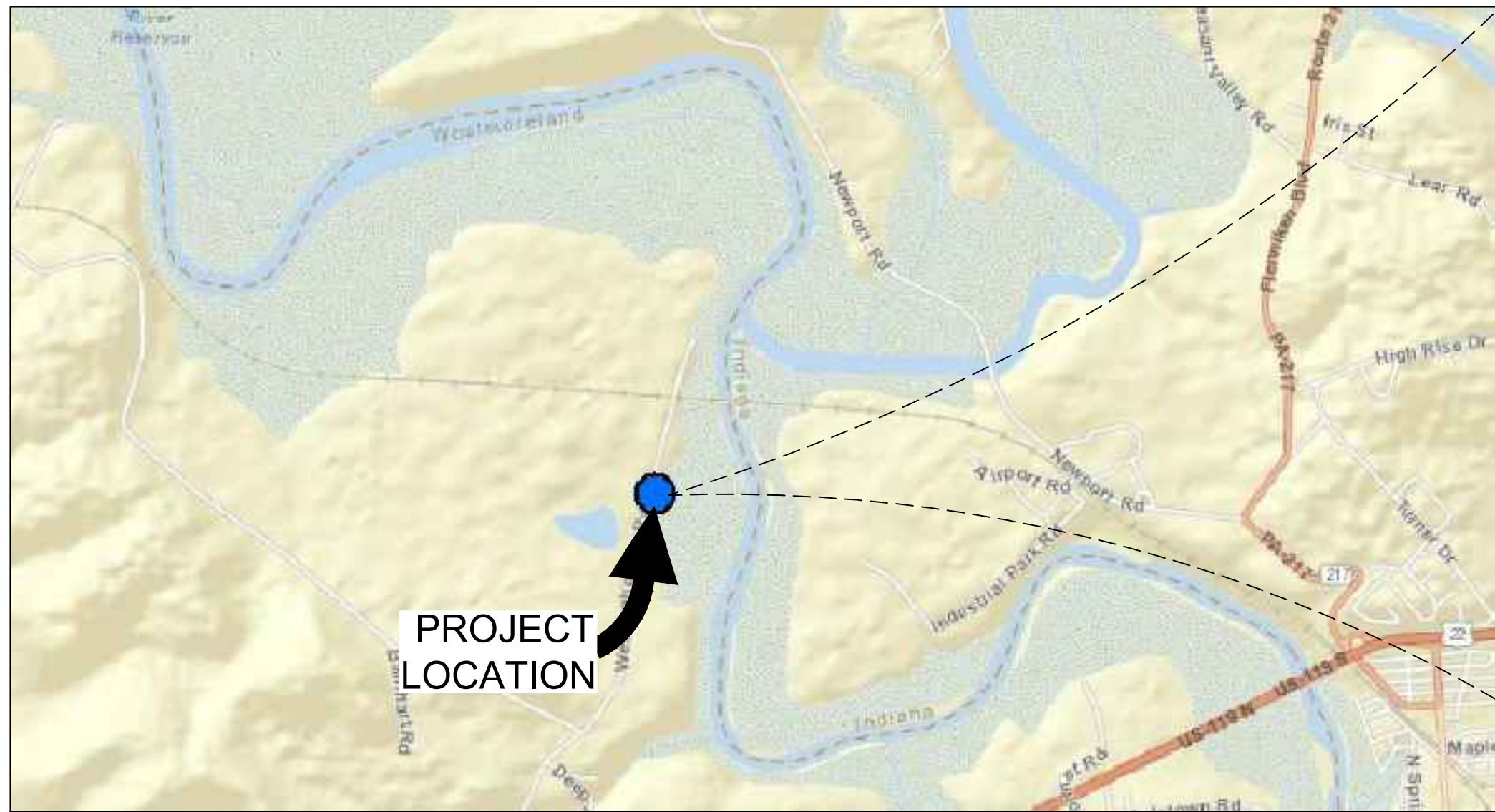


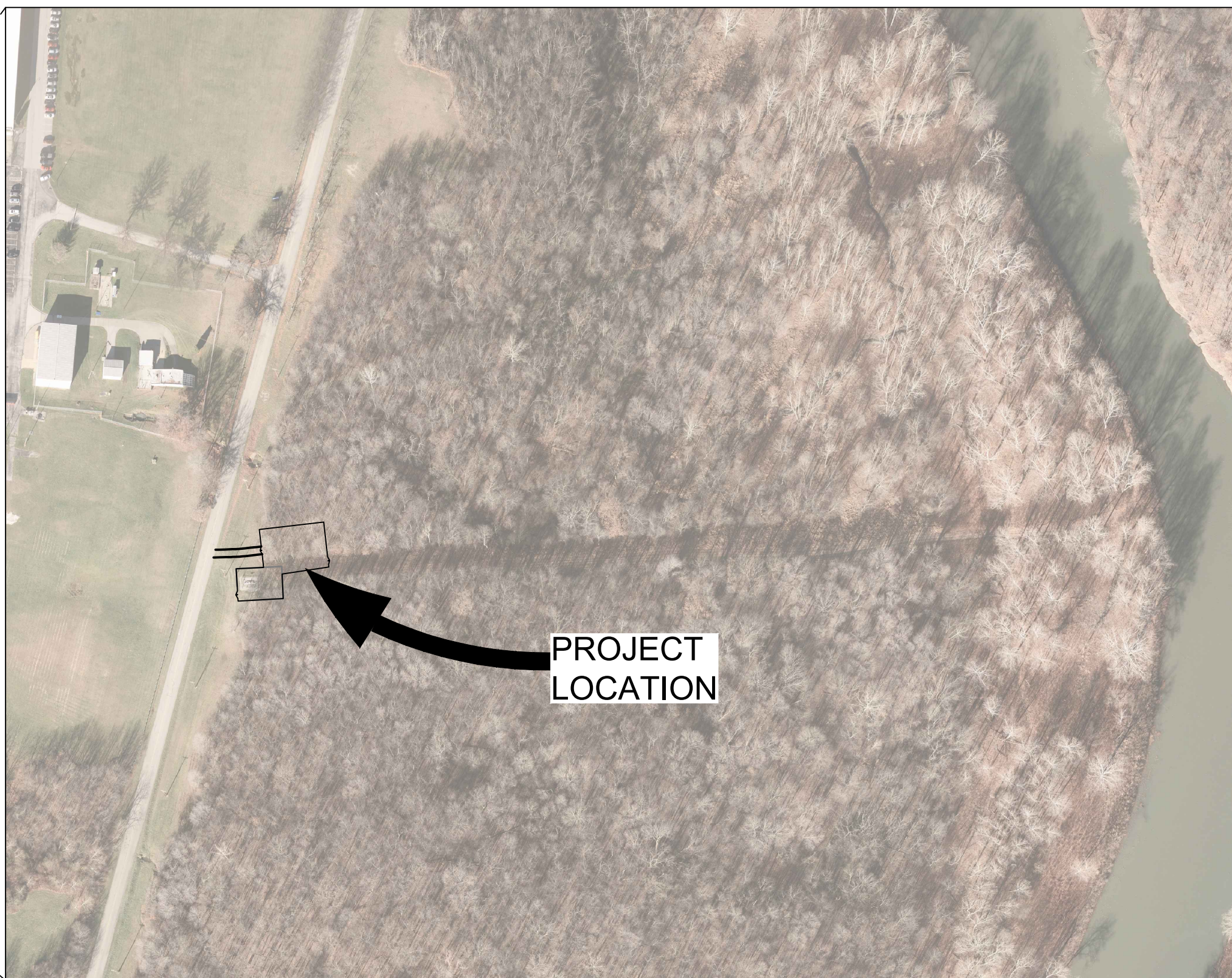
MECHANICAL CONSTRUCTION PLANS FOR

# SUNOCO - BLOCK VALVE

# WESTINGHOUSE ROAD EFRD



REGIONAL MAP  
SCALE: N.T.S.



