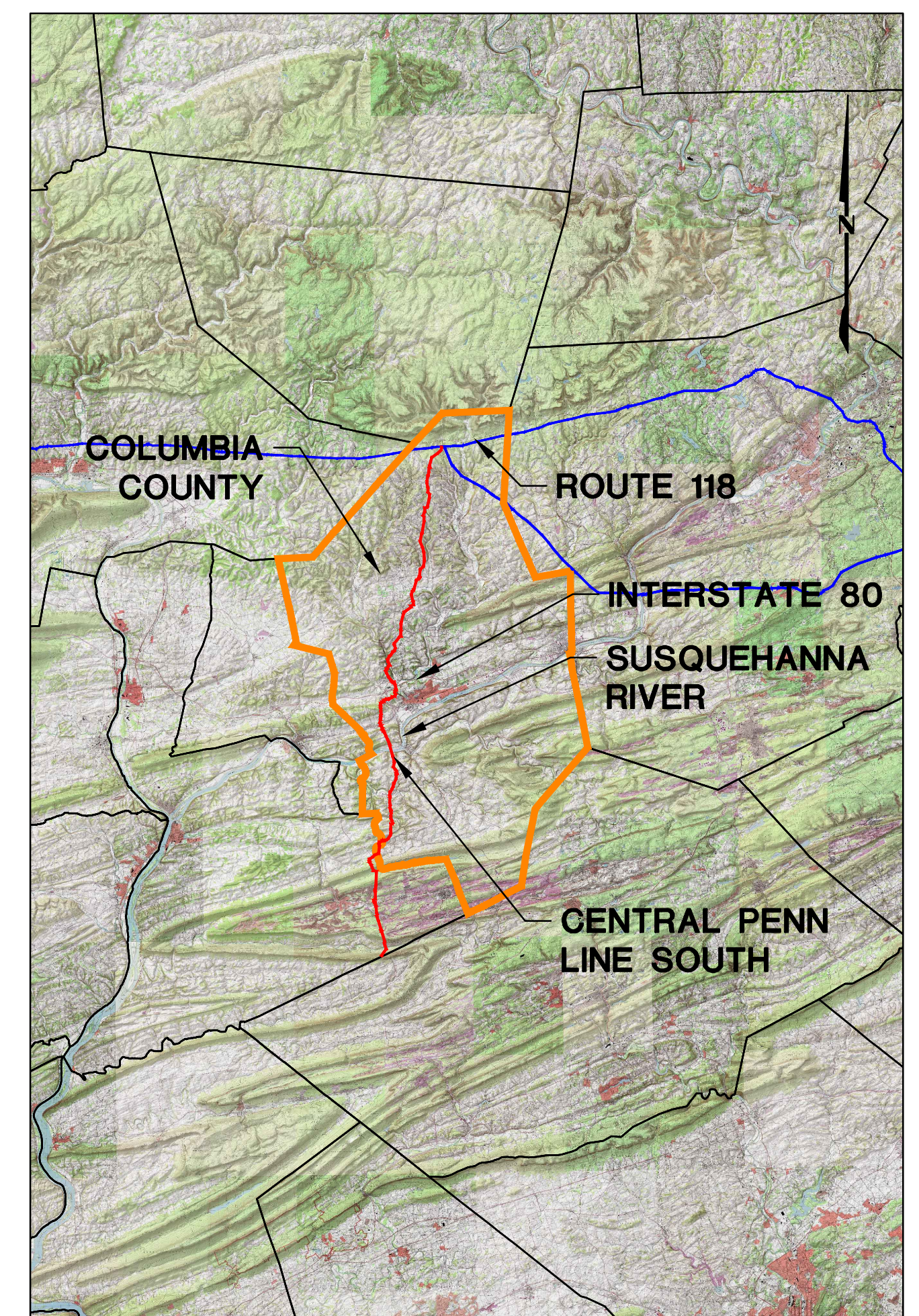


TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR PERMANENT ACCESS ROADS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH

