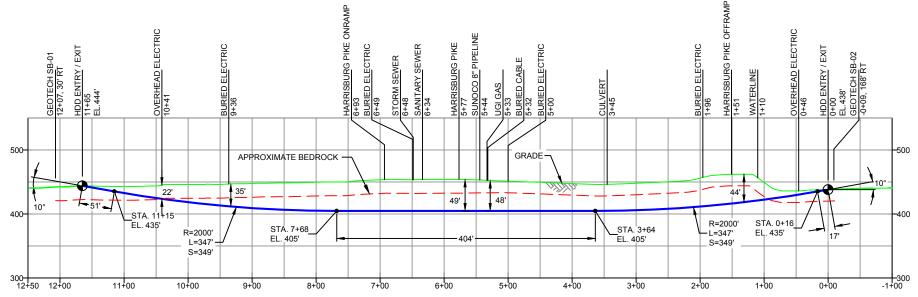


-NG EL. 445' -TOPSOIL (0' - 0.2') -SILT (USCS:MH) (0.2' - 21.5') -LIMESTONE (21.5' - 21.5') \-COMPLETION DEPTH EL. 423.5' GEOTECH SB-02 -NG EL. 438' -TOPSOIL (0' - 0.2') -SILT (USCS:MH) + (4.6' - 10.0') -SILT (USCS:MH) (13.0' - 16.0') LIMESTONE (16.0' - 18.0') \-COMPLETION DEPTH EL. 420' NOTE: REFER TO TEST BORING LOG S2-0200 FOR COMPLETE SOIL MATERIAL DESCRIPTION



- DESIGN AND CONSTRUCTION:

 1. CONTRACTOR SHALL FIELD VERIFY DEPTH OF ALL EXITING UTILITIES SHOWN OR NOT SHOWN ON
- THE MINIMUM SEPARATION DISTANCE FROM EXISTING SUBSURFACE UTILITIES SHALL NOT BE LESS 2. THE MINIMUM SEPARATION DISTANCE FROM EXISTING SUBSURFACE UTILITIES SHALL NOT BE LESS THAN 10 FEET AS MEASURED FROM THE OUTSIDE EDGE OF THE UTILITY TO OUTSIDE OF PROPOSED PIPELINE.

 3. DESIGNED IN ACCORDANCE WITH CFR 49 195 & ASME B31.4

 4. CROSSING PIPE SPECIFICATION:
 HDD HORZ. LENGTH (L=):1166'
 HDD PIPE LENGTH (S=):1170'
 20" x 0.456" W.T., X-65, APIGL, PSL2, ERW, BFW
 COATURE: 41 45 MIN SEPE WITH 20 26 MIN ABOL (POWED CRETE POS).

- 5. INTERNAL DESIGN PRESSURE 1480 PSIG (SEAM FACTOR 1.0, DESIGN FACTOR 0.50).
- INTERNAL DESIGN PRESSURE 1400 PSIG (SERIP PACTOR 1), DESIGN FACTOR (33), INSTALLATION METHOD: HORIZONTAL DIRECTIONAL DRILL (HDD).
 PIPELINE WARNING MARKERS SHALL BE INSTALLED ON BOTH SIDES OF ALL ROAD, RAILWAY, AND STREAM GROSSINGS.

- STREAM CROSSINGS.

 8. CARRIER PIPE NOT ENCASED.

 9. PIPE / AMBIENT TEMPERATURE MUST BE NO LESS THAN 30°F DURING PULLBACK WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.

 10. CONDUCT 4-HOUR PRE-INSTALLATION HYDROTEST OF HDD PIPE STRING TO MINIMUM 1850 PSIG.

 11. SEE SUNOCO PENNSYLVANIA PIPELINE PROJECT ESRI WEBMAP FOR ACCESS ROAD ALIGNMENT.
- 12. SUNOCO PIPELINE, L.P.'S HORIZONTAL DIRECTIONAL DRILL INADVERTENT RETURN CONTINGENCY PLAN WILL BE IMPLEMENTED AT ALL TIMES.
 SUNOCO PIPELINE, L.P.'S EROSION AND SEDIMENTATION CONTROL PLAN WILL BE IMPLEMENTED AT ALL

		COATING: 14-16 MILS FBE WITH 30-35 MIL ARO (POWERCRETE R95)														
	NOTES	REF. DRAWING				REVISIONS										
	2. STATIONING IS BASED ON HORIZONTAL DISTANCES.	ES-4.60	то	ES-4.60	EROSION & SEDIMENT PLAN											
		SHEET 36	то	SHEET 36	AERIAL SITE PLAN	EP1	REVISED PER PADEP COMMENTS	MRS	05/10/16	RMB	05/10/16	AAW	05/10/16			
						EP		JTW	03/15/16	RMB	03/15/16	MAA	03/15/16			
						С	ADDED GEOTECH INFO	MRS	09/14/15	RMB	09/14/15	AAW	09/14/15	-		
						В	ISSUED FOR BID	MRS	07/31/15	RMB	07/31/15	AAW	07/31/15			
						Α	ISSUED FOR REVIEW	JAM	03/25/15	RMB	03/25/15	AAW	03/25/15			
		DWG NO		DWG NO	DESCRIPTION	NO.	DESCRIPTION	BY	DATE	CHK	DATE	APP	DATE			



TETRA TECH ROONEY (303) 792-5911

20-INCH HORIZONTAL DIRECTIONAL DRILL HARRISBURG PIKE PENNSYLVANIA PIPELINE PROJECT

SUNOCO PIPELINE, L.P.

DWG. NO: PA-CU-00136.0000-RD SCALE: 1"=150'