PROJECT SITE  
SCALE: N.T.S.

DRAWING LIST			
SHEET NO	TITLE	REV	DATE
E_WSTN_M000100	MECHANICAL COVER SHEET	0	07/22/16
E_WSTN_M000200	MECHANICAL GENERAL NOTES & LEGEND	0	07/22/16
E_WSTN_M040100	MECHANICAL SITE PLAN	0	07/22/16
E_WSTN_M050100	MECHANICAL PIPING PLAN & SECTIONS	0	07/22/16
E_WSTN_M060700	MECHANICAL PIPING DETAIL - PIG SIG	0	07/22/16
E_WSTN_M060810	MECHANICAL PIPING DETAIL - PIT	0	07/22/16
E_WSTN_M061010	MECHANICAL PIPING DETAIL - 3/4" 900# VENT	0	07/22/16

**OWNER:**  
SUNOCO LOGISTICS PARTNERS L.P.  
PHILADELPHIA, PA  
215-365-6501

**ENGINEER:**  
TETRA TECH ROONEY  
115 INVERNESS DRIVE EAST, SUITE 300  
ENGLEWOOD, CO 80112  
303-792-5911

**SURVEYOR:**  
TRICO SURVEYING & MAPPING, INC.  
441 W. GOUDER PIKE  
BLOOMINGTON, IN 47404  
812-330-7030

0	07/22/16	3840-00555	ISSUED FOR CONSTRUCTION	LLC	FK
REV.	DATE	APP#	DESCRIPTION	APPROVAL	ZBE

ENGINEERING RECORD	
DRAWN BY	LCOTE
CHECKED BY	F.KAY
APPROVED BY	Z.BAUER
DATE	2015/06/25
SCALE	N.T.S.
REI PROJECT #	02959



WESTINGHOUSE ROAD EFRD  
MECHANICAL  
COVER SHEET  
MLV-12127-66.1

DERRY

WESTMORELAND, PA



OLD DRAWING NO.

