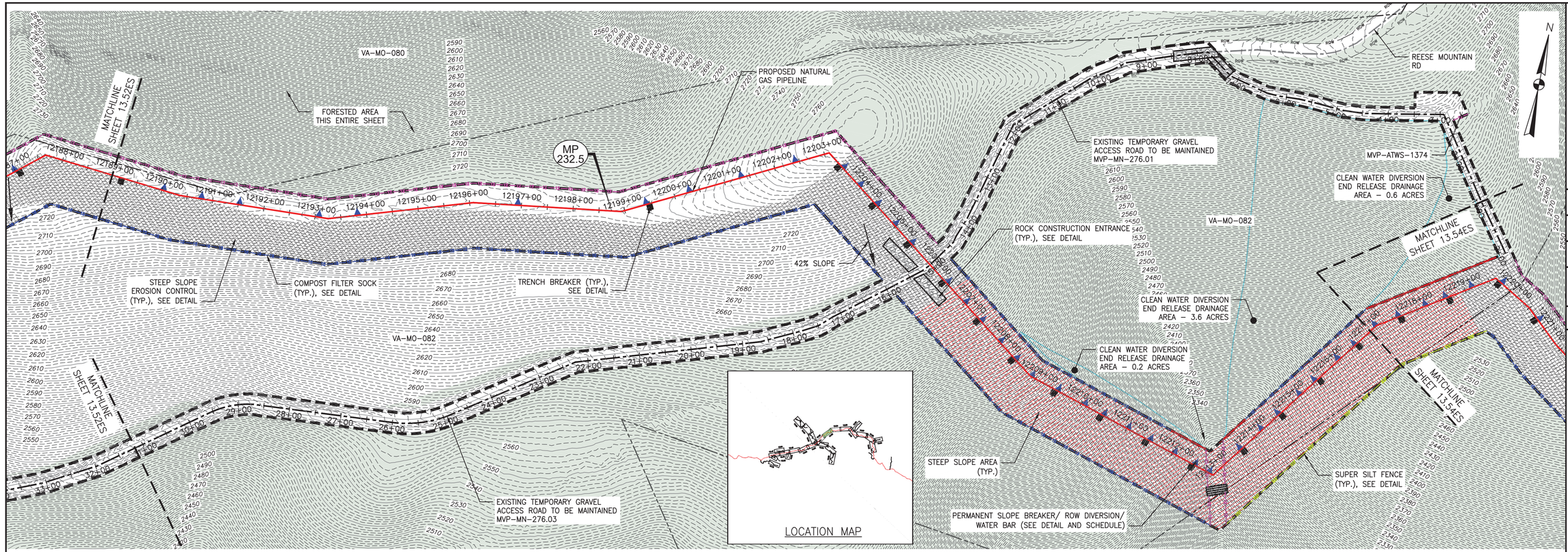
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

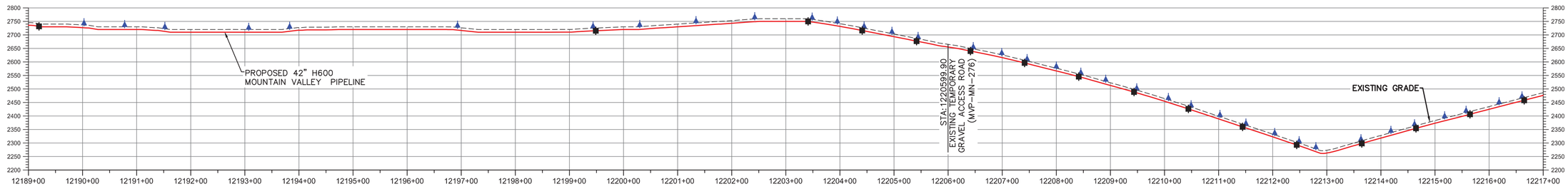
SHT. NO. 13.52ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- AMST — AMST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
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- POND
- WETLAND
- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- SF — SF — PROPOSED SILT FENCE (SEE NOTE 5)
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- RFD — RFD — PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
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- 12 — 12 — 12 — 12 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
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REVISIONS:

Mountain Valley PIPELINE

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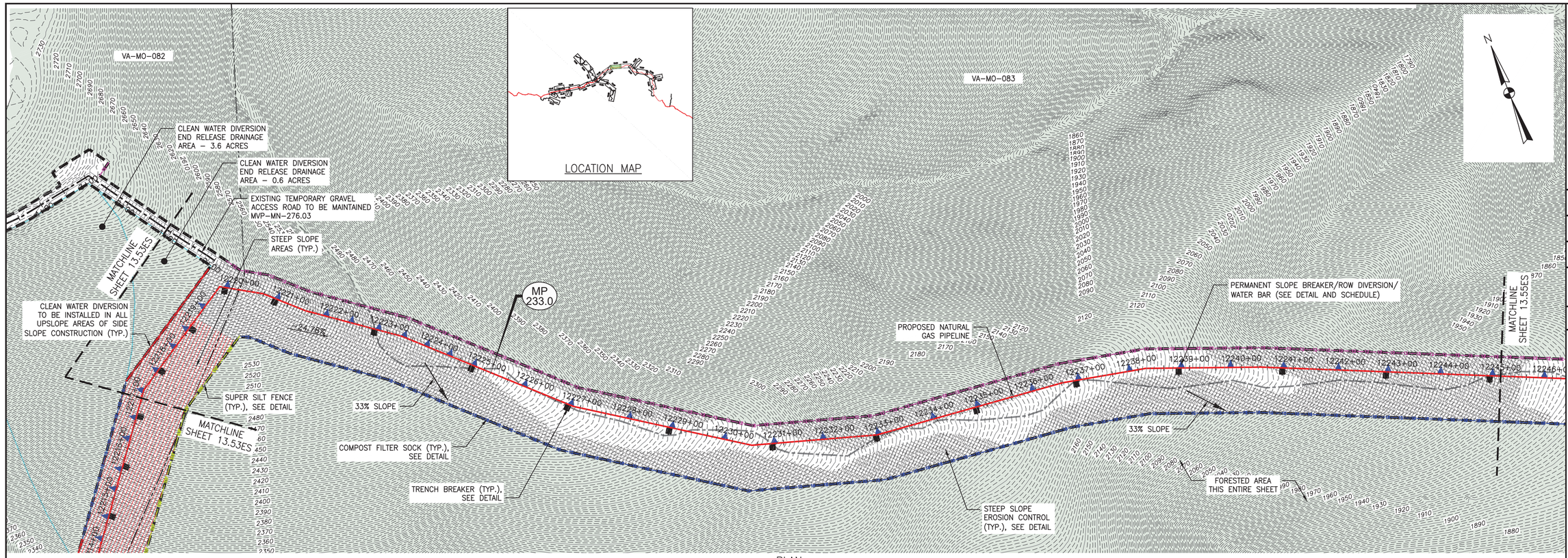
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DRAWN BY:	KAL
CHECKED BY:	JRE
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REVISION

SHT. NO. 13.53ES OF 13.91ES

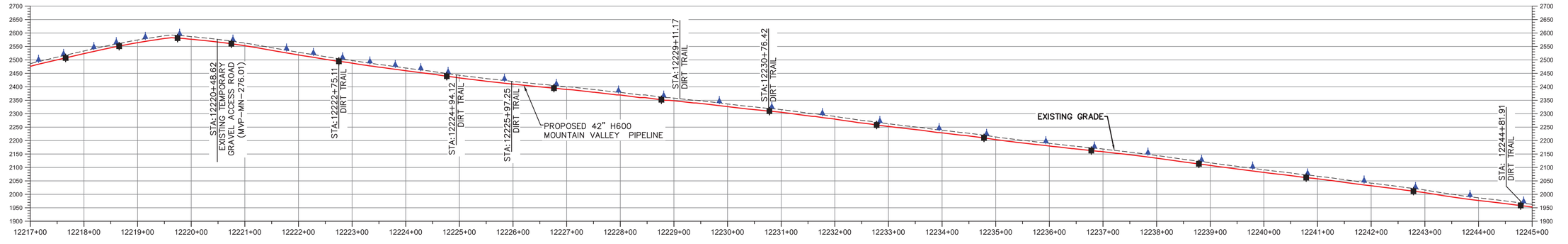
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PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

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5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

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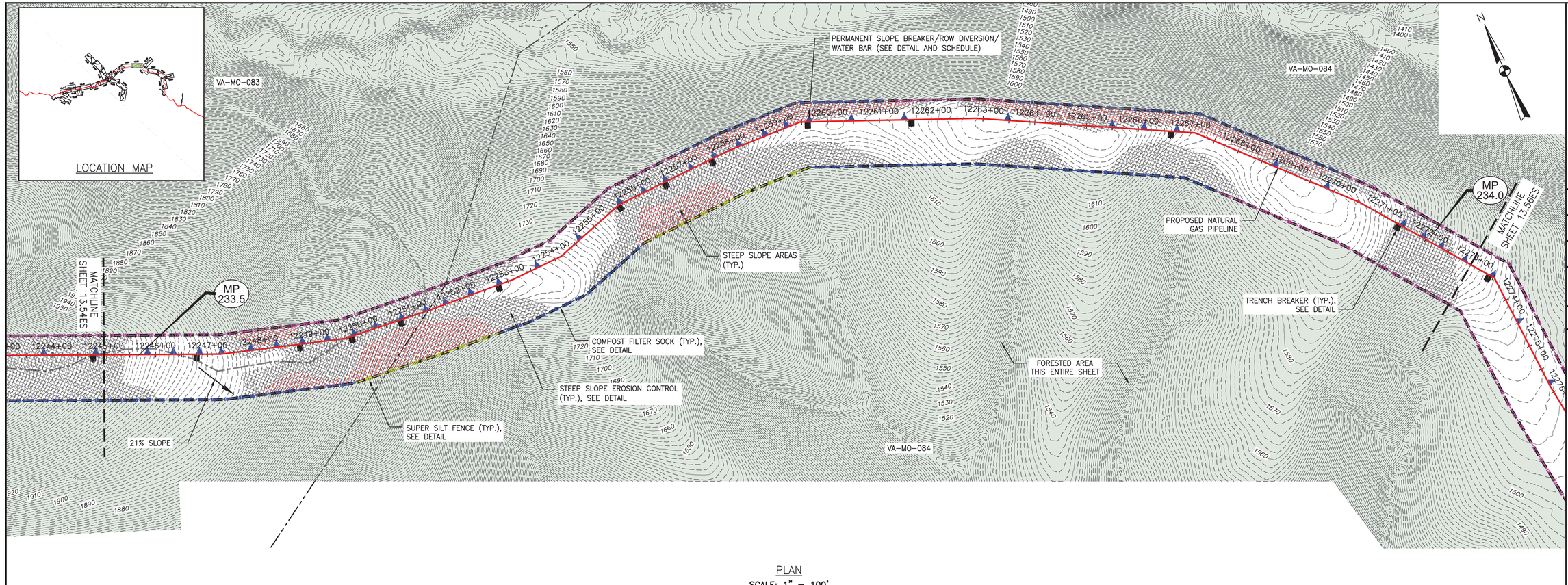
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	
SHT. NO.	13.54ES OF 13.91ES

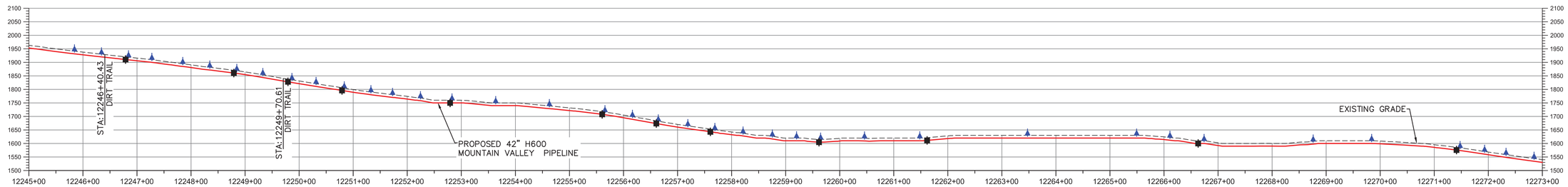
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PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
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- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
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- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

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REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

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PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

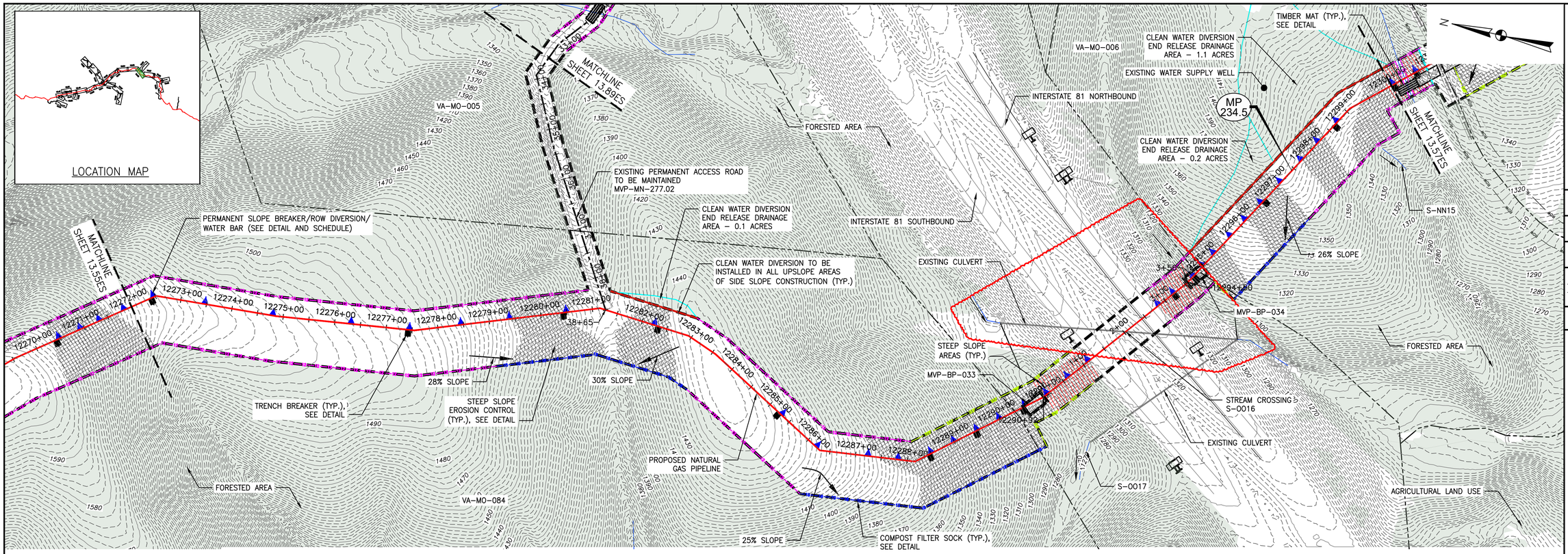
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.55ES OF 13.91ES

