

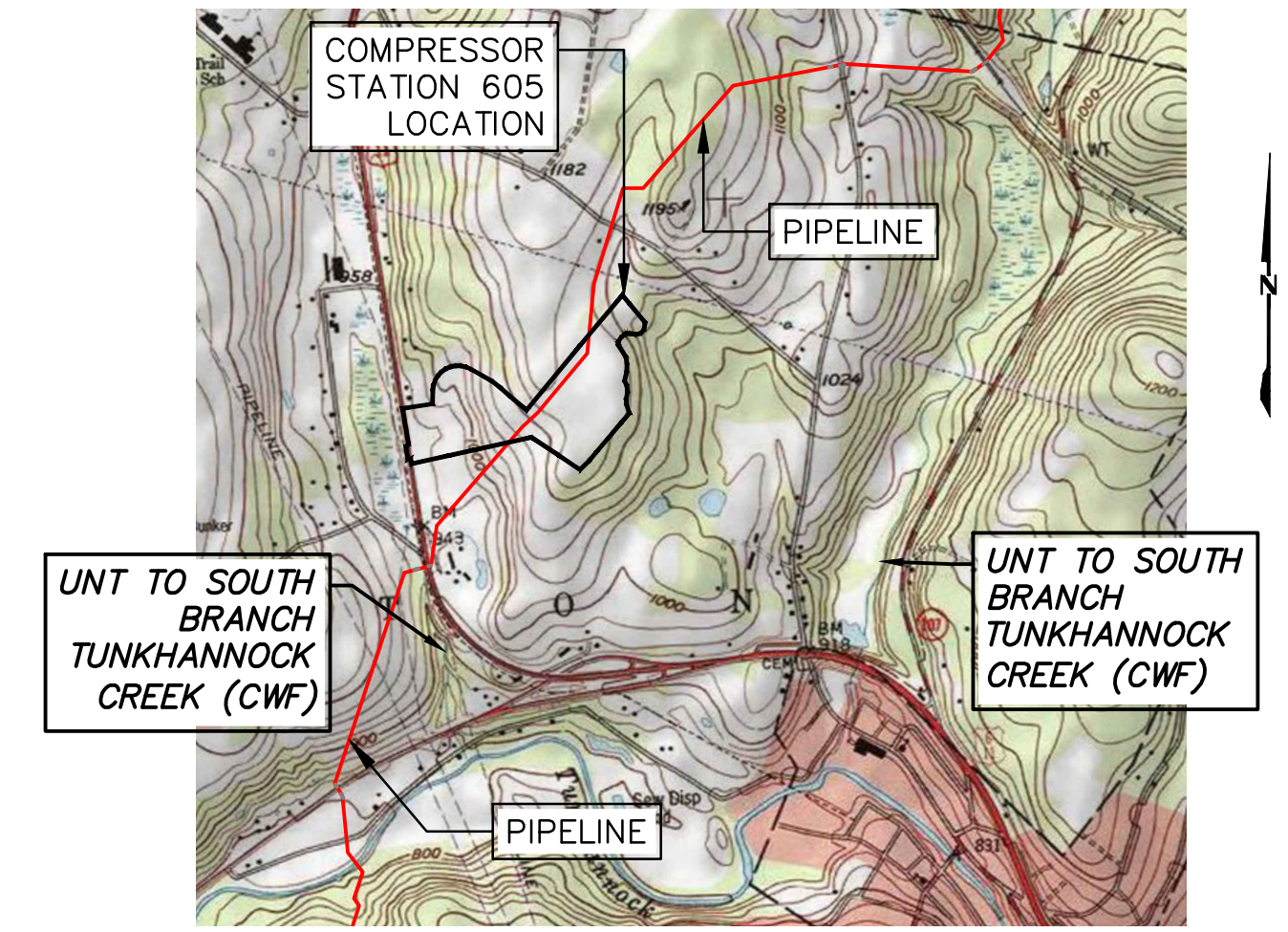
# ATLANTIC SUNRISE PROJECT PROPOSED 30" NATURAL GAS PIPELINE

## SOIL EROSION & SEDIMENT CONTROL AND LAYOUT PLANS FOR COMPRESSOR STATION 605

### PHASE 1

CLINTON TOWNSHIP  
WYOMING COUNTY

PENNSYLVANIA



USGS FACTORYVILLE QUADRANGLE

VICINITY MAP

SCALE: 1"=2,000'

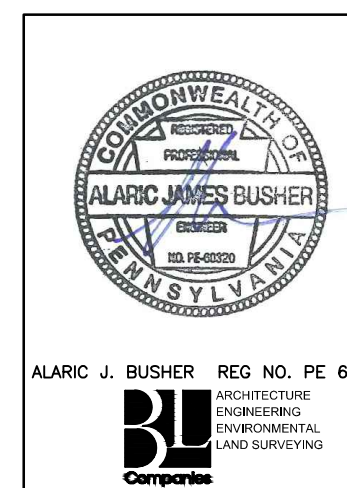
FACILITY NAME & TYPE	DRAWING NO.	SHEET NO.	DRAWING NAME
CS-605 COMPRESSOR STATION	(66-0605)F-1A-11	1 of 14	COVER SHEET
	(66-0605)F-1A-11	2 of 14	EXISTING CONDITIONS OVERALL PLAN
	(66-0605)F-1A-11	3 of 14	BMP DRAINAGE AREA MAP
	(66-0605)F-1A-11	4 of 14	DRAINAGE AREA MAP - SWALES
	(66-0605)F-1A-11	5 of 14	SOIL EROSION & SEDIMENT CONTROL OVERALL PLAN
	(66-0605)F-1A-11	6 of 14	SOIL EROSION & SEDIMENT CONTROL PLAN
	(66-0605)F-1A-11	7 of 14	SOIL EROSION & SEDIMENT CONTROL PLAN
	(66-0605)F-1A-11	8 of 14	SOIL EROSION & SEDIMENT CONTROL PLAN
	(66-0605)F-1A-11	9 of 14	SOIL EROSION & SEDIMENT CONTROL NOTES
	(66-0605)F-1A-11	10 of 14	SOIL EROSION & SEDIMENT CONTROL NOTES
	(66-0605)F-1A-11	11 of 14	SOIL EROSION & SEDIMENT CONTROL NOTES AND DETAILS
	(66-0605)F-1A-11	12 of 14	SOIL EROSION & SEDIMENT CONTROL DETAILS
	(66-0605)F-1A-11	13 of 14	SOIL EROSION & SEDIMENT CONTROL DETAILS
	(66-0605)F-1A-11	14 of 14	SOIL EROSION & SEDIMENT CONTROL DETAILS

Drawn By & Date/Time: Jrfones Apr 27, 2017 - 2:59pm  
Drawing Location & Name: G:\0851\14C\14C4908\DWG\010-CPLN\FCS\_CV14C4909(10)\_EC-WYO-605.dwg



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.

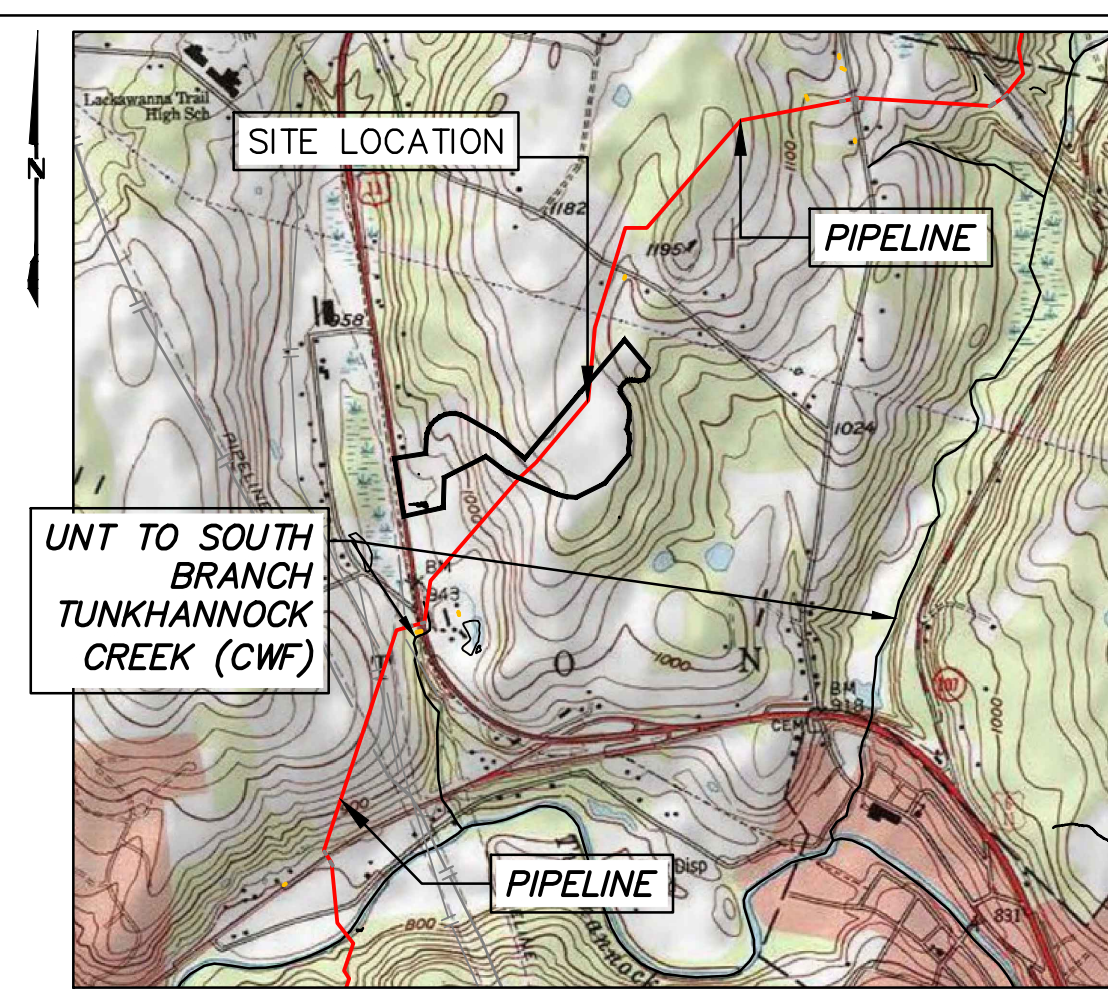
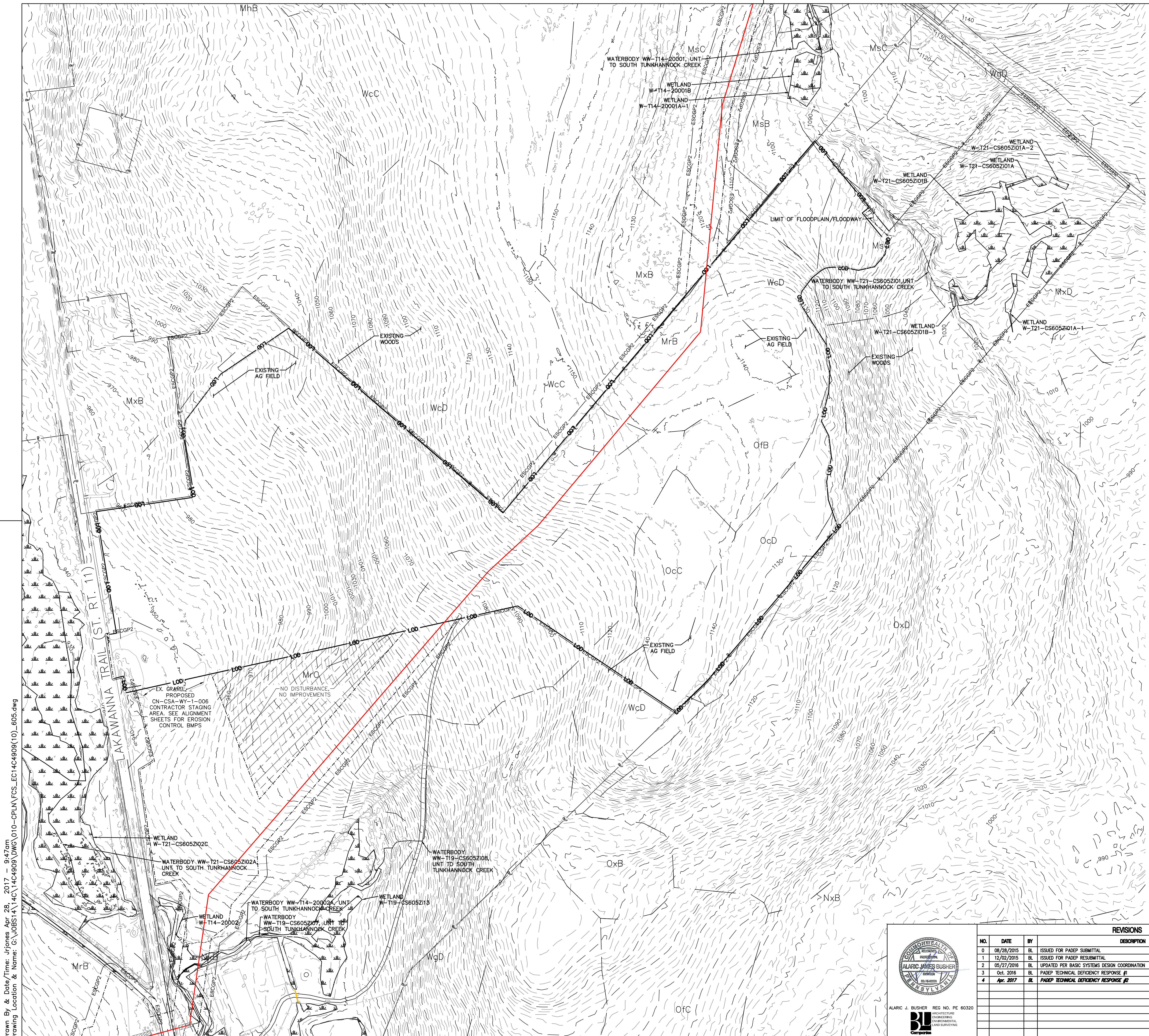
**ENGINEER OF RECORD**  
BL COMPANIES  
4242 CARLISLE PIKE, SUITE 260  
CAMP HILL, PA 17011  
P:717-651-9850  
F:717-651-9858



REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
0	08/26/2015	BL	ISSUED FOR PADEP SUBMITTAL	W0161497	DAK	AJB
1	12/02/2015	BL	ISSUED FOR PADEP RESUBMITTAL	W0161497	DAK	AJB
2	05/27/2016	BL	UPDATED PER BASIC SYSTEMS DESIGN COORDINATION	W0161497	AJB	AJB
3	Oct. 2016	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #1	W0161497	AJB	AJB
4	Apr. 2017	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #2	W0161497	AJB	AJB

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC			
ATLANTIC SUNRISE PROJECT- PROPOSED 30" NATURAL GAS PIPELINE			
SOIL EROSION & SEDIMENT CONTROL AND LAYOUT PLANS			
FOR COMPRESSOR STATION 605			
CLINTON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA			
COVER SHEET			
DRAWN BY:	JEC	DATE:	04/03/15
CHECKED BY:	AJB	DATE:	04/03/15
APPROVED BY:	AJB	DATE:	07/17/15
W.O. NUMBER:	1161497	DRAWING NUMBER:	(66-0605)F-1A-11
SCALE:	AS NOTED	REVISION:	4
SHEET:	1	OF:	14





**LOCATION MAP**

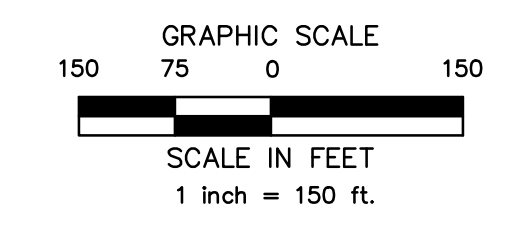
USGS FACTORYVILLE QUADRANGLE  
SCALE: 1"=2,000'

**LEGEND**

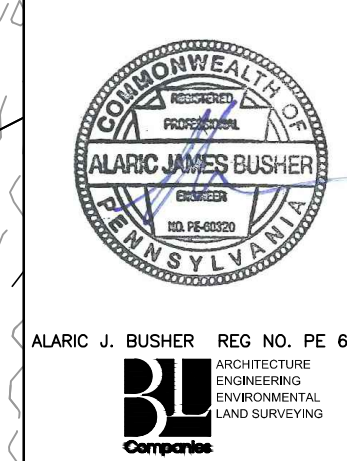
- EXISTING FEATURES**
- PROPERTY BOUNDARY LINE (APPROXIMATE)
  - MAJOR CONTOUR (10' INTERVAL)
  - MINOR CONTOUR (2' INTERVAL)
  - FENCE
  - STONE ROW
  - SOIL BOUNDARY
  - TREELINE
  - CENTERLINE STREAM/EDGE WATERBODY
  - DELINEATED WETLANDS
  - SPOT ELEVATION
  - TREE OR BUSH
  - UTILITY POLE AND UTILITY LINE
  - GUY POLE
  - GUY POLE OR ANCHOR
  - POST
  - SIGN
  - WATER WELL
  - UTILITY BOX
  - MONUMENT (PROPERTY BOUNDARY MARKER)
  - IRON PIPE OR PIN (PROPERTY BOUNDARY MARKER)
  - SOIL TYPE DESIGNATION
  - ESCGP-2 PERMIT BOUNDARY (OVERALL PIPELINE PROJECT)
  - LIMIT OF DISTURBANCE (COMPRESSOR STATION 605)
  - LIMIT OF WORKSPACE (OVERALL PIPELINE PROJECT)
  - EXISTING ROAD
  - ROW
  - AREA OF NO DISTURBANCE
  - LIMIT OF FLOODWAY/FLOODPLAIN LINE

**SITE SOIL TYPES**

- MrB MORRIS CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES
- McC MORRIS CHANNERY SILT LOAM, 8 TO 18 PERCENT SLOPES
- MsB MORRIS FLAGGY LOAM, 3 TO 8 PERCENT SLOPES
- McC MORRIS FLAGGY LOAM, 8 TO 15 PERCENT SLOPES
- NcB NORWICH AND CHIPPEWA CHANNERY SILT LOAMS, 3 TO 8 PERCENT SLOPES
- OcC OQUAGA CHANNERY LOAM, 8 TO 15 PERCENT SLOPES
- OcD OQUAGA CHANNERY LOAM, 15 TO 25 PERCENT SLOPES
- OxB OQUAGA FLAGGY LOAM, 3 TO 8 PERCENT SLOPES
- WcC WELLSBORO CHANNERY LOAM, 8 TO 15 PERCENT SLOPES
- WcD WELLSBORO CHANNERY LOAM, 15 TO 25 PERCENT SLOPES



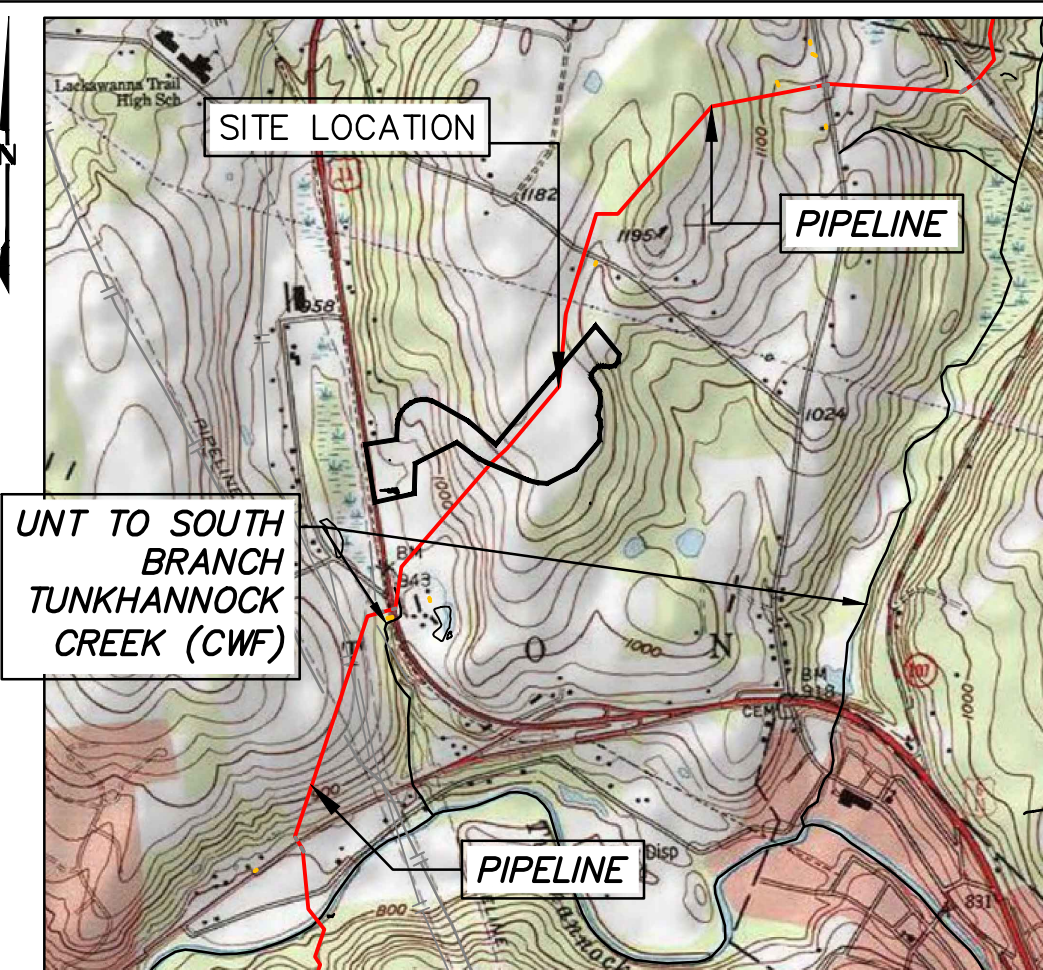
Drawn By & Date/Time: Jfjones Apr 28, 2017 - 9:47am  
Drawing Location & Name: G:\JOBS\14\14C\14C-0605.dwg



REVISIONS			
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1	12/02/2015	BL	ISSUED FOR PADEP RESUBMITTAL
2	05/27/2016	BL	UPDATED PER BASIC SYSTEMS DESIGN COORDINATION
3	Oct. 2016	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #1
4	Apr. 2017	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #2

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC			
ATLANTIC SUNRISE PROJECT- PROPOSED 30" NATURAL GAS PIPELINE			
SOIL EROSION & SEDIMENT CONTROL AND LAYOUT PLANS			
FOR COMPRESSOR STATION 605			
CLINTON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA			
EXISTING CONDITIONS OVERALL PLAN			
DRAWN BY:	ADG	DATE:	04/03/15
CHECKED BY:	AJB	DATE:	04/03/15
APPROVED BY:	AJB	DATE:	07/17/15
W.D. NO.	1161497	CHK.	DAK
APP.	AJB	APP.	AJB
ISSUED FOR:	CONSTRUCTION	SCALE:	AS NOTED
ISSUED FOR:	CONSTRUCTION	REVISION:	4
DRAWING NUMBER:	(66-0605)F-1A-11	SHEET 2	OF 14





**LOCATION MAP**

USGS FACTORYVILLE QUADRANGLE  
SCALE: 1"=2,000'

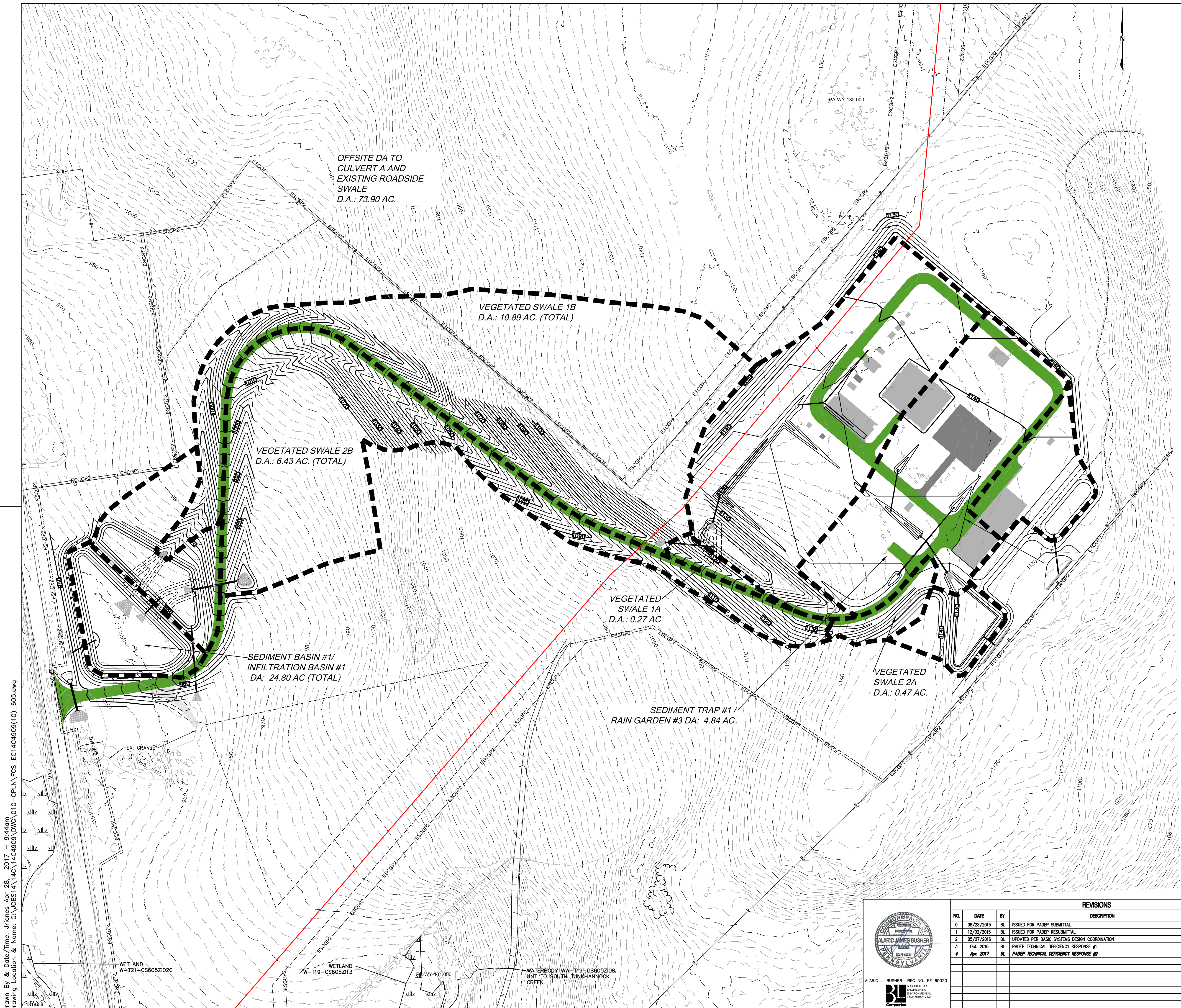
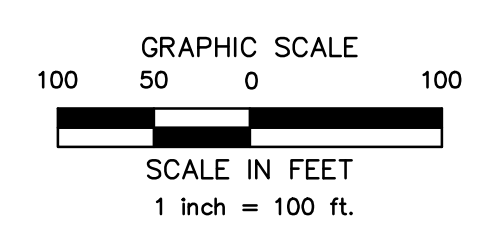
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**PROPOSED FEATURES**