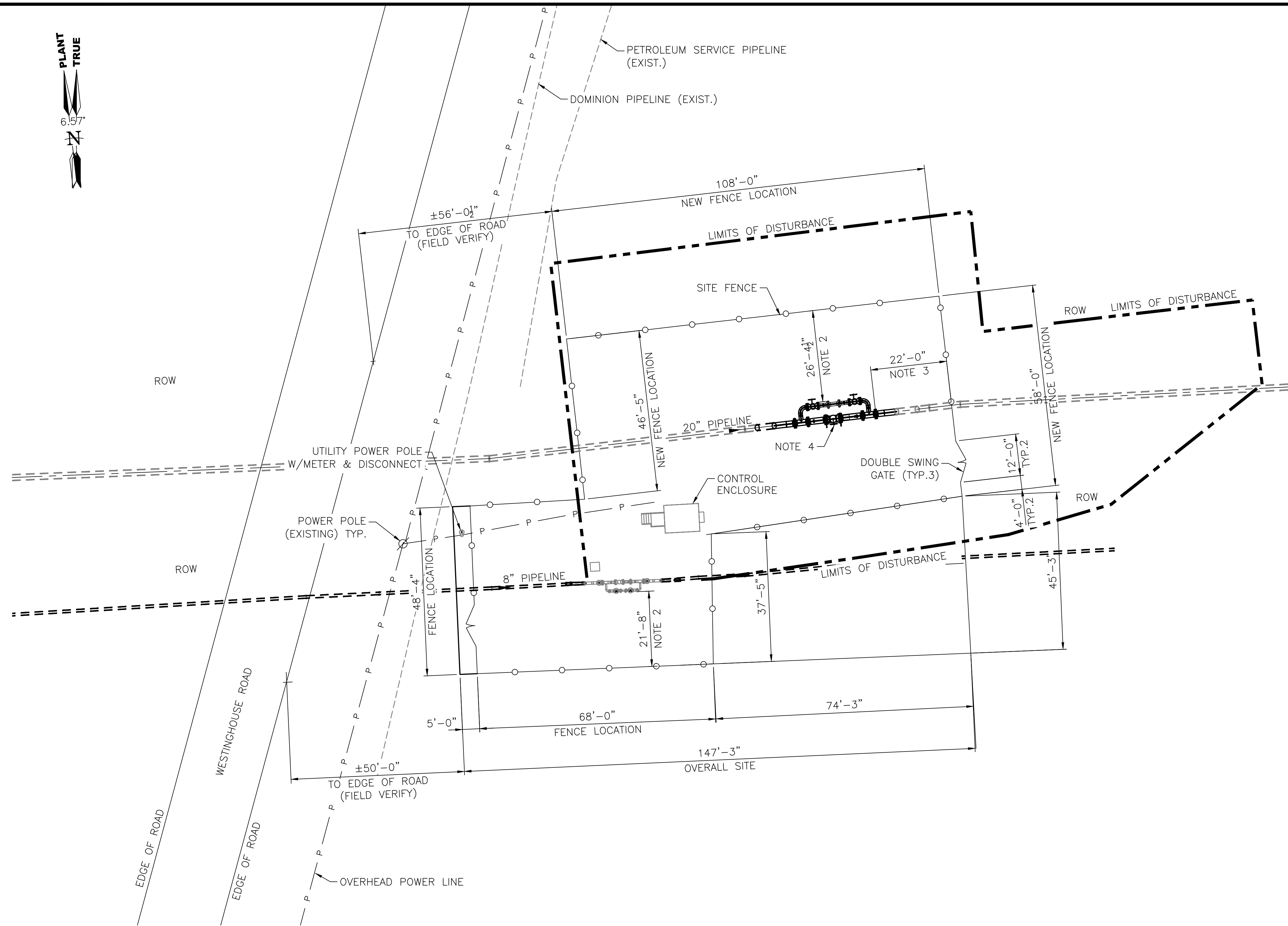
DWG. NO.  
E\_WSTN\_M000100

REV. NO.  
0

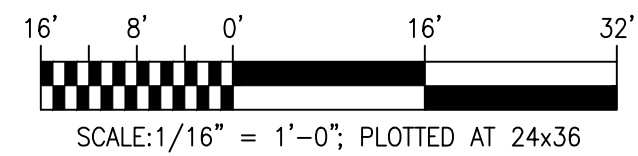


GENERAL SYMBOLS		SITE SPECIFIC NOTES		ABBREVIATIONS		GENERAL NOTES	
<div><div><div><div><div><div></div><div>SECTION</div></div><div><div>SECTION CUT CALLOUT</div><div>MXXXXXX</div></div></div><div><div>DRAWING NUMBER</div><div>MXXXXXX</div></div></div><div><div><div></div><div>NORTH ARROW</div></div><div><div>8"</div><div>VALVE SIZE (NPS)</div></div><div><div>V-1150</div><div>D2RF</div><div>DB&amp;B</div><div>VALVE NUMBER</div><div>VALVE TYPE</div><div>OPTIONAL DESCRIPTOR</div></div><div><div><div></div><div>HEAT TRACING</div></div><div><div></div><div>BELOW GRADE PIPE NEW</div></div><div><div></div><div>ABOVE GRADE PIPE NEW</div></div><div><div></div><div>BELOW GRADE PIPE EXISTING</div></div><div><div></div><div>ABOVE GRADE PIPE EXISTING</div></div><div><div>GRADE</div><div>GRADE</div></div><div><div></div><div>BOLLARD</div></div><div><div></div><div>POWER POLE</div></div></div><div><div><div><div>01</div><div>DETAIL</div></div><div><div>DETAIL CALLOUT</div><div>MXXXXXX</div></div></div><div><div>PS-XX</div><div>PIPE SUPPORT</div></div><div><div><div>TP</div><div>X</div></div><div>TIE POINT CONNECTION</div></div><div><div><div></div><div>TEMPORARY STRAINER</div></div><div><div><div>G</div><div>INSULATING FLANGE KIT</div></div><div><div>MOV</div><div>XX</div><div>INSTRUMENTATION OR ELECTRIC MOTOR OPERATOR</div></div><div><div></div><div>FLOW ARROW</div></div><div><div></div><div>EXISTING BUILDING</div></div><div><div></div><div>DETAIL DRAWING BOUNDARY</div></div></div></div></div></div></div></div>		<div>1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS.</div> <div>2. ALL EXCAVATION MUST CONTACT "PENNSYLVANIA UTILITIES PROTECTION SERVICES 811" AT LEAST 3 BUSINESS DAYS PRIOR TO EXCAVATION AS REQUIRED BY LAW.</div> <div>3. PARCEL PA-WM2-0099.0000-SS.</div> <div>4. FOR FENCE DETAILS SEE DRAWINGS E_WSTN_C201003 AND E_WSTN_C201004.</div> <div>5. FOR PIPE SUPPORT DETAILS SEE DRAWING E_WSTN_S200000.</div>		<div>FF -FIELD FIT</div> <div>FV -FIELD VERIFY</div> <div>PDT/PDIT -PRESSURE DIFFERENTIAL (INDICATING) TRANSMITTER</div> <div>PI -PRESSURE INDICATING</div> <div>PT/PIT -PRESSURE (INDICATING) TRANSMITTER</div> <div>PS -PIPE SUPPORT</div> <div>PSV -PRESSURE RELIEF VALVE</div> <div>REF -REFERENCE</div> <div>TE -TEMPERATURE PRIMARY ELEMENT</div> <div>TT/TIT -TEMPERATURE (INDICATING) TRANSMITTER</div> <div>TW -THERMOWELL</div> <div>LS -LEVEL SWITCH</div> <div>LT/LIT -LEVEL (INDICATING) TRANSMITTER</div> <div>YS -PIG SIGNAL</div> <div>ZI -POSITION INDICATING</div> <div>ZS/ZIS -POSITION (INDICATING) SWITCH</div> <div>CL -CENTERLINE</div> <div>FSH -FLOW DETECTOR SWITCH</div> <div>TP -TIE POINT</div>		<div>1. ALL GRADE LINES (ROUGH, FINAL, &amp; EXISTING) ARE AN AVERAGE ACROSS THAT RESPECTIVE SECTION VIEW AND LABELED WITH AN "AVG. REF.". IF THE GRADE LINE VARIES BY MORE THAN 6" ACROSS THE SECTION VIEW, AN "AVG. REF." AND SEPARATE GRADE LINE WAS PROVIDED ON EACH END OF THE SECTION VIEW.</div> <div>2. OVERALL AND INTERMEDIATE PIPING DIMENSIONS ARE PROVIDED. FIELD TO DETERMINE (F.T.D.) PUP LENGTHS ARE OFTEN SPECIFIED WITH OVERALL PIPING DIMENSIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALCULATING F.T.D. PUP LENGTHS, STANDARD FITTING DIMENSIONS, GASKET THICKNESSES, AND WELD GAPS.</div> <div>3. IF APPLICABLE, DRAIN LINE DIMENSIONS AND ELEVATIONS HAVE BEEN PROVIDED AND LABELED WITH A "REF." FOR REFERENCE.</div> <div>4. INTERCONNECTING PIPING CONTROL AND OVERALL DIMENSIONS WERE PROVIDED. OVERALL DIMENSIONS WERE ROUNDED TO THE NEAREST INCH AND AN "F.F." FOR FIELD FIT WAS INCLUDED DUE TO THE NUMBER OF FIELD VARIABLES TO BE CONSIDERED WHEN CUTTING INTERCONNECTING PIPE RUNS BETWEEN FITTINGS. FIELD VARIABLES INCLUDE BUT ARE NOT LIMITED TO PIPE SLOPE, CROSSING REQUIREMENTS, AND TIE-IN PREPARATION.</div> <div>5. NON-STANDARD EQUIPMENT DIMENSIONS (EXAMPLES INCLUDE VENDOR PUMP AND METER FACE TO FACE DIMENSIONS) WERE PROVIDED AND A "FIELD VERIFY" WAS ADDED BELOW THE DIMENSION. THE PROVIDED DIMENSIONS SHALL BE CHECKED BY THE CONTRACTOR PRIOR TO FABRICATION TO ENSURE PROPER FIT-UP AND OVERALL DIMENSIONS ARE MET.</div> <div>6. ADDITIONAL DIMENSIONS AND ELEVATIONS HAVE BEEN PROVIDED AND LABELED AS "REF." FOR REFERENCE. THESE DIMENSIONS AND ELEVATIONS CAN BE DETERMINED FROM OTHER PROVIDED DIMENSIONS AND SPECIFICATION REQUIREMENTS, BUT WERE PROVIDED TO ASSIST CONTRACTOR AND INSPECTION STAFF AS A WAY TO DOUBLE CHECK THAT THE INSTALLATION MEETS THE INTENT OF THE DRAWINGS.</div> <div>7. IN PIPING DRAWINGS WHERE PIPE CENTERLINES COULD NOT BE CLEARLY ADDED, AN IDENTIFIER OF "O.C." FOR ON CENTER WAS ADDED AFTER THE DIMENSION.</div> <div>8. VALVES WITH INTERNAL OR EXTERNAL DIFFERENTIAL THERMAL RELIEF SYSTEMS SHALL BE INSTALLED WITH THE VALVE OR RELIEF SYSTEM ORIENTATED AS SPECIFICALLY NOTED IN THE PIPING DRAWINGS AND P&amp;IDS.</div> <div>9. PIPING SECTION VIEWS INDICATE A HORIZONTAL LINE ON RISERS BETWEEN ABOVE GRADE AND BELOW GRADE PIPING. THIS LINE DOES NOT INDICATE A HORIZONTAL WELD IN THE VERTICAL RISERS. RISERS EXTENDING FROM THE GROUND ARE INTENDED TO BE ONE CONTINUOUS PIECE OF COATED PIPE.