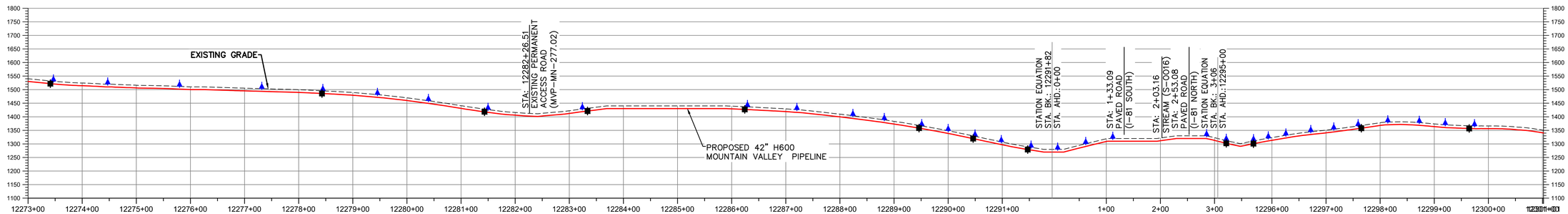
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PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

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- STREAM
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- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
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TETRA TECH CAD FILE PATH: R:_Marcellus_Shale_Projects\EQT\7157_-_MVP_Construction_Spread_9\13_-_Montgomery\E&S\7157ES13.56(S9).dwg PLOTTED ON: 7/10/2020 12:13 PM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	7/7/20	ZM	JRE	DJW	CHANGES TO AQUATIC RESOURCES DELINEATIONS
6	4/30/18	KAL	JRE	DJW	FIELD MODIFICATIONS
5	3/22/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

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FOSTER PLAZA 7
PITTSBURGH, PA 15220

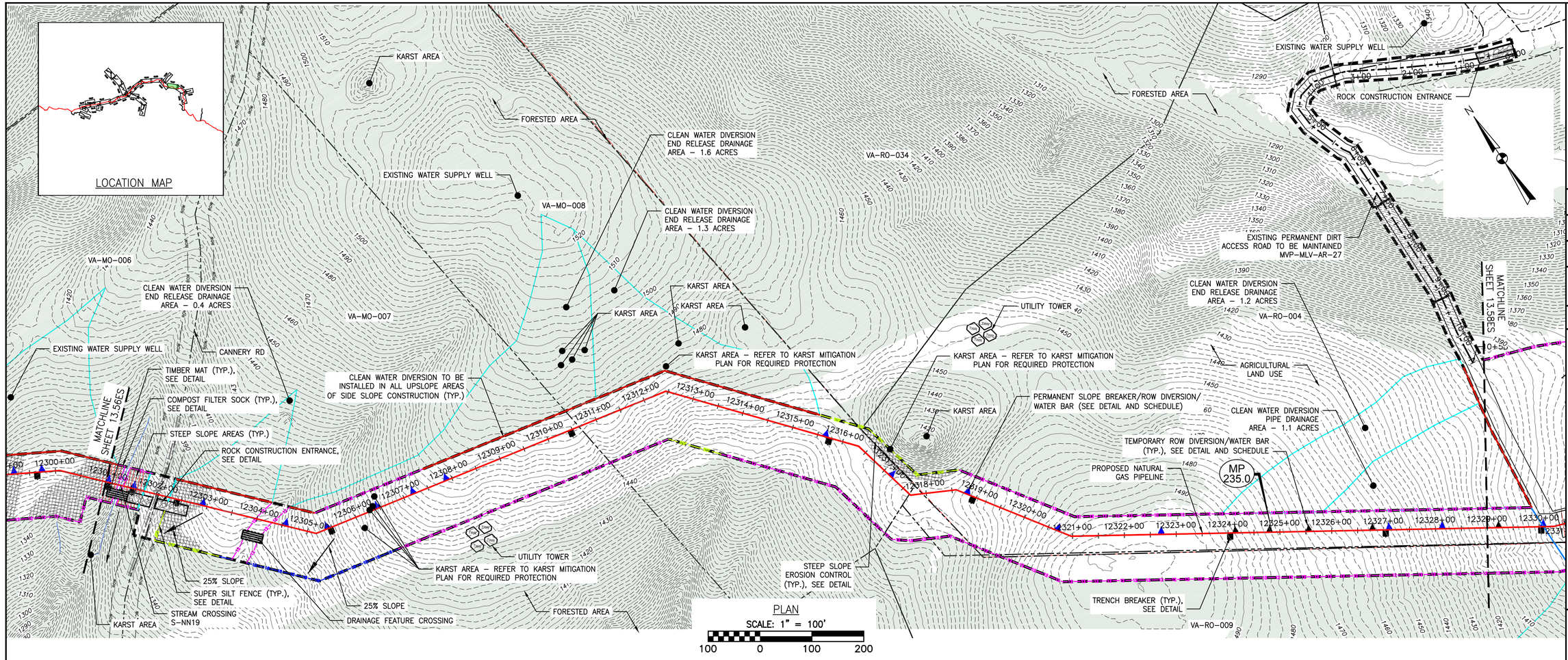
EROSION AND SEDIMENT CONTROL PLANS

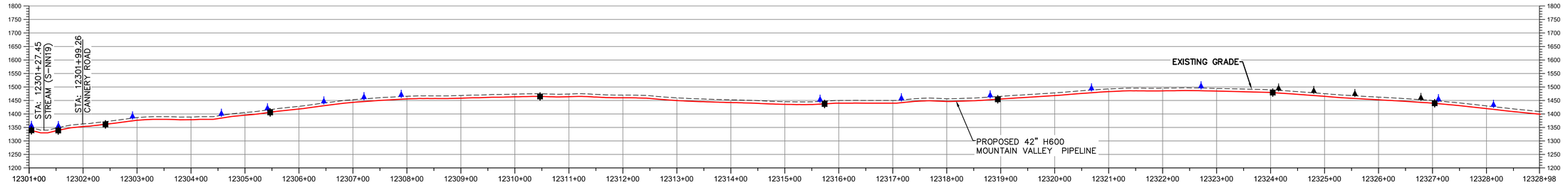
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	BH
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	7/7/20
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.56ES OF 13.91ES





LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
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- PROPOSED PIPELINE
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REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

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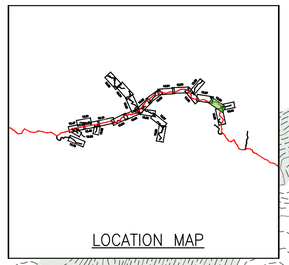
661 ANDERSEN DRIVE
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EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

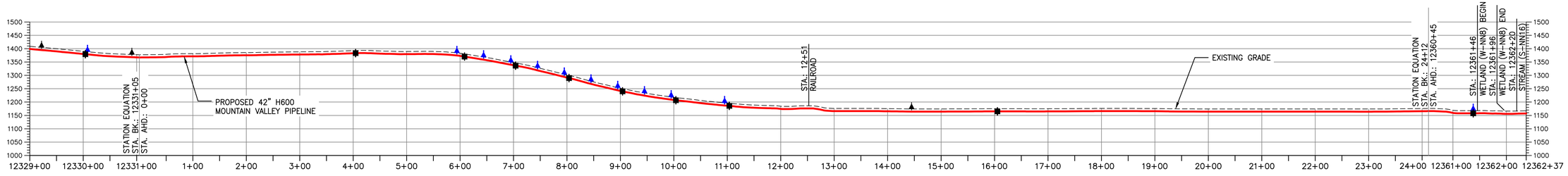
SHT. NO. 13.57ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

PROFILE

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

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Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

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TETRA TECH

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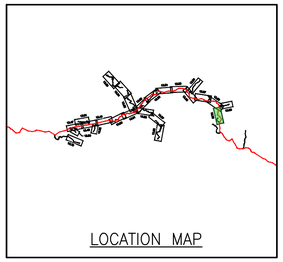
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

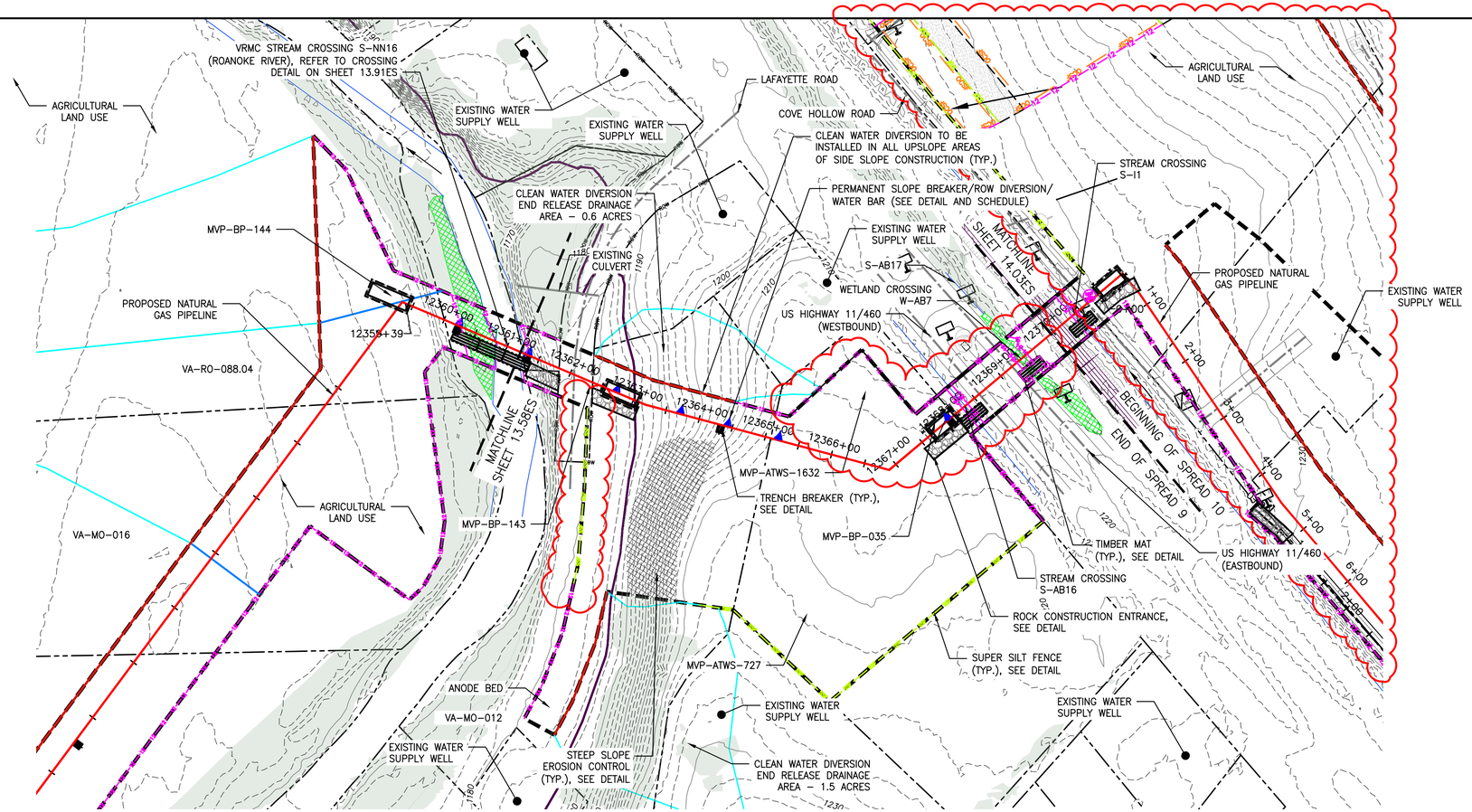
EROSION AND SEDIMENT CONTROL PLANS

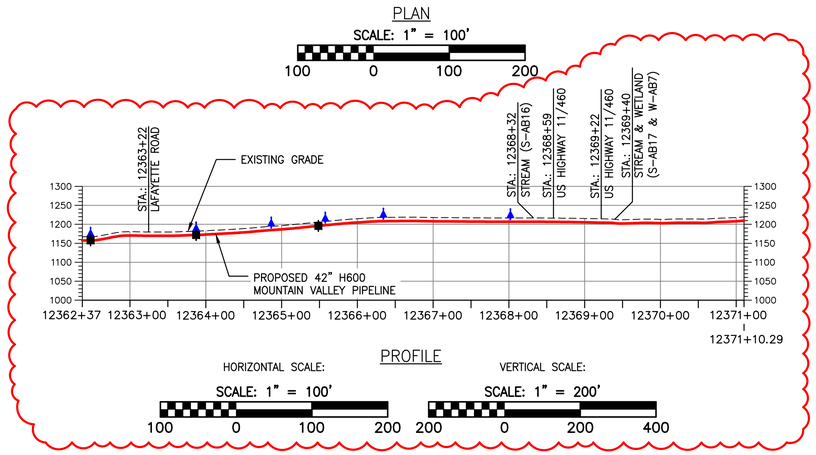
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5

SHT. NO. 13.58ES OF 13.91ES







LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
10	11/25/19	BH	JRE	DJW	ADDRESS VADEQ COMMENTS TO FIELD MODIFICATION SUBMITTAL
9	4/3/19	BH	JRE	DJW	FIELD MODIFICATION-MP 235.5 (ADDED MVP-ATWS-1632)
8	1/31/19	BH	JRE	DJW	FIELD MODIFICATION-MOVED ROANOKE RIVER BORE PITS
7	11/30/18	BH	JRE	DJW	FIELD MODIFICATIONS
6	4/30/18	KAL	JRE	DJW	FIELD MODIFICATION
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

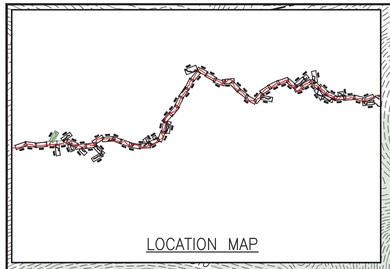
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/25/19
SCALE:	AS SHOWN
10 REVISION	

SHT. NO. 13.59ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\7157ES13.59(S9).dwg PLOTTED ON: 12/5/2019 8:47 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
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- EXISTING COUNTY LINE
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- ACID FORMING MATERIAL
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- PROPOSED PIPELINE
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- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
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- DRAINAGE AREA BOUNDARY
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- STEEP SLOPE AREAS (SEE NOTE 4)
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7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\E&S Version 5.0.0\7157ES13.60(S9).dwg PLOTTED ON: 3/1/2018 3:38 PM PLOTTED BY: Szpak, Jamie PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

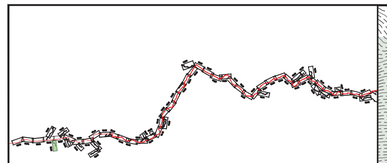
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FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