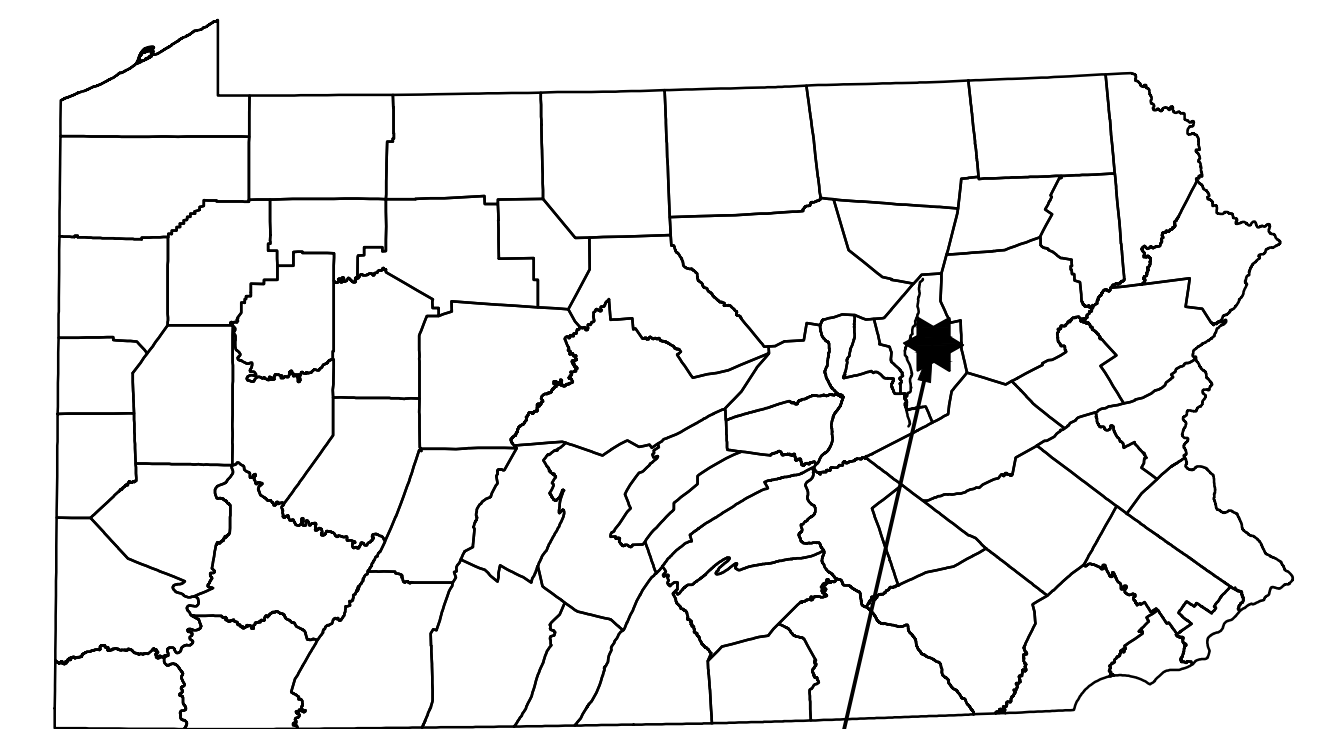
MONTOUR TOWNSHIP
COLUMBIA COUNTY, PENNSYLVANIA



USGS ELK GROVE, BENTON, BLOOMSBURG, MILLVILLE, DANVILLE, CATAWISSA, AND SHAMOKIN QUADRANGLES

VICINITY MAP

SCALE: 1"=50,000'



PROJECT LOCATION

ROAD NAME & TYPE	DRAWING NO.	SHEET NO.	DRAWING NAME
GENERAL OVERALL	24-1600-70-28-A/LL113_9-AR-CO	1 of 3	COVER SHEET
		2 of 3	LOCATION MAP AND ACCESS ROAD INDEX
		3 of 3	PCSM NOTES
AR-CO-095.1.1-3 <i>Proposed Permanent</i>	24-1600-70-28-A/LL113_9-AR-CO-095.1.1-3	1 of 4	ACCESS ROADS - POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
AR-CO-097.1.1 <i>Proposed Permanent</i>	24-1600-70-28-A/LL113_9-AR-CO-097.1.1	1 of 1	ACCESS ROADS - POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

ABBREVIATIONS			
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	INV	INVERT
		L	LENGTH, LEFT
		LOD	LIMIT OF DISTURBANCE
ABACT	ANTIDEGRADATION BEST AVAILABLE COMBINATION OF TECHNOLOGIES	MF	MIGRATORY FISHES
		MLV	MAIN LINE VALVE
APPROX.	APPROXIMATE	N/A	NOT APPLICABLE
AR	ACCESS ROAD	PADEP	PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
AC.	ACRE/ACRES		
BMP	BEST MANAGEMENT PRACTICES	PR	PROPOSED
CWF	COLDWATER FISHES	R	RIGHT
D	DEPTH	RCP	REINFORCED CONCRETE PIPE
D.I.P.	DUCTILE IRON PIPE	STA	STATION
E&S	EROSION AND SEDIMENT CONTROL	TGPL	TRANSCONTINENTAL GAS PIPE LINE
ESCGP-2	EROSION AND SEDIMENT CONTROL GENERAL PERMIT - 2	TSF	TROUT STOCKED FISHERY
		TYP.	TYPICAL
EV	EXCEPTIONAL VALUE	UNK	UNKNOWN
EX	EXISTING	UNT	UNNAMED TRIBUTARY
GTD	GRADE TO DRAIN	V	VERTICAL
H	HORIZONTAL	W	WIDTH
HQ	HIGH QUALITY	WWF	WARMWATER FISHES