</div> <div>10. PIPING DIMENSIONS BETWEEN EQUIPMENT AND PIPE SUPPORT FOUNDATIONS WERE PROVIDED AND A "FIELD VERIFY" WAS ADDED BELOW THE DIMENSION. PIPE AND VALVE SUPPORT FOUNDATIONS HAVE BEEN DESIGNED TO ACCOUNT FOR +/- 2 INCHES OF HORIZONTAL MISALIGNMENT. THE PROVIDED DIMENSIONS SHALL BE CHECKED BY THE CONTRACTOR PRIOR TO FABRICATION TO ENSURE PROPER FIT-UP AND OVERALL DIMENSIONS ARE MET.</div> <div>11. HARD PIPING CENTERLINE ELEVATIONS HAVE BEEN PROVIDED AND FOUNDATIONS HAVE BEEN DESIGNED TO ACCOUNT FOR +/- ½" INCH OF VERTICAL MISALIGNMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM TOP OF CONCRETE (TC) ELEVATIONS FOR PIPE, VALVE, AND EQUIPMENT FOUNDATIONS HAVE BEEN INSTALLED AT THE CORRECT ELEVATION PRIOR TO PIPING FABRICATION. ANY DISCREPANCIES OUTSIDE OF THE VERTICAL MISALIGNMENT TOLERANCE NEED TO BE BROUGHT TO THE COMPANY'S ATTENTION.</div> <div>12. TOP AND BOTTOM OF PIPE ELEVATIONS HAVE BEEN PROVIDED FOR BURIED PIPING AND LABELED WITH A "REF." FOR REFERENCE. PROCESS PIPING SHALL HAVE A MINIMUM DEPTH OF COVER OF 3'-0" FROM ROUGH OR 4'-6" FROM FINAL/EXISTING GRADE, UNLESS APPROVED BY THE COMPANY. BURIED PIPE CROSSINGS SHALL HAVE A MINIMUM SEPARATION DISTANCE OF 1'-6", UNLESS APPROVED BY THE COMPANY.</div> <div>13. ALL ASSEMBLY TO FENCE OFFSET DIMENSIONS ARE FROM THE CLOSEST FACE OR OUTSIDE EDGE OF FLANGE.</div>	
VALVE AND FITTING SYMBOLS		EQUIPMENT SYMBOLS		VALVE ABBREVIATIONS		PIPING CLASS SPECIFICATION	
<div><div><div></div><div>BALL VALVE</div></div><div><div></div><div>GLOBE VALVE</div></div><div><div></div><div>PLUG VALVE</div></div><div><div></div><div>CHECK VALVE</div></div><div><div></div><div>SPECTACLE BLIND</div></div><div><div>TORF</div><div>FLANGED THREAD-O-RING</div></div><div><div>TOR</div><div>THREAD-O-RING</div></div></div>		<div><div><div></div><div>UTILITY POWER POLE W/METER</div></div><div><div></div><div>EFRD CONTROL BUILDING</div></div><div><div></div><div>CORIOLIS METER</div></div><div><div></div><div>PROVER</div></div><div><div></div><div>GAS CHROMATOGRAPH</div></div><div><div></div><div>FLARE KNOCK OUT DRUM</div></div><div><div></div><div>PIG TRAP</div></div></div> <div><div><div></div><div>LIQUID FILTER</div></div><div><div></div><div>STORAGE SPHERE</div></div><div><div></div><div>FLARE</div></div><div><div></div><div>PROPANE TANK</div></div><div><div></div><div>EZ-LINE PIPE SUPPORT</div></div><div><div></div><div>PIPE SUPPORT PIER (ABOVE GRADE)</div></div><div><div></div><div>COMPOSITE SAMPLER</div></div></div>		<div>BPCV -BACK PRESSURE CONTROL VALVE</div> <div>CK -CHECK VALVE</div> <div>DB&amp;B -DOUBLE BLOCK &amp; BLEED</div> <div>DTR -DIFFERENTIAL THERMAL RELIEF</div> <div>FCV -FLOW CONTROL/BALANCING VALVE</div> <div>LC -LOCK CLOSED</div> <div>LO -LOCK OPEN</div> <div>MOV -MOTOR OPERATED VALVE</div> <div>NC -NORMALLY CLOSED</div> <div>NO -NORMALLY OPEN</div> <div>PCV -PRESSURE CONTROL VALVE</div> <div>POV -PNEUMATICALLY OPERATED VALVE</div> <div>V -VALVE, MANUALLY OPERATED</div>		<div>"A" ASME 150#</div> <div>"B" ASME 300#</div> <div>"D" ASME 600#</div> <div>"E" ASME 900#</div>	
INSTRUMENTATION SYMBOLS				PIPELINE SPECIFICATION ABBREVIATIONS		VALVE TYPES	
<div><div><div></div><div>PIG INDICATIING SIGNAL</div></div><div><div></div><div>PRESSURE INDICATOR</div></div><div><div></div><div>PRESSURE INDICATING TRANSMITTER</div></div><div><div></div><div>PRESSURE DIFFERENTIAL INDICATING TRANSMITTER</div></div></div>				<div>A20S -150# ANSI/ASME PRESSURE CLASS STAINLESS STEEL (DRAIN/FLARE) MOP: 285 PSIG</div> <div>D10A -600# ANSI/ASME PRESSURE CLASS CARBON STEEL (STATION) MOP: 1480 PSIG</div> <div>E10A -900# ANSI/ASME PRESSURE CLASS CARBON STEEL (STATION) MOP: 2220 PSIG</div> <div>E20S -900# ANSI/ASME PRESSURE CLASS STAINLESS STEEL (DRAIN/FLARE) MOP:1480 PSIG</div> <div>D30A -600# ANSI/ASME PRESSURE CLASS CARBON STEEL (PIPELINE) MOP: 1480 PSIG</div> <div>E30A -900# ANSI/ASME PRESSURE CLASS CARBON STEEL (PIPELINE) MOP: 2220 PSIG</div>		<div>2 BALL</div> <div>3 PLUG</div> <div>4 GLOBE</div> <div>5 CHECK</div> <div>9 GAUGE, MULTIPORT</div>	
				VALVE DESIGNATION		END CONNECTIONS	
				<div>2" D 2 R F OJ C</div> <div>CORROSIVE SERVICE (NACE)</div> <div>OPPOSITE END VALVE FACING (IF REQUIRED)</div> <div>SPECIAL VALVE TYPE (IF REQUIRED)</div> <div>VALVE END FACING</div> <div>VALVE TYPE</div> <div>PIPING CLASS SPECIFICATION</div> <div>VALVE SIZE</div>		<div>F FLAT FACE</div> <div>R RAISED FACE</div> <div>S SCREWED</div> <div>W WELD END</div> <div>Z SOCKETWELD</div>	
						SPECIAL VALVE TYPES	
						<div>BLANK STANDARD</div> <div>F FULL PORT</div> <div>R REDUCED PORT</div> <div>X SPECIAL, E.G. THREE-WAY</div> <div>O DIFFERENT END FACING</div> <div>LT LOW TEMPERATURE</div>	
				<div>ENGINEERING RECORD</div> <div><div>DRAWN BY</div><div>LCOTE</div></div> <div><div>CHECKED BY</div><div>F.KAY</div></div> <div><div>APPROVED BY</div><div>Z.BAUER</div></div> <div><div>DATE</div><div>2015/06/23</div></div> <div><div>SCALE</div><div>N.T.S.</div></div> <div><div>REI PROJECT #</div><div>02959</div></div>		<div><div><div><div><div></div><div>WESTINGHOUSE ROAD EFRD</div></div><div><div>MECHANICAL</div><div>GENERAL NOTES &amp; LEGEND</div><div>MLV-12127-66.1</div></div></div><div><div><div></div><div>Sunoco Logistics Partners L.P.</div></div><div>DERRY</div></div><div>WESTMORELAND, PA</div></div></div>	
				<div>OLD DRAWING NO.</div> <div>E_WSTN_M000200</div>		<div>DWG. NO.</div> <div>E_WSTN_M000200</div>	
						<div>REV. NO.</div> <div>0</div>	