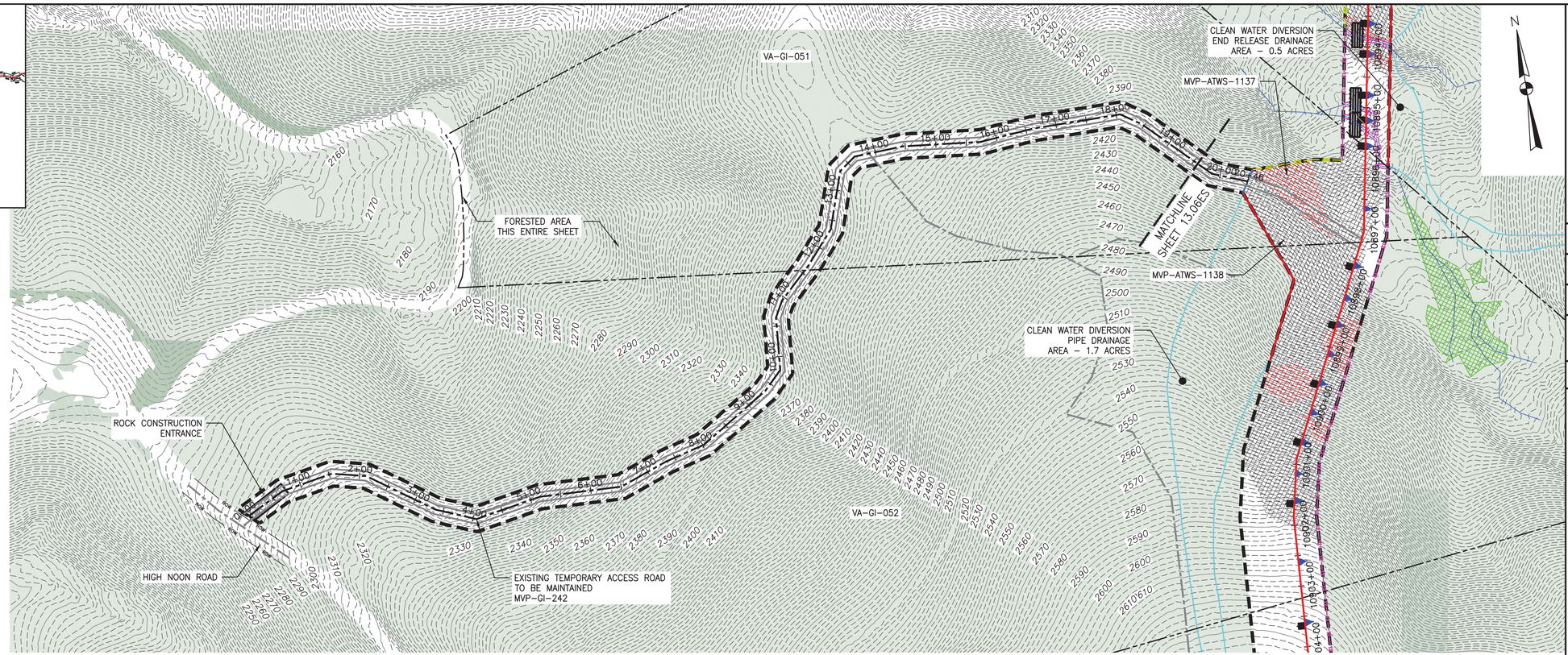
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
SHT. NO.	13.60ES OF 13.91ES

REVISION



LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
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5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
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7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
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NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

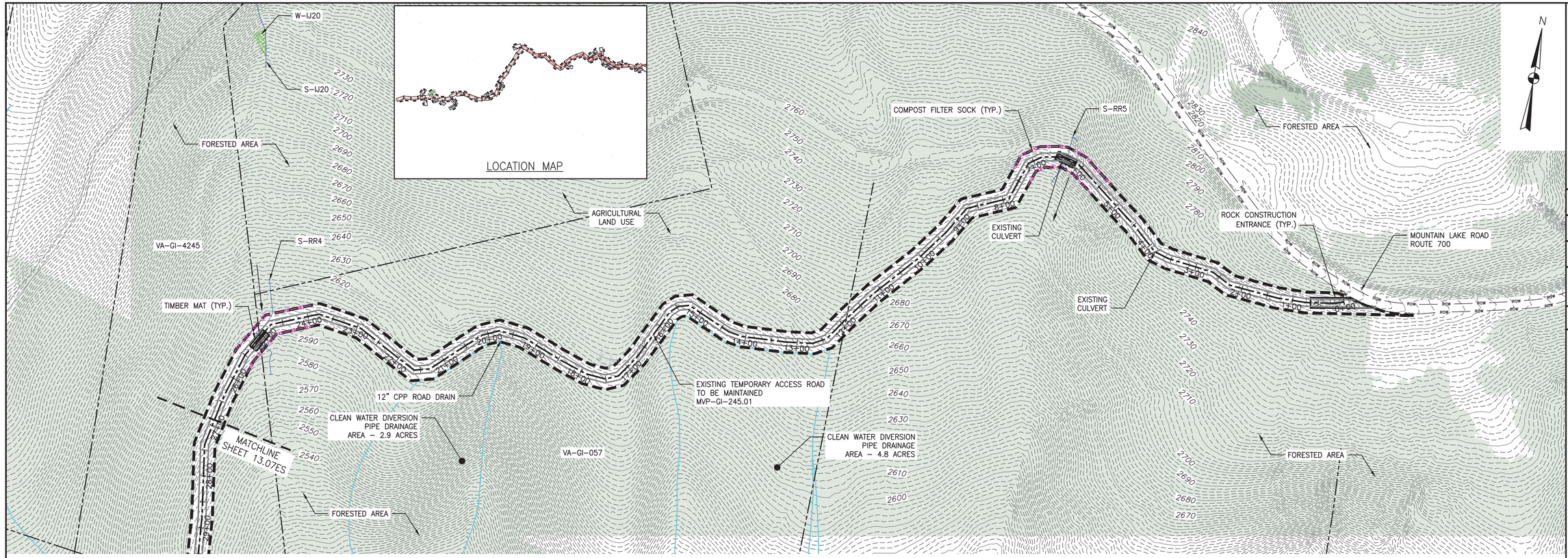
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.61ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\E&S Version 5.0.0\7157ES13.61(S9).dwg PLOTTED ON: 3/2/2018 8:28 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
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- EXISTING COUNTY LINE
- POND
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- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
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NOTES:

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3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
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EROSION AND SEDIMENT CONTROL PLANS

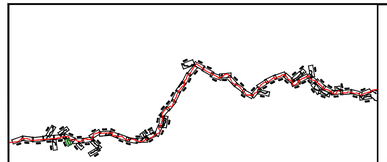
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.62ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\E&S Version 5.0.0\7157ES13.62(S9).dwg PLOTTED ON: 3/1/2018 4:28 PM PLOTTED BY: Szpak, Jamie PLOT FILE: ENVIRONMENTAL_COLOR.ctb



LOCATION MAP

PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
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- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

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3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30" OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

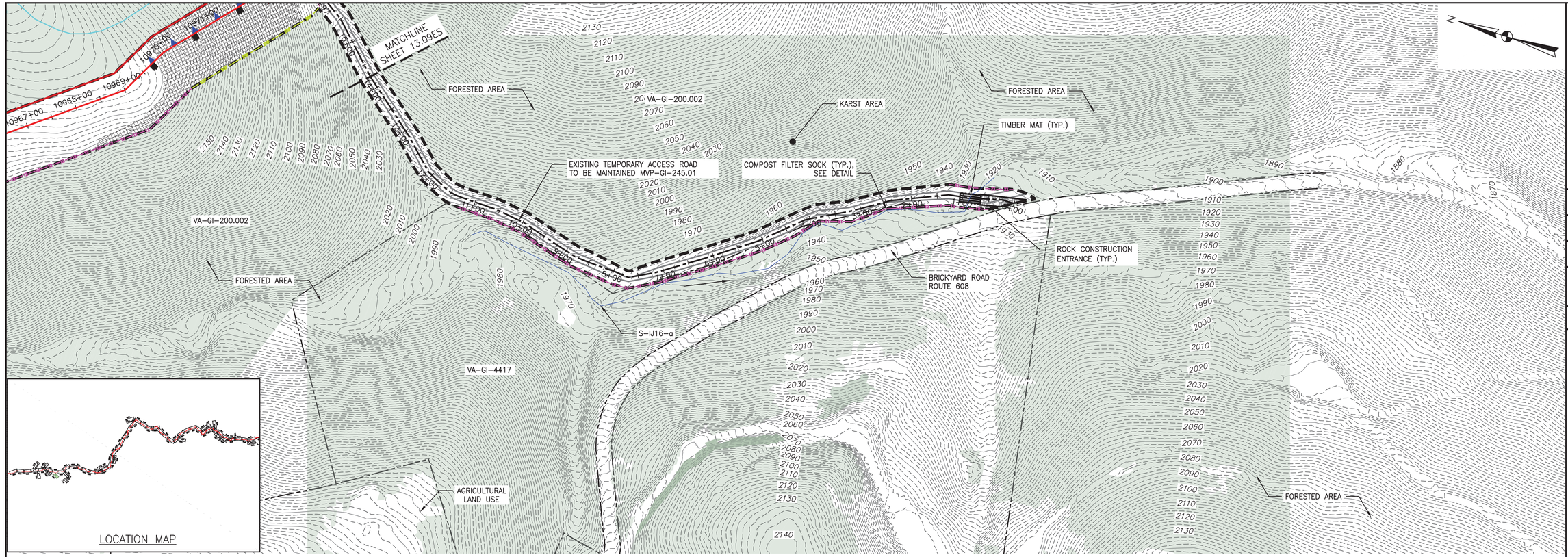
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.63ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\7157ES13.63(S9).dwg PLOTTED ON: 8/31/2018 8:13 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb



LOCATION MAP

PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
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- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\E&S Version 5.0.0\7157ES13.64(S9).dwg PLOTTED ON: 3/2/2018 8:30 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

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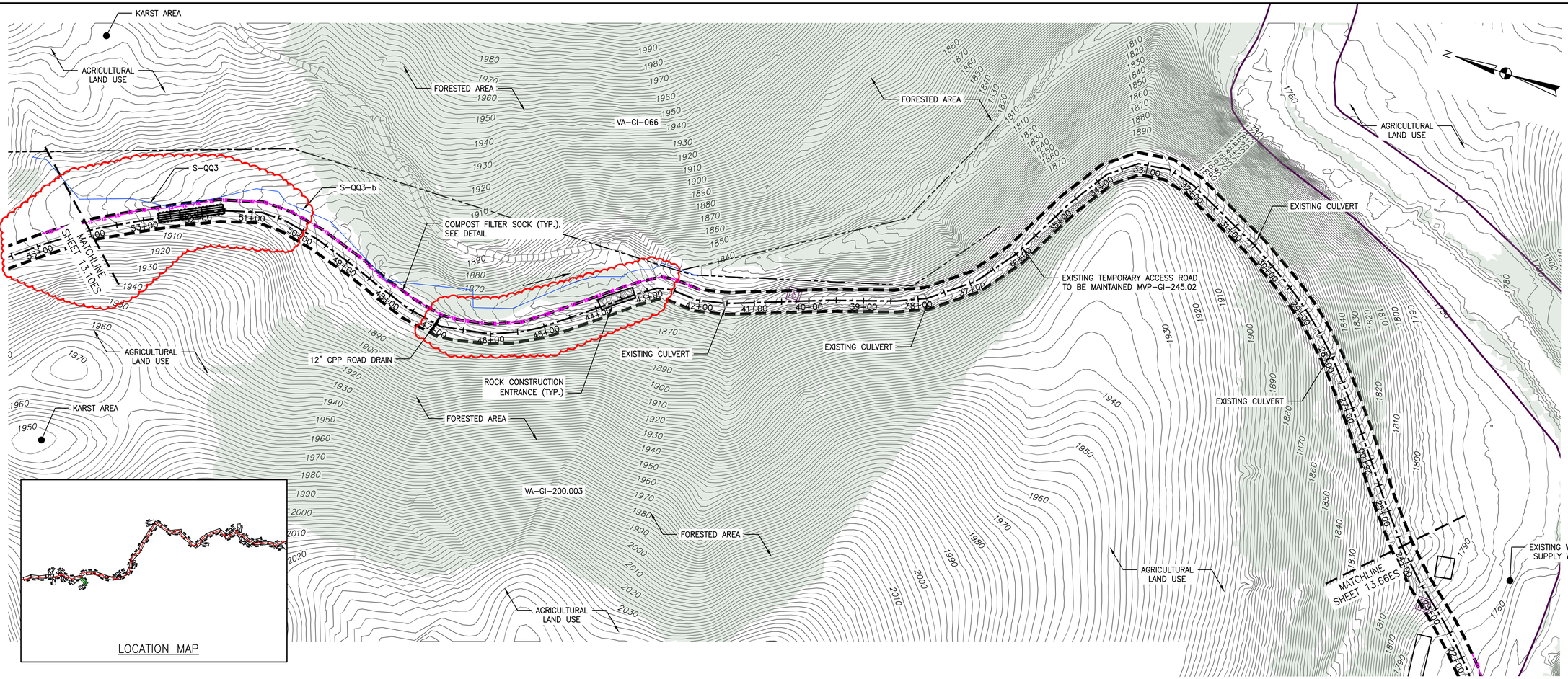
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.64ES OF 13.91ES



PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
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- EXISTING COUNTY LINE
- POND
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- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
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- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
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3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

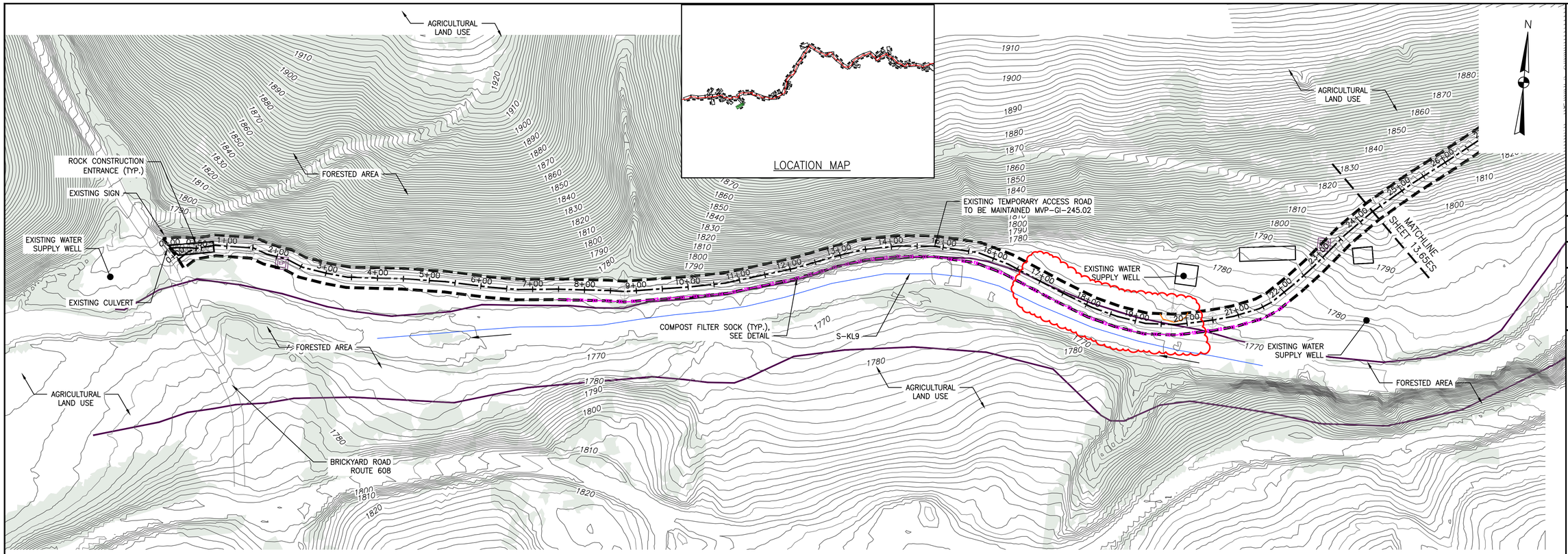
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PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	10/23/18
SCALE:	AS SHOWN
REVISION	6