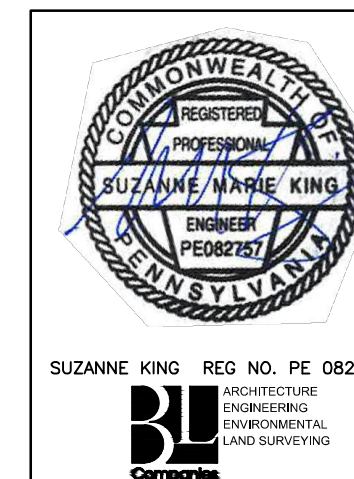
SOIL TYPES AND LIMITATIONS																	
MAP UNIT NAME	MAP UNIT DESIGNATION	CUTBANKS CAVE	CORROSIVE TO CONCRETE/STEEL	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE	HYDRIC/HYDRIC INCLUSIONS	LOW STRENGTH / LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK - SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
Hhd2	HARTLETON CHANNERY SILT LOAM, 20 TO 35 PERCENT SLOPES, MODERATELY ERODED	X	C	X					X	X	X	X	X	X			
WbB2	WATSON SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	X	C/S	X			X	X	X	X	X	X	X	X			

LEGEND
 X APPLIES TO SOIL
 C CORROSIVE TO STEEL
 S CORROSIVE TO CONCRETE
 C/S CORROSIVE TO STEEL AND CONCRETE



PENNSYLVANIA ACT 287 (1974) AS AMENDED BY PENNSYLVANIA ACT 199 (2004) REQUIRES NO LESS THAN THREE (3) WORKING DAYS AND NO MORE THAN (10) WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH.

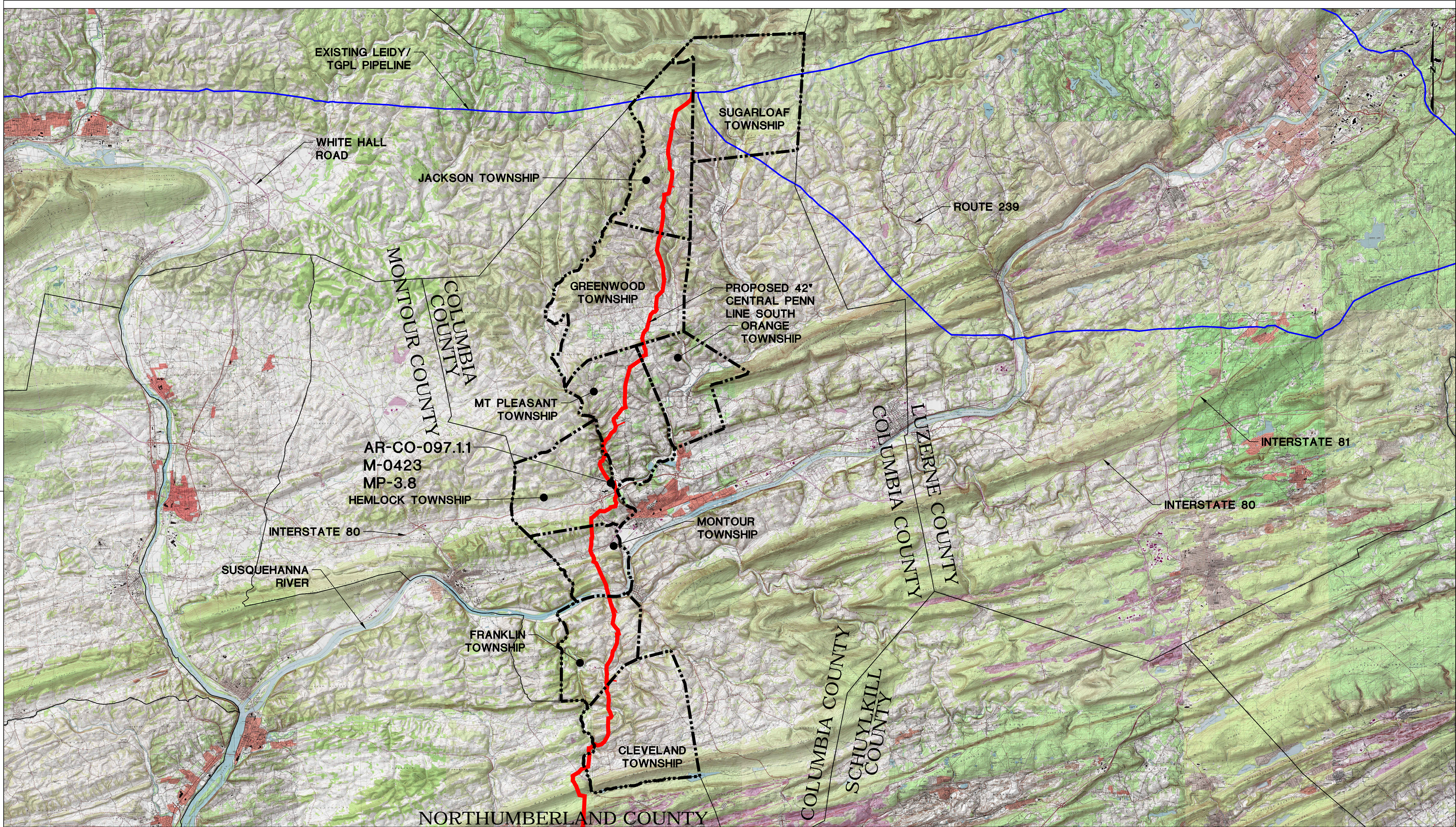
ENGINEER OF RECORD
BL COMPANIES
4242 CARLISLE PIKE, SUITE 260
CAMP HILL, PA 17011
P:717-651-9850
F:717-651-9858