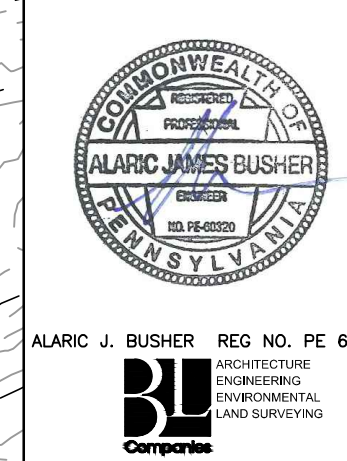
- MAJOR CONTOUR (10' INTERVAL)
- MINOR CONTOUR (2' INTERVAL)
- MINOR CONTOUR (1' INTERVAL)
- LOD
- ESCGP-2 PERMIT BOUNDARY (OVERALL PIPELINE PROJECT)
- CENTERLINE GAS PIPELINE
- LIMIT OF WORKSPACE (OVERALL PIPELINE PROJECT)
- DRAINAGE AREA BOUNDARIES
- GRAVEL COVER
- ASPHALT ACCESS ROAD
- BUILDING
- FUTURE BUILDING

**SITE SOIL TYPES**

- MfB MORRIS CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES
- MfC MORRIS CHANNERY SILT LOAM, 8 TO 18 PERCENT SLOPES
- MfB MORRIS FLAGGY LOAM, 3 TO 8 PERCENT SLOPES
- MfC MORRIS FLAGGY LOAM, 8 TO 15 PERCENT SLOPES
- NcB NORWICH AND CHIPPEWA CHANNERY SILT LOAMS, 3 TO 8 PERCENT SLOPES
- OcC OQUAGA CHANNERY LOAM, 8 TO 15 PERCENT SLOPES
- OcD OQUAGA CHANNERY LOAM, 15 TO 25 PERCENT SLOPES
- OfB OQUAGA FLAGGY LOAM, 3 TO 8 PERCENT SLOPES
- WcC WELLSBORO CHANNERY LOAM, 8 TO 15 PERCENT SLOPES
- WcD WELLSBORO CHANNERY LOAM, 15 TO 25 PERCENT SLOPES



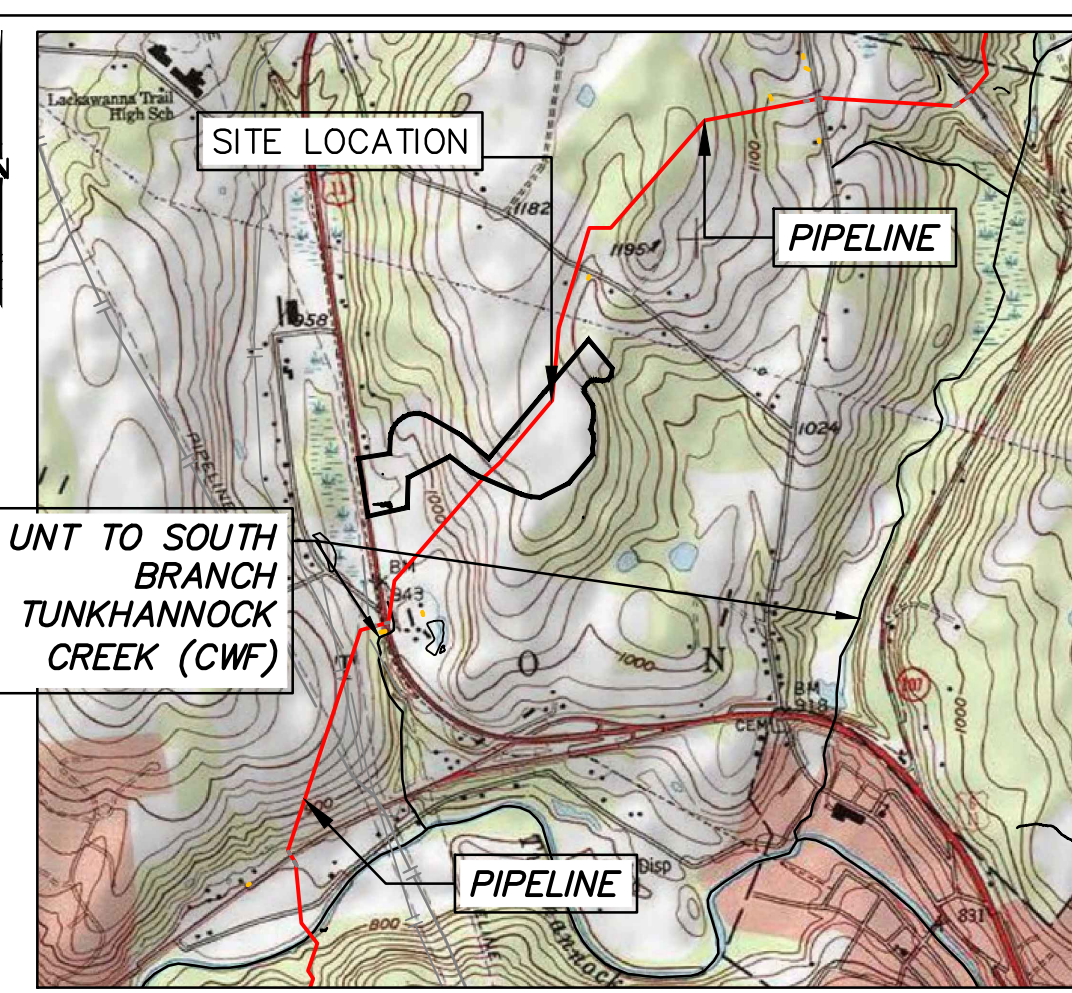
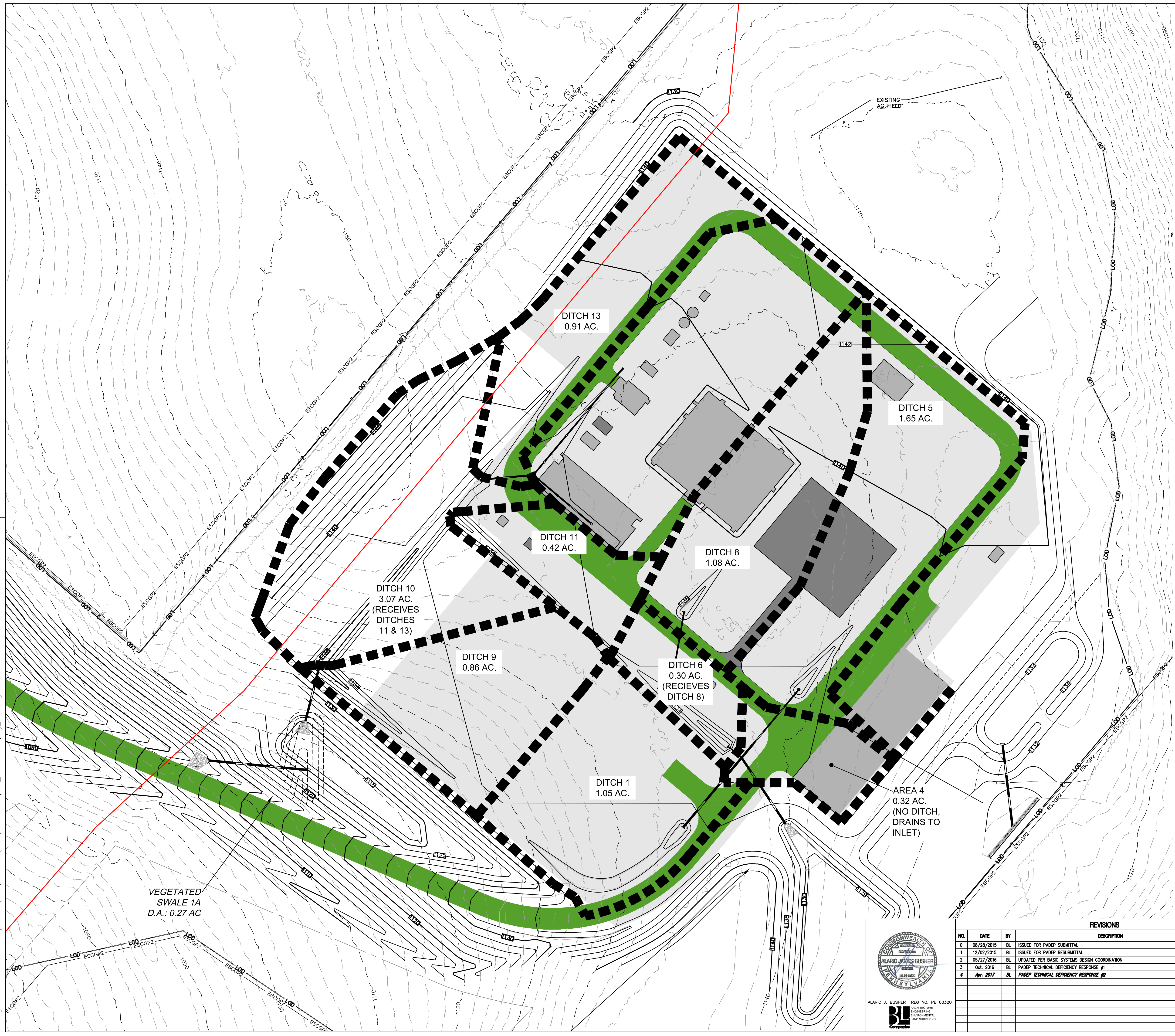
Drawn By & Date/Time: Jfjones Apr 28, 2017 - 9:44am  
 Drawing Location & Name: G:\JOBS\14\14C\14C-010-CPLN\FCS\_EC14C4909(10)\_605.dwg



REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.D.	CHK.	APP.
0	08/28/2015	BL	ISSUED FOR PADEP SUBMITTAL	W0161497	DAK	AJB
1	12/02/2015	BL	ISSUED FOR PADEP RESUBMITTAL	W0161497	DAK	AJB
2	05/27/2016	BL	UPDATED PER BASIC SYSTEMS DESIGN COORDINATION	W0161497	AJB	AJB
3	Oct. 2016	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #1	W0161497	AJB	AJB
4	Apr. 2017	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #2	W0161497	AJB	AJB

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC ATLANTIC SUNRISE PROJECT- PROPOSED 30" NATURAL GAS PIPELINE SOIL EROSION & SEDIMENT CONTROL AND LAYOUT PLANS FOR COMPRESSOR STATION 605 CLINTON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA BMP DRAINAGE AREA MAP						
DRAWN BY:	AJC	DATE:	04/03/15	ISSUED FOR BID:	SCALE:	AS NOTED
CHECKED BY:	AJB	DATE:	04/03/15	ISSUED FOR CONSTRUCTION:	REVISION:	4
APPROVED BY:	AJB	DATE:	07/17/15	DRAWING NUMBER:	(66-0605)F-1A-11	SHEET 3 OF 14
W.D.:	1161497					

Drawn By & Date/Time: Jfjones Apr 28, 2017 - 9:50am  
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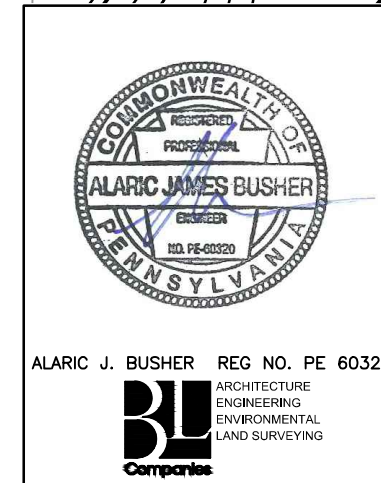
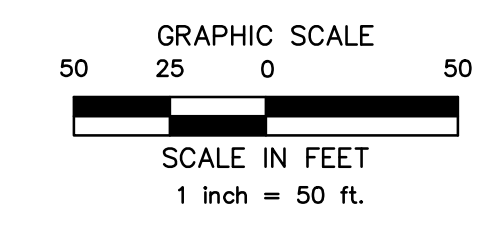


**LEGEND**

- PROPOSED FEATURES**
- MAJOR CONTOUR (10' INTERVAL)
  - MINOR CONTOUR (2' INTERVAL)
  - MINOR CONTOUR (1' INTERVAL)
  - LOD
  - ESCGP2
  - CENTERLINE GAS PIPELINE
  - LIMIT OF WORKSPACE (OVERALL PIPELINE PROJECT)
  - DRAINAGE AREA BOUNDARIES
  - GRAVEL COVER
  - ACCESS ROAD
  - BUILDING
  - FUTURE BUILDING

**SITE SOIL TYPES**

- MrB MORRIS CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES
- MrC MORRIS CHANNERY SILT LOAM, 8 TO 18 PERCENT SLOPES
- MsB MORRIS FLAGGY LOAM, 3 TO 8 PERCENT SLOPES
- MsC MORRIS FLAGGY LOAM, 8 TO 15 PERCENT SLOPES
- NcB NORWICH AND CHIPPEWA CHANNERY SILT LOAMS, 3 TO 8 PERCENT SLOPES
- OcC OQUAGA CHANNERY LOAM, 8 TO 15 PERCENT SLOPES
- OcD OQUAGA CHANNERY LOAM, 15 TO 25 PERCENT SLOPES
- OtB OQUAGA FLAGGY LOAM, 3 TO 8 PERCENT SLOPES
- WcC WELLSBORO CHANNERY LOAM, 8 TO 15 PERCENT SLOPES
- WcD WELLSBORO CHANNERY LOAM, 15 TO 25 PERCENT SLOPES

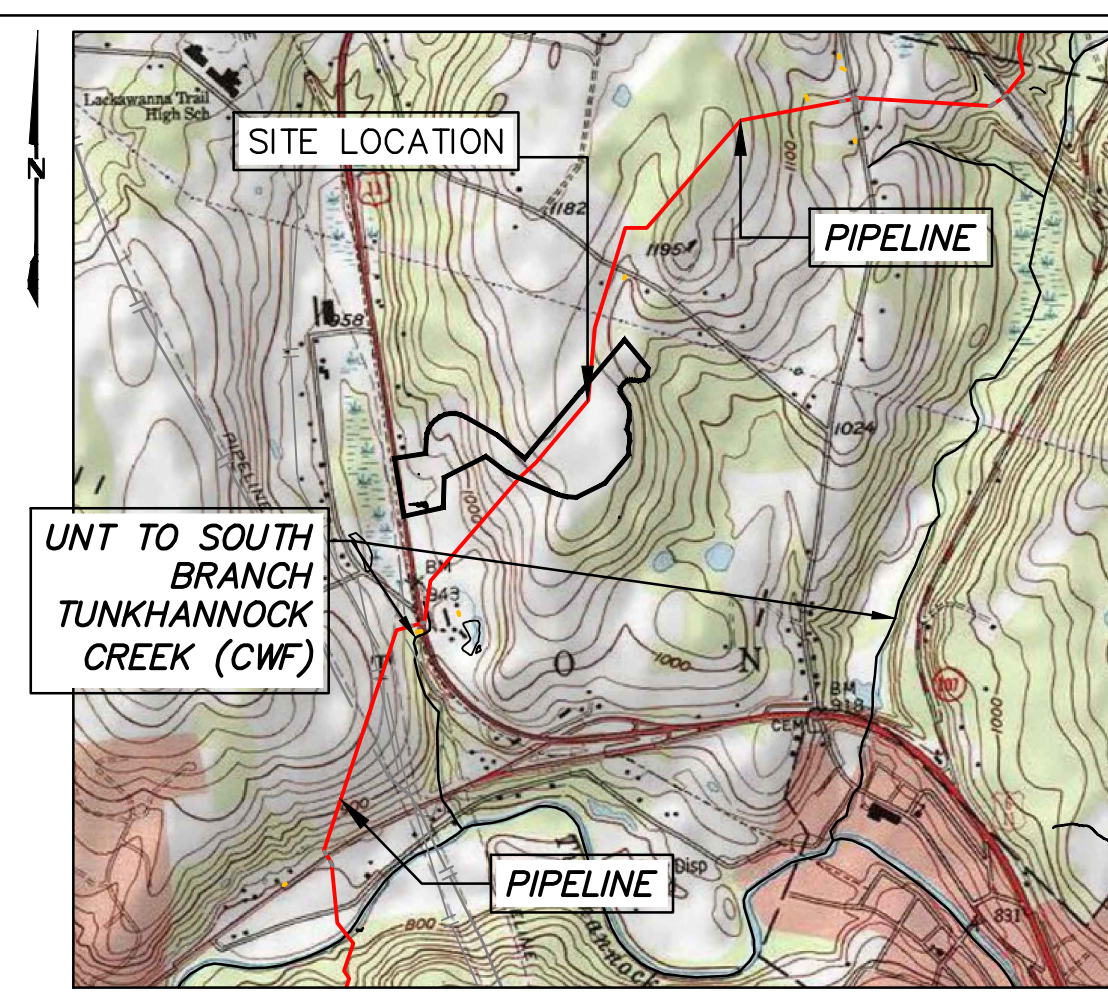
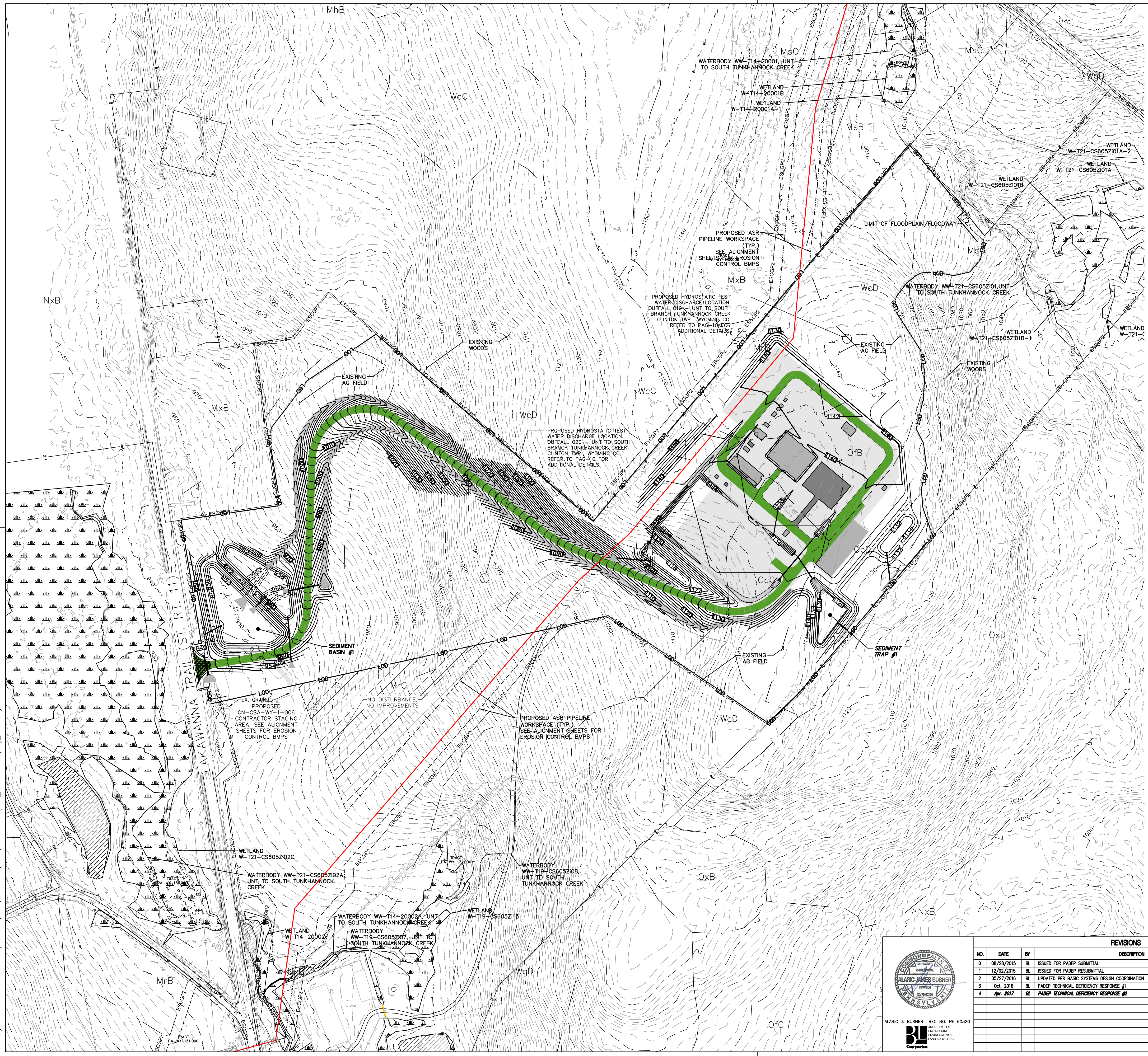


REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.D. NO.	CHK.	APP.
0	08/26/2015	BL	ISSUED FOR PADEP SUBMITTAL	W0161497	DAK	AJB
1	12/02/2015	BL	ISSUED FOR PADEP RESUBMITTAL	W0161497	DAK	AJB
2	05/27/2016	BL	UPDATED PER BASIC SYSTEMS DESIGN COORDINATION	W0161497	AJB	AJB
3	Oct. 2016	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #1	W0161497	AJB	AJB
4	Apr. 2017	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #2	W0161497	AJB	AJB

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC			
ATLANTIC SUNRISE PROJECT- PROPOSED 30" NATURAL GAS PIPELINE			
SOIL EROSION & SEDIMENT CONTROL AND LAYOUT PLANS			
FOR COMPRESSOR STATION 605			
CLINTON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA			
DRAINAGE AREA MAP - SWALES			
DRAWN BY:	ACE	DATE:	04/03/15
CHECKED BY:	AJB	DATE:	04/03/15
APPROVED BY:	AJB	DATE:	07/17/15
W.D.:	1161497	DRAWING NUMBER:	(66-0605)F-1A-11
SCALE:	AS NOTED	REVISION:	4
			SHEET 4 OF 14



Drawn By & Date/Time: Jfjones Apr 28, 2017 - 9:55am  
 Drawing Location & Name: G:\J08514\14C\14C4909\DWG\010-CPLN\FCS\_EC14C4909(10)\_605.dwg



**LEGEND**

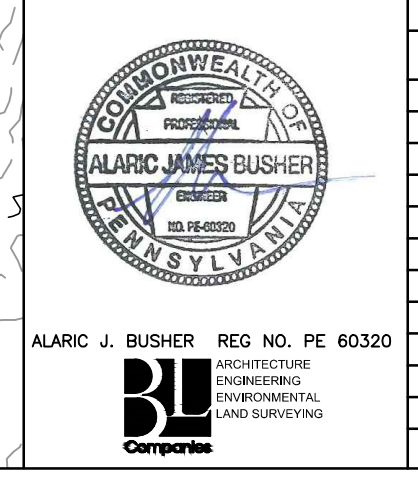
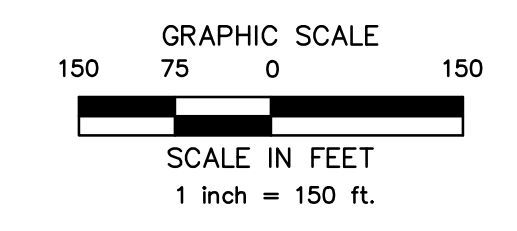
- PROPOSED FEATURES**
- 1450 MAJOR CONTOUR (10' INTERVAL)
  - MINOR CONTOUR (2' INTERVAL)
  - MINOR CONTOUR (1' INTERVAL)
  - TEMPORARY CONTOUR (2' INTERVAL)
  - LOD LIMIT OF DISTURBANCE (COMPRESSOR STATION 605)
  - LIMIT OF WORKSPACE (OVERALL PIPELINE PROJECT)
  - ESCGP2 ESCGP-2 PERMIT BOUNDARY (OVERALL PIPELINE PROJECT)
  - FD FILTER SOCK DIVERSION
  - SS SEDIMENT BARRIER
  - X X ORANGE CONSTRUCTION FENCE
  - CENTERLINE GAS PIPELINE
  - SWALE LINING
  - R-4 RIPRAP LINED SWALE
  - EROSION CONTROL BLANKET
  - ROCK OUTLET/RIPRAP APRON
  - ROCK CONSTRUCTION ENTRANCE
  - BAFFLE
  - TRM LINING
  - CLAY CORE LIMITS
  - LIMIT OF FLOODWAY/FLOODPLAIN LINE