SHT. NO. 13.65ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
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- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\7157ES13.66(S9).dwg PLOTTED ON: 11/8/2018 11:03 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
					REVISIONS:
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5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
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1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

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EROSION AND SEDIMENT CONTROL PLANS

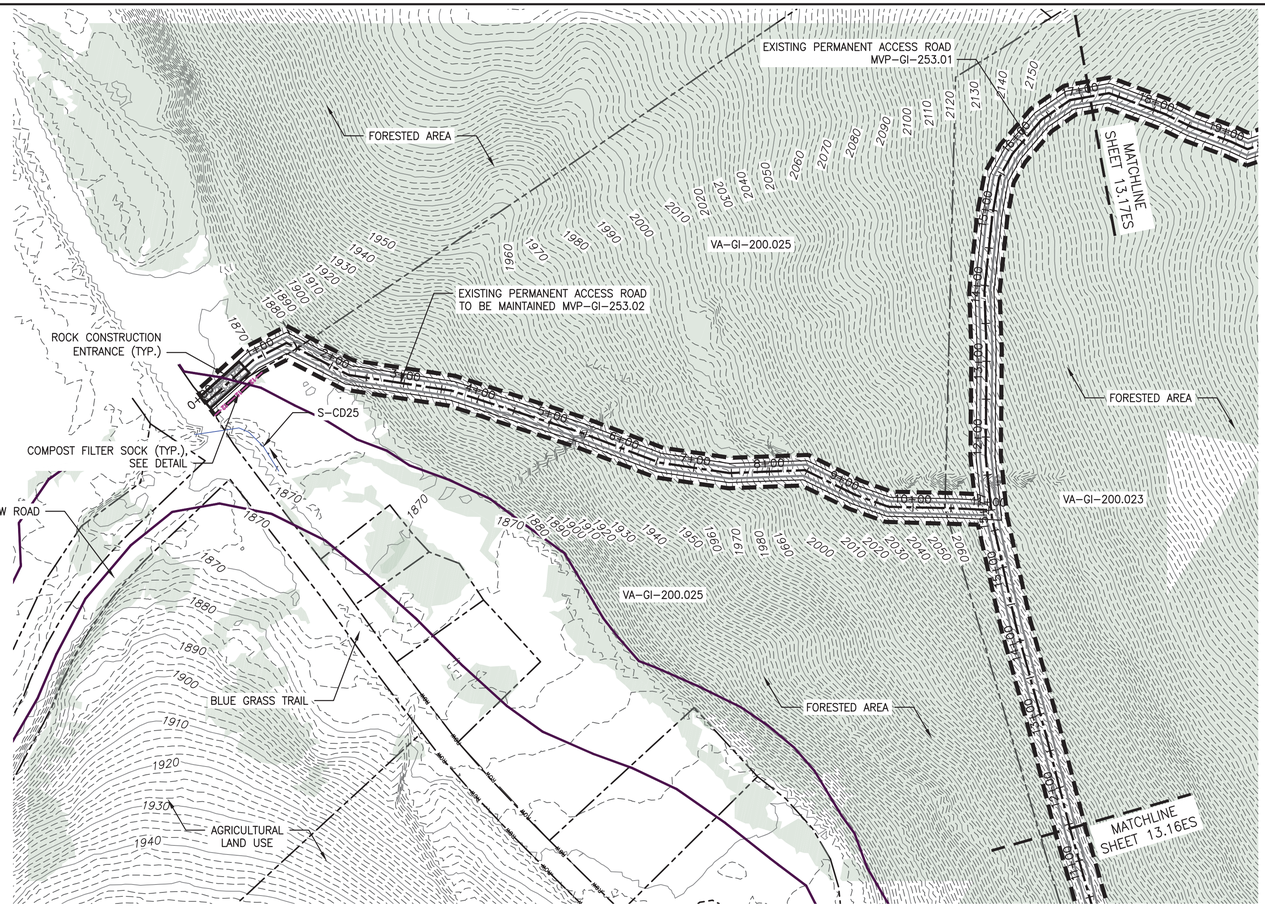
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	10/23/18
SCALE:	AS SHOWN

6 REVISION

SHT. NO. 13.66ES OF 13.91ES

LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200

N

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- AMST — AMST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- SF — SF — PROPOSED SILT FENCE (SEE NOTE 5)
- SSF — SSF — PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- RFD — RFD — PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- OCSF — ORANGE CONSTRUCTION SAFETY FENCE
- 12 — 12 — 12 — 12 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 18 — 18 — 18 — 18 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 24 — 24 — 24 — 24 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
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2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
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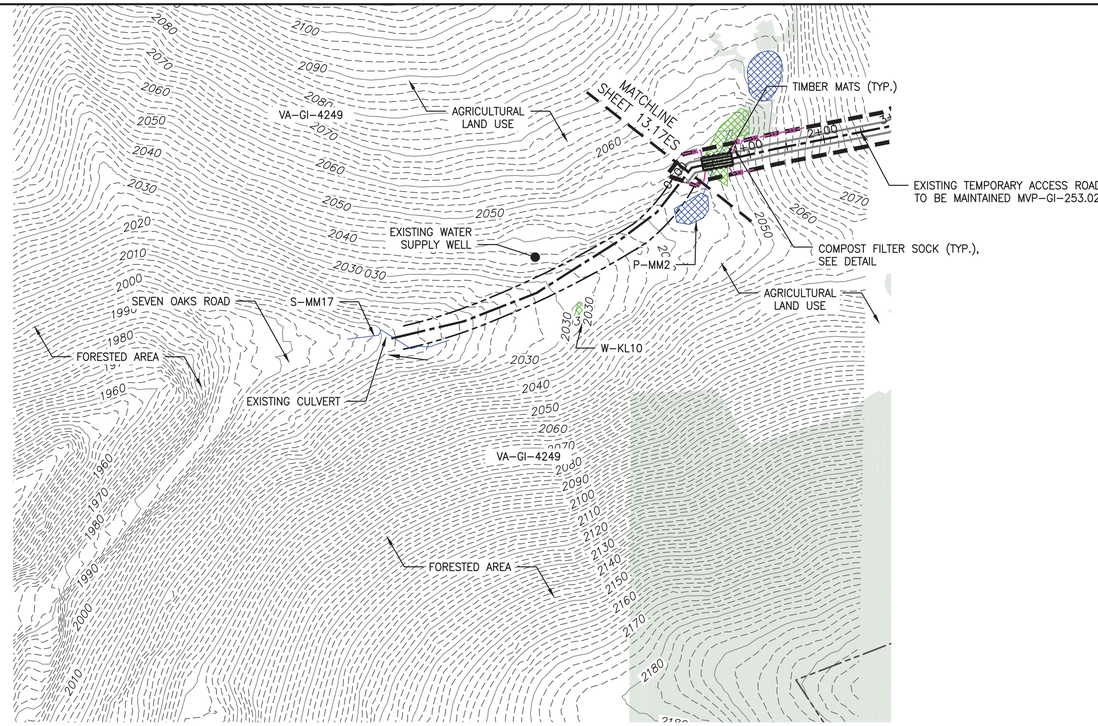
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.67ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\E&S Version 5.0.0\7157ES13.67(S9).dwg PLOTTED ON: 3/2/2018 8:35 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200

N

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\E&S Version 5.0.0\7157ES13.68(S9).dwg PLOTTED ON: 3/2/2018 8:38 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

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FOSTER PLAZA 7
PITTSBURGH, PA 15220

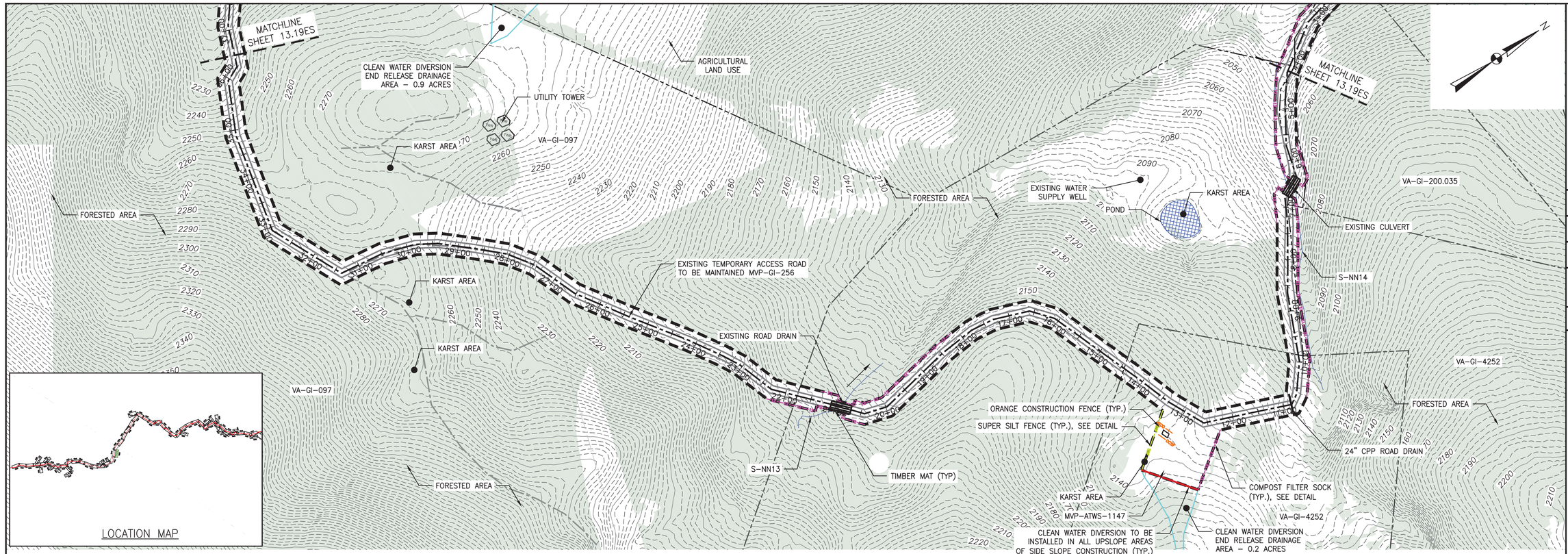
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.68ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

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8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\E&S Version 5.0.0\7157ES13.69(S9).dwg PLOTTED ON: 3/2/2018 8:43 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL COLOR.ctb

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4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

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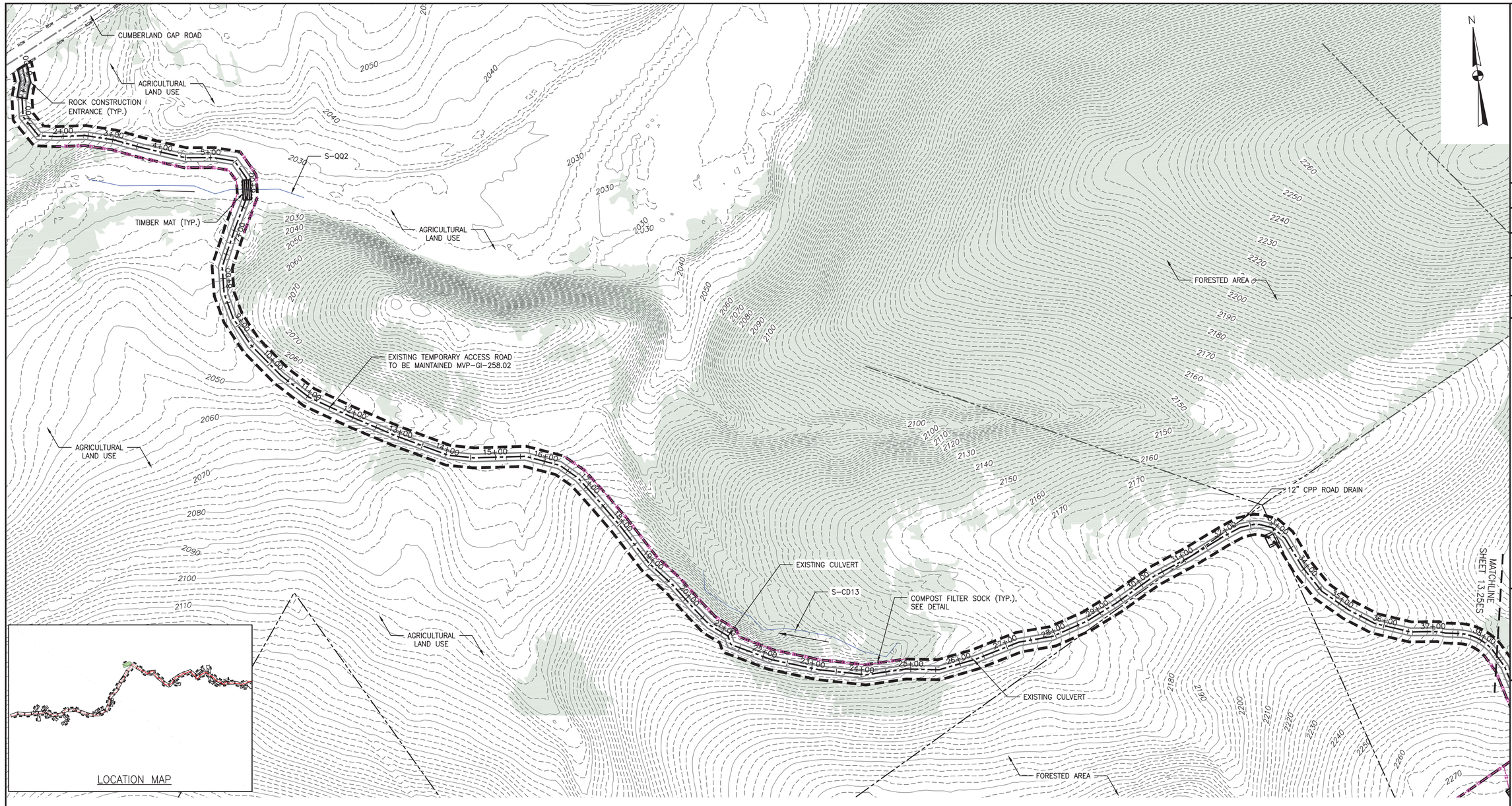
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5