REVISIONS				W.D. NO.	CHK.	APP.
NO.	DATE	BY	DESCRIPTION			
0	OCT. 2016	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #1	1161503	DAK	SMK
1	APRIL 2017	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #2	1161503	DAK	SMK

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC			
ATLANTIC SUNRISE PROJECT - PROPOSED 42" CENTRAL PENN LINE SOUTH			
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN			
ACCESS ROADS			
COLUMBIA COUNTY, PENNSYLVANIA			
COVER SHEET			
DRAWN BY: OLC/MS	DATE: 4/2015	ISSUED FOR BID:	SCALE:
CHECKED BY: DAK	DATE: 06/12/15	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: SMK	DATE: 07/07/15	DRAWING NUMBER:	SHEET 1
W.D. NO: W01161503	24-1600-70-28-A/LL113_9-AR-CO OF 3		





EXISTING LEIDY/
TGPL PIPELINE

WHITE HALL
ROAD

JACKSON TOWNSHIP

SUGARLOAF
TOWNSHIP

ROUTE 239

MONTOUR COUNTY
COLUMBIA
COUNTY

GREENWOOD
TOWNSHIP

PROPOSED 42"
CENTRAL PENN
LINE SOUTH
ORANGE
TOWNSHIP

MT PLEASANT
TOWNSHIP

AR-CO-097.11
M-0423
MP-3.8
HEMLOCK TOWNSHIP

MONTOUR
TOWNSHIP

INTERSTATE 80

SUSQUEHANNA
RIVER

FRANKLIN
TOWNSHIP

LUZERNE COUNTY
COLUMBIA COUNTY
SCHUYLKILL
COUNTY

INTERSTATE 81





INTERSTATE 80

CLEVELAND
TOWNSHIP

NORTHUMBERLAND COUNTY

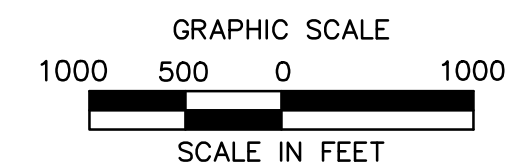
USGS ELK GROVE, BENTON, BLOOMSBURG, MILLVILLE, DANVILLE, CATAWISSA, AND SHAMOKIN
QUADRANGLES

LEGEND

-  TOWNSHIP LINE
-  COUNTY LINE
-  PROPOSED 42" CENTRAL PENN LINE SOUTH
-  EXISTING LEIDY/ TGPL PIPELINE



PENNSYLVANIA ACT 287 (1974)
AS AMENDED BY PENNSYLVANIA
ACT 199 (2004) REQUIRES NO
LESS THAN THREE (3) WORKING
DAYS AND NO MORE THAN (10)
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UTILITIES BEFORE YOU EXCAVATE,
DRILL, BLAST OR DEMOLISH.




SUZANNE KING REG NO. PE 082757
ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
0	OCT. 2016	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #1	1161503	DAK	SMK
1	APRIL 2017	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #2	1161503	DAK	SMK

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
ATLANTIC SUNRISE PROJECT- PROPOSED 42" CENTRAL PENN LINE SOUTH
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
ACCESS ROADS
COLUMBIA COUNTY, PENNSYLVANIA
LOCATION MAP & ACCESS ROAD INDEX