**SITE SOIL TYPES**

- MhB MORRIS CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES
- MhC MORRIS CHANNERY SILT LOAM, 8 TO 18 PERCENT SLOPES
- MhB MORRIS FLAGGY LOAM, 3 TO 8 PERCENT SLOPES
- MsC MORRIS FLAGGY LOAM, 8 TO 15 PERCENT SLOPES
- NcB NORWICH AND CHIPPEWA CHANNERY SILT LOAMS, 3 TO 8 PERCENT SLOPES
- OcC OQUAGA CHANNERY LOAM, 8 TO 15 PERCENT SLOPES
- OcD OQUAGA CHANNERY LOAM, 15 TO 25 PERCENT SLOPES
- OxB OQUAGA FLAGGY LOAM, 3 TO 8 PERCENT SLOPES
- WcC WELLSBORO CHANNERY LOAM, 8 TO 15 PERCENT SLOPES
- WcD WELLSBORO CHANNERY LOAM, 15 TO 25 PERCENT SLOPES

**RECEIVING WATERCOURSE - CHAPTER 93 DESIGNATION**

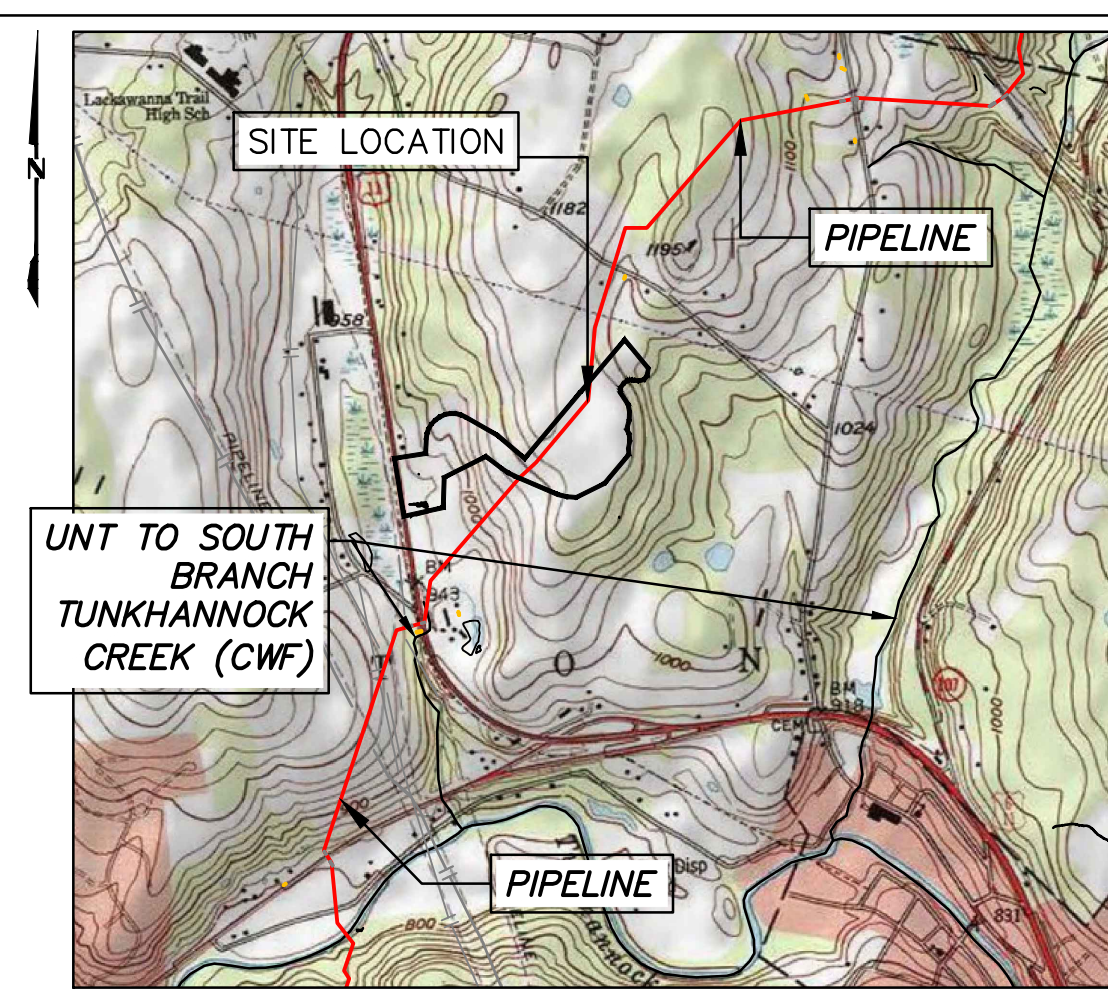
THE RECEIVING WATERCOURSE FOR DRAINAGE AREAS A AND B IS AN UNNAMED TRIBUTARY TO SOUTH BRANCH TUNKHANNOCK CREEK, CWF. APPROXIMATE DISTANCE FROM SITE: ±200 FT (WEST)  
 THE RECEIVING WATERCOURSE FOR DRAINAGE AREA C IS AN UNNAMED TRIBUTARY TO SOUTH BRANCH TUNKHANNOCK CREEK, CWF. APPROXIMATE DISTANCE FROM SITE: ±2000 FT (EAST)



REVISIONS				
NO.	DATE	BY	DESCRIPTION	W.D. NO. CHK. APP.
0	08/26/2015	BL	ISSUED FOR PADEP SUBMITTAL	W0161497 DAK A,B
1	12/02/2015	BL	ISSUED FOR PADEP RESUBMITTAL	W0161497 DAK A,B
2	05/27/2016	BL	UPDATED PER BASIC SYSTEMS DESIGN COORDINATION	W0161497 A,B A,B
3	Oct. 2016	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #1	W0161497 A,B A,B
4	Apr. 2017	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #2	W0161497 A,B A,B

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC				SCALE: AS NOTED	
ATLANTIC SUNRISE PROJECT- PROPOSED 30" NATURAL GAS PIPELINE					
SOIL EROSION & SEDIMENT CONTROL AND LAYOUT PLANS					
FOR COMPRESSOR STATION 605					
CLINTON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA					
SOIL EROSION & SEDIMENT CONTROL OVERALL PLAN					
DRAWN BY:	ADE	DATE:	04/03/15	ISSUED FOR BID:	
CHECKED BY:	A,B	DATE:	04/03/15	ISSUED FOR CONSTRUCTION:	REVISION: 4
APPROVED BY:	A,B	DATE:	07/17/15	DRAWING NUMBER:	(66-0605)F-1A-11
W.D.:	1161497				SHEET 5 OF 14





**LOCATION MAP**

USGS FACTORYVILLE QUADRANGLE  
SCALE: 1"=2,000'

**LEGEND**

- PROPOSED FEATURES**
- MAJOR CONTOUR (10' INTERVAL)
  - MINOR CONTOUR (2' INTERVAL)
  - MINOR CONTOUR (1' INTERVAL)
  - TEMPORARY CONTOUR (2' INTERVAL)
  - LOD — LIMIT OF DISTURBANCE (COMPRESSOR STATION 605)
  - LWO --- LIMIT OF WORKSPACE (OVERALL PIPELINE PROJECT)
  - ESCGP2 — ESCGP-2 PERMIT BOUNDARY (OVERALL PIPELINE PROJECT)
  - FD — FILTER SOCK DIVERSION
  - SS — SEDIMENT BARRIER
  - X — ORANGE CONSTRUCTION FENCE
  - — CENTERLINE GAS PIPELINE
  - — SWALE LINING
  - — EROSION CONTROL BLANKET
  - — ROCK OUTLET/RIPRAP APRON
  - — SEDIMENT BARRIER DESIGNATION (SEE SHEET 15)
  - — ROCK CONSTRUCTION ENTRANCE
  - — BAFFLE
  - — TRM LINING
  - — CLAY CORE LIMITS

MATCH LINE: SEE SHEET NO. 7

**SITE SOIL TYPES**

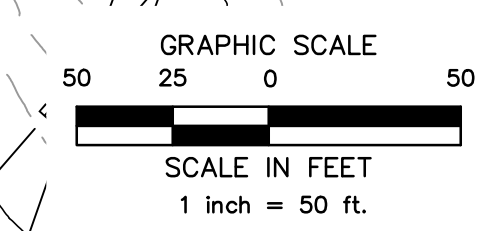
- MfB MORRIS CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES
- MrC MORRIS CHANNERY SILT LOAM, 8 TO 18 PERCENT SLOPES
- MfB MORRIS FLAGGY LOAM, 3 TO 8 PERCENT SLOPES
- MfC MORRIS FLAGGY LOAM, 8 TO 15 PERCENT SLOPES
- NfB NORWICH AND CHIPPEWA CHANNERY SILT LOAMS, 3 TO 8 PERCENT SLOPES
- OcC OQUAGA CHANNERY LOAM, 8 TO 15 PERCENT SLOPES
- OcD OQUAGA CHANNERY LOAM, 15 TO 25 PERCENT SLOPES
- OfB OQUAGA FLAGGY LOAM, 3 TO 8 PERCENT SLOPES
- WfC WELLSBORO CHANNERY LOAM, 8 TO 15 PERCENT SLOPES
- WfD WELLSBORO CHANNERY LOAM, 15 TO 25 PERCENT SLOPES

**LIMIT OF DISTURBANCE**

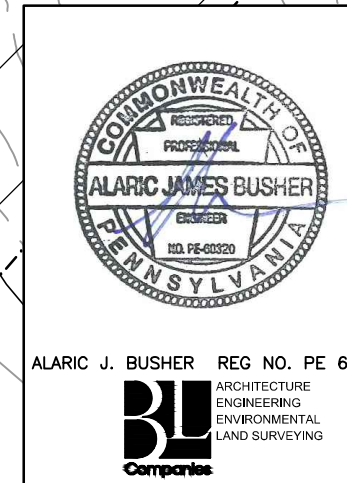
AREA OF THE LIMIT OF DISTURBANCE IS:  
±2,207,621 SF / 50.68 AC.

**RECEIVING WATERCOURSE - CHAPTER 93 DESIGNATION**

THE RECEIVING WATERCOURSE FOR DRAINAGE AREAS A AND B IS AN UNNAMED TRIBUTARY TO SOUTH BRANCH TUNKHANNOCK CREEK, CWF. APPROXIMATE DISTANCE FROM SITE: ±200 FT (WEST)  
THE RECEIVING WATERCOURSE FOR DRAINAGE AREA C IS AN UNNAMED TRIBUTARY TO SOUTH BRANCH TUNKHANNOCK CREEK, CWF. APPROXIMATE DISTANCE FROM SITE: ±2000 FT (EAST)



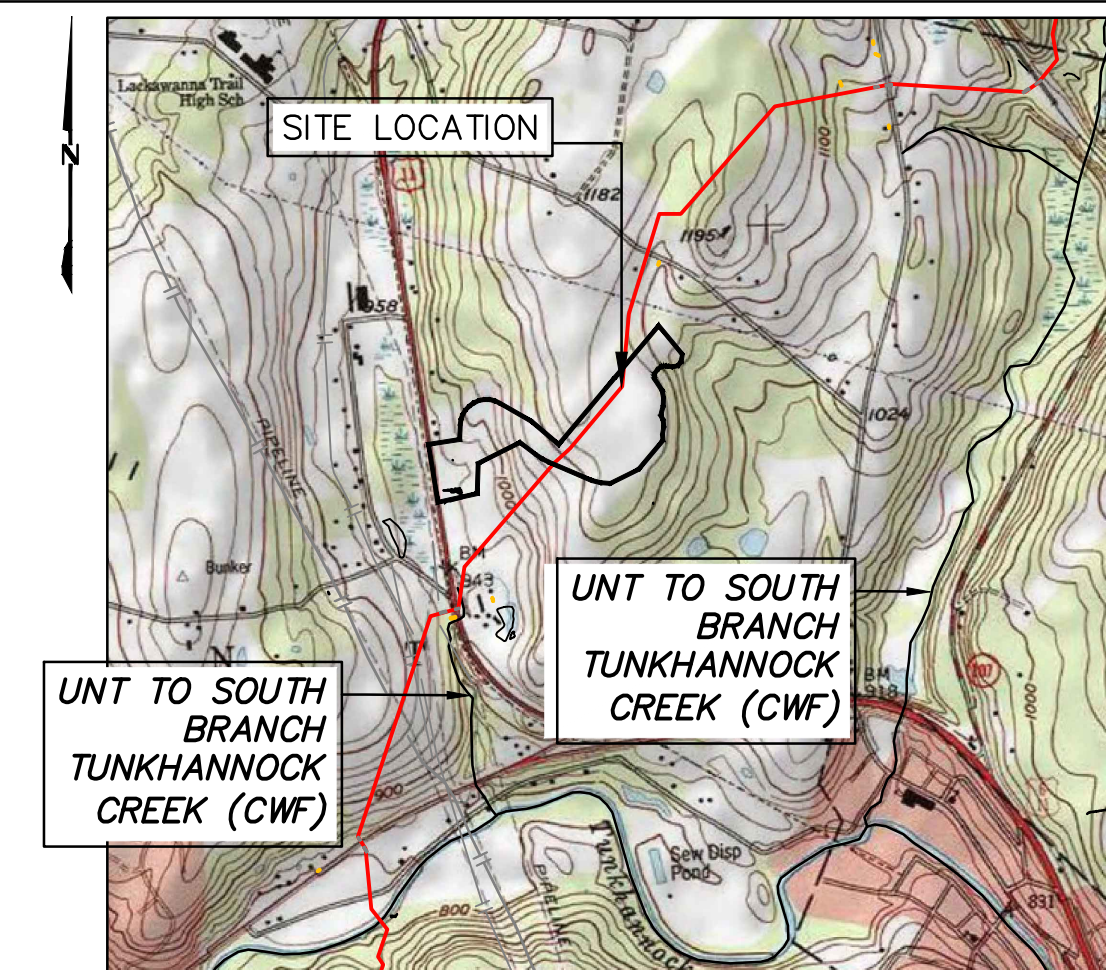
Drawn By & Date/Time: Jfjones Apr 28, 2017 - 10:05am  
Drawing Location & Name: G:\00514\14C\14C4908\DWG\010-CPLN\FCS\_EC14C4909(10)\_605.dwg



REVISIONS			
NO.	DATE	BY	DESCRIPTION
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1	12/02/2015	BL	ISSUED FOR PADEP RESUBMITTAL
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4	Apr. 2017	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #2

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC			
ATLANTIC SUNRISE PROJECT- PROPOSED 30" NATURAL GAS PIPELINE			
SOIL EROSION & SEDIMENT CONTROL AND LAYOUT PLANS			
FOR COMPRESSOR STATION 605			
CLINTON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA			
SOIL EROSION & SEDIMENT CONTROL PLAN			
DRAWN BY:	ADE	DATE:	04/03/15
CHECKED BY:	AJB	DATE:	04/03/15
APPROVED BY:	AJB	DATE:	07/17/15
W.D. NO.:	1161497	SCALE:	AS NOTED
ISSUED FOR:	CONSTRUCTION	REVISION:	4
DRAWING NUMBER:	(66-0605)F-1A-11	SHEET:	6
		OF:	14





**LOCATION MAP**

USGS FACTORYVILLE QUADRANGLE  
SCALE: 1"=2,000'

**LEGEND**

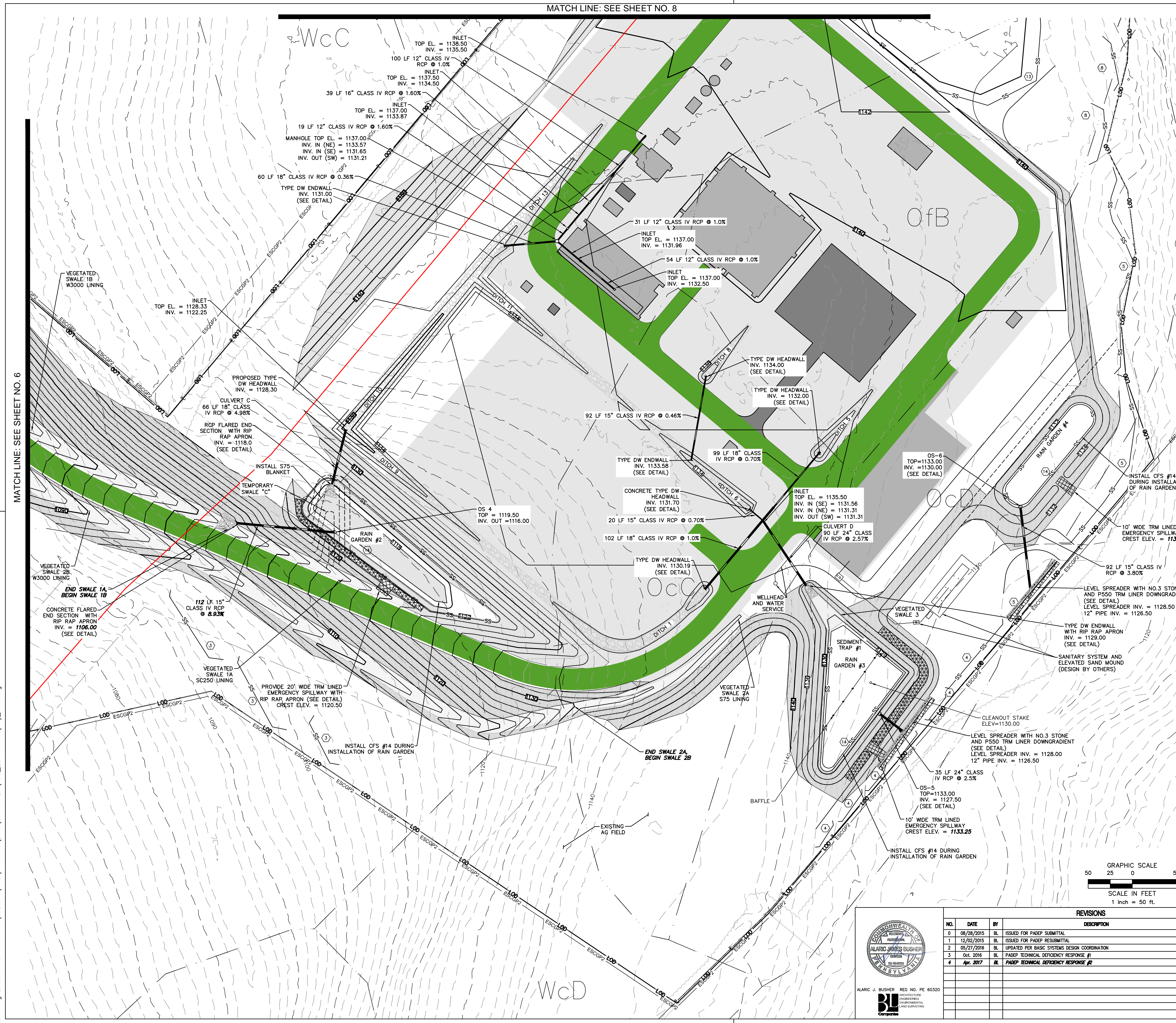
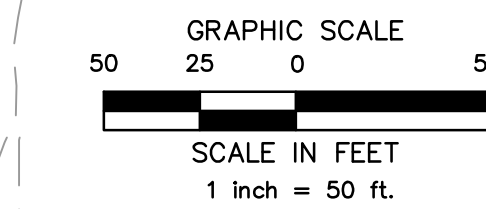
- PROPOSED FEATURES**
- MAJOR CONTOUR (10' INTERVAL)
  - MINOR CONTOUR (2' INTERVAL)
  - MINOR CONTOUR (1' INTERVAL)
  - TEMPORARY CONTOUR (2' INTERVAL)
  - LIMIT OF DISTURBANCE (COMPRESSOR STATION 605)
  - LIMIT OF WORKSPACE (OVERALL PIPELINE PROJECT)
  - ESCGP-2 PERMIT BOUNDARY (OVERALL PIPELINE PROJECT)
  - FILTER SOCK DIVERSION
  - SEDIMENT BARRIER
  - ORANGE CONSTRUCTION FENCE
  - CENTERLINE GAS PIPELINE
  - SWALE LINING
  - R-4 RIPRAP LINED SWALE
  - EROSION CONTROL BLANKET (SC250 OR APPROVED EQUAL)
  - ROCK OUTLET/RIPRAP APRON
  - SEDIMENT BARRIER DESIGNATION (SEE SHEET 13)
  - ROCK CONSTRUCTION ENTRANCE
  - BAFFLE
  - GRAVEL COVER
  - ACCESS ROAD/STREET SWEEP AREA
  - BUILDING/SIDEWALK
  - FUTURE BUILDING
  - CLASS IV REINFORCED CONCRETE STORM PIPE
  - CONCRETE STORM INLET
  - CONCRETE MANHOLE
  - CONCRETE TYPE D ENDWALL/HEADWALL
  - CONCRETE TYPE DW ENDWALL/HEADWALL

**SITE SOIL TYPES**

- MrB MORRIS CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES
- MrC MORRIS CHANNERY SILT LOAM, 8 TO 18 PERCENT SLOPES
- MsB MORRIS FLAGGY LOAM, 3 TO 8 PERCENT SLOPES
- MsC MORRIS FLAGGY LOAM, 8 TO 15 PERCENT SLOPES
- NcB NORWICH AND CHIPPEWA CHANNERY SILT LOAMS, 3 TO 8 PERCENT SLOPES
- OcC OQUAGA CHANNERY LOAM, 8 TO 15 PERCENT SLOPES
- OcD OQUAGA CHANNERY LOAM, 15 TO 25 PERCENT SLOPES
- OdB OQUAGA FLAGGY LOAM, 3 TO 8 PERCENT SLOPES
- WcC WELLSBORO CHANNERY LOAM, 8 TO 15 PERCENT SLOPES
- WcD WELLSBORO CHANNERY LOAM, 15 TO 25 PERCENT SLOPES

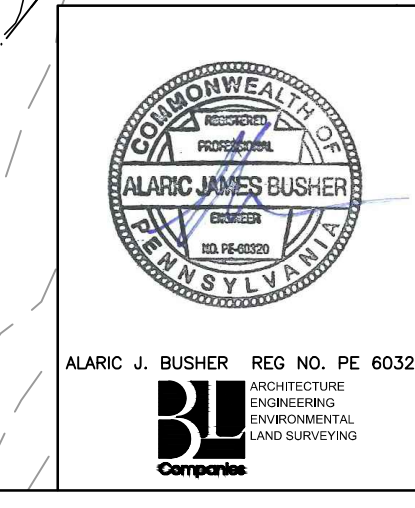
**RECEIVING WATERCOURSE - CHAPTER 93 DESIGNATION**

THE RECEIVING WATERCOURSE FOR DRAINAGE AREAS A AND B IS AN UNNAMED TRIBUTARY TO SOUTH BRANCH TUNKHANNOCK CREEK, CWF. APPROXIMATE DISTANCE FROM SITE: ±200 FT (WEST)  
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MATCH LINE: SEE SHEET NO. 6

Drawn By & Date/Time: Jfjones Apr 28, 2017 - 10:27am  
Drawing Location & Name: G:\JOBS\14\14C\14C-4908\DWG\010-CPLN\FCS\_EC14C4909(10)\_605.dwg