C:\pwworking\vel\dms10579\E\_WSTN\_M000200.dwg Michael Baugh Mon, 08/22/16 1:36 PM



- NOTES:
1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS.
  2. FROM FENCE TO OUTSIDE DIAMETER OF FLANGE.
  3. FROM FENCE TO FACE OF FLANGE.
  4. FOR BLOCK VALVE SITE DETAILS SEE MECHANICAL DWG. E\_WSTN\_M050100.



ENGINEERING RECORD	
DRAWN BY	D.HALDA
CHECKED BY	F.KAY
APPROVED BY	Z.BAUER
DATE	2015/01/07
SCALE	AS SHOWN
REF. PROJ #	02959

OLD DRAWING NO.

0	07/22/16	3840-00555	ISSUED FOR CONSTRUCTION	LLC	FK
REV.	DATE	APP#	DESCRIPTION	APPROVAL	ZBE



DERRY

WESTINGHOUSE ROAD EFRD  
MECHANICAL  
SITE PLAN  
MLV-12127-66.1

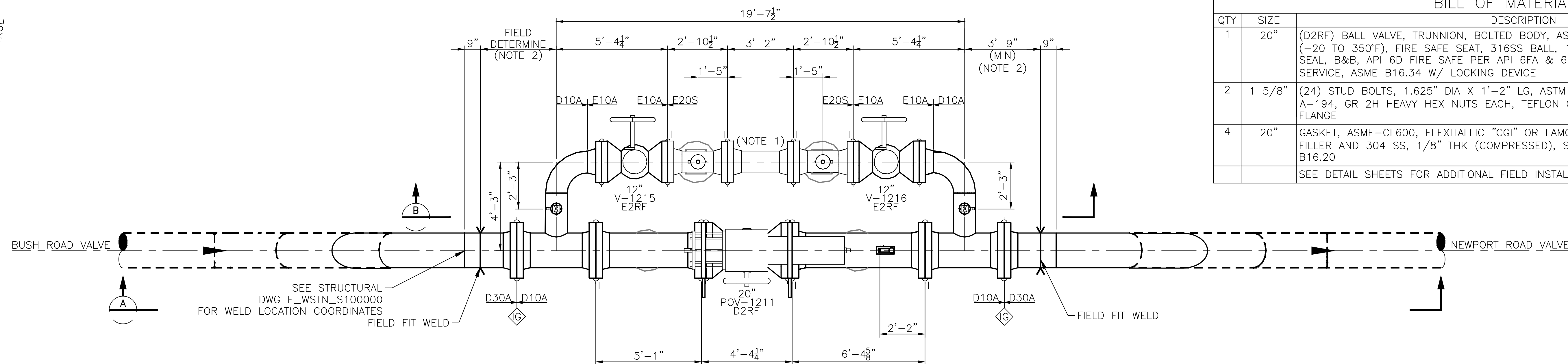
WESTMORELAND, PA

DWG. NO.  
E\_WSTN\_M040100

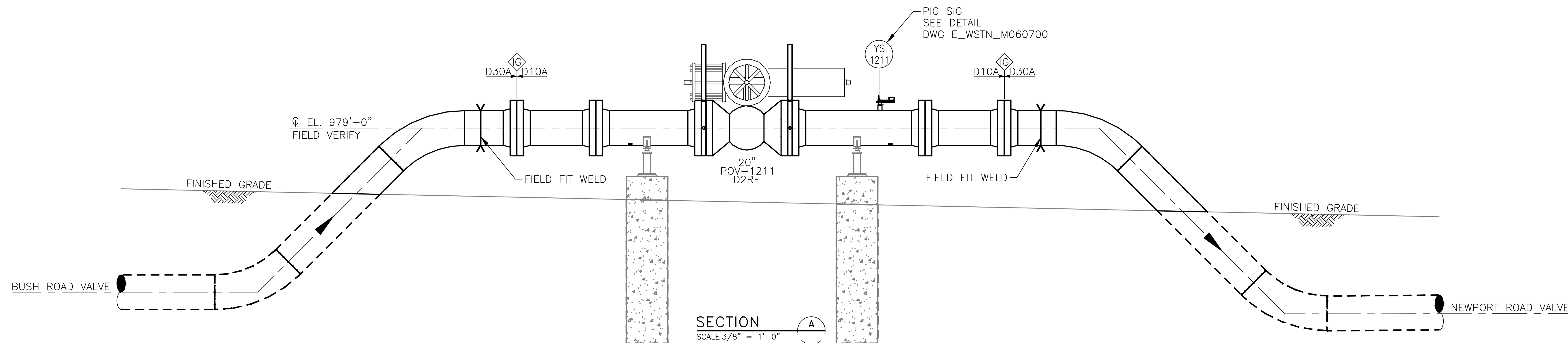
REV. NO.  
0



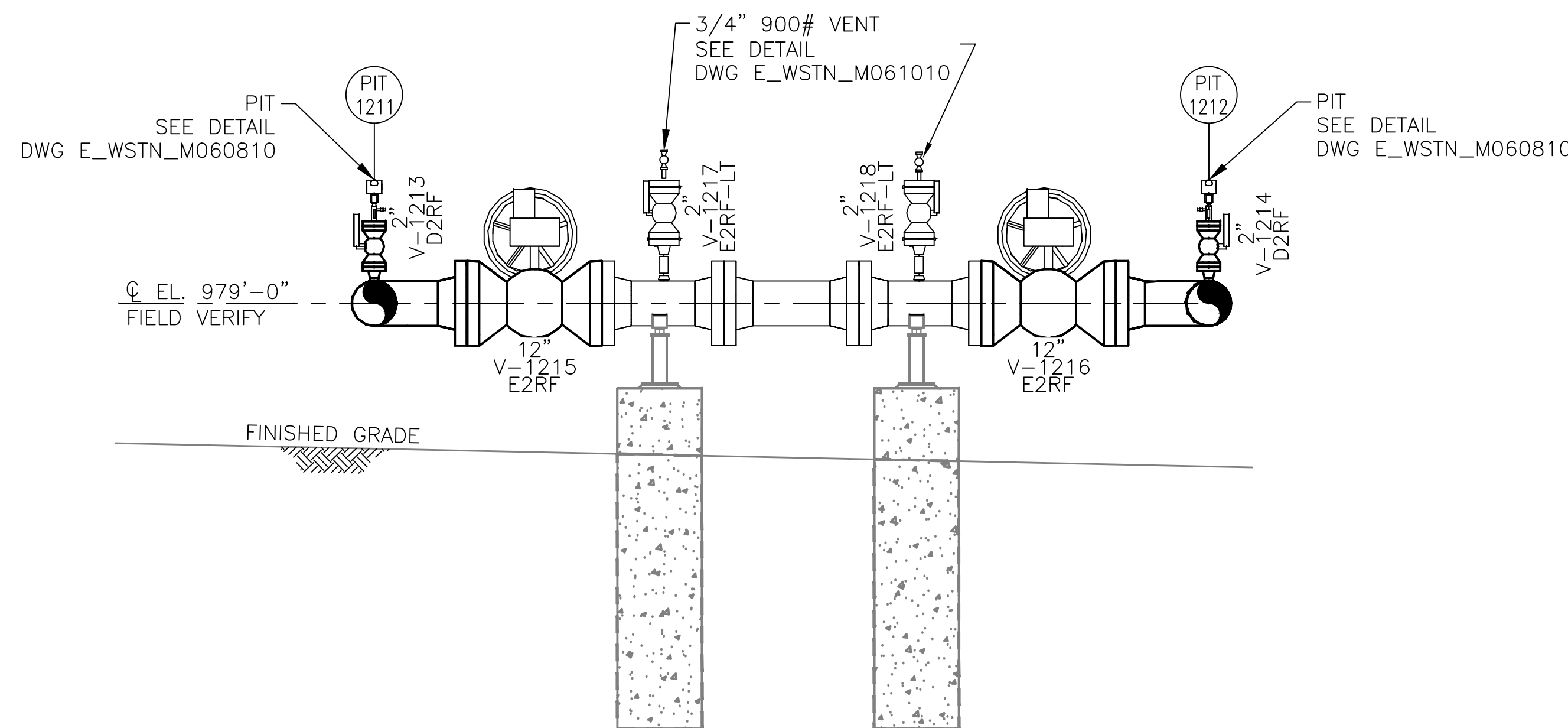
PLAN



PLAN  
SCALE 3/8" = 1'-0"



SECTION  
SCALE 3/8" = 1'-0"



SECTION  
SCALE 3/8" = 1'-0"

NOTES:

1. SPOOL FOR SACRIFICIAL GLOBE VALVE.
2. FIELD TRIM AS REQUIRED FOR FINAL FIT.
3. NO PUP LENGTH SHORTER THAN 9".

BILL OF MATERIAL		