SHT. NO. 13.69ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
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- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

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5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
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NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.70ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\E&S Version 5.0.0\7157ES13.70(S9).dwg PLOTTED ON: 3/2/2018 8:59 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

ACCESS ROAD MVP-MN-262.01
REMOVED FROM PROJECT

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- ANST — ANST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- SF — SF — PROPOSED SILT FENCE (SEE NOTE 5)
- SSF — SSF — PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- RFD — RFD — PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- OCSF — ORANGE CONSTRUCTION SAFETY FENCE
- 12 — 12 — 12 — 12 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 18 — 18 — 18 — 18 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 24 — 24 — 24 — 24 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

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4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\E&S Version 5.0.0\7157ES13.71(S9).dwg PLOTTED ON: 3/2/2018 9:10 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

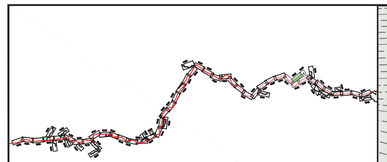
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.71ES OF 13.91ES



LOCATION MAP

PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
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- PROPOSED PIPELINE
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- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\E&S Version 5.0.0\7157ES13.72(S9).dwg PLOTTED ON: 3/2/2018 9:10 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
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2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

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FOSTER PLAZA 7
PITTSBURGH, PA 15220

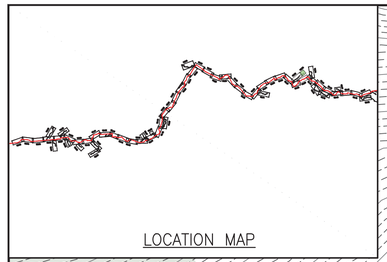
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.72ES OF 13.91ES



LOCATION MAP

PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\E&S Version 5.0.0\7157ES13.73(S9).dwg PLOTTED ON: 3/2/2018 9:10 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

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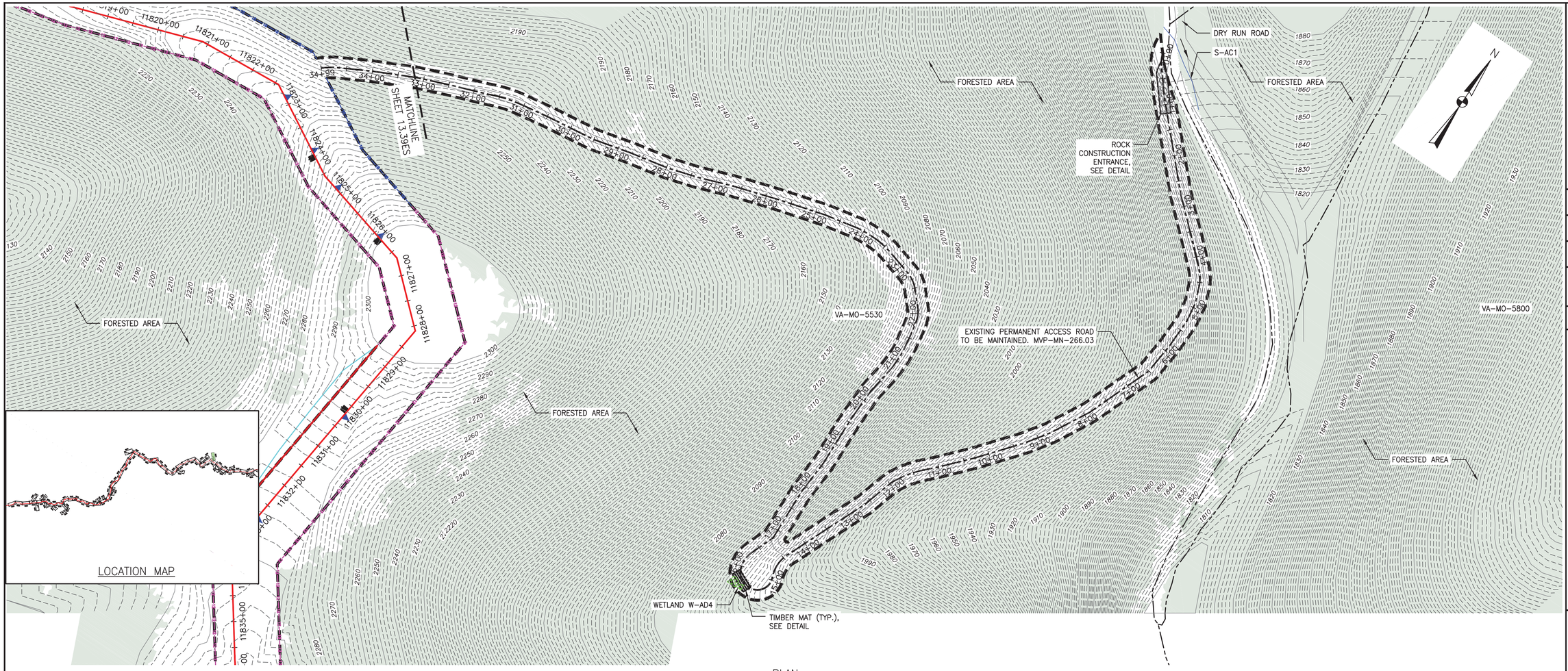
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
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PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.73ES OF 13.91ES



PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
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- WETLAND
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1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

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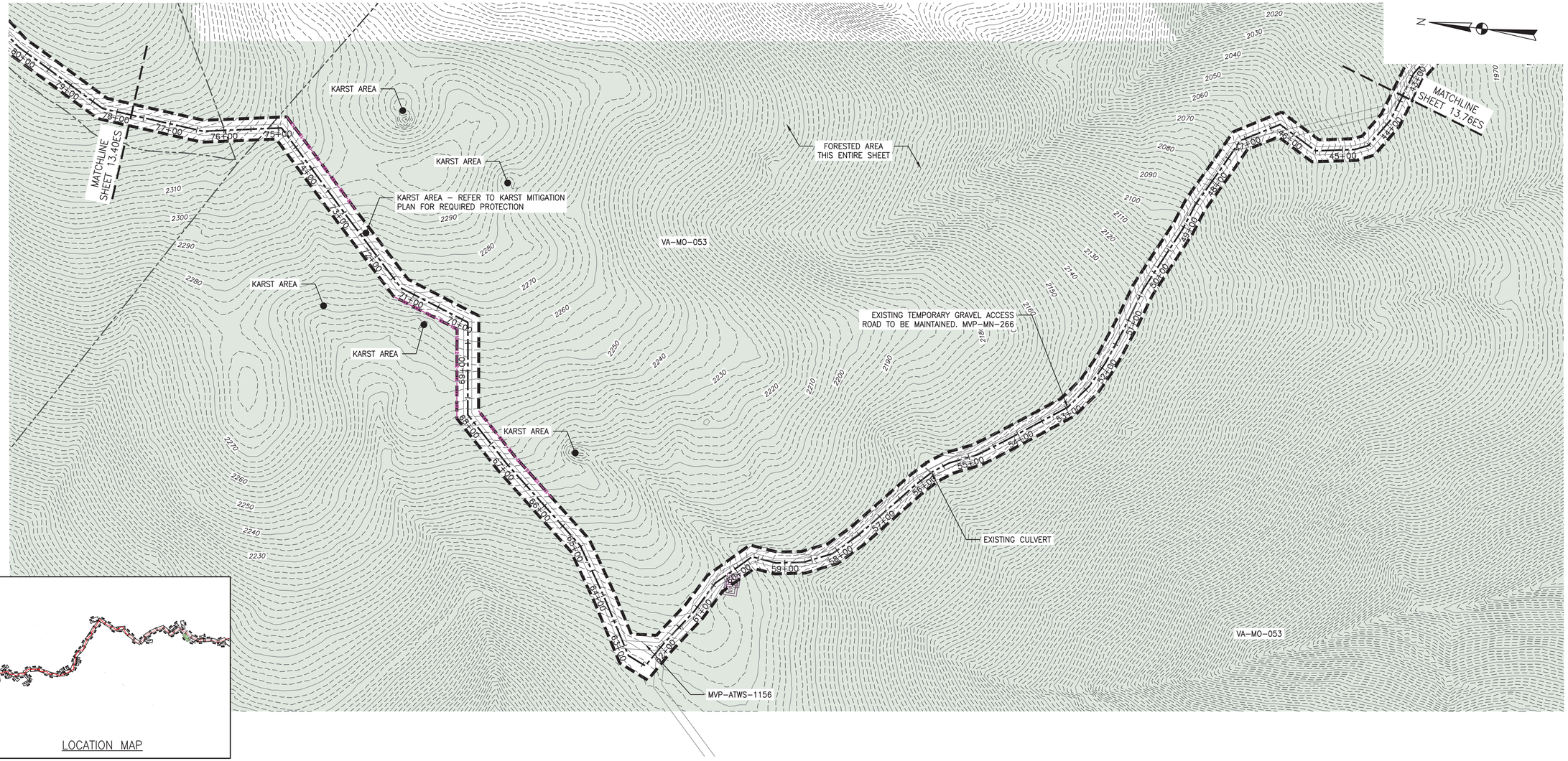
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	

SHT. NO. 13.74ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.74(S9).dwg PLOTTED ON: 3/2/2018 9:11 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



LOCATION MAP

PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.75(S9).dwg PLOTTED ON: 3/2/2018 9:11 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

TETRA TECH
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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

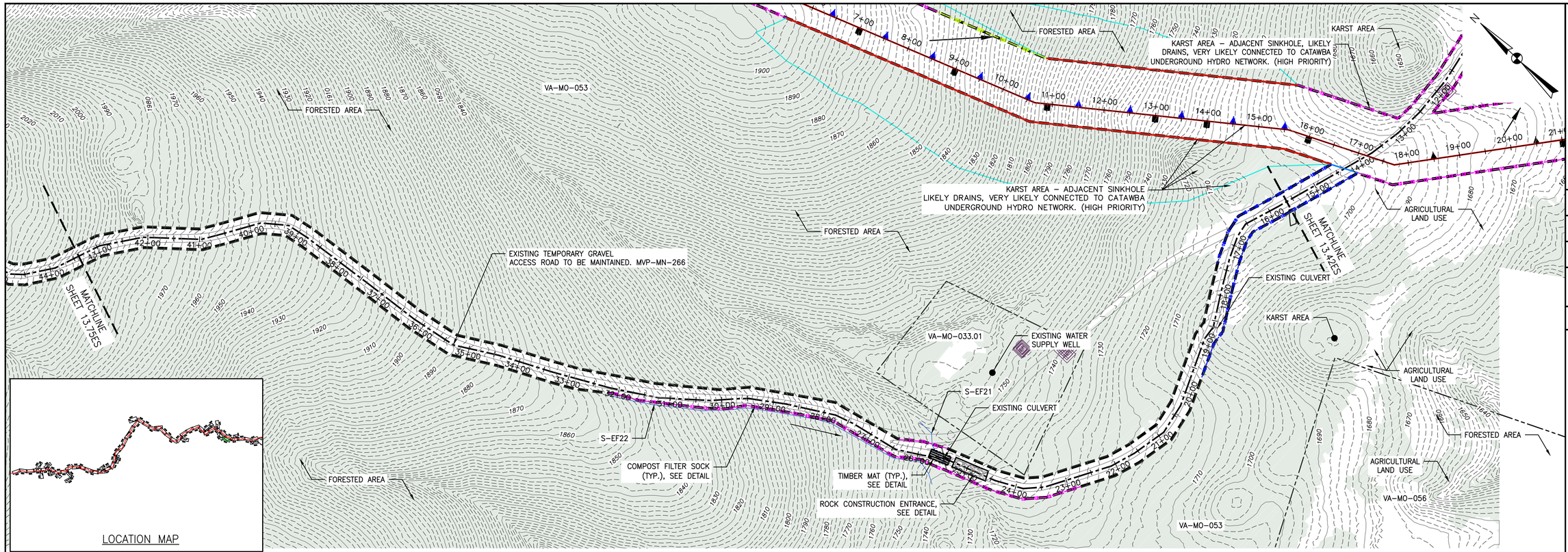
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.75ES OF 13.91ES



LOCATION MAP

PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
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NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
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REVISIONS:

Mountain Valley PIPELINE

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SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

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EROSION AND SEDIMENT CONTROL PLANS

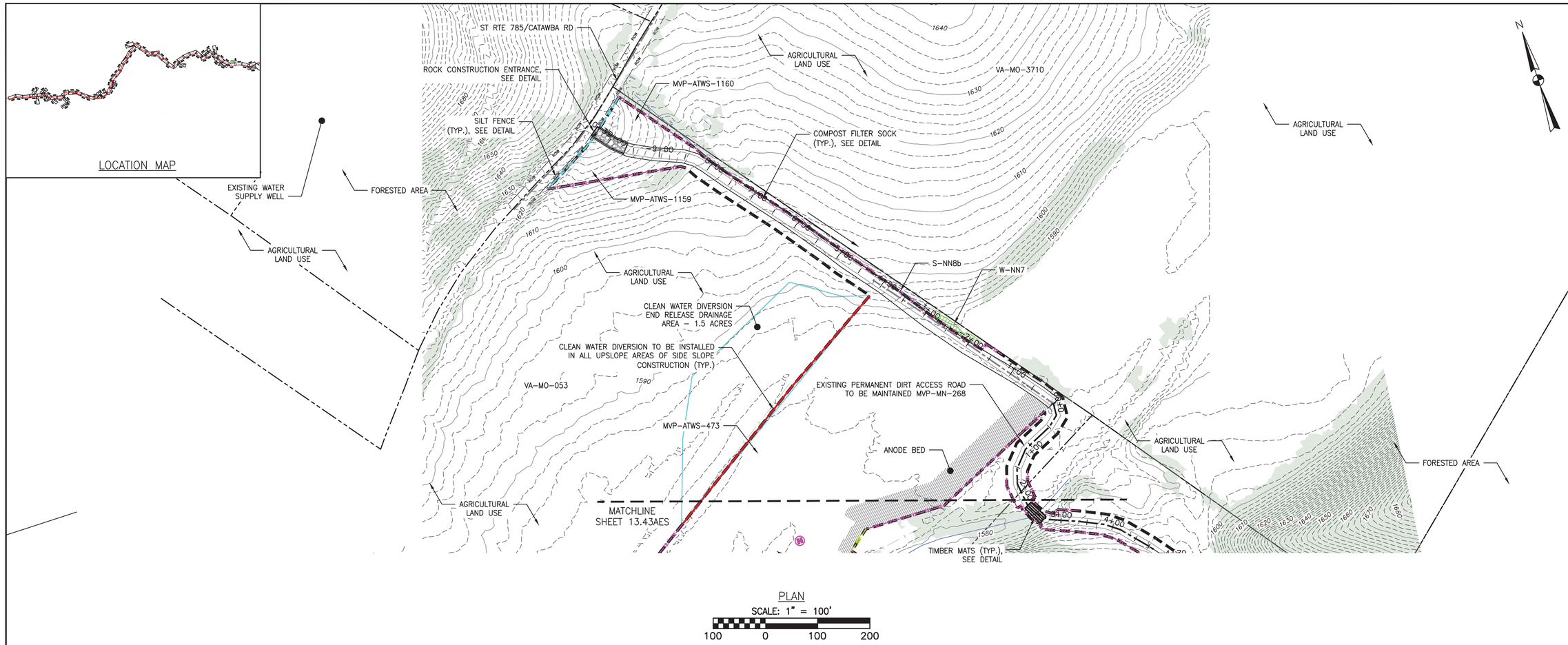
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
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PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.76ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.76(S9).dwg PLOTTED ON: 8/31/2018 8:44 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