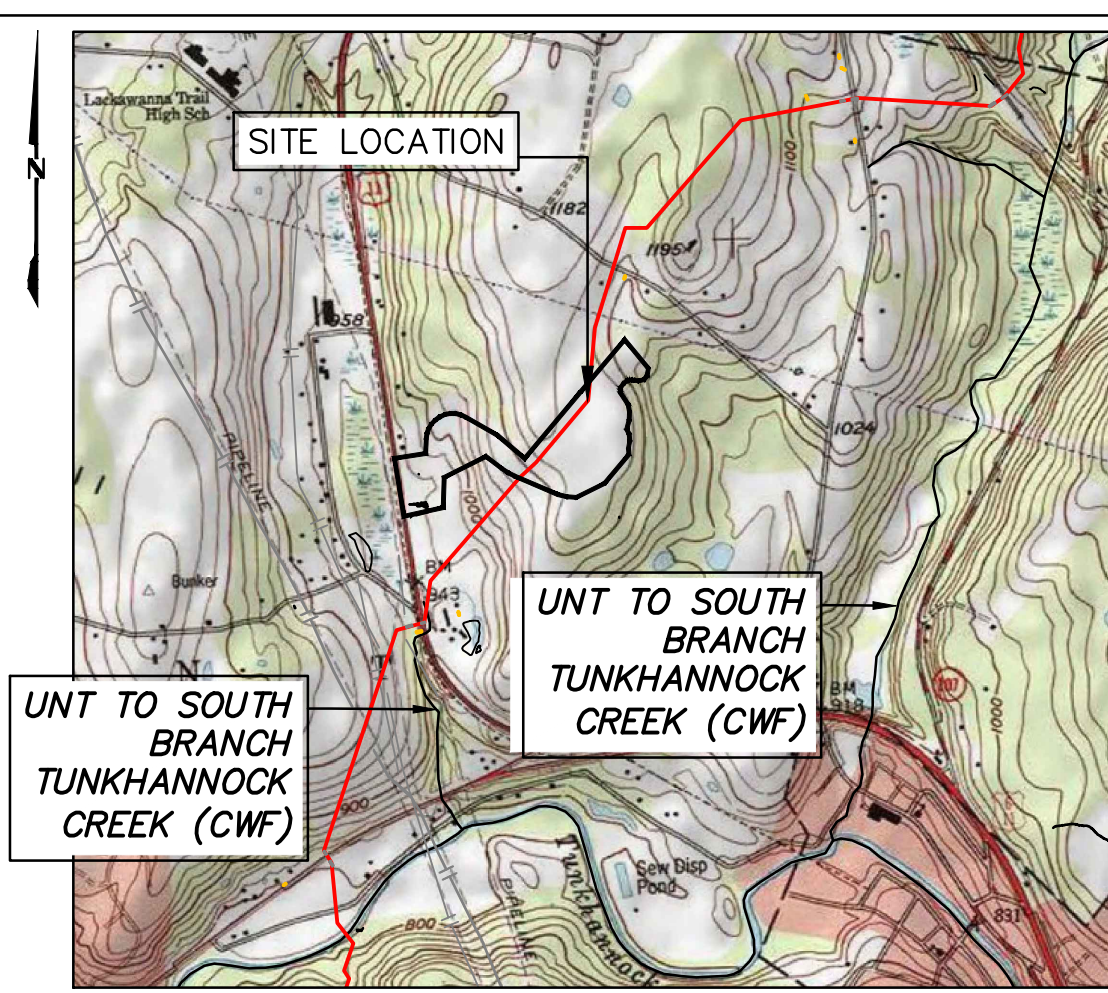
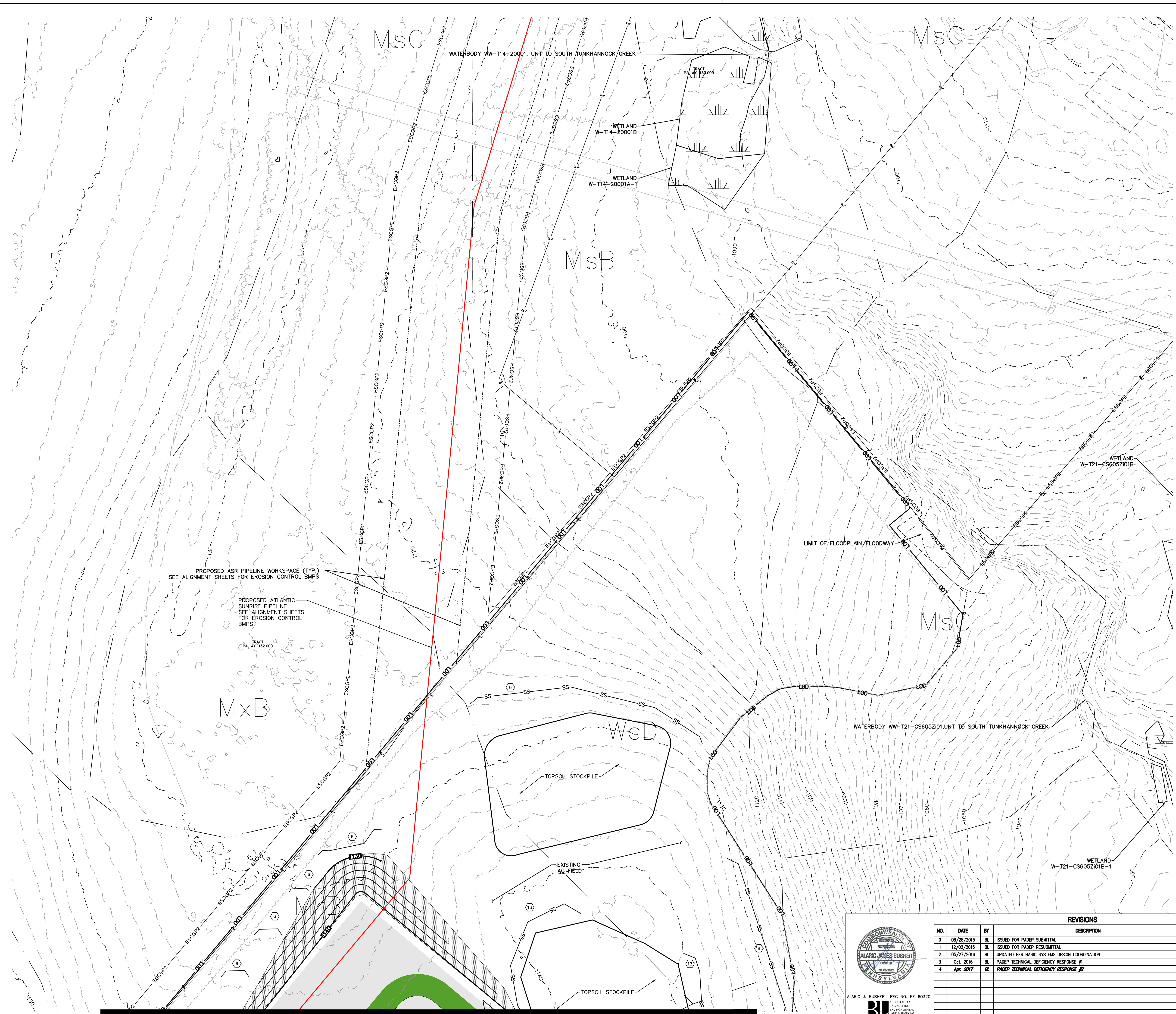


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SOIL EROSION & SEDIMENT CONTROL AND LAYOUT PLANS			
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CLINTON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA			
SOIL EROSION & SEDIMENT CONTROL PLAN			
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APP.:	DAK	ISSUED FOR CONSTRUCTION:	REVISION: 4
APP.:	AJB	DRAWING NUMBER:	(66-0605)F-1A-11
APP.:	AJB	SHEET:	7
APP.:	AJB	OF:	14



Drawn By & Date/Time: Jrfones Apr 28, 2017 - 10:11am  
 Drawing Location & Name: G:\08514\14C\14C4908\DWG\010-CPLN\FCS\_EC14C4909(10)\_605.dwg



**LOCATION MAP**  
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 SCALE: 1"=2,000'

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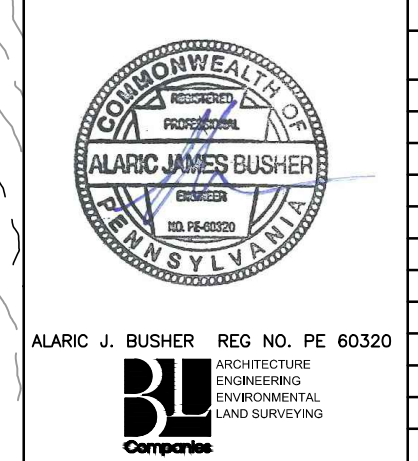
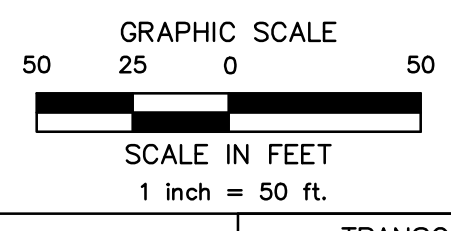
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  - LIMIT OF WORKSPACE (OVERALL PIPELINE PROJECT)
  - ESCGP2 — ESCGP-2 PERMIT BOUNDARY (OVERALL PIPELINE PROJECT)
  - FD — FILTER SOCK DIVERSION
  - SS — SEDIMENT BARRIER
  - X — ORANGE CONSTRUCTION FENCE
  - CENTERLINE GAS PIPELINE
  - SWALE LINING
  - EROSION CONTROL BLANKET
  - ROCK OUTLET/RIPRAP APRON
  - (X) — SEDIMENT BARRIER DESIGNATION (SEE SHEET 15)
  - ROCK CONSTRUCTION ENTRANCE
  - BAFFLE
  - GRAVEL COVER
  - ACCESS ROAD/STREET SWEEP AREA
  - LIMIT OF FLOODWAY/FLOODPLAIN LINE

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			SHEET 8 OF 14



MATCH LINE: SEE SHEET NO. 7

## STANDARD EROSION & SEDIMENTATION CONTROL PLAN NOTES

1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPs SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
10. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
11. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
13. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
14. VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM LIMIT OF DISTURBANCE TO PUBLIC ROADS WITHOUT PASSING OVER A ROCK CONSTRUCTION ENTRANCE.
15. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
16. A LOG SHOWING DATES THAT E&S BMPs WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
17. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEEP INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
18. ALL SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
19. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES --- 6 TO 12 INCHES ON COMPACTED SOILS --- PRIOR TO PLACING TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
20. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
21. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
22. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
23. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
24. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
25. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
26. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDING AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
27. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
28. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
29. E&S BMPs SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
30. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPs.
31. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPs. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPs SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
32. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
33. FAILURE TO CORRECTLY INSTALL E&S BMPs, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPs MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING IMPOSED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
34. CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.
35. ALL SWALES SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES.
36. UNDERGROUND UTILITIES CUTTING THROUGH ANY ACTIVE SWALE SHALL BE IMMEDIATELY BACKFILLED AND THE SWALE RESTORED TO ITS ORIGINAL CROSS-SECTION AND PROTECTIVE LINING. ANY BASE FLOW WITHIN THE SWALE SHALL BE CONVEYED PAST THE WORK AREA IN THE MANNER DESCRIBED IN THIS PLAN UNTIL SUCH RESTORATION IS COMPLETE.
37. SWALES HAVING RIPRAP, RENO MATRESS, OR GABION LININGS MUST BE SUFFICIENTLY OVER-EXCAVATED SO THAT THE DESIGN DIMENSIONS WILL BE PROVIDED AFTER PLACEMENT OF THE PROTECTIVE LINING.
38. SEDIMENT BASINS AND/OR TRAPS SHALL BE KEPT FREE OF ALL CONSTRUCTION WASTE, WASH WATER, AND OTHER DEBRIS HAVING POTENTIAL TO CLOG THE BASIN/TRAP OUTLET STRUCTURES AND/OR POLLUTE THE SURFACE WATERS.
39. SEDIMENT BASINS SHALL BE PROTECTED FROM UNAUTHORIZED ACTS BY THIRD PARTIES.
40. ANY DAMAGE THAT OCCURS IN WHOLE OR IN PART AS A RESULT OF BASIN OR TRAP DISCHARGE SHALL BE IMMEDIATELY REPAIRED BY THE PERMITTEE IN A PERMANENT MANNER SATISFACTORY TO THE MUNICIPALITY, LOCAL CONSERVATION DISTRICT, AND THE OWNER OF THE DAMAGED PROPERTY.
41. UPON REQUEST, THE APPLICANT OR HIS CONTRACTOR SHALL PROVIDE AN AS-BUILT (RECORD DRAWING) FOR ANY SEDIMENT BASIN OR TRAP TO THE MUNICIPAL INSPECTOR, LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
42. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.
43. FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN MAXIMUM 9 INCH LAYERED LIFTS AT 95% DENSITY.

## GENERAL EROSION & SEDIMENT CONTROL NOTES

1. INSPECT SNOW PLACEMENT AREAS DURING THE THAW CYCLE. INSTALL EROSION & SEDIMENT CONTROL BMPs DURING QUICK THAWS AND WHEN SNOW MELT RUNOFF IS CONCENTRATED OR IS CAUSING EROSION.
2. DISCHARGING SEDIMENT LADEN WATER WHICH WILL CAUSE OR CONTRIBUTE TO THE DEGRADATION OF A BENEFICIAL USE OF A WATER OF THE STATE FROM THE CONSTRUCTION SITE, A DEWATERING SITE, OR SEDIMENT BASIN/TRAP INTO ANY WATER BODY OR STORM DRAIN WITHOUT FILTRATION OR EQUIVALENT TREATMENT IS PROHIBITED.
3. DISCHARGES ORIGINATING FROM OFF-SITE SOURCES, WHICH FLOW THROUGH OR ACROSS THE AREAS DISTURBED BY CONSTRUCTION, SHALL BE DIVERTED AROUND THE ACTIVE CONSTRUCTION AREA WHENEVER POSSIBLE.
4. STAGING AREAS, ASSEMBLY AREAS, TEMPORARY EQUIPMENT AND NON-HAZARDOUS MATERIAL STORAGE AREAS SHALL BE LOCATED OUTSIDE THE 100-YR FLOOD ZONE. HAZARDOUS MATERIAL STORAGE AREAS SHALL BE LOCATED AT LEAST 100 FEET BACK FROM SURFACE WATER BODIES.
5. ALL EXCAVATED MATERIALS THAT WILL NOT BE USED ON THE SITE CANNOT BE STORED IN THE FLOODPLAIN AND MUST BE HAULED TO A DISPOSAL SITE LOCATED OUTSIDE OF THE FLOODPLAIN.
6. CONSTRUCTION STAGING AREAS SHALL BE LOCATED A MINIMUM OF 50 FEET AWAY FROM THE EDGE OF A WETLAND.
7. MEASURES SHALL BE TAKEN TO PREVENT TRENCHES FROM DRAINING A WETLAND OR CHANGING ITS HYDROLOGY.
8. IT IS DESIRED THAT THE AMOUNT AND DURATION OF OPEN TRENCH BE MINIMIZED DURING THE PROJECT.
9. IF TOPSOIL PILES ARE EXPOSED FOR GREATER THAN 4 DAYS, THEY SHALL BE SEEDED WITH AN ANNUAL SEED MIXTURE AND MULCHED WITH STRAW.
10. NO EROSION CONTROL BLANKET SHALL BE INSTALLED IN AGRICULTURAL AREAS.
11. HYDRAULICALLY APPLIED EROSION CONTROL BLANKETS MAY BE USED IN LIEU OF EROSION CONTROL BLANKETS WITH PRIOR APPROVAL FROM THE COUNTY CONSERVATION DISTRICT.
12. LOCATION AND SPACING OF THE WATERBARS ARE SHOWN ON THE PLAN. WATERBARS MAY BE ADJUSTED IN THE FIELD DUE TO ACTUAL SITE CONDITIONS. HOWEVER INSTALLATION AND SPACING MUST CONFORM TO THE DETAILS PROVIDED AND APPROVAL MUST BE OBTAINED FROM THE LOCAL CONSERVATION DISTRICT OR PA DEP.
13. SEDIMENT REMOVED FROM PUBLIC ROADS OR BMPs WILL BE REUSED ON SITE OR DISPOSED OF AT A SITE WITH AN EROSION AND SEDIMENT CONTROL PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR DEP.
14. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SOIL EROSION AND SEDIMENT CONTROL NARRATIVE AND ENVIRONMENTAL CONSTRUCTION PLAN.
15. CONTRACTOR SHALL MINIMIZE THE TOTAL AREA OF DISTURBANCE.
16. UPON TEMPORARY CESSATION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OF AN ACTIVITY WHERE A CESSATION OF EARTH DISTURBANCE ACTIVITIES WILL EXCEED 4 DAYS, THE SITE SHALL BE IMMEDIATELY SEEDD, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED E&S PENDING FUTURE EARTH DISTURBANCE ACTIVITIES. FOR AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OF AN ACTIVITY TO BE CONSIDERED TEMPORARILY STABILIZED, THE DISTURBED AREAS SHALL BE COVERED WITH ONE OF THE FOLLOWING: A MINIMUM UNIFORM COVERAGE OF MULCH AND SEED, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED E&S, OR AN ACCEPTABLE BMP WHICH TEMPORARILY MINIMIZES ACCELERATED E&S. TEMPORARY STABILIZATION WILL NOT OCCUR ON ACTIVE VEHICULAR TRAVEL WAYS WITHIN THE ROW. THE ON-SITE ENVIRONMENTAL INSPECTOR WILL LOG ACTIVITY WITHIN THE PROJECT LIMITS OF DISTURBANCE AND NOTIFY THE CONTRACTOR OF AREAS REQUIRING TEMPORARY STABILIZATION.
17. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BMPs TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL COUNTY CONSERVATION DISTRICT AND/OR PADEP.
18. MAINTAIN TEMPORARY SOIL STOCKPILES.
19. NO EARTH DISTURBANCE ACTIVITIES WITHIN 50 FEET OF STREAM SWALES WILL BE PERFORMED UNTIL MATERIALS NEEDED TO COMPLETE THE CROSSING ARE AT THE NEAREST AVAILABLE LOCATION.
20. THE CONTRACTOR IS REQUIRED TO PROVIDE CONTINUOUS MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES WITHIN DISTURBED AREAS.
21. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE LONGER THAN 4 DAYS IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL SUCH INACTIVE DISTURBED AREAS.
22. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
23. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
24. FOLLOW THE CONSTRUCTION/EROSION CONTROL IMPLEMENTATION PLAN AS OUTLINED ON THE DRAWINGS.
25. THE STAGING OF EARTHMOVING ACTIVITIES FOR THIS PROJECT IS A GENERAL DESCRIPTION OF THE WORK REQUIRED. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH PROJECT OWNER STANDARDS, THE PADEP REGULATIONS, AND ALL OTHER APPLICABLE FEDERAL, STATE OR LOCAL REQUIREMENTS.
26. SCHEDULE WORK TO BE PERFORMED IN A MANNER THAT MINIMIZES THE LENGTH OF TIME THAT BARE SOIL WILL BE EXPOSED TO THE ELEMENTS.
27. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THIS SEQUENCE. EACH STAGE SHALL BE COMPLETED AND IMMEDIATELY STABILIZED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING, GRUBBING AND TOPSOIL STRIPPING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. IMPLEMENT EROSION CONTROL MEASURES AS SPECIFIED; HOWEVER, THE CONTRACTOR MAY INSERT ADDITIONAL CONSTRUCTION PHASES IN ORDER TO EXPEDITE HIS WORK WHILE MAINTAINING THE SAME LEVEL OF PROTECTION/ANY DEVIATION FROM THE FOLLOWING SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL COUNTY CONSERVATION DISTRICT. CONSTRUCTION MUST BE IN ACCORDANCE WITH THE SEQUENCE OF BMP INSTALLATION INDICATED ON SITE SPECIFIC DETAIL SHEETS. THIS SEQUENCE IS DESIGNED TO MINIMIZE SOIL EROSION AND SEDIMENTATION. THE CONTRACTOR MAY DEVIATE SLIGHTLY FROM THE STAGING OF PERMANENT SITE IMPROVEMENTS, BUT NO DEVIATION FROM THE RELATIVE ORDER OF EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE ALLOWED WITHOUT WRITTEN APPROVAL FROM THE LOCAL COUNTY CONSERVATION DISTRICT OR PADEP.

## NOTICES TO CONTRACTOR

1. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO STARTING WORK.
2. THE CONTRACTOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.
3. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE COORDINATED WITH THE AGENCY HAVING JURISDICTION.
4. THE CONTRACTORS SHALL BE ADDED AS CO-PERMITTEES TO THE ESCOP-2 PERMIT.

## MAINTENANCE PROGRAM

THE FOLLOWING INSPECTION AND MAINTENANCE PRACTICES WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS AND STABILIZATION MEASURES:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED ONCE EVERY SEVEN DAYS AND AFTER EACH RUNOFF EVENT. A WRITTEN REPORT MUST ALSO BE COMPLETED DOCUMENTING EACH INSPECTION AND, IF NECESSARY, ANY REPAIR, REPLACEMENT OR MAINTENANCE ACTIVITY.
2. ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF REPAIRS OR ADDITIONAL MEASURES ARE FOUND TO BE NECESSARY, THEY WILL BE INITIATED WITHIN 24 HOURS OF THE INSPECTION REPORT.
3. BUILT UP SEDIMENT WILL BE REMOVED FROM PERIMETER BMPs WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE BMP.
4. PERIMETER BMPs WILL BE INSPECTED FOR DEPTH OF SEDIMENT, DAMAGE, ETC., TO ENSURE THE MEASURE IS IN PROPER WORKING ORDER, AND THAT ANY POSTS/WOOD STAKES ARE SECURELY IN THE GROUND.
5. TEMPORARY SEDIMENT TRAPS, IF PRESENT, WILL BE INSPECTED FOR DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES THE DESIGN CLEANOUT DEPTH.
6. TEMPORARY AND PERMANENT SEEDING, AND OTHER STABILIZATION MEASURES, WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
7. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. COPIES OF THE REPORT FORMS TO BE COMPLETED BY THE INSPECTOR ARE INCLUDED IN THIS ESCP.
8. THE INSPECTOR WILL IMPLEMENT INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS THAT ARE USED ON THE SITE IN GOOD WORKING ORDER. THE INSPECTOR WILL ALSO BE TRAINED IN THE COMPLETION OF, INITIATION OF ACTIONS REQUIRED BY, AND THE FILING OF THE INSPECTION FORMS.
9. DISTURBED AREAS AND MATERIALS STORAGE AREAS WILL BE INSPECTED FOR EVIDENCE OF OR POTENTIAL FOR POLLUTANTS ENTERING THE STORMWATER.

A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN(S) WILL BE AVAILABLE ON THE SITE AT ALL TIMES.

ONCE ANY EROSION CONTROL MEASURES ARE INSTALLED, THE MAINTENANCE AND INSPECTION PROCEDURES ABOVE SHALL BEGIN. THE CONTRACTOR SHOULD BE AWARE THAT THE INSPECTION FORMS BECOME AN INTEGRAL PART OF THE ESCP AND SHALL BE MADE READILY AVAILABLE TO THE GOVERNMENT INSPECTION OFFICIALS, THE PROJECT OWNER'S ENGINEER, AND THE PROJECT OWNER FOR REVIEW UPON REQUEST DURING VISITS TO THE PROJECT SITE.

INSPECTORS SHOULD BE KNOWLEDGEABLE IN THE PRINCIPLES AND PRACTICE OF EROSION AND SEDIMENT CONTROLS AND POSSESS THE SKILLS TO ASSESS CONDITIONS AT THE CONSTRUCTION SITE THAT COULD IMPACT STORMWATER QUALITY AND TO ASSESS THE EFFECTIVENESS OF ANY SEDIMENT AND EROSION CONTROL MEASURES SELECTED TO CONTROL THE QUALITY OF STORMWATER DISCHARGES FROM THE CONSTRUCTION SITE. THEY SHOULD ALSO HAVE READ AND UNDERSTOOD ALL PORTIONS OF THIS ESCP, INCLUDING THE ESCOP-2.

THE INDIVIDUAL(S) RESPONSIBLE FOR POST-STORM AND STORM EVENT BMP INSPECTIONS, AND THE QUALIFIED PERSON(S) ASSIGNED RESPONSIBILITY TO ENSURE FULL COMPLIANCE WITH THE PERMIT AND IMPLEMENTATION OF ALL ELEMENTS OF THE ESCP, INCLUDING THE PREPARATION OF THE ANNUAL COMPLIANCE EVALUATION AND THE ELIMINATION OF ALL UNAUTHORIZED DISCHARGES ARE:

NAME: \_\_\_\_\_  
 PHONE NUMBER: \_\_\_\_\_ EMERGENCY PHONE #: \_\_\_\_\_  
 COMPANY: \_\_\_\_\_  
 RESPONSIBILITIES: \_\_\_\_\_  
 NAME: \_\_\_\_\_  
 PHONE NUMBER: \_\_\_\_\_ EMERGENCY PHONE #: \_\_\_\_\_  
 COMPANY: \_\_\_\_\_  
 RESPONSIBILITIES: \_\_\_\_\_

## RECYCLING AND DISPOSAL METHODS

CONTRACTORS ARE REQUIRED TO INVENTORY AND MANAGE THEIR CONSTRUCTION SITE MATERIALS. THE GOAL IS TO BE AWARE OF THE MATERIALS ON-SITE, ENSURE THEY ARE PROPERLY MAINTAINED, USED, AND DISPOSED OF, AND TO MAKE SURE THE MATERIALS ARE NOT EXPOSED TO STORMWATER.

### MATERIALS COVERED

THE FOLLOWING MATERIALS OR SUBSTANCES ARE EXPECTED TO BE PRESENT ON-SITE DURING CONSTRUCTION (NOTE: THIS LIST IS NOT AN ALL-INCLUSIVE LIST AND THE MATERIALS MANAGEMENT PLAN CAN BE MODIFIED TO ADDRESS ADDITIONAL MATERIALS USED ON-SITE):

- ACIDS
- DETERGENTS
- FERTILIZERS (NITROGEN/PHOSPHORUS)
- HYDROSEEDING MIXTURES
- PETROLEUM BASED PRODUCTS
- SANITARY WASTES
- SOIL STABILIZATION ADDITIVES
- SOLDER
- SOLVENTS
- OTHER (LIST HERE): \_\_\_\_\_

THESE MATERIALS MUST BE STORED AS APPROPRIATE AND SHALL NOT CONTACT STORM OR NON-STORMWATER DISCHARGES. CONTRACTOR SHALL PROVIDE A WEATHER PROOF CONTAINER TO STORE CHEMICALS OR ERODIBLE SUBSTANCES THAT MUST BE KEPT ON THE SITE. CONTRACTOR IS RESPONSIBLE FOR READING, MAINTAINING, AND MAKING EMPLOYEES AND SUBCONTRACTORS AWARE OF MATERIAL SAFETY DATA SHEETS (MSDSs).

### MATERIAL MANAGEMENT PRACTICES

THE FOLLOWING ARE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORMWATER RUNOFF.

#### 1. GOOD HOUSEKEEPING PRACTICES

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ON SITE DURING CONSTRUCTION:

- STORE ONLY ENOUGH MATERIAL REQUIRED TO DO THE JOB.
- STORE MATERIALS IN A NEAT, ORDERLY MANNER.
- STORE CHEMICALS IN WATER-TIGHT CONTAINERS OR IN A STORAGE SHED, UNDER A ROOF, COMPLETELY ENCLOSED, WITH APPROPRIATE SECONDARY CONTAINMENT TO PREVENT SPILL OR LEAKAGE. DRIP PANS SHALL BE PROVIDED UNDER DISPENSERS.
- SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- INSPECTIONS WILL BE PERFORMED TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.
- COVER AND BERM LOOSE STOCKPILED CONSTRUCTION MATERIALS THAT ARE NOT ACTIVELY BEING USED (I.E. SOIL, SPOILS, AGGREGATE, ETC.).
- MINIMIZE EXPOSURE OF CONSTRUCTION MATERIALS TO PRECIPITATION.
- MINIMIZE THE POTENTIAL FOR OFF-SITE TRACKING OF LOOSE CONSTRUCTION AND LANDSCAPE MATERIALS.