QTY	SIZE	DESCRIPTION
1	20"	(D2RF) BALL VALVE, TRUNNION, BOLTED BODY, ASME-CL600, RFFE, FULL PORT, CS BODY (-20 TO 350°F), FIRE SAFE SEAT, 316SS BALL, 17-4PH SS STEM, NYLON SEAT, HNBR SEAL, B&B, API 6D FIRE SAFE PER API 6FA & 607, PNEUMATIC ACTUATOR, -20°F SERVICE, ASME B16.34 W/ LOCKING DEVICE
2	1 5/8"	(24) STUD BOLTS, 1.625" DIA X 1'-2" LG, ASTM A-193, GR B7 W/ TWO (2) ASTM A-194, GR 2H HEAVY HEX NUTS EACH, TEFLON COATED BOLT KIT FOR 20" ASME-CL600 FLANGE
4	20"	GASKET, ASME-CL600, FLEXITALIC "CGI" OR LAMONS WRI, RF SPIRAL WOUND, GRAPHITE FILLER AND 304 SS, 1/8" THK (COMPRESSED), SS INNER & OUTER RING, API 601, ASME B16.20
SEE DETAIL SHEETS FOR ADDITIONAL FIELD INSTALLED BOM ITEMS		

0	07/22/16	3840-00555	ISSUED FOR CONSTRUCTION	LLC	FK	ZB
REV.	DATE	APP#	DESCRIPTION	APPROVAL		

ENGINEERING RECORD	
DRAWN BY	L.COTE
CHECKED BY	F.KAY
APPROVED BY	Z.BAUER
DATE	2015/06/23
SCALE	AS SHOWN
REI PROJECT #	02959



WESTINGHOUSE ROAD EFRD  
MECHANICAL  
PIPING PLAN & SECTIONS  
MLV-12127-66.1

DERRY

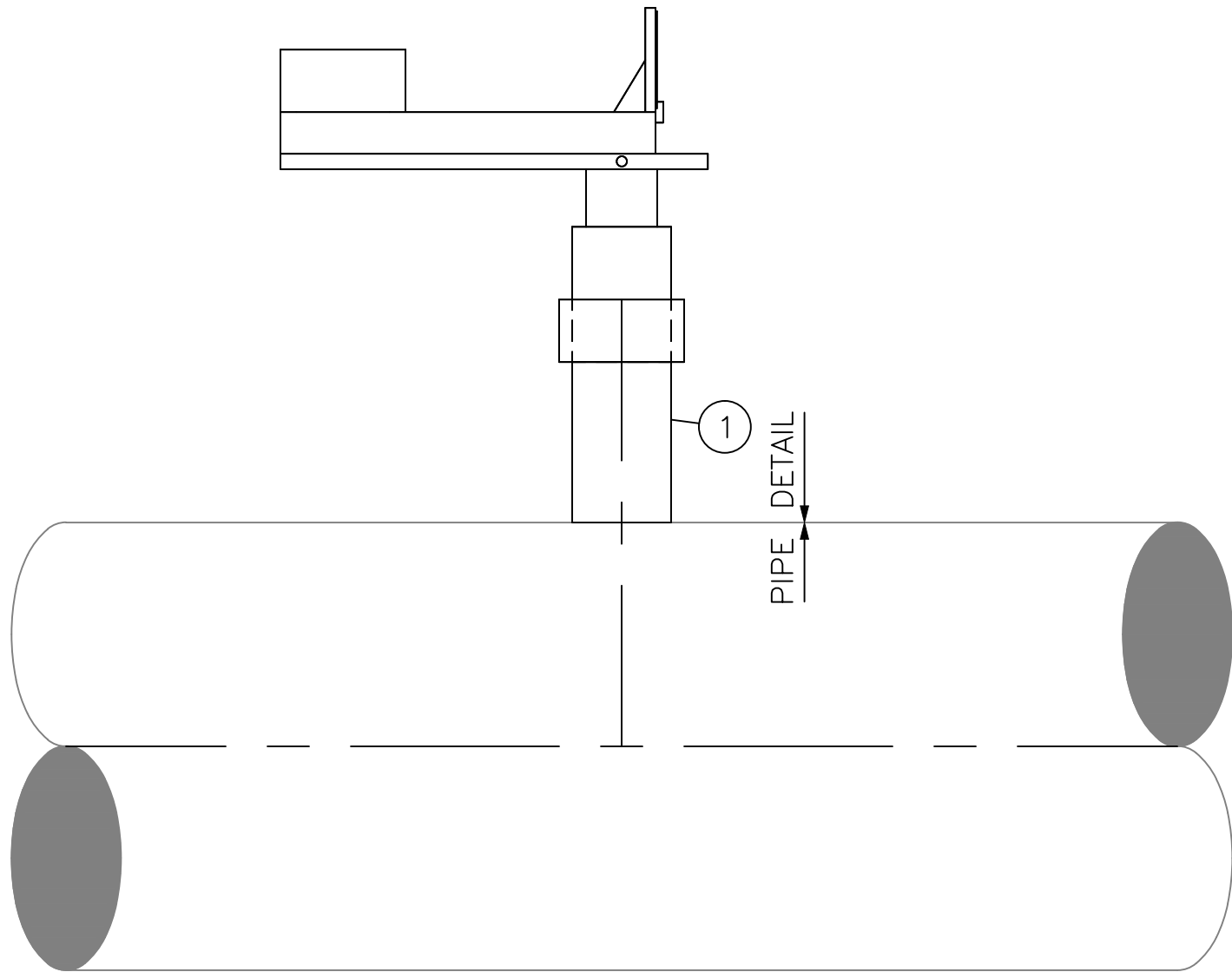


OLD DRAWING NO.