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8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

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3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

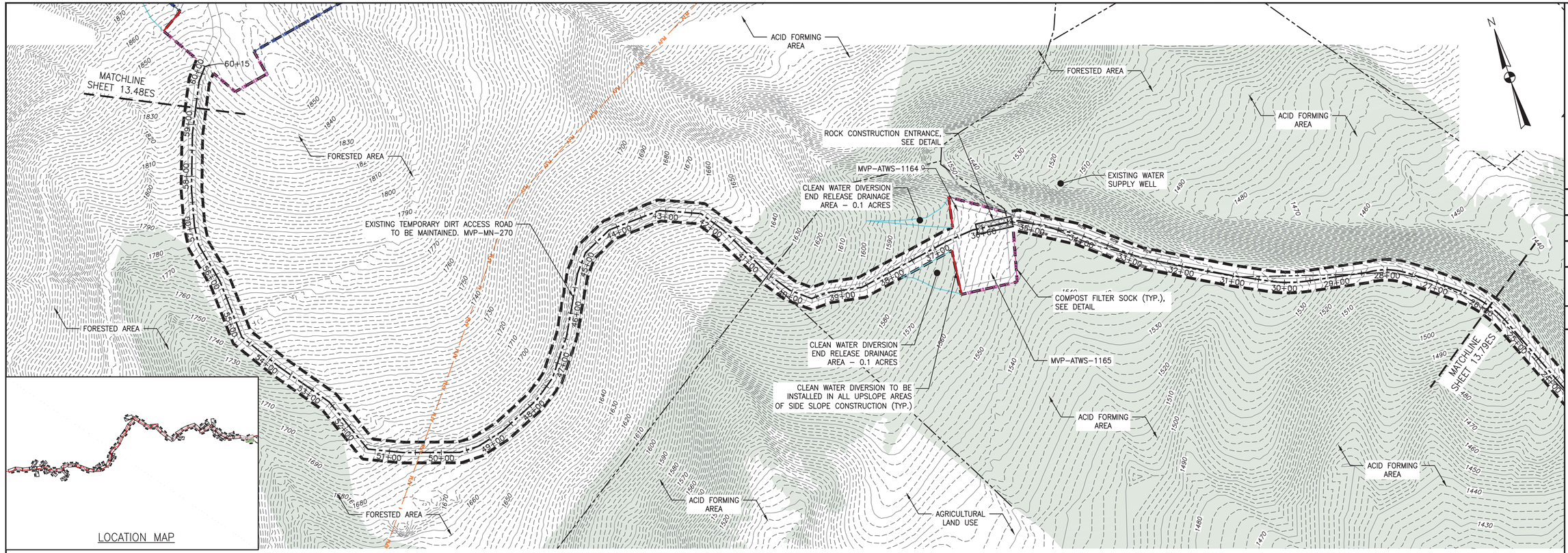
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.77ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.77(S9).dwg PLOTTED ON: 3/2/2018 9:12 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



LOCATION MAP

PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
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- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
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- STEEP SLOPE AREAS (SEE NOTE 4)
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- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
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REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

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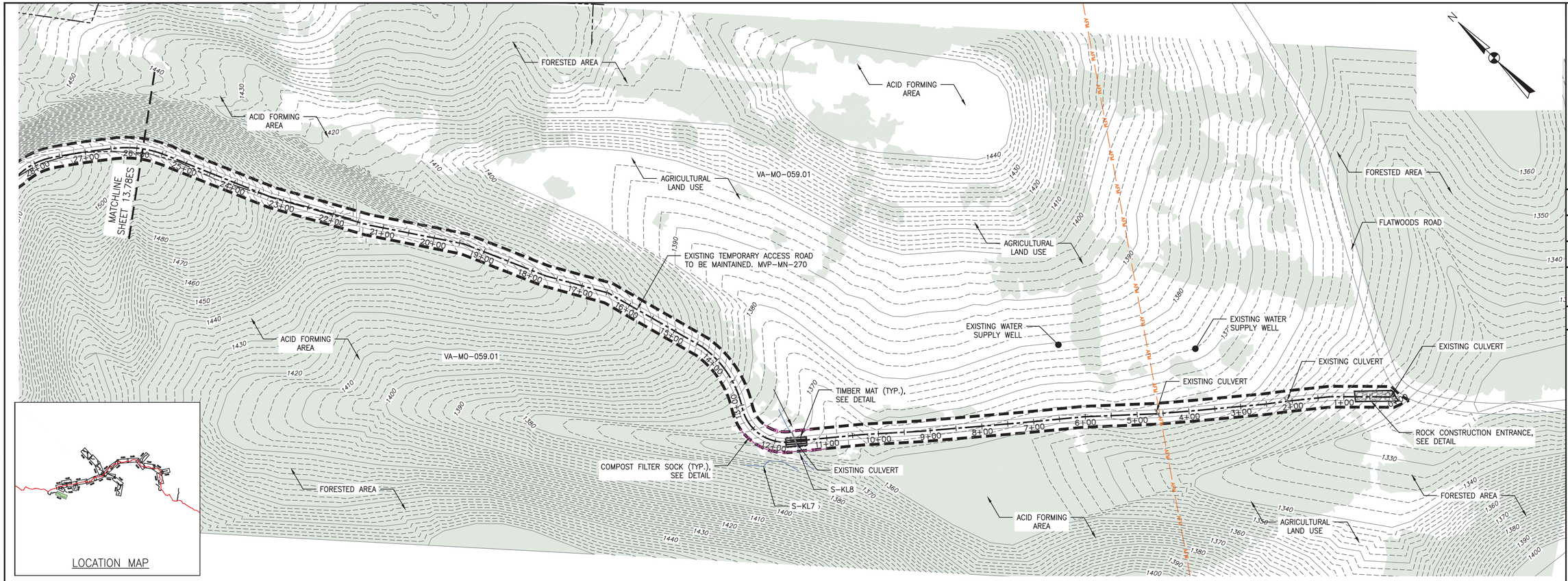
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.78ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.78(S9).dwg PLOTTED ON: 3/2/2018 9:12 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



LOCATION MAP

PLAN
SCALE: 1" = 100'
100 0 100 200

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REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
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EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
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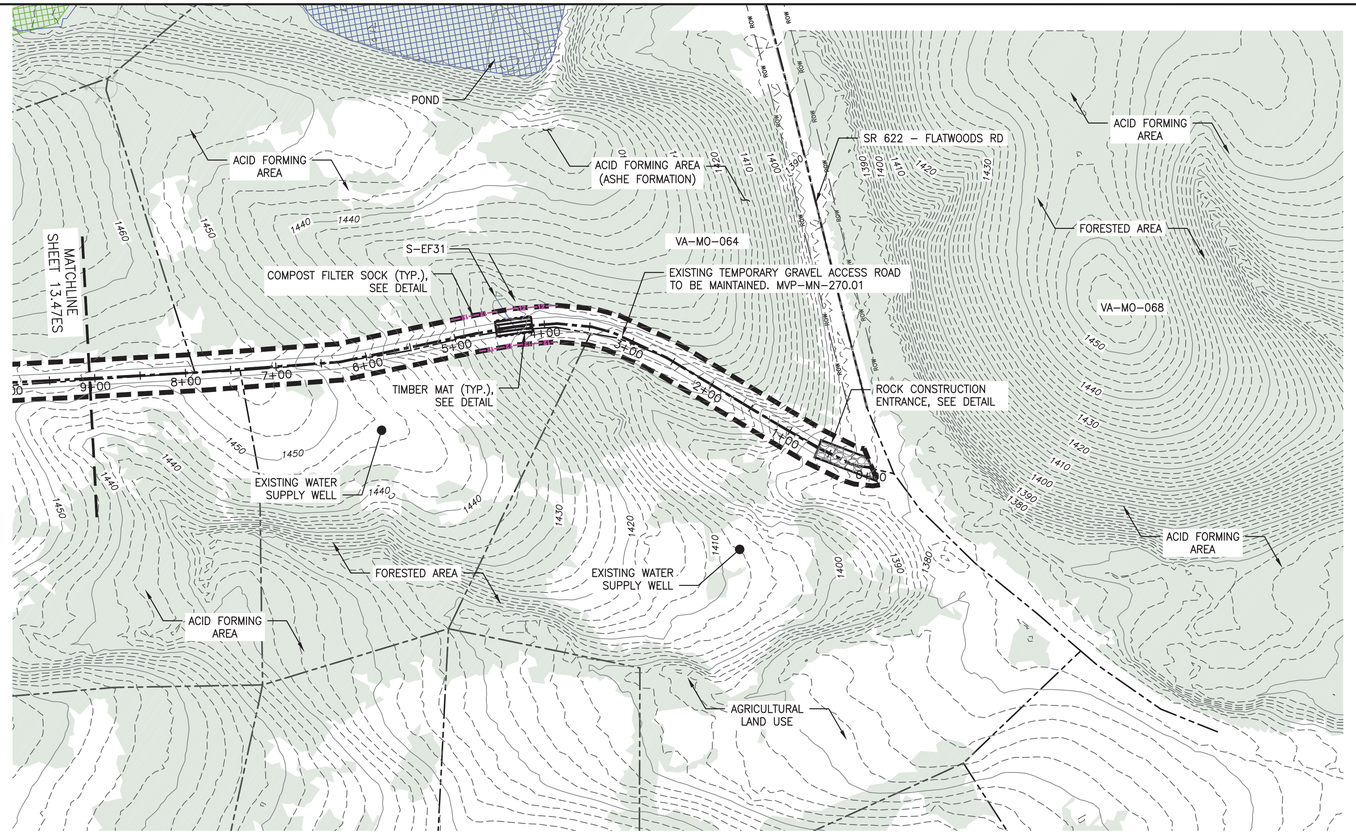
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.79ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.79(S9).dwg PLOTTED ON: 3/2/2018 9:12 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200

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- PROPOSED LIMIT OF DISTURBANCE
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REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

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EROSION AND SEDIMENT CONTROL PLANS

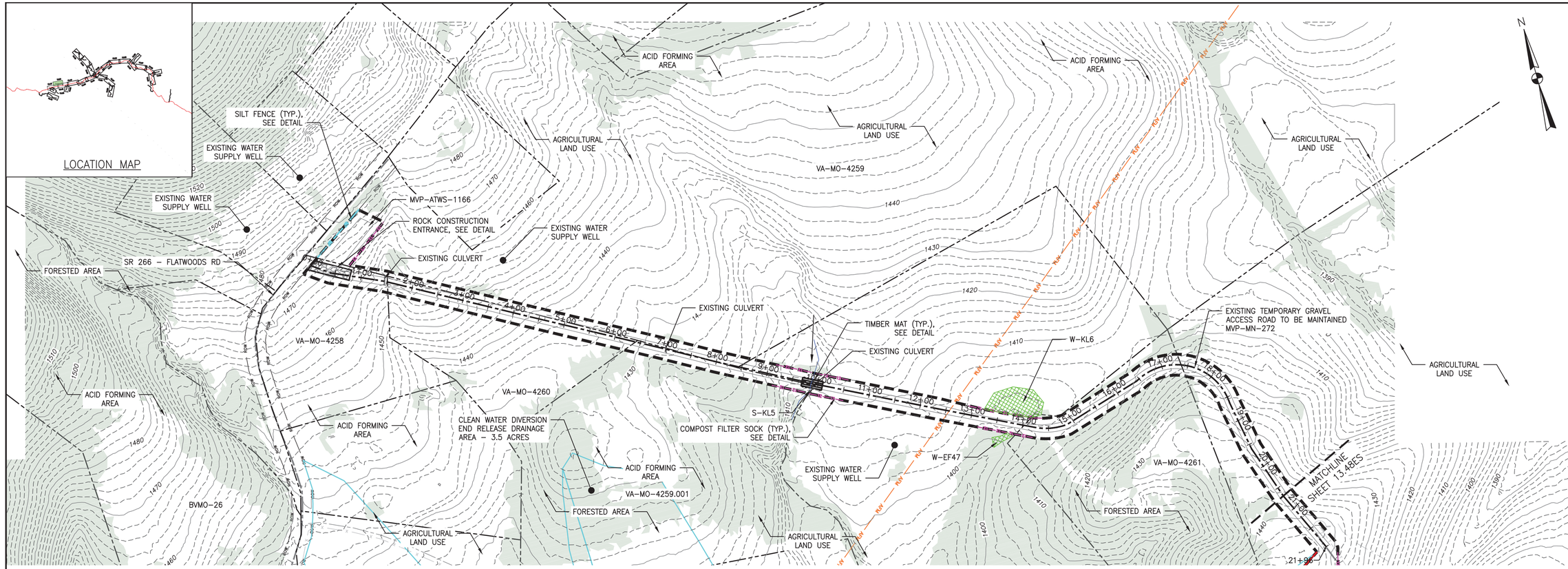
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.80ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.80(S9).dwg PLOTTED ON: 3/2/2018 9:13 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

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REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