#### 2. HAZARDOUS PRODUCTS

THESE PRACTICES WILL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS. MSDSS FOR EACH SUBSTANCE WITH HAZARDOUS PROPERTIES THAT IS USED ON THE JOB SITE(S) WILL BE OBTAINED AND USED FOR THE PROPER MANAGEMENT OF POTENTIAL WASTES THAT MAY RESULT FROM THESE PRODUCTS. A MSDS WILL BE POSTED IN THE IMMEDIATE AREA WHERE SUCH PRODUCT IS STORED AND/OR USED AND ANOTHER COPY OF EACH MSDS WILL BE MAINTAINED IN A FILE AT THE JOB SITE CONSTRUCTION TRAILER OFFICE. EACH EMPLOYEE WHO MUST HANDLE A SUBSTANCE WITH HAZARDOUS PROPERTIES WILL BE INSTRUCTED ON THE USE OF MSDS AND THE SPECIFIC INFORMATION IN THE APPLICABLE MSDS FOR THE PRODUCT HE/SHE IS USING, PARTICULARLY REGARDING SPILL CONTROL TECHNIQUES.

- PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS WITH THE ORIGINAL LABELS IN LEGIBLE CONDITION.
- ORIGINAL LABELS AND MSDSS WILL BE PRODUCED AND USED FOR EACH MATERIAL.
- IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL/STATE/FEDERAL RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

#### 3. HAZARDOUS WASTES

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF BY THE CONTRACTOR IN THE MANNER SPECIFIED BY LOCAL, STATE, AND/OR FEDERAL REGULATIONS AND BY THE MANUFACTURER OF SUCH PRODUCTS. SITE PERSONNEL WILL BE INSTRUCTED.

#### 4. CONCRETE AND OTHER WASH WATERS

PREVENT DISPOSAL OF RINSE, WASH WATERS, OR MATERIALS ON IMPERVIOUS OR PERVIOUS SURFACES, INTO STREAMS, WETLANDS OR OTHER WATER BODIES.

CONCRETE TRUCKS WILL BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE, BUT ONLY IN EITHER (1) SPECIFICALLY DESIGNATED DIKED AREAS WHICH HAVE BEEN PREPARED TO PREVENT CONTACT BETWEEN THE CONCRETE AND/OR WASHOUT AND SOIL AND STORMWATER HAVING THE POTENTIAL TO BE DISCHARGED FROM THE SITE OR (2) IN LOCATIONS WHERE WASTE CONCRETE CAN BE POURED INTO FORMS TO MAKE RIPRAP OR OTHER USEFUL CONCRETE PRODUCTS.

THE HARDENED RESIDUE FROM THE CONCRETE WASHOUT DIKED AREAS WILL BE DISPOSED OF IN THE SAME MANNER AS OTHER NON-HAZARDOUS CONSTRUCTION WASTE MATERIALS OR MAY BE BROKEN UP AND USED ON THE SITE AS DEEMED APPROPRIATE BY THE CONTRACTOR AND GEOTECHNICAL ENGINEER. THE CONTRACTOR WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

ALL CONCRETE WASHOUT AREAS WILL BE LOCATED IN AN AREA WHERE THE LIKELIHOOD OF THE AREA CONTRIBUTING TO STORMWATER DISCHARGE IS NEGLIGIBLE. IF REQUIRED, ADDITIONAL BMPs MUST BE IMPLEMENTED TO PREVENT CONCRETE WASTES FROM CONTRIBUTING TO STORMWATER DISCHARGES. THE LOCATION OF THE CONCRETE WASHOUT AREA(S) MUST BE IDENTIFIED, BY THE CONTRACTOR/JOB SITE SUPERINTENDENT, ON THE JOB SITE COPY OF THE EROSION AND SEDIMENT CONTROL PLAN(S) IN THIS ESCP.

#### 5. SANITARY WASTES

ALL SANITARY WASTE UNITS WILL BE LOCATED IN AN AREA WHERE THE LIKELIHOOD OF THE UNIT CONTRIBUTING TO STORMWATER DISCHARGES IS NEGLIGIBLE. ADDITIONAL BMPs MUST BE IMPLEMENTED, SUCH AS CONTAINMENT TRAYS (PROVIDED BY THE RENTAL COMPANY) OR SPECIAL CONTAINMENT CREATED WITH 2"x4" LUMBER, IMPERVIOUS PLASTIC, AND GRAVEL. THE LOCATION OF THE SANITARY WASTE UNITS MUST BE IDENTIFIED ON THE JOB SITE COPY OF THE EROSION AND SEDIMENT CONTROL PLAN(S), IN THIS ESCP, BY THE CONTRACTOR/JOB SITE SUPERINTENDENT.

#### 6. SOLID AND CONSTRUCTION WASTES

ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LOADED METAL DUMPSTER. THE DUMPSTER WILL COMPLY WITH ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER/CONTAINER LIDS SHALL BE CLOSED AT THE END OF EVERY BUSINESS DAY AND DURING RAIN EVENTS. APPROPRIATE MEASURES SHALL BE TAKEN TO PREVENT DISCHARGES FROM WASTE DISPOSAL CONTAINERS TO THE RECEIVING WATER.

#### 7. CONSTRUCTION ACCESS

A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED ROADS ADJACENT TO THE SITE ENTRANCE WILL BE INSPECTED DAILY AND SWEEP AS NECESSARY TO REMOVE ANY EXCESS MUD, DIRT, OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARP/AULIN AS NECESSARY.

#### 8. PETROLEUM PRODUCTS

ON-SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTATIVE MAINTENANCE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. PETROLEUM STORAGE TANKS ON SITE WILL HAVE A DIKE OR BERM CONTAINMENT STRUCTURE CONSTRUCTED AROUND IT TO CONTAIN SPILLS WHICH MAY OCCUR (CONTAINMENT VOLUME TO BE 110% OF VOLUME STORED). THE DIKE OR BERMED AREA SHALL BE LINED WITH AN IMPERVIOUS MATERIAL SUCH AS A HEAVY DUTY PLASTIC SHEET. DRIP PANS SHALL BE PROVIDED FOR ALL DISPENSERS. ANY ASPHALT SUBSTANCES USED ON THE SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

#### 9. FERTILIZERS AND LANDSCAPE MATERIALS

FERTILIZERS WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO MINIMIZE THE POTENTIAL FOR EXPOSURE TO STORMWATER. STORAGE WILL BE UNDER COVER. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO MINIMIZE THE POTENTIAL FOR SPILLS. THE BIN SHALL BE LABELED APPROPRIATELY.

CONTAIN STOCKPILED MATERIALS, SUCH AS BUT NOT LIMITED TO, MULCHES, TOP SOIL, ROCKS AND GRAVEL, AND DECOMPOSED GRANITE, WHEN THEY ARE NOT ACTIVELY BEING USED.

APPLY ERODIBLE LANDSCAPE MATERIAL AT QUANTITIES AND APPLICATION RATES ACCORDING TO MANUFACTURER RECOMMENDATIONS OR BASED ON WRITTEN SPECIFICATIONS BY KNOWLEDGEABLE AND EXPERIENCED FIELD PERSONNEL. DISCONTINUE THE APPLICATION OF ANY ERODIBLE LANDSCAPE MATERIAL WITHIN TWO DAYS PRIOR TO A FORECASTED RAIN EVENT OR DURING PERIODS OF PRECIPITATION.

#### 10. PAINTS, PAINT SOLVENTS AND CLEANING SOLVENTS

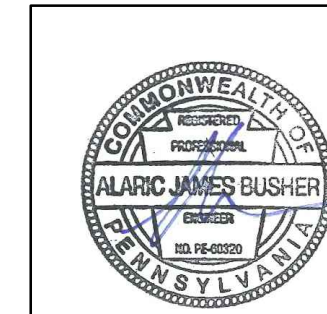
CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT IN USE. EXCESS PAINT AND SOLVENTS WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR LOCAL/STATE/FEDERAL REGULATIONS.

#### 11. CONTAMINATED SOILS

ANY CONTAMINATED SOILS (RESULTING FROM SPILLS OF MATERIALS WITH HAZARDOUS PROPERTIES) WHICH MAY RESULT FROM CONSTRUCTION ACTIVITIES WILL BE CONTAINED AND CLEANED UP IMMEDIATELY IN ACCORDANCE WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

#### 12. OFF-SITE WASTE AND BORROW AREAS

ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL COUNTY CONSERVATION DISTRICT OF PADEP FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF ANY EXCESS MATERIAL AND TO DEVELOP A PLAN THAT MEETS THE CONDITIONS OF CHAPTER 102, NPDES PERMIT CONDITIONS, AND/OR OTHER STATE AND FEDERAL REGULATIONS.



ALARIC J. BUSHER REG. NO. PE 60320



REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
0	08/26/2015	BL	ISSUED FOR PADEP SUBMITTAL	W0161497	DAK	AJB
1	12/02/2015	BL	ISSUED FOR PADEP RESUBMITTAL	W0161497	DAK	AJB
2	05/27/2016	BL	UPDATED PER BASIC SYSTEMS DESIGN COORDINATION	W0161497	AJB	AJB
3	Oct. 2016	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #1	W0161497	AJB	AJB
4	Apr. 2017	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #2	W0161497	AJB	AJB

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC					
ATLANTIC SUNRISE PROJECT- PROPOSED 30" NATURAL GAS PIPELINE					
SOIL EROSION & SEDIMENT CONTROL AND LAYOUT PLANS					
FOR COMPRESSOR STATION 605					
CLINTON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA					
SOIL EROSION & SEDIMENT CONTROL NOTES					
DRAWN BY: ADE		DATE: 04/03/15	ISSUED FOR BID:	SCALE:	AS NOTED
CHECKED BY: AJB					

## RIP RAP GRADATION, FILTER BLANKET, MAXIMUM VELOCITIES

Riprap Gradation, Filter Blanket Requirements, Maximum Velocities Percent Passing (Square Openings)						
Class, Size NO. Rock Size (Inches)	R-8	R-7	R-6	R-5	R-4	R-3
42	100					
30		100				
24	15-50		100			
18		15-50		100		
15	0-15				100	
12		0-15	15-50			
9				15-50		
6			0-15		15-50	100
4				0-15		
3					0-15	15-50
2						0-15
Nominal Placement Thickness (inches)	63	45	36	27	18	9
Filter Stone V <sub>max</sub> (ft/sec)	AASHTO #1 17.0	AASHTO #1 14.5	AASHTO #1 13.0	AASHTO #3 11.5	AASHTO #3 9.0	AASHTO #57 6.5

Adapted from PennDOT Pub. 406, Section 703.2(c), Table C

ADAPTED FROM PENNDOT PUB. 406, SECTION 703.2 (c), TABLE C.

1. THIS IS A GENERAL STANDARD. SOIL CONDITIONS AT EACH SITE SHOULD BE ANALYZED TO DETERMINE ACTUAL FILTER SIZE. A SUITABLE WOVEN OR NON-WOVEN GEOTEXTILE UNDERLAYMENT, USED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, MAY BE SUBSTITUTED FOR THE FILTER STONE FOR GRADIENTS < 10%.

## LIMING AND FERTILIZER RATES

Soil Amendment	Permanent Seeding Application Rate			Notes
	Per Acre	Per 1,000 sq. ft.	Per 1,000 sq. yd.	
Agricultural lime	6 tons	240 lb.	2,480 lb.	Or as per soil test; may not be required in agricultural fields
10-10-20 fertilizer	1,000 lb.	25 lb.	210 lb.	Or as per soil test; may not be required in agricultural fields
Temporary Seeding Application Rate				
Agricultural lime	1 ton	40 lb.	410 lb.	Typically not required for topsoil stockpiles
10-10-10 fertilizer	500 lb.	12.5 lb.	100 lb.	Typically not required for topsoil stockpiles

PA DEP TABLE 11.2

1 NO LIME AND/OR FERTILIZER MAY BE APPLIED IN WETLANDS.

## SLOPE SEED MIX

Common Name	Scientific Name	# PLS/acre	PLS/sq ft	% of Mix
Big Bluestem	Andropogon gerardii	2.0	6.0	10
Little Bluestem	Schizachyrium scoparium	1.0	6.0	10
Switchgrass	Panicum virgatum	1.3	12.0	20
Timothy	Phleum pratense	0.4	12.0	20
Virginia Wildrye	Elymus virginicus	4.4	7.5	13
Deertongue	Dichanthelium clandestinum	0.7	6.0	10
Blackeyed Susan	Rudbeckia hirta	0.1	3.0	5
White Clover	Trifolium repens	0.2	3.0	5
Oxeye Sunflower	Helopsis helianthoides	0.6	1.5	3
Partridge Pea	Chamaecrista fasciculata	1.1	1.5	3
Purple Coneflower	Echinacea purpurea	0.6	1.5	3
Total	--	12.3	60.0	100.00

NOTES:

1 PLS IS ROUNDED TO THE NEAREST TENTH OF A POUND.  
PLS = PURE LIVE SEED

## ROW SEED MIX

Common Name	Scientific Name	# PLS/acre	PLS/sq ft	% of Mix
Red Top	Agrostis gigantea	0.1	12.0	20
Timothy	Phleum pratense	0.4	12.0	20
Tall Fescue	Festuca arundinacea	1.7	9.0	15
Annual Ryegrass	Lolium perenne multiflorum	1.7	9.0	15
Italian Ryegrass	Festulium	1.7	9.0	15
Alsike Clover	Trifolium hybridum	0.2	3.0	5
White Clover	Trifolium repens	0.2	3.0	5
Ladino White Clover	Trifolium repens latum	0.2	3.0	5
Total	--	6.2	60.0	100

NOTES:

1 PLS IS ROUNDED TO THE NEAREST TENTH OF A POUND.  
PLS = PURE LIVE SEED

## SPECIES TYPE AND SEASON OF PLANTING

Species Type and Season of Planting	
Cover Crops <sup>1</sup>	
Cool Season - Spring	March 1 to June 1
Warm Season	June 1 to August 15
Cool Season - Fall	August 15 - October 15
Permanent Crop <sup>2</sup>	
Spring	April 20 to June 15
Late Fall (dormant)	October 10 - March 1

NOTES:

1. SEEDING DATES FOR COVER CROPS ARE BASED ON DATES REFERENCED BY CLARK, 2002.

2. SEEDING DATES FOR PERMANENT CROPS ARE BASED ON DATES REFERENCED BY LANDSHOOT, 1997 AND DELONG AND BRITTINGHAM, 2002.

SEED AFTER OCTOBER 10 WHEN GROUND TEMPERATURES AT A DEPTH OF 4 INCHES ARE 45 F OR LOWER AND COOLER AIR TEMPERATURES ARE FORECASTED.

DORMANT SEEDING CAN OCCUR UNTIL SOIL IS FROZEN AND ADEQUATE PENETRATION OF THE DRILL SEEDER DOES NOT OCCUR.

## COVER CROP SEED MIXES

Cover Crop Seed Mixes				
Warm Season				
Common Name	Crop Type	# PLS/acre	PLS/sq ft	% of Mix
Pearl Millet	Grass	6.9	12.6	70
Sunn Hemp	Legume	10.5	3.6	20
Nitro Radishes	Brassicas	3.1	1.8	10
Total	--	20.5	18.0	100
Cool Season				
Annual ryegrass	Grass	8.0	35.1	65
Red Clover	Legume	3.2	13.5	25
Nitro Radishes	Brassicas	9.4	5.4	10
Total	--	20.6	54.0	100

NOTES:

1 PLS IS ROUNDED TO THE NEAREST TENTH OF A POUND.  
PLS = PURE LIVE SEED

## TEMPORARY SEED MIXTURES

TEMPORARY SEEDING SHALL CONSIST OF ANNUAL RYEGRASS (100 PERCENT BY WEIGHT), OR EQUIVALENT, AND SHALL BE PLACED AT THE RATE OF 5 POUNDS PER 1,000 SQUARE YARD. TEMPORARY SEEDING SHALL BE APPLIED TO THOSE AREAS THAT ARE A POTENTIAL EROSION PROBLEM DURING CONSTRUCTION AND TO THOSE AREAS EXPOSED FOR LONGER THAN 20 CALENDAR DAYS. IF CONDITIONS DO NOT PERMIT TEMPORARY SEEDING, MULCHING SHALL BE EMPLOYED. ADDITIONALLY, NITROGEN FERTILIZER (50-50-50) @ ONE (1) TON PER ACRE, AGRICULTURAL LIME @ ONE (1) TON PER ACRE, AND STRAW MULCH @ THREE (3) TONS PER ACRE. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.

## PERMANENT SEED MIXTURES COOL & WARM SEASON GRASSES

HAYFIELDS

Common Name	Scientific Name	# PLS/acre	PLS/sq ft	% of Mix
Orchardgrass	Dactylis glomerata	4.0	60.0	40
Timothy	Phleum pratense	2.0	60.0	40
Ladino White Clover	Trifolium repens latum	0.8	15.0	10
Red Clover	Trifolium pratense	2.4	15.0	10
Total	--	9.2	150.0	100

PASTURES

Common Name	Scientific Name	# PLS/acre	PLS/sq ft	% of Mix
Timothy	Phleum pratense	0.5	15.0	25%
Perennial Ryegrass	Lolium perenne	2.3	12.0	20%
Red Top	Agrostis gigantea	0.1	9.0	15%
Italian Ryegrass	Festulolium	1.7	9.0	15%
Alsike Clover	Trifolium hybridum	0.6	9.0	15%
Ladino White Clover	Trifolium repens latum	0.3	6.0	10%
Total	--	5.5	60.0	100%

SLOPING/FORESTED LAND

Common Name	Scientific Name	# PLS/acre	PLS/sq ft	% of Mix
Sideoats Grama	Bouteloua curtipendula	1.4	6.0	10%
Little Bluestem	Schizachyrium scoparium	1.0	6.0	10%
Switchgrass	Panicum virgatum	1.3	12.0	20%
Timothy	Phleum pratense	0.4	12.0	20%
Virginia Wildrye	Elymus virginicus	4.24	7.2	12%
Deertongue	Dichanthelium clandestinum	0.7	6.0	10%
Blackeyed Susan	Rudbeckia hirta	0.1	2.4	4%
White Clover	Trifolium repens	0.1	2.4	4%
Oxeye Sunflower	Helopsis helianthoides	0.8	1.8	3%
Partridge Pea	Chamaecrista fasciculata	1.7	2.4	4%
Purple Coneflower	Echinacea purpurea	0.7	1.8	3%
Total	--	12.3	60.0	100%

DROUGHT/ROCKY SITES

Common Name	Scientific Name	# PLS/acre	PLS/sq ft	% of Mix
Little Bluestem	Schizachyrium scoparium	1.5	9.0	15%
Timothy	Phleum pratense	0.3	9.0	15%
Prairie Junegrass	Koeleria macrantha	0.1	6.0	10%
Deertongue	Dichanthelium clandestinum	1.0	9.0	15%
Sideoats Grama	Bouteloua curtipendula	2.7	12.0	20%
Virginia Wildrye	Elymus virginicus	3.5	6.0	10%
Partridge Pea	Chamaecrista fasciculata	2.1	3.0	5%
Ladino White Clover	Trifolium repens latum	0.2	3.0	5%
Lanceleaf Coreopsis	Coreopsis lanceolata	0.6	3.0	5%
Total	--	12.0	60.0	100%

NON-AGRICULTURAL MEADOWS

Common Name	Scientific Name	# PLS/acre	PLS/sq ft	% of Mix
Virginia Wildrye	Elymus virginicus	5.3	9.0	15%
Little Bluestem	Schizachyrium scoparium	1.5	9.0	15%
Sideoats Grama	Bouteloua curtipendula	2.1	9.0	15%
Deertongue	Dichanthelium clandestinum	1.0	9.0	15%
Partridge Pea	Chamaecrista fasciculata	4.2	6.0	10%
Oxeye Sunflower	Helopsis helianthoides	1.3	3.0	5%
Lanceleaf Coreopsis	Coreopsis lanceolata	1.2	6.0	10%
Blackeyed Susan	Rudbeckia hirta	0.1	3.0	5%
Butterfly Milkweed	Asclepias tuberosa	5.2	6.0	10%
Total	--	21.8	60.0	100%

NATIVE NON-NATIVE FOOD PLOT MIX

Common Name	Scientific Name	# PLS/acre	PLS/sq ft	% of Mix
Timothy	Phleum pratense	0.4	12.0	20%
Upland Bent Grass	Agrostis perennans	0.1	9.0	15%
Virginia Wildrye	Elymus virginicus	5.3	9.0	15%
White Clover	Trifolium repens	0.5	9.0	15%
Ladino White Clover	Trifolium repens latum	0.7	12.0	20%
Crimson Clover	Trifolium incarnatum	3.5	9.0	15%
Total	--	10.4	60.0	100%

STORM BASIN MIX

Common Name	Scientific Name	# PLS/acre	PLS/sq ft	% of Mix
Orchardgrass	Dactylis glomerata	0.8	12.0	20%
Timothy	Phleum pratense	0.4	9.0	15%
Switchgrass	Panicum virgatum	1.0	12.0	20%
Virginia Wildrye	Elymus virginicus	7.1	9.0	15%
Fox Sedge	Carex vulpinoidea	0.3	3.0	5%
Oxeye Sunflower	Helopsis helianthoides	1.3	3.0	5%
Swamp Milkweed	Asclepias incarnata	1.7	12.0	20%
Total	--	12.6	60.0	100%

POLLINATOR MIX (TO BE ADDED TO ANY MIX UPON LANDOWNER REQUEST)

Common Name	Scientific Name	# PLS/acre	PLS/sq ft	% of Mix
Butterfly Milkweed	Asclepias tuberosa	2.6	3.0	15%
Purple Coneflower	Echinacea purpurea	1.1	3.0	15%
Dense Blazing Star	Liatris spicata	0.7	2.0	10%
Lanceleaf Coreopsis	Coreopsis lanceolata	0.4	2.0	10%
Blackeyed Susan	Rudbeckia hirta	0.1	3.0	15%
Oxeye Sunflower	Helopsis	1.3	3.0	15%
Wild Bergamot	Monarda fistulosa	0.1	2.0	10%
Hoary Mountainmint	Pycnanthemum	0.0	2.0	10%
Total	--	6.3	20.0	100%

BRASSICA MIX

Common Name	Scientific Name	# PLS/acre	PLS/sq ft	% of Mix
Bonar (Rape)	Brassica napus	2.7	6.6	33%
Turnip	Brassica rapa	12.9	6.6	33%
Nitro Radish	Raphanus	11.8	6.8	34%
Total	--	27.4	20.0	100%

## SITE SOIL TYPES AND LIMITATIONS

MAP UNIT NAME	MAP UNIT DESIGNATION	SLOPES	SOIL NAME	CUTBANKS CAVE	CORROSIVE TO CONCRETE/STEEL	DROUGHT	EASILY ERODIBLE	FLOODING	HIGH WATER TABLE	HYDRIC/HYDRIC INCLUSIONS	LOW STRENGTH	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK-SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
MORRIS FLAGGY SILT LOAM	M6B	3-8%	MORRIS	X	C/S	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MORRIS CHANNERY SILT LOAM	M6B	3-8%	MORRIS	X	C/S	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NORWICH AND CHIPPEWA SOILS	N6B	3-8%	NORWICH AND CHIPPEWA	X	C/S	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OQUAGA CHANNERY LOAM	O6C	8-15%	OQUAGA	X	C/S	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OQUAGA FLAGGY LOAM	O6B	3-8%	OQUAGA	X	C/S	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WELLSBORO CHANNERY LOAM	W6C	8-15%	WELLSBORO	X	C/S	X	X	X	X	X	X	X	X	X	X	X	X	X	X

## SOILS LIMITATIONS AND RESOLUTIONS

LIMITATION	RESOLUTION
CUTBANKS CAVE	EXCAVATIONS WILL BE PROPERLY SUPPORTED BY SHEETING AND SHORING TO PREVENT CAVES.
CORROSIVE TO CONCRETE/STEEL	NO CONCRETE OR STEEL PIPING IS PROPOSED WITHOUT APPROPRIATE TREATMENT OR PROTECTION
DROUGHT	EXISTING SUITABLE TOPSOIL AND SOIL AMENDMENTS WILL BE USED DURING CONSTRUCTION.
EASILY ERODIBLE	TEMPORARY AND PERMANENT EROSION CONTROL BMPs WILL BE EMPLOYED THROUGHOUT THE SITE.
FLOODING	ENSURE THAT THE SITE HAS PROPER DRAINAGE.
HIGH WATER TABLE	A GEOTECHNICAL INVESTIGATION WAS CONDUCTED TO MINIMIZE CONFLICTS WITH SATURATED ZONES.
HYDRIC/HYDRIC INCLUSIONS	A WETLAND INVESTIGATION WAS COMPLETED TO DETERMINE IF WETLANDS ARE PRESENT IN THE DEVELOPMENT AREA.
LOW STRENGTH	A MAXIMUM OF 3:1 SLOPES ARE PROPOSED.
SLOW PERCOLATION	FIELD INVESTIGATIONS OF PERCOLATION RATES AT THE INFILTRATION AREAS WERE PERFORMED TO VERIFY THE SOILS PERCOLATION CAPACITY.
PIPING	WATERTIGHT PIPE, ANTISEEP COLLARS, CLAY CORES THROUGH BASIN BERMS, AND CONCRETE ENDWALLS WILL BE USED TO MINIMIZE THE DANGER OF PIPING.
POOR SOURCE OF TOPSOIL	EXISTING TOPSOIL, WHICH HAS PROVEN TO BE SUITABLE, WILL BE REUSED ON THE SITE.
FROST ACTION	PAVEMENT SUBBASE WILL BE PROVIDED TO MINIMIZE FROST AFFECTS.
SHRINK-SWELL	STONE BASE WILL BE PROVIDED TO PREVENT SHRINK-SWELL FROM EFFECTING PAVEMENT.
POTENTIAL SINKHOLE	GEOTECHNICAL ENGINEER OF RECORD RECOMMENDATIONS WILL BE FOLLOWED FOR ANY POTENTIAL OCCURRENCES.