DWG. NO.  
E\_WSTN\_M050100

REV. NO.  
0

C:\pwworking\vel\drms\0579\E\_WSTN\_M060700.dwg Michael Borogh Mon, 08/22/16 1:37 PM



SEE DRAWING:  
E\_WSTN\_M050100  
TAG NUMBER:  
WSTN-YS-1211

BILL OF MATERIAL				
MARK	QTY	SIZE	DESCRIPTION	LENGTH
1	1	2"	T.O.R. FITTING FOR PIG SIGNAL, TDW ELECTRICAL W/ FLAG, PT# 04-9548-2000-51	

0	07/22/16	3840-00555	ISSUED FOR CONSTRUCTION	LLC	FK
REV.	DATE	APP#	DESCRIPTION	APPROVAL	

ENGINEERING RECORD	
DRAWN BY	T.ELY
CHECKED BY	F.KAY
APPROVED BY	Z.BAUER
DATE	2015/10/02
SCALE	N.T.S.
REI PROJECT #	02959



WESTINGHOUSE ROAD EFRD  
MECHANICAL  
PIPING DETAIL - PIG SIG  
MLV-12127-66.1

DERRY

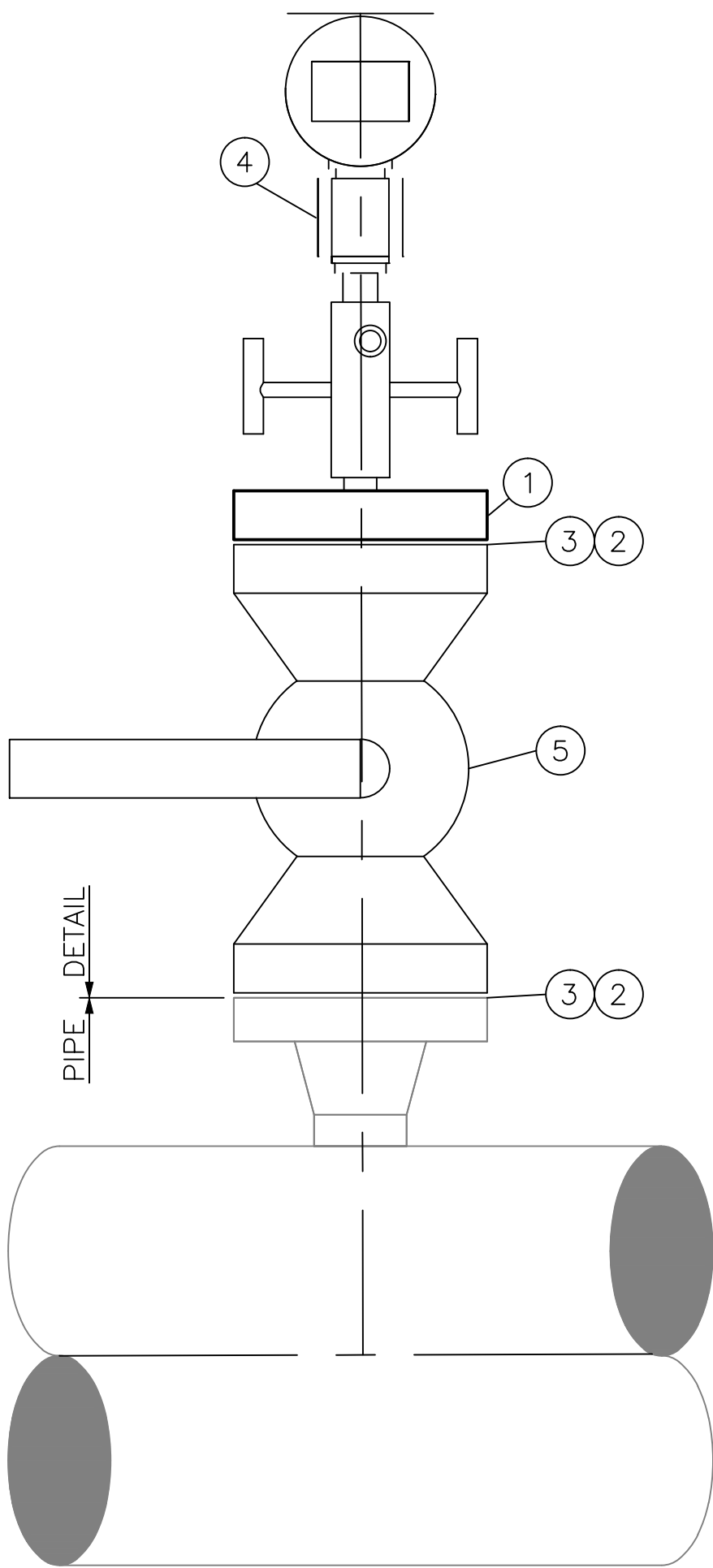
WESTMORELAND, PA



OLD DRAWING NO.

DWG. NO.  
E\_WSTN\_M060700

REV. NO.  
0




TYPICAL 2  
SEE DRAWING:  
E\_WSTN\_M050100  
TAG NUMBERS:  
WSTN-PIT-1211, WSTN-V-1213  
WSTN-PIT-1212, WSTN-V-1214

BILL OF MATERIAL				
MARK	QTY	SIZE	DESCRIPTION	LENGTH
1	1	2"	FLANGE, BLIND, ASME-CL600, RF, CS, ASTM A105, W/ 1/2" FNPT TAP	
2	2	5/8"	(8) STUD BOLTS, 0.625" DIA X 4 3/4" LG, ASTM A193, GR B7 W/ TWO (2) ASTM A194, GR 2H HEAVY HEX NUTS EACH, TEFLON COATED, FOR 2" ASME-CL600 FLANGE	4 3/4"
3	2	2"	GASKET, ASME-CL600, FLEXITALLIC "CGI" OR LAMONS WRI, RF SPIRAL WOUND, GRAPHITE FILLER AND 304SS, 1/8" THK (COMPRESSED), SS INNER AND OUTER RING, API 601, ASME B16.20	
4	1	1/2"	PIT, ROSEMOUNT MODEL 3051T-G-4-A-2B-2-1-A-S5-K5-Q4-M5-T1 WITH MANIFOLD VALVE MODEL 0306RT 22AA11	
5	1	2"	(D2RF) BALL VALVE, FLOATING, BOLTED BODY, ASME-CL600, RFFE, FP, CS BODY (-20°F TO 200°F), FIRE SAFE SEAT, 316SS BALL AND 17-4 PH SS STEM, NYLON SEAT, HNBR SEAL, B&B, API 6D FIRE SAFE PER API 6FA AND 607, LEVER OP	11 1/2"