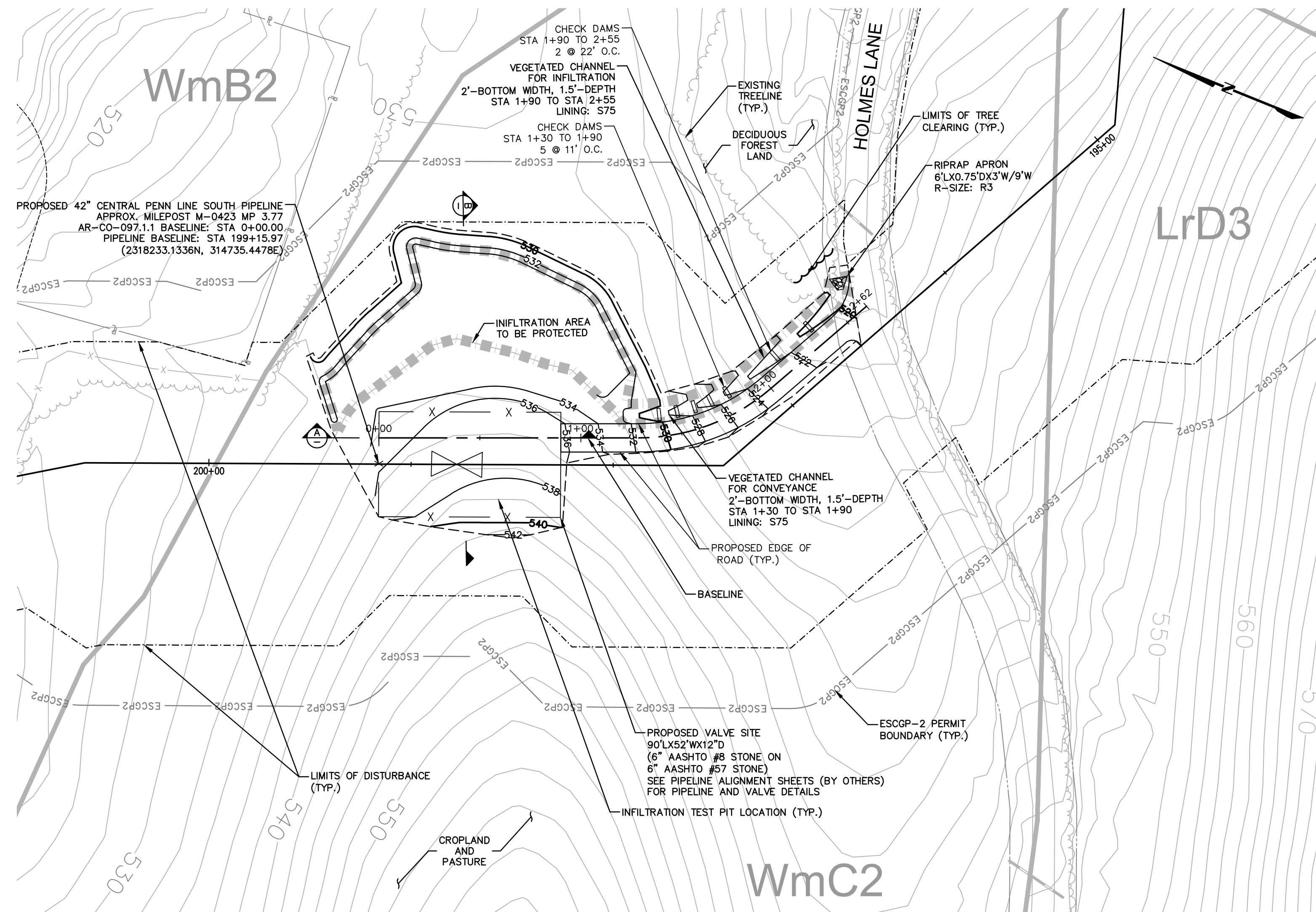
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CHECKED BY: DAK	DATE: 06/12/15	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: SMK	DATE: 07/07/15	DRAWING NUMBER:	SHEET 2
W.O. W01161503	24-1600-70-28-A/LL113_9-AR-CO	OF 3	



Drawn By & Date/Time: Sking Apr 24, 2017 - 3:28pm
 Drawing Location & Name: G:\0851\14C\14C4909\DWG\020-CPLS\VAR_CV14C4909(00)_CO.dwg