# THERMAL IMPACT ANALYSIS

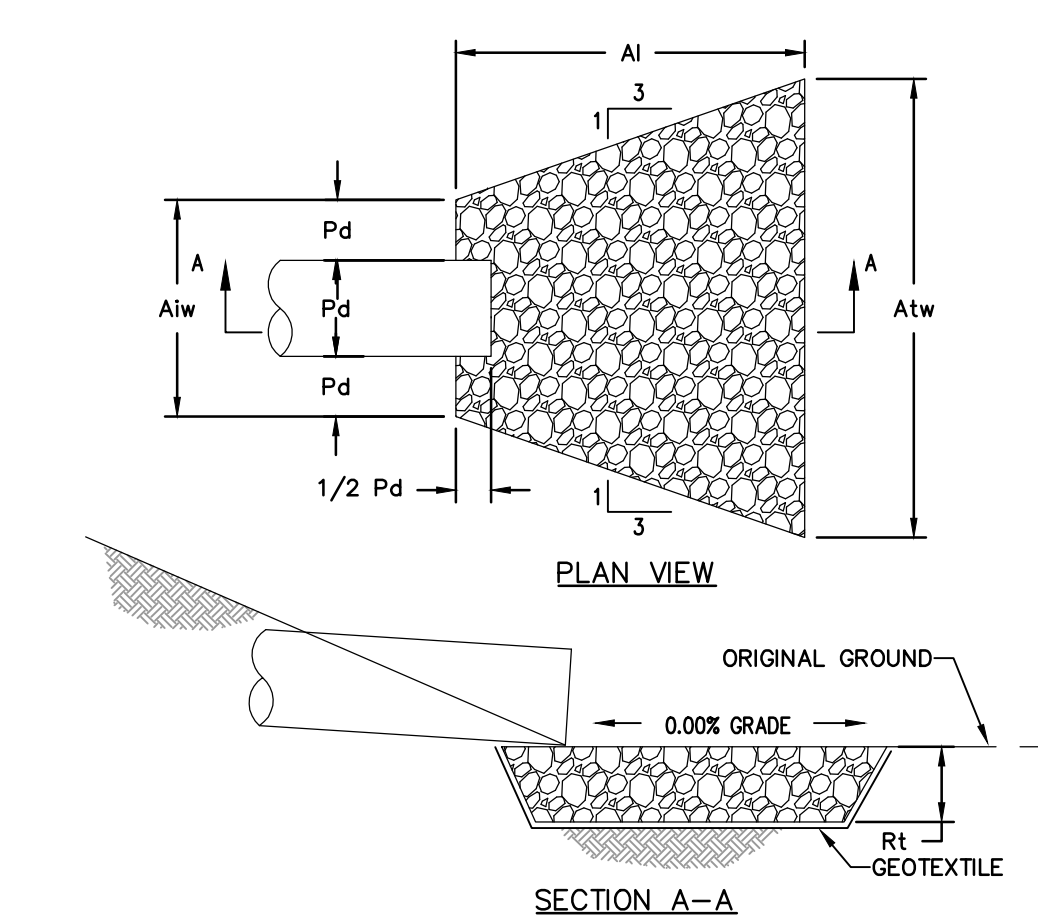
IN ORDER TO PREVENT AN INCREASE IN STREAM TEMPERATURE, CONSTRUCTION OF THESE FACILITY WILL INCORPORATE THE FOLLOWING BMP'S TO ADDRESS POTENTIAL THERMAL IMPACTS. GRAVEL WILL PRIMARILY BE USED IN LIEU OF ASPHALT FOR ACCESS ROAD AND PAD CONSTRUCTION TO PREVENT THE COLLECTION AND SUBSEQUENT HEATING OF STORMWATER ON THE SURFACE OF THESE AREAS. NO TREE REMOVAL IS PROPOSED AS PART OF THE METER STATION WORK. THE RECEIVING WATERS FOR THE SITE ARE 900' ± FROM THE SITE. VEGETATED SWALES AND INFILTRATION BASINS WILL BE PROVIDED TO CAPTURE AND AID IN THE INFILTRATION OF THE NET RUNOFF VOLUME INCREASE ASSOCIATED WITH THE TRANSITION FROM PRE-DEVELOPMENT CONDITIONS TO POST-DEVELOPMENT CONDITIONS.

## COMPRESSOR STATION SEQUENCE OF CONSTRUCTION

- AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, ENVIRONMENTAL INSPECTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
- AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- HOLD PRE-CONSTRUCTION CONFERENCE WITH THE ENVIRONMENTAL INSPECTORS, LOCAL COUNTY CONSERVATION DISTRICT (CCD), PADEP, AND DESIGN ENGINEER.
- INSTALL ORANGE CONSTRUCTION FENCE AROUND AREAS TO BE PROTECTED.
- LOCATE STAGING AREAS AND ACCESS POINTS INCLUDING CONSTRUCTION ENTRANCES. FIELD LOCATE LIMITS OF DISTURBANCE.
- INSTALL ROCK CONSTRUCTION ENTRANCE (RCE).
- REMOVE BRUSH TO EFFECTIVELY INSTALL PERIMETER CONTROLS, LEVEL SIDE CUTS TO GRANT ACCESS FOR VEHICLES AND WORKERS TO SAFELY PERFORM THE INSTALLATION OF SEDIMENT BARRIERS ON THE SITE AS SHOWN ON THE CONSTRUCTION DRAWINGS.
- THE COMPLIANCE MANAGER SHALL PROVIDE PADEP AND CCD AT LEAST THREE DAYS' NOTICE PRIOR TO BULK EARTH DISTURBANCE AND UPON COMPLETED INSTALLATION OF PERIMETER EROSION CONTROLS.
- \* INSTALL SEDIMENT BASIN #1, INCLUDING CLAY CORE, ANTISEEP COLLARS, SLOPE LINERS, CLEANOUT STAKE, AND ASSOCIATED IMPROVEMENTS. MINIMIZE THE USE OF HEAVY EQUIPMENT WITHIN THE BASIN BOTTOM TO AVOID COMPACTION OF SOIL.
- INSTALL VEGETATED ROADSIDE SWALES, INCLUDING THE TEMPORARY SEGMENTS WITHIN SEDIMENT BASIN #2, CULVERTS AND RIPRAP OUTLET PROTECTION, ROUGH GRADE ACCESS ROADS.
- \* INSTALL DRAINAGE CHANNEL APRONS AS SOON AS SWALE GRADING IS COMPLETE.
- \* INSTALL SEDIMENT TRAP #1 INCLUDING CLAY CORE, ANTISEEP COLLARS, SLOPE LINERS, CLEANOUT STAKE, AND ASSOCIATED IMPROVEMENTS. MINIMIZE THE USE OF HEAVY EQUIPMENT WITHIN THE BASIN BOTTOM TO AVOID COMPACTION OF SOIL.
- BEGIN CONSTRUCTION STAKING FOR GRADING.
- BEGIN GRADING AND STRIP AND STOCKPILE TOPSOIL WITHIN THE AREA OF IMPROVEMENTS AND INSTALL SEDIMENT BARRIERS AROUND STOCKPILES.
- UPON TEMPORARY CESSATION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OF AN ACTIVITY WHERE THE CESSATION OF EARTH DISTURBANCE ACTIVITIES WILL EXCEED FOUR DAYS, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION PENDING FUTURE EARTH DISTURBANCE ACTIVITIES. FOR AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OF AN ACTIVITY TO BE CONSIDERED TEMPORARILY STABILIZED, THE DISTURBED AREAS SHALL BE COVERED WITH ONE OF THE FOLLOWING: A MINIMUM UNIFORM COVERAGE OF MULCH AND SEED, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION, OR AN ACCEPTABLE BMP WHICH TEMPORARILY MINIMIZES ACCELERATED EROSION AND SEDIMENTATION AND SOIL STABILIZATION WILL NOT OCCUR ON ACTIVE VEHICULAR TRAVEL WAYS WITHIN THE ROW. THE ON-SITE ENVIRONMENTAL INSPECTOR WILL LOG DAILY ACTIVITY WITHIN THE LOD AND NOTIFY THE CONTRACTOR OF AREAS REQUIRING TEMPORARY STABILIZATION (I.E., AREAS WHERE WORK HAS CEASED FOR AT LEAST FOUR DAYS).
- GRADE THE COMPRESSOR STATION PADS, INCLUDING STORMWATER RUNOFF CONVEYANCE FEATURES AS SHOWN ON THE E&S AND PCSM/SR PLANS (SECTIONS 2 AND 3 OF THE ESCGP-2 NOI). INSTALL OUTFALL PIPE FROM RAIN GARDEN #1 (OS-3) AND SEAL PIPE.
- IMMEDIATELY STABILIZE SIDE SLOPES WITH EROSION CONTROL MATTING WHEN SLOPES ARE 3:1 OR GREATER. SEE PCSM/SR PLANS AND DETAIL SHEETS, AS PROVIDED IN SECTION 3 OF THE ESCGP-2 NOI, (PATTERNS DIFFER BY SLOPE CATEGORY). INSTALL RIP RAP SLOPE STABILIZATION WHERE SHOWN ON THE PCSM/SR PLANS.
- ESTABLISH FINAL GRADE.
- SURFACE STABILIZATION, APPLY PERMANENT STABILIZATION MEASURES IMMEDIATELY TO ANY DISTURBED AREAS WHERE WORK HAS REACHED FINAL GRADE.
- UPON COMPLETION OF ALL EARTHWORK ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATORS SHALL CONTACT THE LOCAL CCD FOR AN INSPECTION PRIOR TO THE REMOVAL/CONVERSION OF THE E&S BMPs.
- \* AFTER ALL UPSLOPE DISTURBED AREAS ARE STABILIZED, INSTALL RAIN GARDEN #1 AND OUTFALL PIPE (OS-2). REMOVE SEAL FROM OS-3 AND INSTALL ORIFICE PLATE. CONVERT SEDIMENT BASIN #1 TO PROPOSED INFILTRATION BASIN #1. OVER EXCAVATE AND INSTALL ENGINEERED SOIL WITHIN THE BOTTOM OF INFILTRATION BASIN #1. MINIMIZE THE USE OF HEAVY EQUIPMENT TO AVOID COMPACTION OF THE SOIL. INSTALL FILTER SOCK #14 TO PROTECT BASIN BOTTOM.
- \* INSTALL RAIN GARDENS #2 AND #4. CONVERT SEDIMENT TRAP #1 TO RAIN GARDEN #3.
- \* INSTALL SOIL AMENDMENTS AND LANDSCAPE RESTORATION SEEDING WHERE INDICATED ON THE PLAN.
- AFTER FINISH GRADING AND TOPSOIL PLACEMENT IS COMPLETED, DISTURBED AREAS SHALL BE FERTILIZED, SEEDED, AND MULCHED. SEED MIXTURES, FERTILIZER AND MULCH APPLICATIONS RATES AND DATES SHALL CONFORM TO THE TABLES PROVIDED ON THE PCSM/SR PLANS AND DETAIL SHEETS (SECTION 3 OF THE ESCGP-2 NOI), LAND OWNER AGREEMENTS AND/OR THE ECP (SECTION 4 OF THE ESCGP-2 NOI).
- AFTER SEEDING, FERTILIZING AND MULCHING IS COMPLETE, INSTALL EROSION CONTROL BLANKETS AS REQUIRED OR ORDERED OR ON SLOPES OF 3:1 OR GREATER.
- AFTER THE SITE IS PERMANENTLY STABILIZED AND UPON PADEP OR LOCAL CCD AND OWNER APPROVAL OF STABILIZATION AND RE-VEGETATION, REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AND STABILIZE AREAS DISTURBED BY REMOVAL.
- \* COMPLETE SITE STABILIZATION, SEED APPLICATION, EROSION CONTROL BLANKET INSTALLING IN BASIN, AND MULCHING.
- UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATORS SHALL CONTACT THE LOCAL CCD FOR A FINAL INSPECTION.
- MAINTAIN E&S BMPs UNTIL SITE WORK IS COMPLETE AND UNIFORM 70% PERENNIAL VEGETATIVE COVER IS ESTABLISHED.
- REMOVE AND PROPERLY DISPOSE/RECYCLE E&S BMPs. REMOVE ORANGE CONSTRUCTION FENCE. REPAIR AND PERMANENTLY STABILIZE AREAS DISTURBED DURING E&S BMP REMOVAL UPON ESTABLISHMENT OF UNIFORM 70% VEGETATIVE COVER.

## INTERIM AND PERMANENT STABILIZATION

- INTERIM STABILIZATION  
TEMPORARY SEEDING WITH STRAW MULCH COVER FOR INTERIM STABILIZATION IS A TYPE OF BMP THAT CAN USUALLY BE PROVIDED WHERE THE EARTH DISTURBANCE ACTIVITY TEMPORARILY CEASES (I.E. 4 DAYS OR MORE) UNLESS DIRECTED BY THE PROJECT OWNER, PADEP, OR CONSERVATION DISTRICT.  
THE INSTALLATION OF AN EROSION CONTROL BLANKET OR APPLICATION OF STRAW MULCH UPON SEEDED AREAS ARE BOTH CONSIDERED TO BE INTERIM STABILIZATION BMPs TO PROTECT THE SEEDED UNTIL VEGETATION IS ESTABLISHED.
- PERMANENT STABILIZATION  
UPON COMPLETION OF ANY EARTH DISTURBANCE ACTIVITY, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION.  
THE INSTALLATION OF PAVEMENT, ROCK RIP RAP, OR GABIONS ARE SOME EXAMPLES OF STABILIZATION. THE STANDARD FOR VEGETATIVE COVER AS STABILIZATION IS PERENNIAL VEGETATION THAT IS ESTABLISHED WITH A UNIFORM COVERAGE DENSITY OF 70% ACROSS THE DISTURBED AREA. THE APPLICATION OF LIME, FERTILIZERS, SEED, AND MULCH IS USUALLY DONE TO ACHIEVE PERMANENT STABILIZATION. THE MULCH IS CONSIDERED TO BE AN INTERIM STABILIZATION MEASURE TO ASSIST IN THE ESTABLISHMENT OF THE PERMANENT VEGETATIVE COVER.
- STABILIZATION DURING NON-GROWING SEASONS  
WHEN UTILITY CONSTRUCTION MUST BE DONE AND IS COMPLETED DURING A NON-GROWING SEASON, INTERIM STABILIZATION BMPs MUST BE IMPLEMENTED AND ADEQUATELY MAINTAINED. THE APPLICATION OF STRAW MULCH AT THE RATE OF 3.0 TONS PER ACRE IS REQUIRED. THE BMPs SHOULD BE INSPECTED WEEKLY (UNLESS SNOW COVERED) AND AFTER EACH RUNOFF EVENT TO IDENTIFY AREAS THAT BECOME BARE.  
BARE AREAS SHOULD BE COVERED WITH A PROPERLY INSTALLED EROSION CONTROL BLANKET. ALL TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROLS MUST BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED.
- WHERE REQUIRED, STRAW MULCH MUST BE APPLIED AT A MINIMUM OF 3.0 TONS PER ACRE.
- STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT FINELY CHOPPED OR BROKEN.
- PRIOR TO ANY SEEDING, LIME, OR FERTILIZATION APPLICATION, A SOIL TEST SHALL BE PERFORMED TO DETERMINE THE PH FACTOR. ADDITIONAL LIME AND FERTILIZER MAY BE REQUIRED. NO LIME OR FERTILIZERS SHALL BE USED IN WETLAND AREAS.
- LIME, FERTILIZER, SEED, AND MULCH DISTURBED AREAS PER THE EROSION AND SEDIMENT CONTROL PLANS. IN AREAS OF STEEP SLOPES OR OBVIOUS AREAS WHERE POTENTIAL EROSION MAY OCCUR, AND EROSION CONTROL MAT OR FLEXIBLE GROWTH MEDIUM (FGM) SHALL BE USED. FGM SHALL BE APPLIED PER MANUFACTURER SPECIFICATIONS. NO LIME OR FERTILIZERS SHALL BE USED IN WETLAND OR STREAM AREAS.
- WATERBARS WITHIN AGRICULTURAL OR RESIDENTIAL AREAS SHALL BE USED AS TEMPORARY FEATURES. WATERBARS MAY BE REMOVED WHEN THE TRIBUTARY DRAINAGE AREA IS AT LEAST 70% STABILIZED WITH PERENNIAL VEGETATION AS PER PA CHAPTER 102.22



NOTE: THIS WILLIAMS STANDARD DETAIL IS BASED ON PADEP STANDARD CONSTRUCTION DETAIL #9-2.

OUTLET NO.	PIPE DIA PD (IN)	RIPRAP			APRON	
		SIZE (R-)	THICK. Rt (IN)	LENGTH Ai (FT)	INITIAL WIDTH AiW (FT)	TERMINAL WIDTH (Atw) (FT)
TEMPORARY SWALE B	N/A	5	24	20	9	25
TEMPORARY SWALE A	N/A	5	24	20	9	25
RAINGARDEN 1 SPILLWAY	N/A	6	36	30	15	45
RAINGARDEN 2 SPILLWAY	N/A	4	24	10	15	25

- NOTES:
- ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN ON THE PLANS. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.
  - ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.
  - EXTEND RIPRAP ON BACK SIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT SCOUR AROUND THE PIPE.
  - FOR APRONS ON ACCESS ROADS, THE DIMENSIONS FOR THE APRONS ARE GIVEN AS FOLLOWS: L x D x W/W WHERE: L = LENGTH OF APRON OR "AI" AS SHOWN IN THE PLAN VIEW ABOVE  
D = DEPTH OF RIP RAP OR "RT" AS SHOWN IN THE SECTION ABOVE  
W/W = WIDTH OF SHORT END OF APRON/WIDTH OF LONG END OF APRON OR "AiW"/"Atw" AS SHOWN IN THE PLAN VIEW ABOVE

## RIP-RAP APRON AT PIPE OUTLET WITHOUT FLARED END SECTION

N.T.S

## ACID-PRODUCING SOILS AND BEDROCK CONTROL PLAN

THE FOLLOWING ACID PRODUCING SOILS CONTROL PLAN WAS DEVELOPED TO IDENTIFY BMPs AND PROCEDURES FOR MINIMIZING THE POTENTIAL FOR POLLUTION ASSOCIATED WITH THE DISTURBANCE OF THE AREAS WITHIN THE PROPOSED RIGHT-OF-WAY THAT CONTAIN ACID-PRODUCING SOILS.

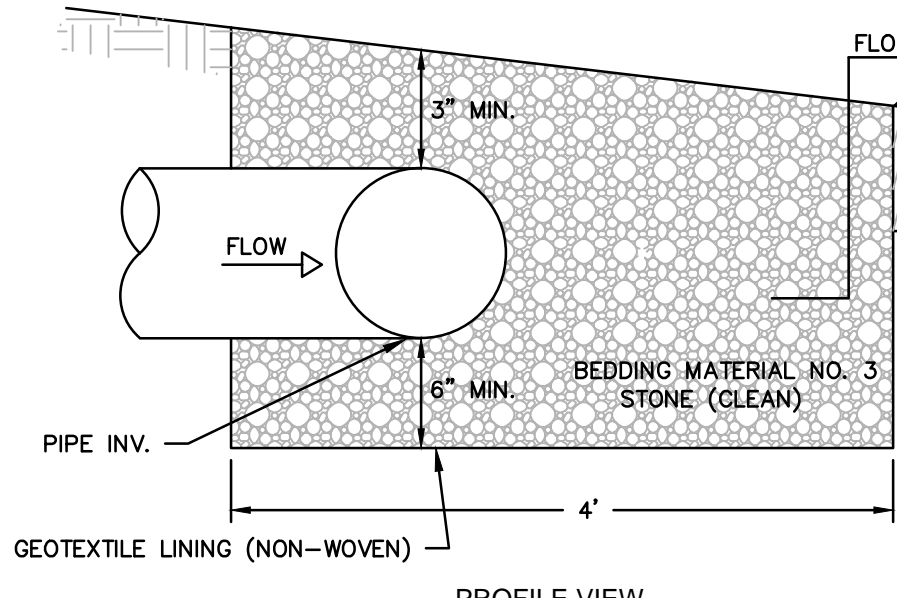
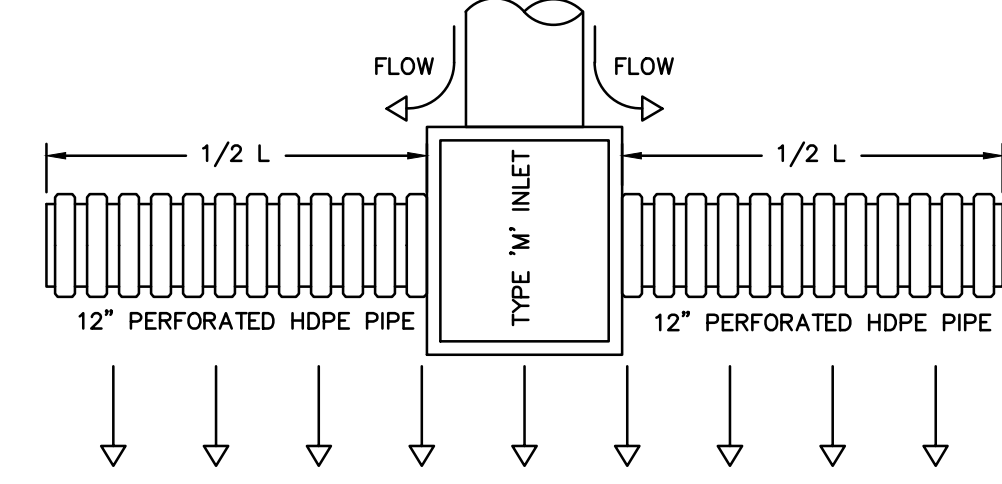
- ACID-PRODUCING SOILS AND BEDROCK CONTROL PLAN:
- CONTRACTOR SHALL LIMIT THE EXCAVATION AREA AND EXPOSURE TIME WHEN HIGH ACID-PRODUCING SOILS ARE ENCOUNTERED.
  - CONTRACTOR SHALL SEPARATELY STORE TOPSOIL STRIPPED FROM THE SITE AWAY FROM TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOILS AND BEDROCKS.
  - CONTRACTOR SHALL STOCKPILE HIGH ACID-PRODUCING SOILS AND BEDROCK MATERIAL ON LEVEL GROUND TO MINIMIZE ITS MOVEMENT, ESPECIALLY WHEN THESE MATERIALS HAVE A HIGH CLAY CONTENT.
  - CONTRACTOR SHALL COVER TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOIL AND BEDROCK MATERIAL TO BE EXPOSED MORE THAN 30 DAYS WITH PROPERLY ANCHORED, HEAVY-GRADE SHEETS OF POLYETHYLENE, WHERE POSSIBLE. IF NOT POSSIBLE, STOCKPILES SHALL BE COVERED WITH A MINIMUM OF THREE TO SIX INCHES OF WOOD CHIPS TO MINIMIZE EROSION OF THE STOCKPILE. IN ADDITION, THE CONTRACTOR SHALL INSTALL SILT FENCE AT THE TOE OF THE STOCKPILE SLOPE TO CONTAIN MOVEMENT OF MATERIAL. CONTRACTOR SHALL NOT APPLY TOPSOIL TO THE HIGH ACID-PRODUCING SOIL OR BEDROCK STOCKPILES TO PREVENT TOPSOIL CONTAMINATION.
  - CONTRACTOR SHALL ULTIMATELY DISPOSE OF HIGH ACID-PRODUCING SOILS OR BEDROCK WITH A PH OF FOUR OR LESS, OR CONTAINING IRON SULFIDE (INCLUDING BORROW FROM CUTS) BY PLACING THE MATERIAL COMBINED WITH LIMESTONE AT THE RATE OF 6 TONS PER ACRE (OR 275 POUNDS PER 1,000 SQUARE FEET OF SURFACE AREA) AND COVERING THE MIXTURE WITH A MINIMUM OF 12 INCHES OF SETTLED SOILS WITH A PH OF FIVE OR MORE EXCEPT AS FOLLOWS:
    - IN THE AREAS WHERE TREES OF SHRUBS ARE TO BE PLANTED, THE CONTRACTOR SHALL COVER THE LIMESTONE/SOIL MIXTURE WITH A MINIMUM OF 24 INCHES OF SOILS WITH A PH OF FIVE OR MORE.
    - CONTRACTOR SHALL NOT LOCATE ANY DISPOSAL AREA WITHIN 24 INCHES OF ANY SURFACE OF A SLOPE OR BANK, SUCH AS BERMS, STREAM BANKS, DITCHES, AND OTHER SURFACE WATERS TO PREVENT POTENTIAL LATERAL LEACHING DAMAGES.
  - AT THE END OF EACH DAY, CONTRACTOR SHALL CLEAN ALL EQUIPMENT USED TO HANDLE HIGH ACID-PRODUCING SOILS OR BEDROCK TO PREVENT SPREADING OF HIGH-ACID MATERIALS TO OTHER PARTS OF THE PROPOSED RIGHT-OF-WAY, INTO STREAMS, OR STORMWATER CONVEYANCES, AND TO PROTECT MACHINERY FROM ACCELERATED CORROSION.
  - CONTRACTOR SHALL PROVIDE AND INSTALL NON-VEGETATIVE EROSION CONTROLS (STONE TRACKING PADS, STRATEGICALLY-PLACE LIMESTONE CHECK DAMS, SILT FENCES, WOOD CHIPS) TO LIMIT THE MOVEMENT OF HIGH ACID-PRODUCING SOILS FROM, AROUND, OR OFF OF THE PROPOSED RIGHT-OF-WAY.
  - FOLLOWING THE BURIAL OR REMOVAL OF HIGH ACID-PRODUCING SOILS AND BEDROCK, TOP SOILING, AND SEEDING OF THE PROPOSED RIGHT-OF-WAY, TRANSCO SHALL MONITOR THE SITE FOR APPROXIMATELY SIX TO 12 MONTHS TO ASSURE THERE IS ADEQUATE STABILIZATION AND THAT NO HIGH-ACID SOIL OR BEDROCK PROBLEMS EMERGE. CONTRACTOR SHALL CORRECT ANY PROBLEMS THAT ARE DISCOVERED WITHIN THIS TIME PERIOD.
  - IF PROBLEMS OCCUR WHERE HIGH ACID-PRODUCING SOILS OR BEDROCK HAVE BEEN PLACED OR BURIED, THE APPLICANT SHALL MONITOR THESE AREAS FOR AT LEAST TWO YEARS TO ASSURE THERE IS NO MIGRATION OF POTENTIAL ACID LEACHATE.