0	07/22/16	3840-00555	ISSUED FOR CONSTRUCTION	LLC	FK
REV.	DATE	APP#	DESCRIPTION	APPROVAL	ZBB

ENGINEERING RECORD	
DRAWN BY	T.ELY
CHECKED BY	F.KAY
APPROVED BY	Z.BAUER
DATE	2015/09/27
SCALE	N.T.S.
REI PROJECT #	02959



**Sunoco Logistics  
Partners L.P.**

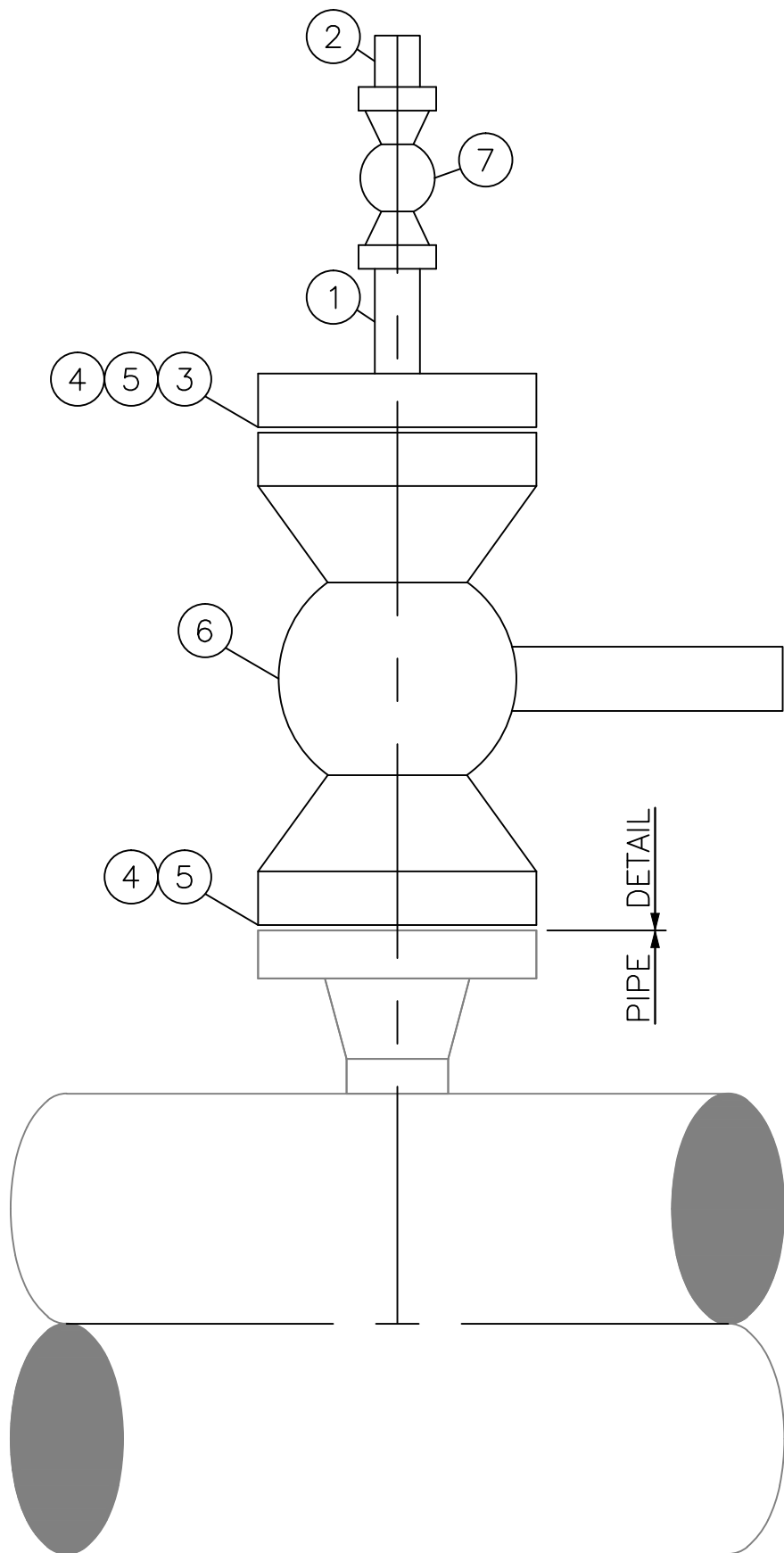
WESTINGHOUSE ROAD EFRD  
MECHANICAL  
PIPING DETAIL - PIT  
MLV-12127-66.1

DERRY

WESTMORELAND, PA

 <b>TETRA TECH</b> ROONEY (303) 792-5911	OLD DRAWING NO.	DWG. NO. <b>E_WSTN_M060810</b>	REV. NO. <b>0</b>
--	-----------------	-----------------------------------	----------------------

C:\pwworking\vel\drms10579\E\_WSTN\M061010.dwg Michael Borogh Mon, 08/22/16 1:38 PM



TYPICAL 2  
SEE DRAWING:  
E\_WSTN\_M050100  
TAG NUMBERS:  
WSTN-V-1217  
WSTN-V-1218

BILL OF MATERIAL				
MARK	QTY	SIZE	DESCRIPTION	LENGTH
1	1	3/4"	NIPPLE, 3/4" X 3" LG, SCH 80S, SS, ASTM A312 TP 316/316L TBE	3"
2	1	3/4"	PLUG, HEX HEAD, MNPT, ASME-CL6000, SS, ASTM A182 GR 316/316L	
3	1	2"	FLANGE, BLIND, ASME-CL900, RF, SS, ASTM A182 GR 316/316L, W/ 3/4" FNPT TAP	
4	2	7/8"	(8) STUD BOLTS, 0.875" DIA X 6 1/4" LG, ASTM A320, GR L7 W/ TWO (2) ASTM A194, GR 4 HEAVY HEX NUTS EACH, TEFLON COATED, FOR 2" ASME-CL900 FLANGE	6 1/4"
5	2	2"	GASKET, ASME-CL900, FLEXITALLIC "CGI" OR LAMONS WRI, RF SPIRAL WOUND, GRAPHITE FILLER AND 304SS, 1/8" THK (COMPRESSED), SS INNER AND OUTER RING, API 601, ASME B16.20	
6	1	2"	(E2RF-LT) BALL VALVE, FLOATING, ASME-CL900, RFFE, FP, 316SS BODY, 316SS BALL AND STEM, KEL-F SEATS, GRAFOIL SEALS, SUITABLE FOR -100°F SERVICE, ASME B16.34, W/ LOCKING DEVICE, FIRESAFE PER API 607, TESTED TO API 598, LEVER OP	1'-2 1/2"
7	1	3/4"	(E2SF-LT) BALL VALVE, FLOATING, 2- OR 3-PIECE THRD BODY, 3000 WOG, FNPT, FP OR RP, 316SS BODY, SS BALL AND STEM, PEEK SEATS, TEFLON SEALS, SUITABLE FOR -100°F SERVICE, ASME B16.34, W/ LOCKING DEVICE, FIRESAFE PER API 607, TESTED TO API 598, LEVER OP	3 1/8"

ENGINEERING RECORD			
DRAWN BY	T.ELY		
CHECKED BY	F.KAY		
APPROVED BY	Z.BAUER		
DATE	2015/09/27		
SCALE	N.T.S.		
REI PROJECT #	02959		

0	07/22/16	3840-00555	ISSUED FOR CONSTRUCTION	LLC	FK
REV.	DATE	APP#	DESCRIPTION	APPROVAL	ZBB



WESTINGHOUSE ROAD EFRD  
MECHANICAL  
PIPING DETAIL - 3/4" 900# VENT  
MLV-12127-66.1

DERRY

WESTMORELAND, PA



OLD DRAWING NO.

DWG. NO.

E\_WSTN\_M061010

REV. NO.

0