

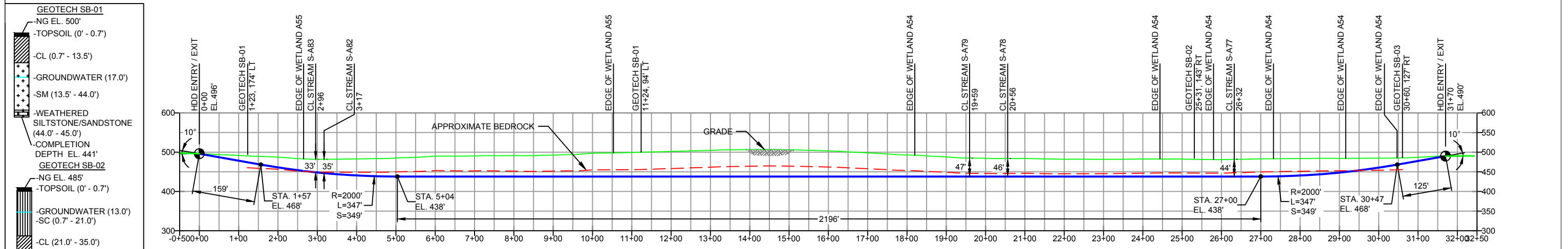
**LEGEND**

- PERMANENT ROW
- TEMPORARY CONSTRUCTION ROW
- TEMPORARY WORKSPACE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- SPOIL SPACE ONLY
- PROPOSED HDD
- PROPOSED 20" PIPELINE
- PROPOSED 16" PIPELINE
- HDD ENTRY-EXIT
- PEM WETLANDS
- PSS WETLANDS
- PFO WETLANDS

**PLAN VIEW**

LANCASTER COUNTY, PENNSYLVANIA - WEST COCALICO TOWNSHIP  
S3-0161

**PROFILE VIEW**



**GEOTECH SB-01**

- NG EL. 500'
- TOPSOIL (0' - 0.7')
- CL (0.7' - 13.5')
- GROUNDWATER (17.0')
- SM (13.5' - 44.0')
- WEATHERED SILTSTONE/SANDSTONE (44.0' - 45.0')
- COMPLETION DEPTH EL. 441'

**GEOTECH SB-02**

- NG EL. 485'
- TOPSOIL (0' - 0.7')
- GROUNDWATER (13.0')
- SC (0.7' - 21.0')
- CL (21.0' - 35.0')
- WEATHERED SILTSTONE (35.0' - 44.0')
- COMPLETION DEPTH EL. 441'

**GEOTECH SB-03**

- NG EL. 487'
- TOPSOIL (0' - 0.3')
- SM (0.3' - 11.5')
- GROUNDWATER (6.0')
- SC (11.5' - 30.0')
- COMPLETION DEPTH EL. 457'

**GEOTECH SB-01**

- NG EL. 494'
- TOPSOIL (0' - 0.1')
- SM (0.1' - 21.5')
- GROUNDWATER (15.0')
- SC (21.5' - 26.0')
- CL (26.0' - 30.0')
- COMPLETION DEPTH EL. 464'

- DESIGN AND CONSTRUCTION:**
- CONTRACTOR SHALL FIELD VERIFY DEPTH OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THIS DRAWING.
  - 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.
  - DESIGNED IN ACCORDANCE WITH CFR 49 195 & ASME B31.4
  - CROSSING PIPE SPECIFICATION:  
HDD HORZ. LENGTH (L): 3170'  
HDD PIPE LENGTH (S): 3178'  
20" x 0.456" W.T., X-65, APISL, PSL2, ERW, BFW  
COATING: 14-16 MILS FBE WITH 30-35 MIL ARO (POWERCRETE R95)
  - INTERNAL DESIGN PRESSURE 1480 PSIG (SEAM FACTOR 1.0, DESIGN FACTOR 0.50).
  - INSTALLATION METHOD: HORIZONTAL DIRECTIONAL DRILL (HDD).
  - PIPELINE WARNING MARKERS SHALL BE INSTALLED ON BOTH SIDES OF ALL ROAD, RAILWAY, AND STREAM CROSSINGS.
  - CARRIER PIPE NOT ENCASED.
  - PIPE / AMBIENT TEMPERATURE MUST BE NO LESS THAN 30°F DURING PULLBACK WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.
  - CONDUCT 4-HOUR PRE-INSTALLATION HYDROTEST OF HDD PIPE STRING TO MINIMUM 1850 PSIG.
  - SEE SUNOCO PENNSYLVANIA PIPELINE PROJECT ESRI WEBMAP FOR ACCESS ROAD ALIGNMENT.
  - 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 TIMES.

**NOTES**

- ALL COORDINATES SHOWN ARE IN LATITUDE AND LONGITUDE. ALL MSL ELEVATIONS ARE NAD83
- STATIONING IS BASED ON HORIZONTAL DISTANCES
- ROONEY ENGINEERING, INC. AND SUNOCO PIPELINE, LP ARE NOT RESPONSIBLE FOR LOCATION OF FOREIGN UTILITIES SHOWN IN PLOT PLAN OR PROFILE. THE INFORMATION SHOWN HEREON IS FURNISHED WITHOUT LIABILITY ON THE PART OF ROONEY ENGINEERING, INC. AND SUNOCO PIPELINE, LP, FOR ANY DAMAGES RESULTING FROM ERRORS OR OMISSIONS THEREIN.
- CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES. CONTACT ONE CALL AT 811 PRIOR TO DIGGING.
- SUNOCO EMERGENCY HOTLINE NUMBER IS #1-800-786-7440.

REF. DRAWING	NO.	DESCRIPTION	DATE	BY	CHK	APP
ES-4.11	TO	ES-4.13				
SHEET 6	TO	SHEET 8				
		EROSION & SEDIMENT PLAN				
		AERIAL SITE PLAN				
		EP1	REVISED PER PADEP COMMENTS	JTW	05/18/16	RMB 05/18/16 AAW 05/18/16
		EP		MRS	02/26/16	RMB 02/26/16 AAW 02/26/16
		1	DESIGN CHANGE	MRS	02/24/16	RMB 02/24/16 AAW 02/24/16
		0	ISSUED FOR CONSTRUCTION	MRS	01/21/16	RMB 01/21/16 AAW 01/21/16
DWG NO	DWG NO	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION

**Sunoco Logistics  
Partners L.P.**

**SUNOCO PIPELINE, L.P.**

20-INCH HORIZONTAL DIRECTIONAL DRILL  
WETLAND A54 & A55  
PENNSYLVANIA PIPELINE PROJECT

**TETRA TECH ROONEY**  
(303) 792-5911

SCALE: 1"=250'

DWG. NO: PA-LA-0014.0000-SR