OUTLET NO.	PIPE DIA PD (IN)	RIPRAP			APRON	
		SIZE (R-)	THICK. Rt (IN)	LENGTH Ai (FT)	INITIAL WIDTH AiW (FT)	TERMINAL WIDTH (Atw) (FT)
BASIN 1	18	4	18	10	5	15
RAINGARDEN 1 TO BASIN 1	24	4	18	10	4	14
RAINGARDEN 1	12	4	18	10	3	13
RAINGARDEN 2	15	4	18	14	4	18
CULVERT A	38X60	6	36	26	15	41
CULVERT B (SWALE 2B)	36	5	24	22	9	31
CULVERT C	18	4	18	12	4.5	16.5
CULVERT D	24	4	18	12	6	18

- NOTES:
- ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN ON THE PLANS. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.
  - ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

## RIP-RAP APRON AT PIPE OUTLET WITH FLARED END SECTION

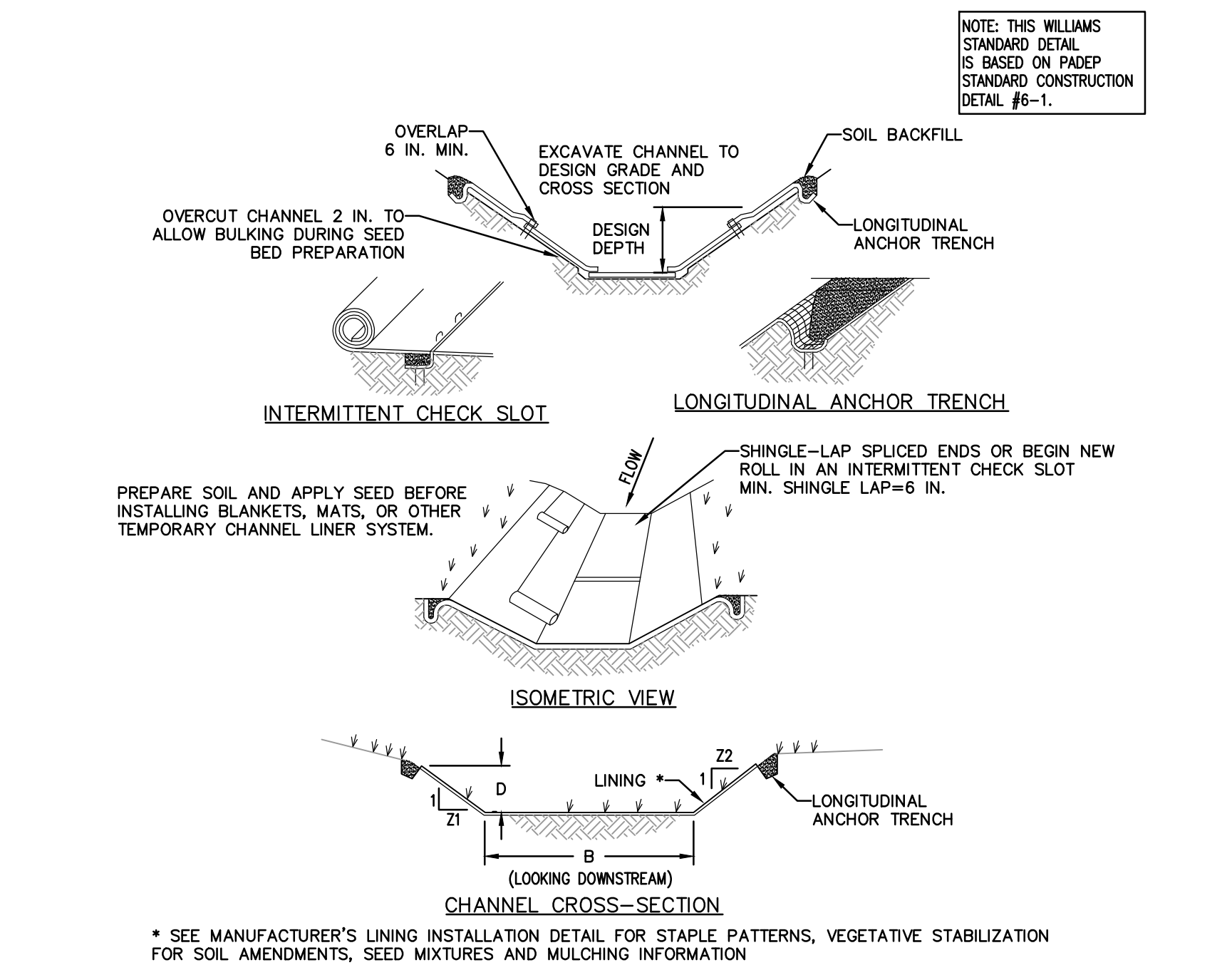
N.T.S



## LEVEL SPREADER WITH SUBSURFACE DISCHARGE

N.T.S

LEVEL SPREADER NO.	LENGTH (L) (FT)	PIPE INVERT	SPREADER INVERT OUT
RAIN GARDEN #3	100	1126.50	1128.00
RAIN GARDEN #4	86	1126.50	1128.50

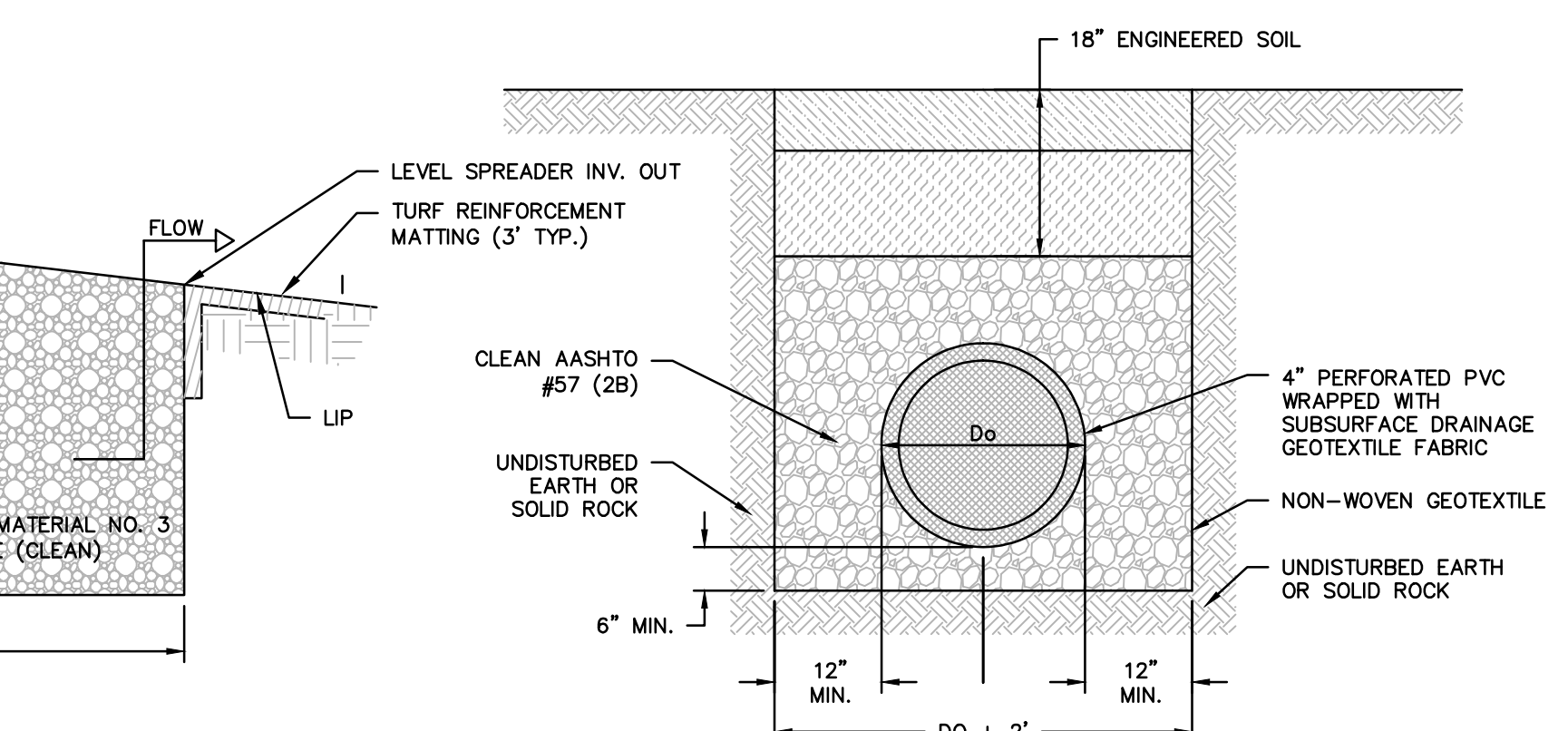


- NOTES:
- ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF SWALE IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.
  - SWALE DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. SWALE SHALL BE CLEANED WHENEVER TOTAL SWALE DEPTH IS REDUCED BY 25% AT ANY LOCATION. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO SWALE WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.
  - NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT SWALES TO ENSURE SUFFICIENT SWALE CAPACITY.

SWALE SUMMARY TABLE						
SWALE NO.	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1 (FT)	Z2 (FT)	PERMANENT LINING
VEGETATED SWALE 1A	2.0	1.0	8.0	3.0	3.0	SC250 GRASS/SC250
VEGETATED SWALE 1B	5.0	2.0	17.0	3.0	3.0	W3000 GRASS/W3000
VEGETATED SWALE 2A	2.0	1.5	11.0	3.0	3.0	S750 GRASS
VEGETATED SWALE 2B	5.0	2.0	17.0	3.0	3.0	W3000 GRASS/W3000
VEGETATED SWALE 3	10.0	6.0	46.0	3.0	3.0	SC250 GRASS/SC250
TEMPORARY SWALE A	5.0	2.0	17.0	3.0	3.0	W3000 N/A
TEMPORARY SWALE B	5.0	2.0	17.0	3.0	3.0	W3000 N/A
TEMPORARY SWALE C	3.0	2.0	15.0	3.0	3.0	SC250 GRASS/SC250

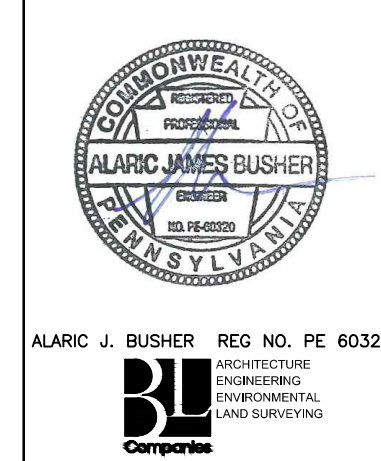
## VEGETATED SWALE

N.T.S



## PERFORATED DRAINAGE PIPE TRENCH SECTION

N.T.S

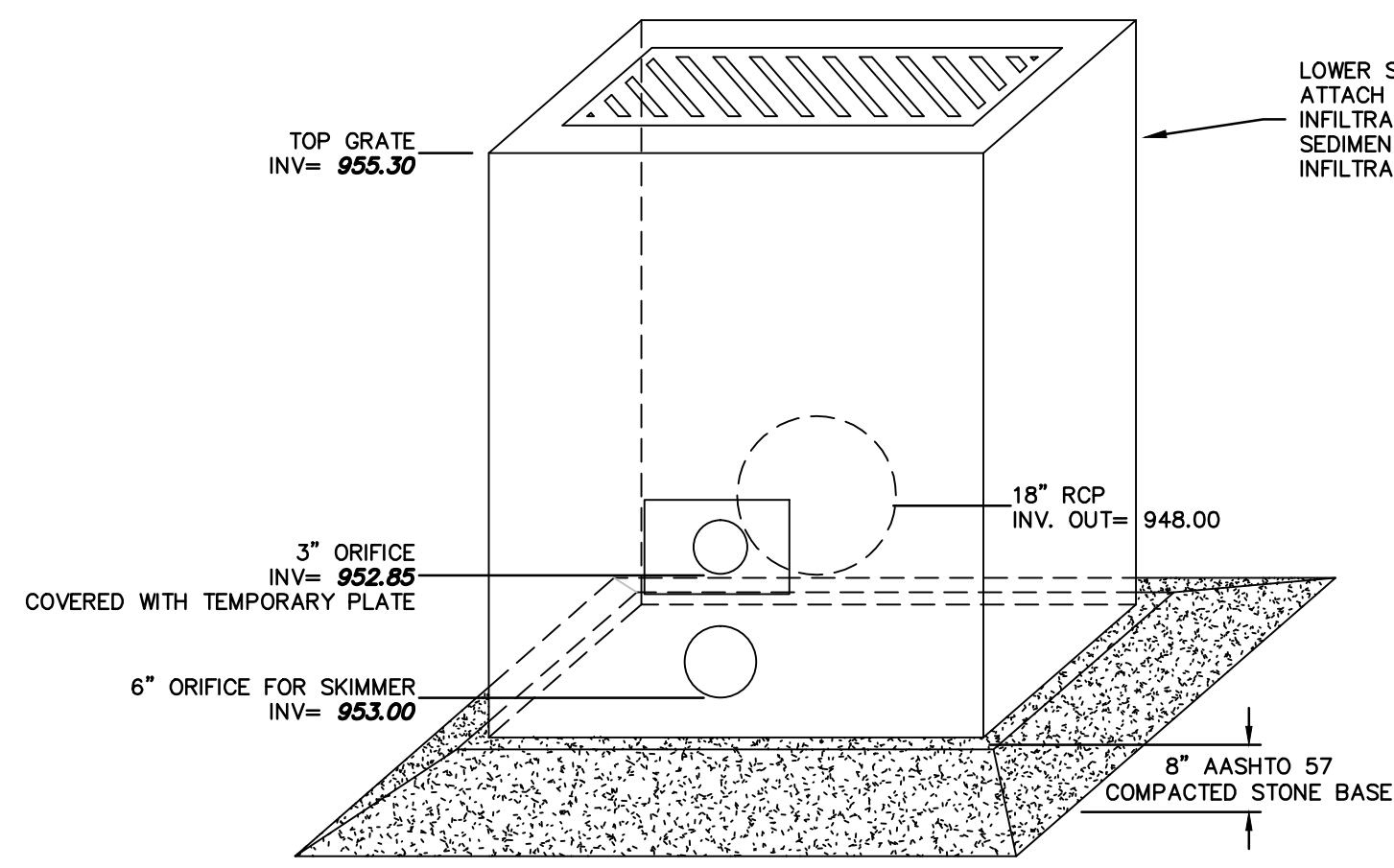


NO.	DATE	BY	DESCRIPTION	W.D. NO.	CHK.	APP.
0	08/28/2015	BL	ISSUED FOR PADEP SUBMITTAL	W0161497	DAK	AJB
1	12/02/2015	BL	ISSUED FOR PADEP RESUBMITTAL	W0161497	DAK	AJB
2	05/27/2016	BL	UPDATED PER BASIC SYSTEMS DESIGN COORDINATION	W0161497	AJB	AJB
3	Oct. 2016	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #1	W0161497	AJB	AJB
4	Apr. 2017	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #2	W0161497	AJB	AJB

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC			
ATLANTIC SUNRISE PROJECT- PROPOSED 30" NATURAL GAS PIPELINE			
SOIL EROSION & SEDIMENT CONTROL AND LAYOUT PLANS			
FOR COMPRESSOR STATION 605			
CLINTON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA			
SOIL EROSION & SEDIMENT CONTROL NOTES AND DETAILS			
DRAWN BY:	AJB	DATE:	04/03/15
CHECKED BY:	AJB	DATE:	04/03/15
APPROVED BY:	AJB	DATE:	07/17/15
W.D. NO.:	1161497	ISSUED FOR:	CONSTRUCTION
SCALE:	AS NOTED	REVISION:	4
DRAWING NUMBER:		(66-0605)F-1A-11	
SHEET:		11 OF 14	



Drawn By & Date/Time: Jrfjones Apr 28, 2017 10:13am  
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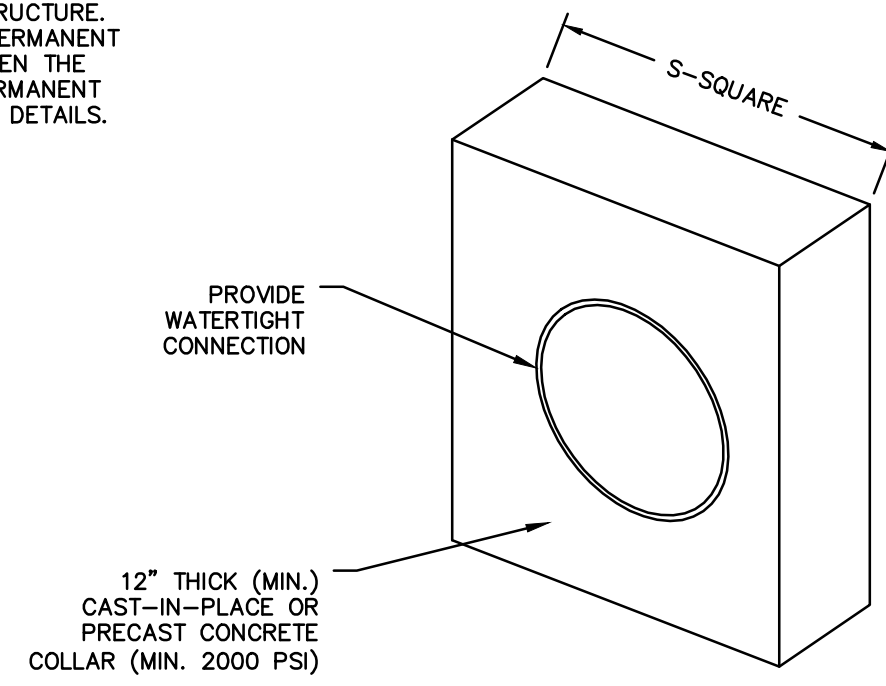


**NOTES:**

1. THE PROPOSED OUTLET STRUCTURE SHALL BE A TYPE "M" INLET IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 605 AND STANDARDS FOR ROADWAY CONSTRUCTION, RC-34.
2. OUTLET STRUCTURE SHALL CONTAIN A TRASH RACK.

**INFILTRATION BASIN #1  
PERMANENT OUTLET STRUCTURE 1**

N.T.S

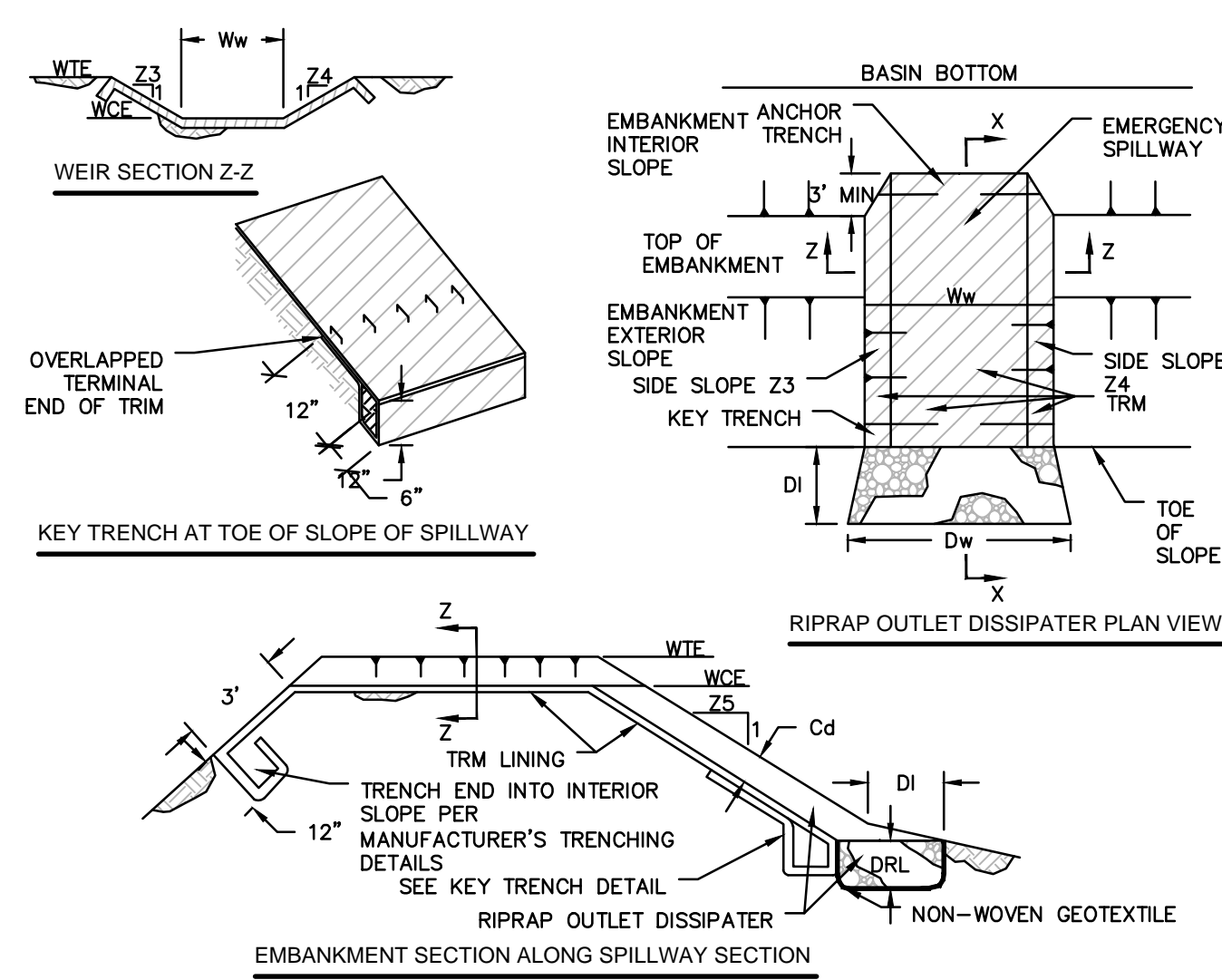


ALL COLLARS SHALL BE INSTALLED SO AS TO BE WATERTIGHT. COLLAR SIZE AND SPACING SHALL BE AS INDICATED BELOW.