SITE RESTORATION

- RESTORATION OF THE ACCESS ROAD ROW WILL INCLUDE, BUT IS NOT LIMITED TO, RESTORATION OF EXISTING CONTOURS, RESTORATION OF EXISTING ROADS, DECOMPACTION, AND SEEDING.
- RESTORATION STEPS ARE DESCRIBED IN THE SEQUENCE OF CONSTRUCTION PROVIDED ON THE SOIL EROSION CONTROL PLAN AND IN THE ROAD-SPECIFIC APPENDIX OF THE COUNTY NARRATIVE.
- ONCE THE TEMPORARY ACCESS ROAD IS NO LONGER NECESSARY, THE GRAVEL AND GEOTEXTILE FABRIC FROM THE TEMPORARILY IMPROVED SECTIONS WILL BE REMOVED AND DISPOSED OF AT A SUITABLE DISPOSAL OR RECYCLING SITE IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. STONE ADDED TO EXISTING GRAVEL ROADS WILL REMAIN IN PLACE.
- DISTURBED AREAS OUTSIDE EXISTING ROAD AREAS WILL BE RESTORED TO PRE-CONSTRUCTION CONTOURS. THE SUBSOIL WILL BE DE-COMPACTED AND TOPSOIL WILL BE SPREAD OVER THE DISTURBED AREA. DISTURBED AREAS WILL BE SEEDING AND STABILIZED WITH MULCH OR EROSION CONTROL BLANKETS AS APPLICABLE.
- EROSION CONTROL BLANKETS (ECB) SHALL BE INSTALLED IN THE FOLLOWING AREAS OF DISTURBANCE:
 - AREAS WITHIN 50 FEET OF A STREAM OR WETLAND (DS75 NORTH AMERICAN GREEN OR APPROVED EQUAL).
 - AREAS WITHIN 100 FEET OF HQ OR EV STREAMS AND WETLANDS (DS75 NORTH AMERICAN GREEN OR APPROVED EQUAL).
 - SLOPES EQUAL TO 3:1 OR GREATER (SC150 NORTH AMERICAN GREEN OR APPROVED EQUAL).
- E&S BMPs, SUCH AS COMPOST FILTER SOCK AND FILTER SOCK DIVERSIONS, SHALL REMAIN IN PLACE UNTIL THE SITE WORK IS COMPLETE AND FINAL STABILIZATION IS ACHIEVED. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN A UNIFORM 70% PERENNIAL VEGETATIVE COVER IS ESTABLISHED OVER NON-EXISTING ROADWAY DISTURBED AREAS. IN AGRICULTURAL USE AREAS, AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION IF THE AREA HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER. THE AREA HAS A PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS, OR IF AN AREA EXHIBITS ANY GROUND COVER CONDITIONS NORMALLY ASSOCIATED WITH ACTIVE AGRICULTURAL PRACTICES, INCLUDING BUT NOT LIMITED TO BARE EARTH ON CULTIVATED LAND, TEMPORARY VEGETATIVE COVER ON CULTIVATED LAND, OR PASTURE NOT MEETING A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER.
- RESTORATION WILL PREDOMINATELY OCCUR WITHIN THE AREA LABELED "AREA TO BE RESTORED TO PRE-CONSTRUCTION CONDITIONS." DISTURBED AREAS WILL BE RESTORED TO PRE-CONSTRUCTION CONTOURS (AS SHOWN ON THIS PLAN AND THE ROADWAY LAYOUT AND PROFILE PLAN). EXISTING ROADWAY SURFACES AND WIDTHS WILL BE RESTORED AND NON-EXISTING ROADWAY AREAS WILL BE SEEDING TO REESTABLISH VEGETATIVE COVER.
- THE "AREA OF MINIMUM DISTURBANCE/REDUCED GRADING" IS THE AREA WITHIN THE LOD AREA THAT IS OUTSIDE THE PROPOSED GRADING AREA. DISTURBANCES WITHIN THE AREA OF MINIMUM DISTURBANCE/REDUCED GRADING WILL BE MINIMAL. THEREFORE, THE SITE RESTORATION IN THE AREA OF MINIMUM DISTURBANCE/REDUCED GRADING MAY NOT REQUIRE RESTORATION OR MAY BE LIMITED TO SEEDING STOCKPILE AREAS, IF APPLICABLE, TO RESTORE VEGETATION THAT MAY HAVE BEEN IMPACTED BY THE STOCKPILE.
- PROPOSED IMPROVEMENTS ON THE PERMANENT ACCESS ROADS TO THE MLV SITES ARE PERMANENT AND WILL BE MAINTAINED BY TRANSOCO AS DESCRIBED IN THE LONG TERM OPERATION AND MAINTENANCE SCHEDULE SHOWN ON SHEET 3 OF 3 AT THE BEGINNING OF THIS PSCM PLAN.