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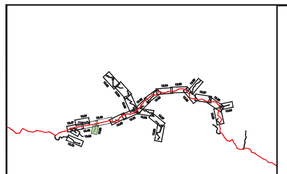
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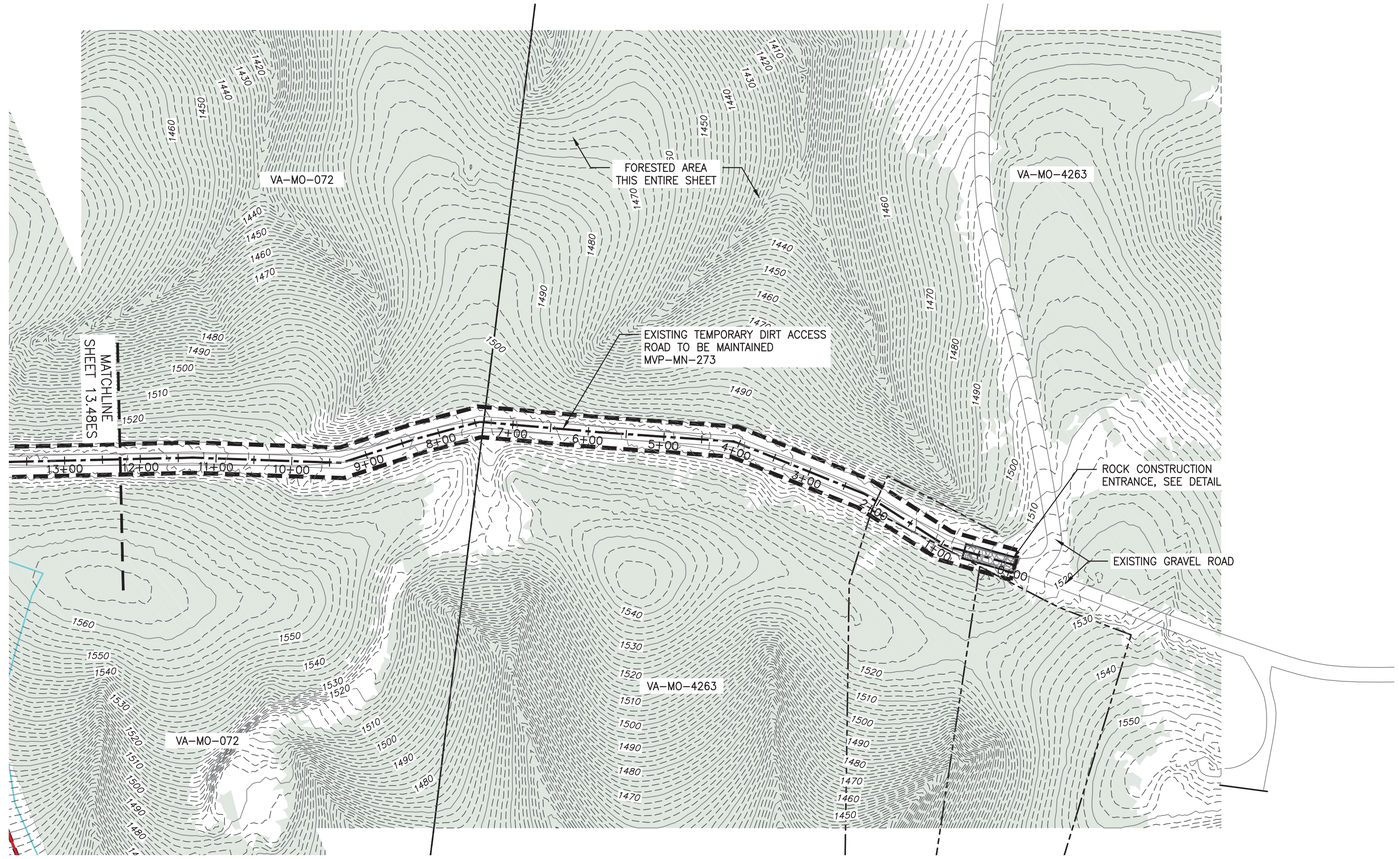
REVISION

SHT. NO. 13.81ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.81(S9).dwg PLOTTED ON: 3/2/2018 9:13 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

LOCATION MAP





PLAN
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- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\E&S Version 5.0.0\7157ES13.82(S9).dwg PLOTTED ON: 3/2/2018 9:22 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

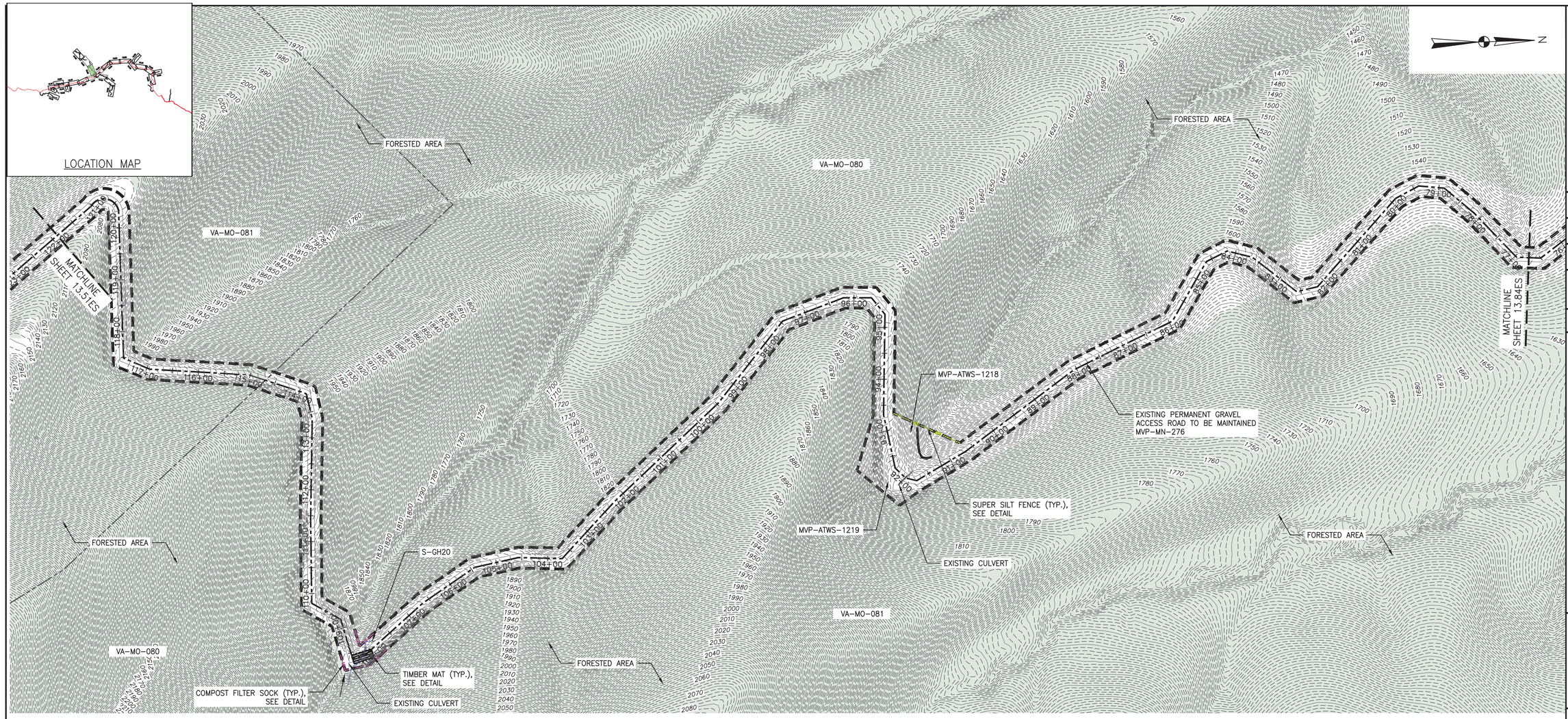
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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5

SHT. NO. 13.82ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
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- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
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- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
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- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
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- STEEP SLOPE AREAS (SEE NOTE 4)
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6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

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4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

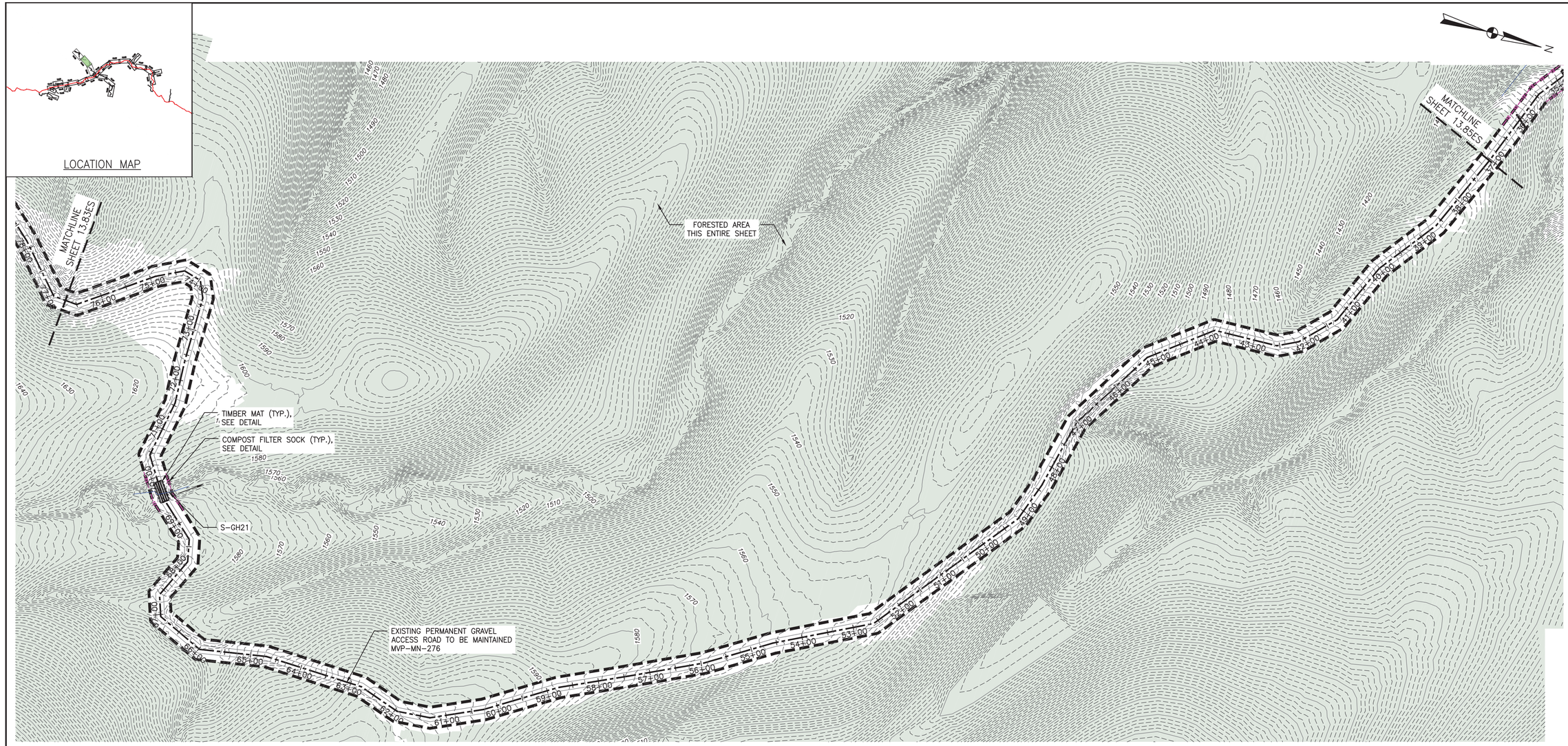
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	

SHT. NO. 13.83ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.83(S9).dwg PLOTTED ON: 3/2/2018 9:22 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- ANST — ANST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- SF — SF — PROPOSED SILT FENCE (SEE NOTE 5)
- SSF — SSF — PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- RFD — RFD — PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- OCSF — ORANGE CONSTRUCTION SAFETY FENCE
- 12 — 12 — 12 — 12 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 18 — 18 — 18 — 18 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 24 — 24 — 24 — 24 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

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5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.84(S9).dwg PLOTTED ON: 3/2/2018 9:22 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

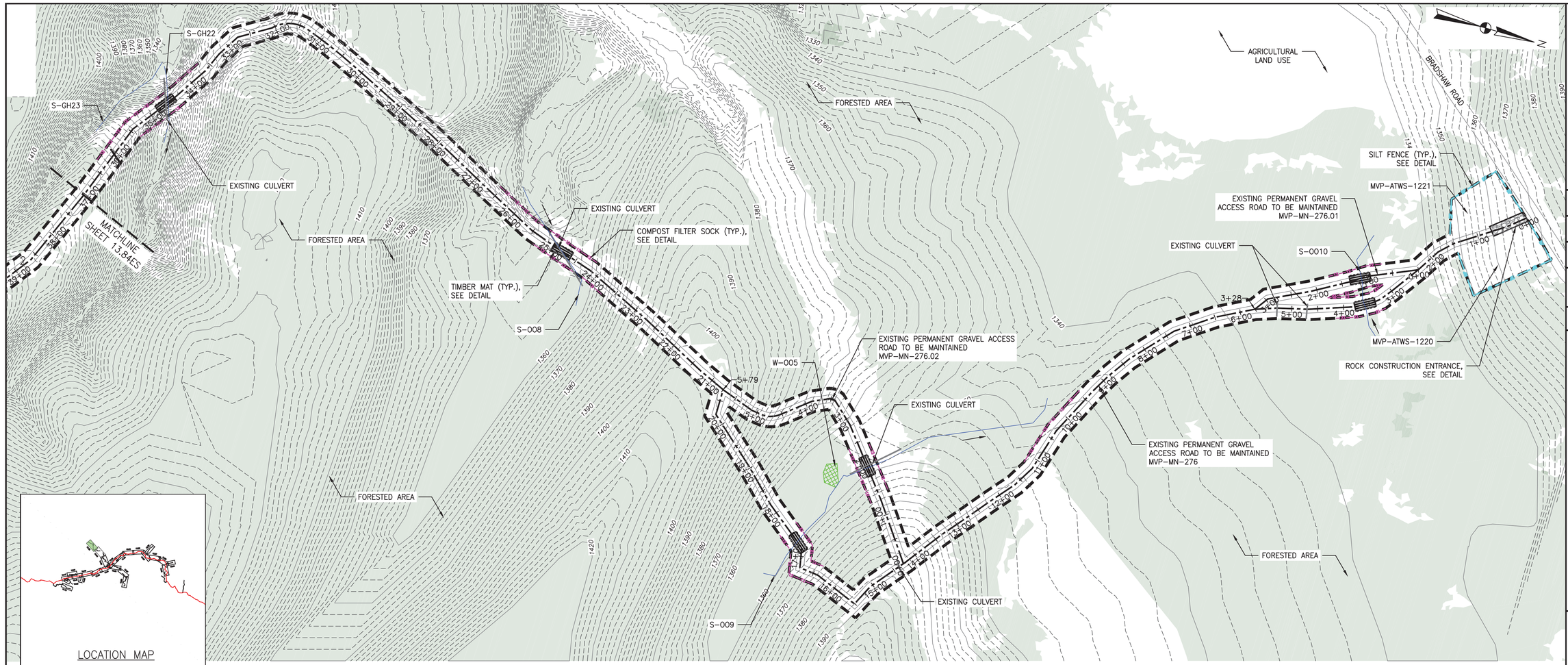
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 040205759
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.84ES OF 13.91ES