ESCGP-2 PERMIT TABLE

LIMIT OF DISTURBANCE	1.00 AC.
LOD AREA WITHIN FLOODWAY/FLOODPLAIN	0.00 AC.
AREA OF RIPARIAN FOREST BUFFER	0.00 AC.
AREA OF MINIMUM DISTURBANCE/REDUCED GRADING	0.00 AC.
STORMWATER MANAGEMENT AREA	N/A**
AREA CONTROLLED BY PERMANENT BMPs	N/A**

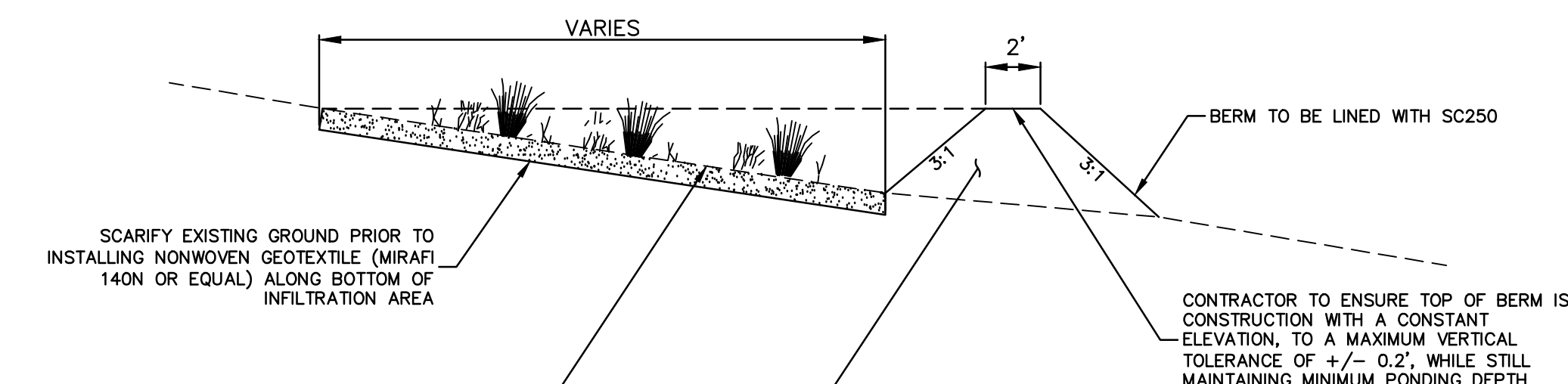
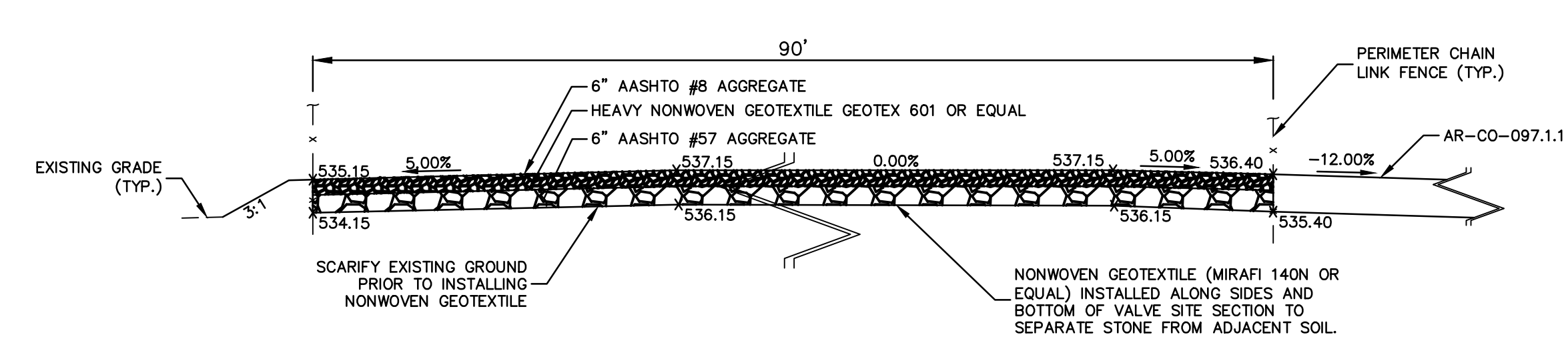
** NOT APPLICABLE FOR TEMPORARY ROADS. AREA WILL BE RESTORED TO PRE DEVELOPMENT CONDITIONS.

SITE SOIL TYPES

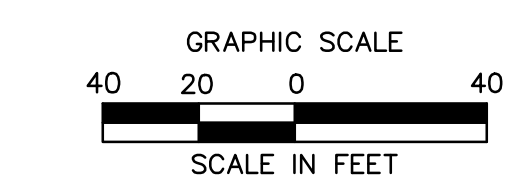
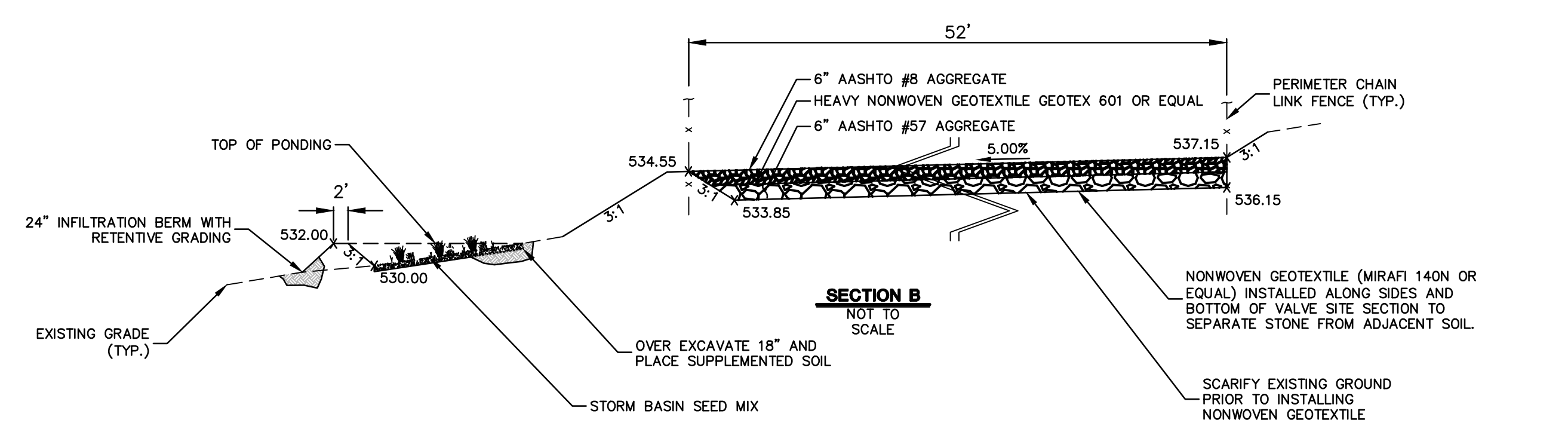
SEE COVER SHEET FOR SOIL TYPE LIMITATIONS

RECEIVING WATERS

LITTLE FISHING CREEK, CNF, MF CHAPTER 303(D) IMPAIRMENT: NONE



- NOTES:**
- THE INFILTRATION BERM IS TO BE INSTALLED LEVEL, ALONG EXISTING CONTOURS, AND WITH A CONSTANT BOTTOM ELEVATION AT THE TOE OF THE BERM IN THE PONDING AREA. THE GOAL IS TO AVOID WATER FROM MIGRATING TO ONE SIDE OF THE BERM, SO THAT AN EQUAL PONDING DEPTH IS ACHIEVED ACROSS TO THE LENGTH OF THE BERM.
 - AVOID OVER-COMPACTION IN THE PONDING/AMENDED SOIL AREA IN ORDER TO PROMOTE INFILTRATION CAPABILITIES. ONCE BERM AND AMENDED SOIL IS IN PLACE, UNDER NO CIRCUMSTANCES SHOULD EQUIPMENT BE ALLOWED TO TRAVEL IN THE ABSORPTION AND BERM AREAS.
 - BERM AND ALL SURROUNDING DISTURBED AREAS SHALL BE RE-VEGETATED WITH THE SITE APPROPRIATE PERMANENT SEED MIXTURE SHOWN ON SHEET 3 OF 3 AT THE BEGINNING OF THE BEST MANAGEMENT PRACTICES AND QUANTITIES PLAN SET UNDER SEPARATE COVER.



SUZANNE KING REG. NO. PE 082757
 PROFESSIONAL ENGINEER
 ENVIRONMENTAL
 LAND SURVEYING

REVISIONS				
NO.	DATE	BY	DESCRIPTION	W.D. NO. CHK. APP.
0	APRIL 2017	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #2	1161503 DAK SMK

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC		ATLANTIC SUNRISE PROJECT - PROPOSED 42\"/>	
ACCESS ROADS - POST CONSTRUCTION STORMWATER MANAGEMENT PLAN		PROPOSED PERMANENT ACCESS ROAD AR-CO-097.1.1	
HEMLOCK TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA		W01161503	
DRAWN BY: OLC/MS	DATE: 4/2015	ISSUED FOR BID:	SCALE: 1\"/>
CHECKED BY: DAK	DATE: 06/12/15	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: SMK	DATE: 07/07/15	DRAWING NUMBER: 24-1600-70-28-A/LL113_9-AR-CO-097.1.1	SHEET 1 OF 1

Drawn By & Date/Time: omlal Apr 27, 2017 - 12:52pm
 Drawing Location & Name: C:\Users\ocoonangel\appdata\local\temp\4e\publish_7040\AR_PSCM14C4905(20N)-PAR-CO-097.1.1.dwg

NOTE:
 SEE TYPICAL SECTIONS SHEET 3 OF 4 (GENERAL OVERALL SECTION) FOR EXISTING AND PROPOSED FEATURES LEGEND.