LOCATION MAP

PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
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- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
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- PROPOSED ROCK CONSTRUCTION ENTRANCE
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NOTES:

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5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
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1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF PENNSYLVANIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.85ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.85(S9).dwg PLOTTED ON: 3/2/2018 9:22 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

EXISTING CULVERT

EXISTING CULVERT

EXISTING CULVERT

EXISTING CULVERT

BVMO–29

EXISTING TEMPORARY ACCESS GRAVEL ROAD TO BE MAINTAINED DETAIL MVP–MN–276.01

MATCHLINE SHEET 13.87ES

MATCHLINE SHEET 13.51ES

LOCATION MAP

PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
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TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.86(S9).dwg PLOTTED ON: 3/2/2018 9:23 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

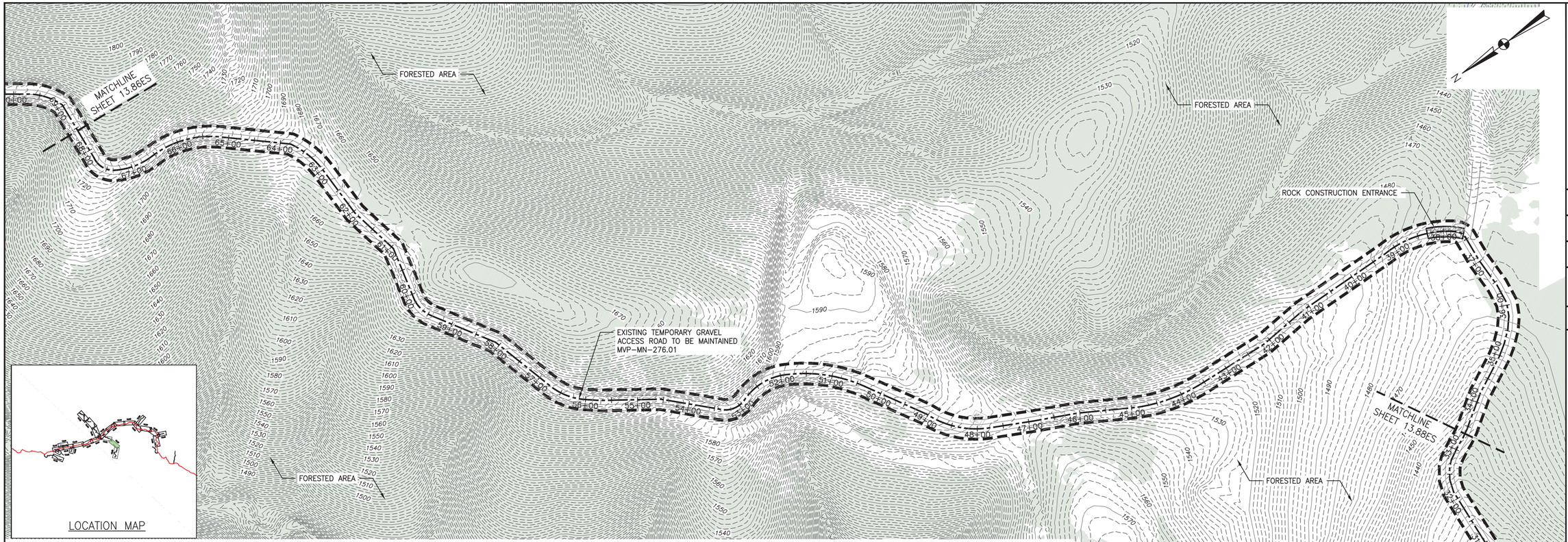
TETRA TECH
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661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

SHT. NO. 13.86ES OF 13.91ES



PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

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3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
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5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
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2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
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EROSION AND SEDIMENT CONTROL PLANS

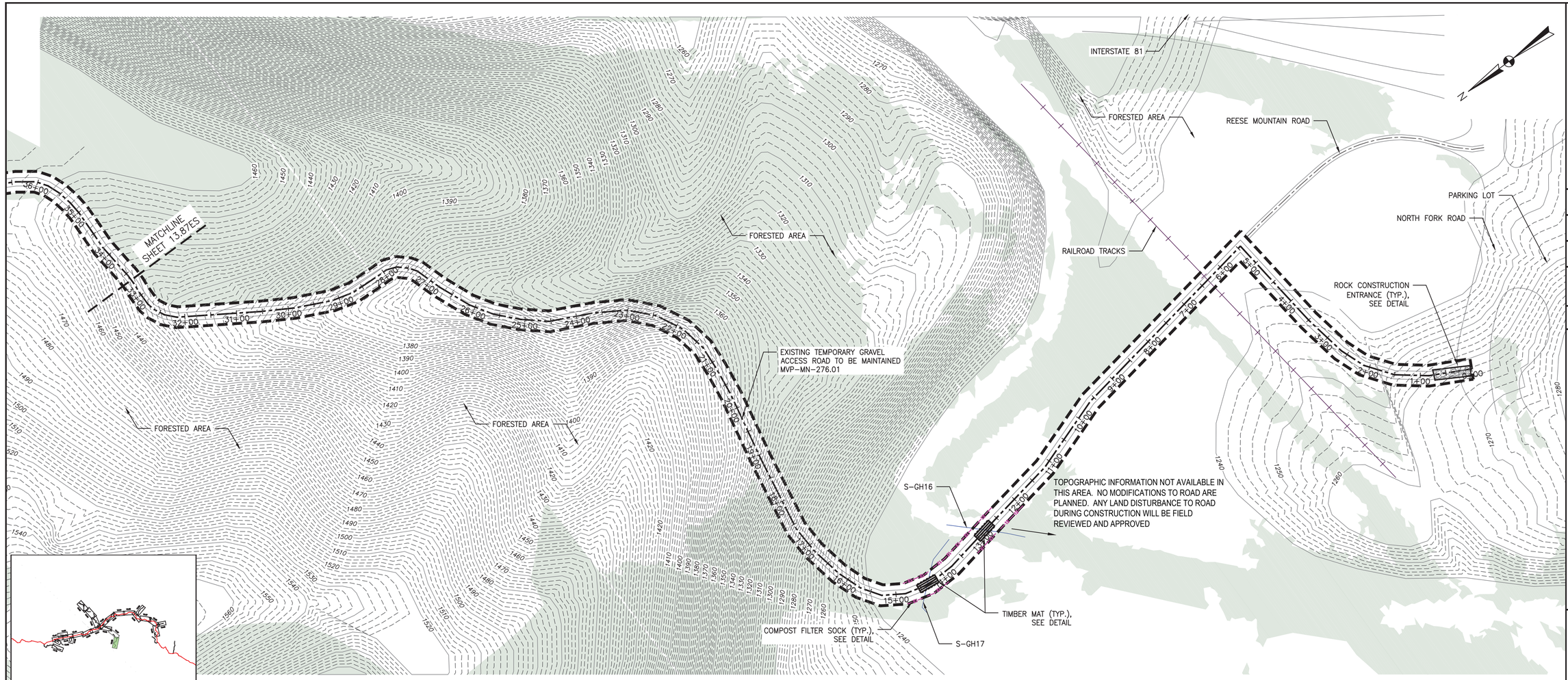
COMMONWEALTH OF VIRGINIA
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DRAWN BY:	KAL
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SCALE:	AS SHOWN

REVISION

SHT. NO. 13.87ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.87(S9).dwg PLOTTED ON: 3/2/2018 9:23 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



LOCATION MAP

PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- ANST — ANST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
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- EXISTING STATE LINE
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- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
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REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

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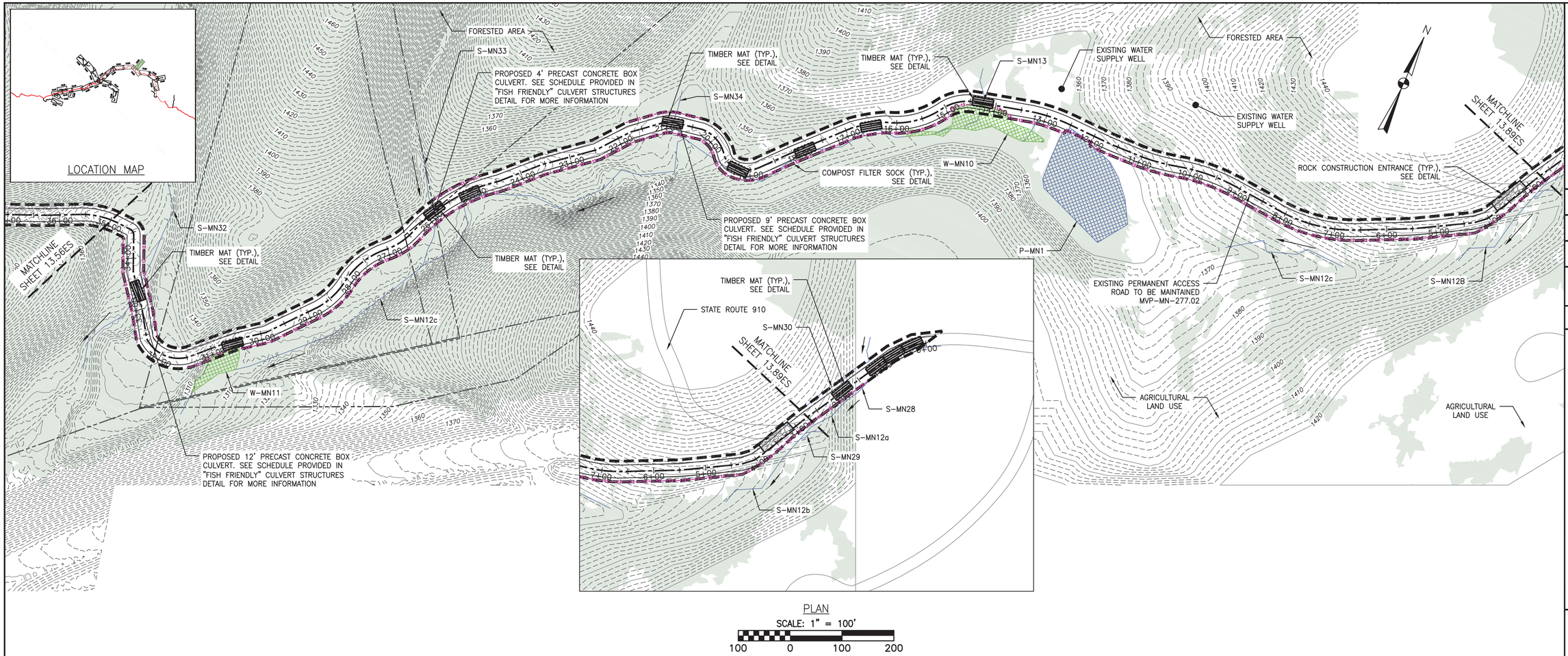
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	

SHT. NO. 13.88ES OF 13.91ES

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PLAN

SCALE: 1" = 100'

100 0 100 200

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REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

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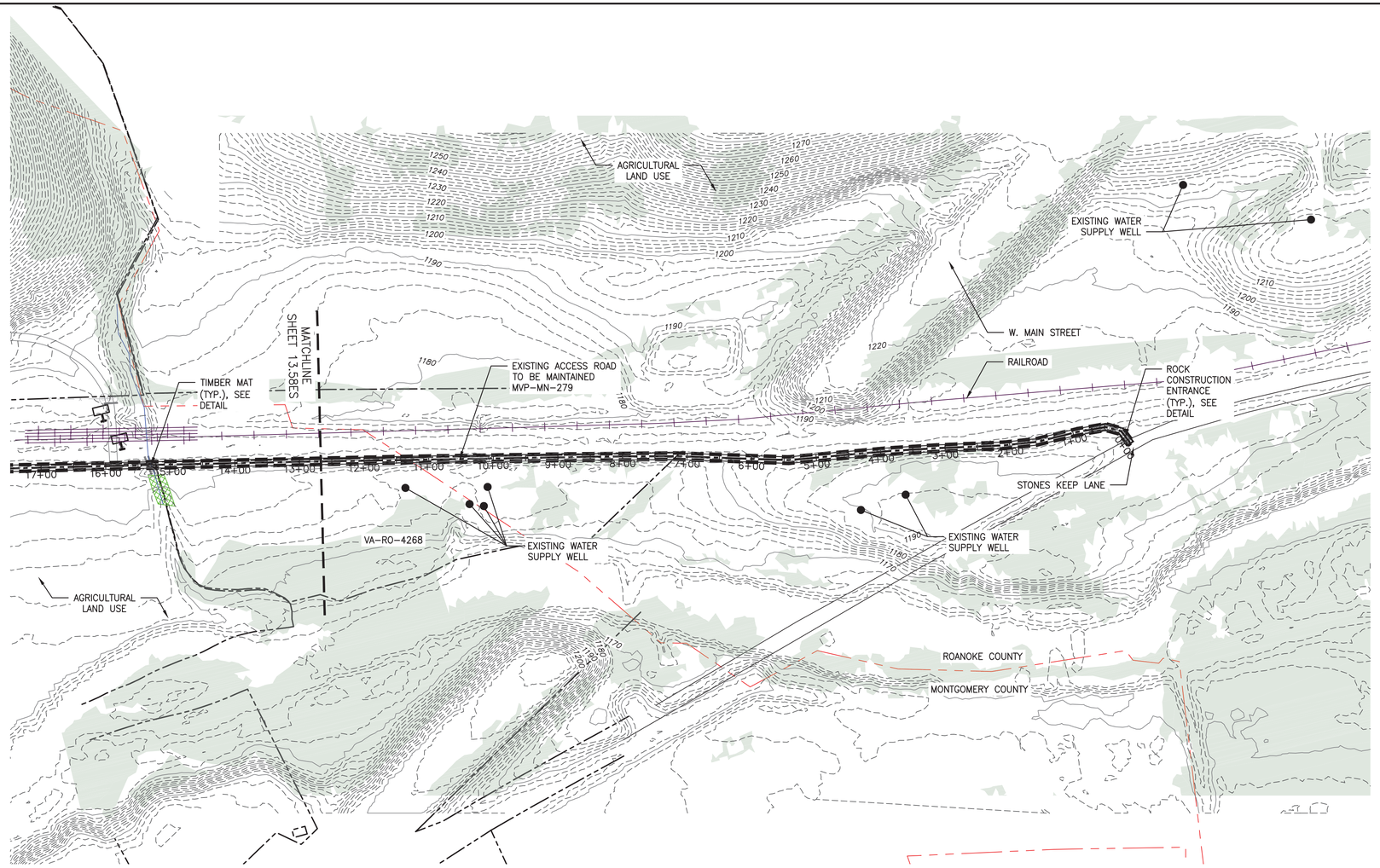
COMMONWEALTH OF VIRGINIA
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PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.89ES OF 13.91ES

LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
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REVISIONS:

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EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - MONTGOMERY COUNTY, VIRGINIA

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