BASIN OR TRAP NO.	PIPE SIZE (IN)	S (N)	NO. OF COLLARS	DISTANCE RISER TO 1ST COLLAR (FT)	COLLAR SPACING (FT)
BASIN 1	18	55	3	15	10
RAINGARDEN 1	12	32	2	15	10
RAINGARDEN 2	15	55	3	15	10
RAINGARDEN 3	15	52	2	15	10
RAINGARDEN 4	15	39	2	15	10

**CONCRETE ANTI-SEEP COLLAR FOR PERMANENT BASINS OR TRAPS DETAIL**

N.T.S PADEP-7-16

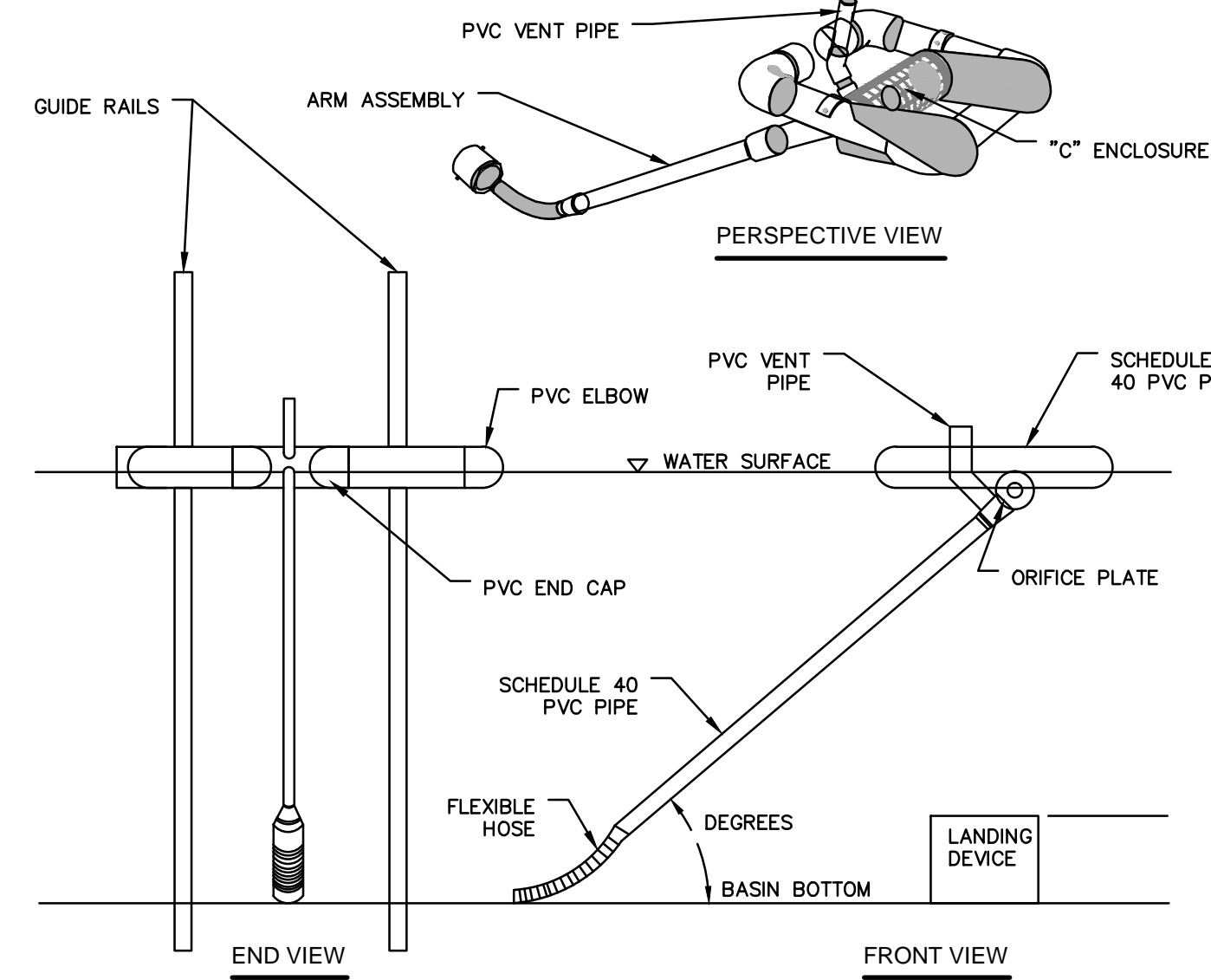


BASIN NO.	WEIR				LINING		SWALE		DISSIPATER			
	Z3 (FT)	Z4 (FT)	TOP ELEV WTE (FT)	CREST ELEV WCE (FT)	WIDTH Ww (FT)	TRM TYPE	Z5 (FT)	DEPTH Cd (FT)	LENGTH DI (FT)	WIDTH Dd (FT)	RIPRAP SIZE (R-)	RIPRAP THICK DRI (N)
BASIN 1	3	3	958.00	957.00	15	P550	B	NA	NA	NA	SEE RIP RAP APRON TABLE	
RAINGARDEN 1	3	3	962.00	959.20	15	P550	B	NA	NA	NA	SEE RIP RAP APRON TABLE	
RAINGARDEN 2	3	3	1122.00	1120.50	15	W3000	B	NA	NA	NA	SEE RIP RAP APRON TABLE	
RAINGARDEN 3	3	3	1134.00	1133.25	10	SC250	B	NA	NA	NA	SEE RIP RAP APRON TABLE	
RAINGARDEN 4	3	3	1134.00	1133.25	10	SC250	B	NA	NA	NA	SEE RIP RAP APRON TABLE	

HEAVY EQUIPMENT SHALL NOT CROSS OVER SPILLWAY WITHOUT PRECAUTIONS TAKEN TO PROTECT TRM LINING. DISPLACED LINER WITHIN THE SPILLWAY AND/OR OUTLET SWALE SHALL BE REPLACED IMMEDIATELY. RIPRAP AT TOE OF EMBANKMENT SHALL BE EXTENDED A SUFFICIENT LENGTH IN BOTH DIRECTIONS TO PREVENT SCOUR. THE USE OF BAFFLES THAT REQUIRE SUPPORT POSTS ARE RESTRICTED FROM USE IN BASINS REQUIRING IMPERVIOUS LINERS.

**BASIN EMERGENCY SPILLWAY WITH TRM LINING**

N.T.S PADEP-7-13

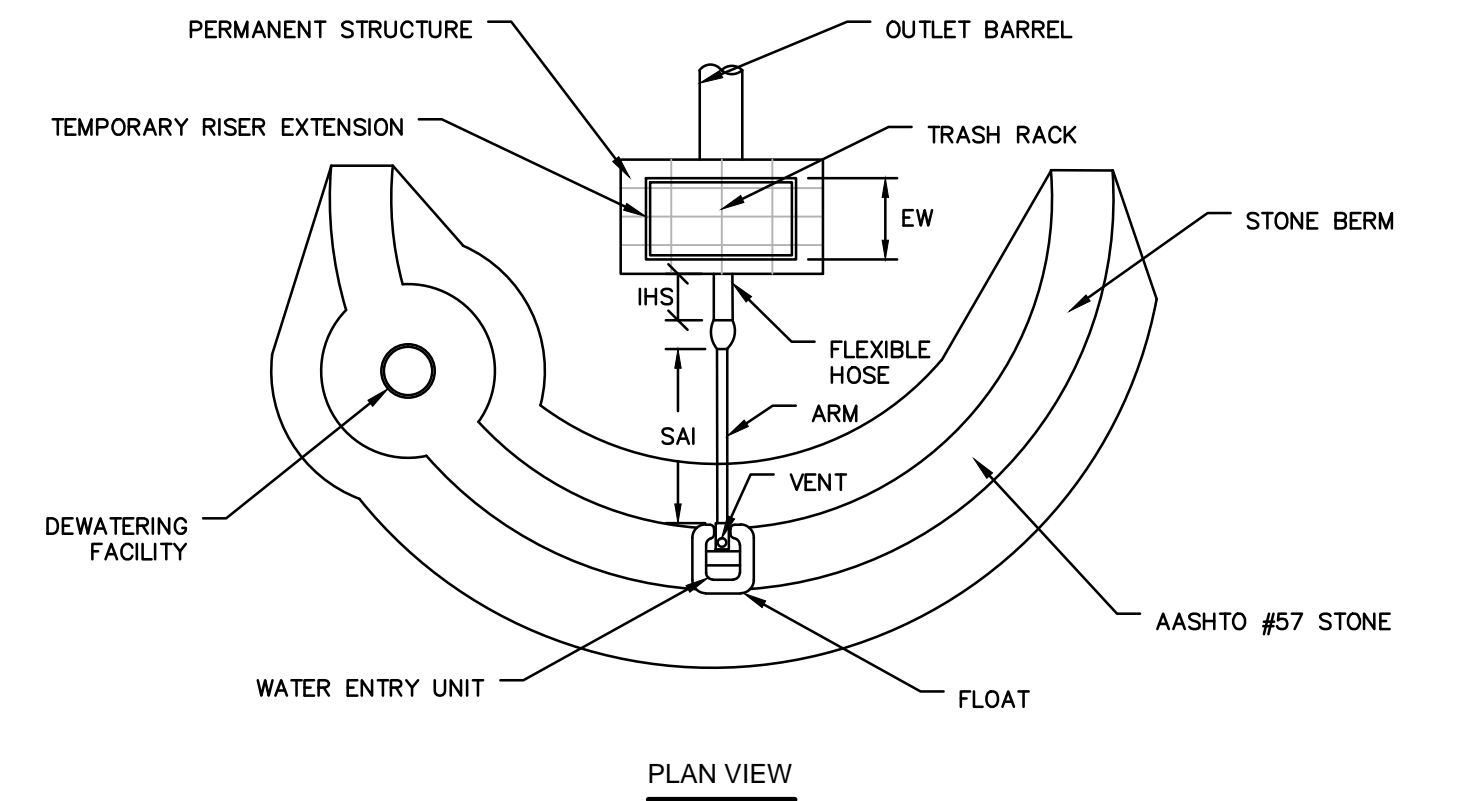


BASIN NO.	WATER SURFACE ELEVATION (FT)	ARM LENGTH (FT)	ARM DIA. (IN)	ORIFICE SIZE* (IN)	TOP OF LANDING DEVICE ELEV. (FT)	FLEXIBLE HOSE LENGTH (N)	FLEXIBLE HOSE ATTACHMENT ELEV. (FT)
1	955.43	8	6	4	953.50	18	953.00

\*MUST BE EQUAL TO OR LESS THAN ARM DIAMETER  
A ROPE SHALL BE ATTACHED TO THE SKIMMER ARM TO FACILITATE ACCESS TO THE SKIMMER ONCE INSTALLED. SKIMMER SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. ANY MALFUNCTIONING SKIMMER SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION. ICE OR SEDIMENT BUILDUP AROUND THE PRINCIPAL SPILLWAY SHALL BE REMOVED SO AS TO ALLOW THE SKIMMER TO RESPOND TO FLUCTUATING WATER ELEVATIONS. SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN IT REACHES THE LEVEL MARKED ON THE SEDIMENT CLEAN-OUT STAKE OR THE TOP OF THE LANDING DEVICE. A SEMI-CIRCULAR LANDING ZONE MAY BE SUBSTITUTED FOR THE GUIDE RAILS (PADEP #7-3 SKIMMER WITH STONE LANDING BERM, FOUND IN PENNSYLVANIA DEP EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL.)

**SKIMMER DETAIL**

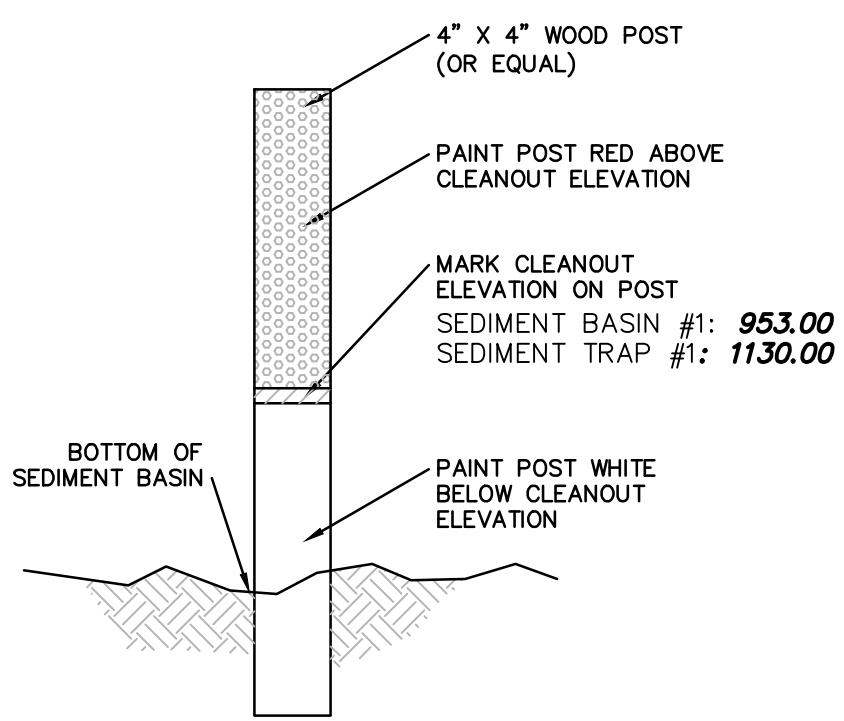
N.T.S PADEP-7-1



NO GUIDE RAILS SHALL BE REQUIRED IN THIS INSTALLATION. THIS DETAIL SHALL BE USED IN CONJUNCTION WITH STANDARD CONSTRUCTION DETAILS #7-2 (SKIMMER ATTACHED TO A PERMANENT RISER) AND #7-4 (SEDIMENT BASIN EMBANKMENT AND SPILLWAY DETAILS - SKIMMER)

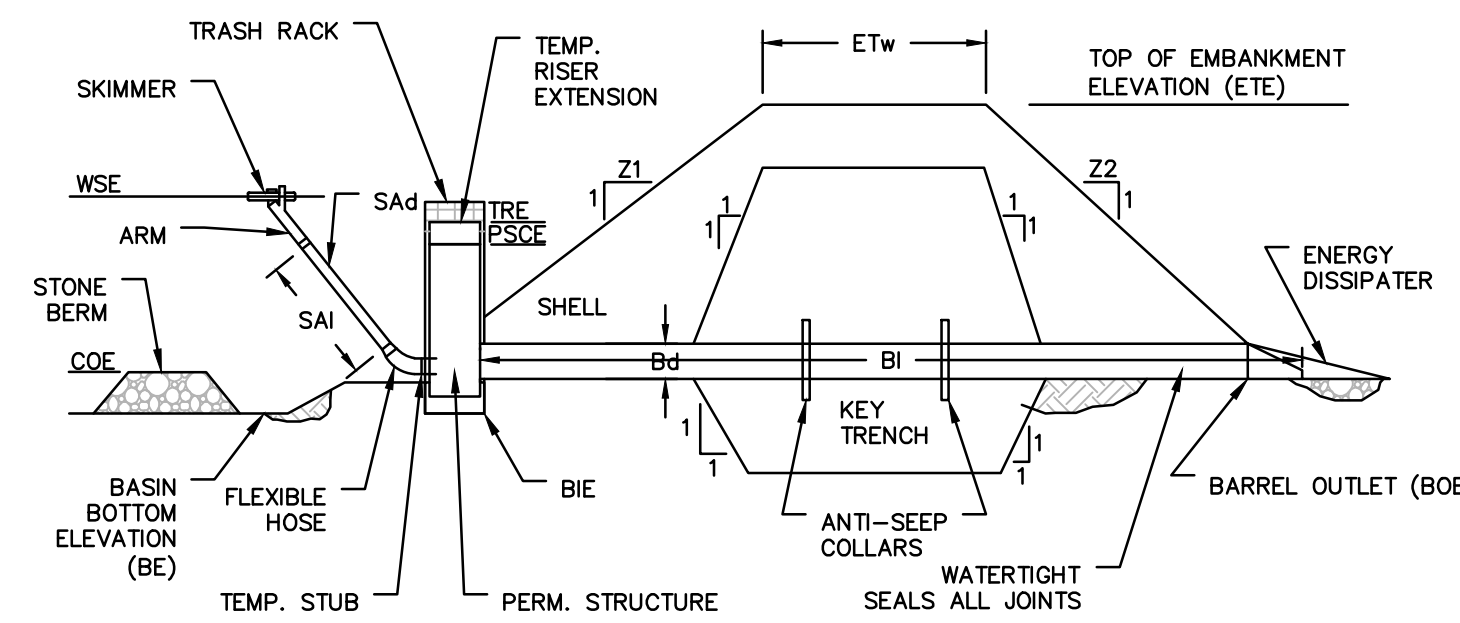
**SKIMMER WITH STONE LANDING BERM DETAIL**

N.T.S PADEP-7-3



**CLEANOUT STAKE**

N.T.S



BASIN NO.	Z1 (FT)	Z2 (FT)	TEMP. RISER EXT. ELEV. (FT)	EMBANKMENT			CLEAN OUT ELEV COE (FT)	BOTTOM ELEV BE (FT)
				TOP ELEV ETE (FT)	TOP WIDTH ETW (FT)	KEY TRENCH DEPTH (FT)		
1	3	3	NA	958.00	10	4	953.00	952.00

SKIMMER			OUTLET BARREL				
DIA SaD (IN)	LENGTH SAI (FT)	MAT'L	DIA Bd (FT)	INLET ELEV BIE (FT)	LENGTH BI (FT)	OUTLET ELEV BOE (FT)	
6	8	PVC	18	948.00	RCP	77	947.50

SEDIMENT BASINS INCLUDING ALL APPURTENANT WORKS, SHALL BE CONSTRUCTED TO THE DETAIL AND DIMENSIONS SHOWN ON THE E&S PLAN DRAWINGS.

AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO A DEPTH OF TWO FEET PRIOR TO ANY PLACEMENT AND COMPACTION OF EARTHEN FILL. IN ORDER TO FACILITATE MAINTENANCE AND RESTORATION, THE POOL AREA SHALL BE CLEARED OF ALL BRUSH, TREES, AND OBJECTIONABLE MATERIAL. FILL MATERIAL FOR THE EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN LAYERED LIFTS OF NOT MORE THAN 6" TO 9". THE MAXIMUM ROCK SIZE SHALL BE NO GREATER THAN 2/3 THE LIFT THICKNESS.

UPON COMPLETION, THE EMBANKMENT SHALL BE SEED, MULCHED, BLANKETED OR OTHERWISE STABILIZED ACCORDING TO THE SPECIFICATIONS OF THE E&S PLAN DRAWINGS. TREES SHALL NOT BE PLANTED ON THE EMBANKMENT.

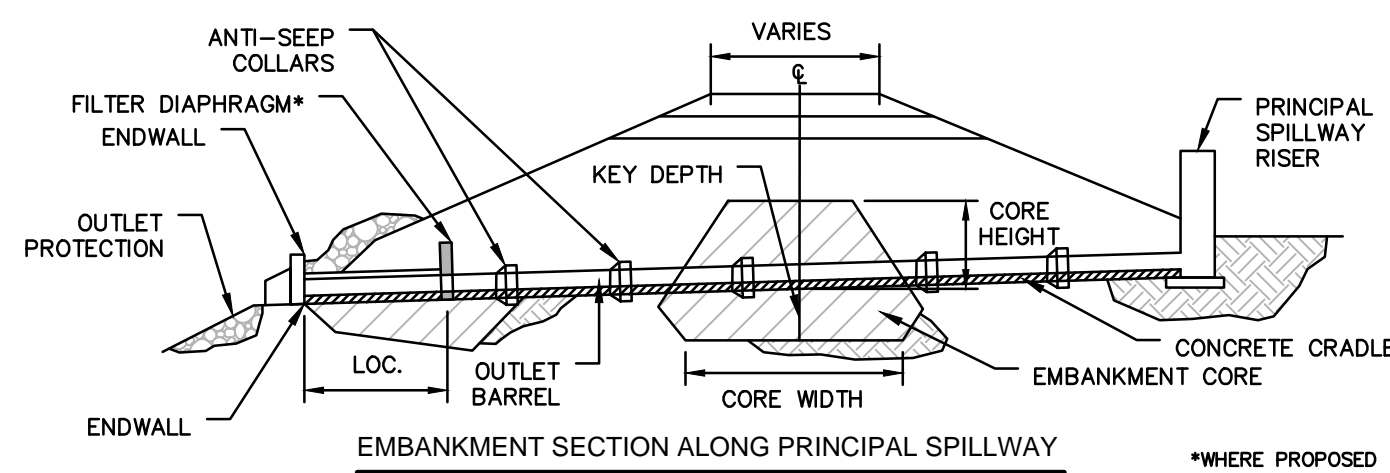
INSPECT ALL SEDIMENT BASINS ON AT LEAST A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. PROVIDE ACCESS FOR SEDIMENT REMOVAL AND OTHER REQUIRED MAINTENANCE ACTIVITIES. A CLEAN OUT STAKE SHALL BE PLACED NEAR THE CENTER OF EACH BASIN. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED THE CLEAN OUT ELEVATION ON THE STAKE AND THE BASIN RESTORED TO ITS ORIGINAL DIMENSIONS. DISPOSE OF MATERIALS REMOVED FROM THE BASIN IN THE MANNER DESCRIBED IN THE E&S PLAN.

BASIN EMBANKMENTS, SPILLWAYS, AND OUTLETS SHALL BE INSPECTED FOR EROSION, PIPING AND SETTLEMENT. NECESSARY REPAIRS SHALL BE IMMEDIATE. DISPLACED RIPRAP WITHIN THE OUTLET ENERGY DISSIPATER SHALL BE REPLACED IMMEDIATELY.

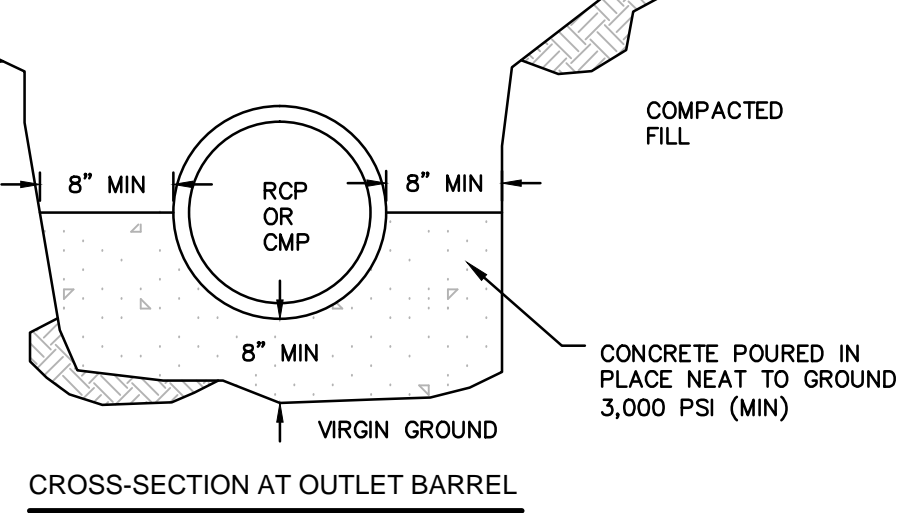
ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISTURBED AREAS SHALL BE STABILIZED INSIDE THE BASIN BEFORE CONVERSION TO A STORMWATER MANAGEMENT FACILITY. THE DEVICE SHOWN IN STANDARD CONSTRUCTION DETAIL #7-16 (CONCRETE ANTI-SEEP COLLAR FOR PERMANENT BASINS OR TRAPS) MAY BE USED TO DEWATER SATURATED SEDIMENT PRIOR TO ITS REMOVAL. ROCK FILTERS SHALL BE ADDED AS NECESSARY.

**SEDIMENT BASIN EMBANKMENT AND SPILLWAY DETAILS - SKIMMER DETAIL**

N.T.S PADEP-7-4



**EMBANKMENT SECTION ALONG PRINCIPAL SPILLWAY**



**CROSS-SECTION AT OUTLET BARREL**

NOTE: A CONCRETE CRADLE MAY BE USED IN CONJUNCTION WITH ANTI-SEEP COLLARS AND/OR FILTER DIAPHRAGM.

ANTI-SEEP COLLAR NUMBER, SIZE AND SPACING SHALL BE AS SHOWN ELSEWHERE IN PLAN.

FILTER DIAPHRAGM LOCATION (LOC) SHALL BE AS SHOWN IN FIGURE 7.8 FOUND IN PENNSYLVANIA DEP EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL.

**PA DEP 7-17 CONCRETE CRADLE FOR BASIN OR TRAP OUTLET BARREL DETAIL**

N.T.S

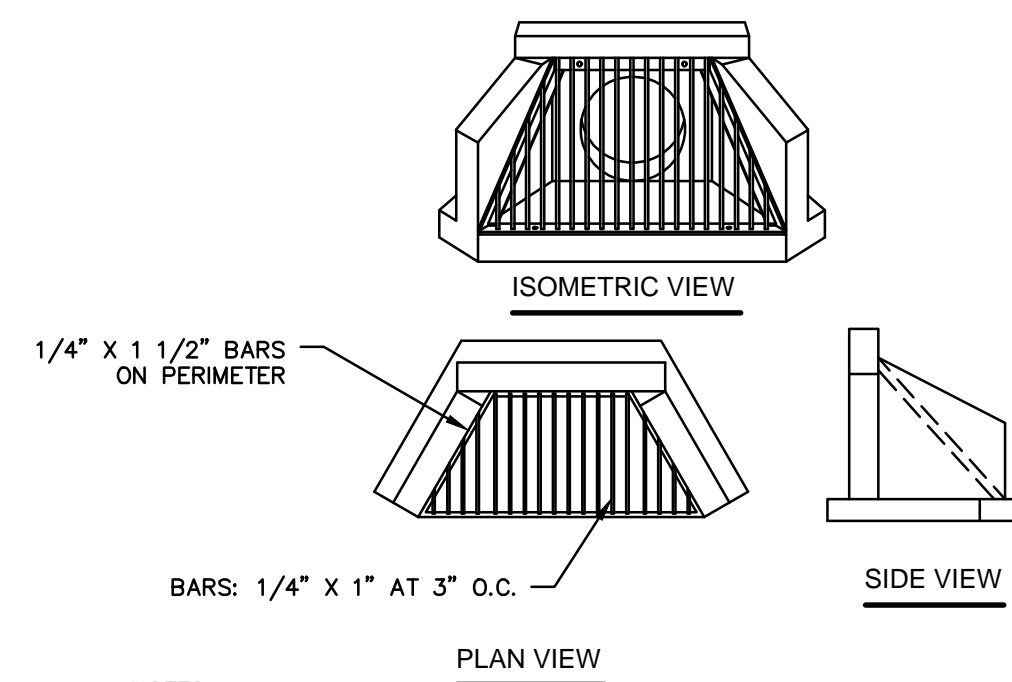
REVISIONS									
NO.	DATE	BY	DESCRIPTION	W.D. NO.	CHK.	APP.			
0	08/26/2015	BL	ISSUED FOR PADEP SUBMITTAL	W0161497	DAK	AJB			
1	12/02/2015	BL	ISSUED FOR PADEP RESUBMITTAL	W0161497	DAK	AJB			
2	05/27/2016	BL	UPDATED PER BASIC SYSTEMS DESIGN COORDINATION	W0161497	DAK	AJB			
3	08/16/2016	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #1	W0161497	AJB	AJB			
4	Apr. 2017	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #2	W0161497	AJB	AJB			

ALARIC J. BUSHER REG. NO. PE 60320  
ENGINEERING  
LAND SURVEYING

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC  
ATLANTIC SUNRISE PROJECT- PROPOSED 30" NATURAL GAS PIPELINE  
SOIL EROSION & SEDIMENT CONTROL AND LAYOUT PLANS  
FOR COMPRESSOR STATION 605  
CLINTON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA  
SOIL EROSION & SEDIMENT CONTROL DETAILS

DRAWN BY: ADE DATE: 04/03/15 ISSUED FOR BID: SCALE: AS NOTED  
CHECKED BY: AJB DATE: 04/03/15 ISSUED FOR CONSTRUCTION: REVISION: 4  
APPROVED BY: AJB DATE: 07/17/15 DRAWING NUMBER: (66-0605)F-1A-11 SHEET 12 OF 14



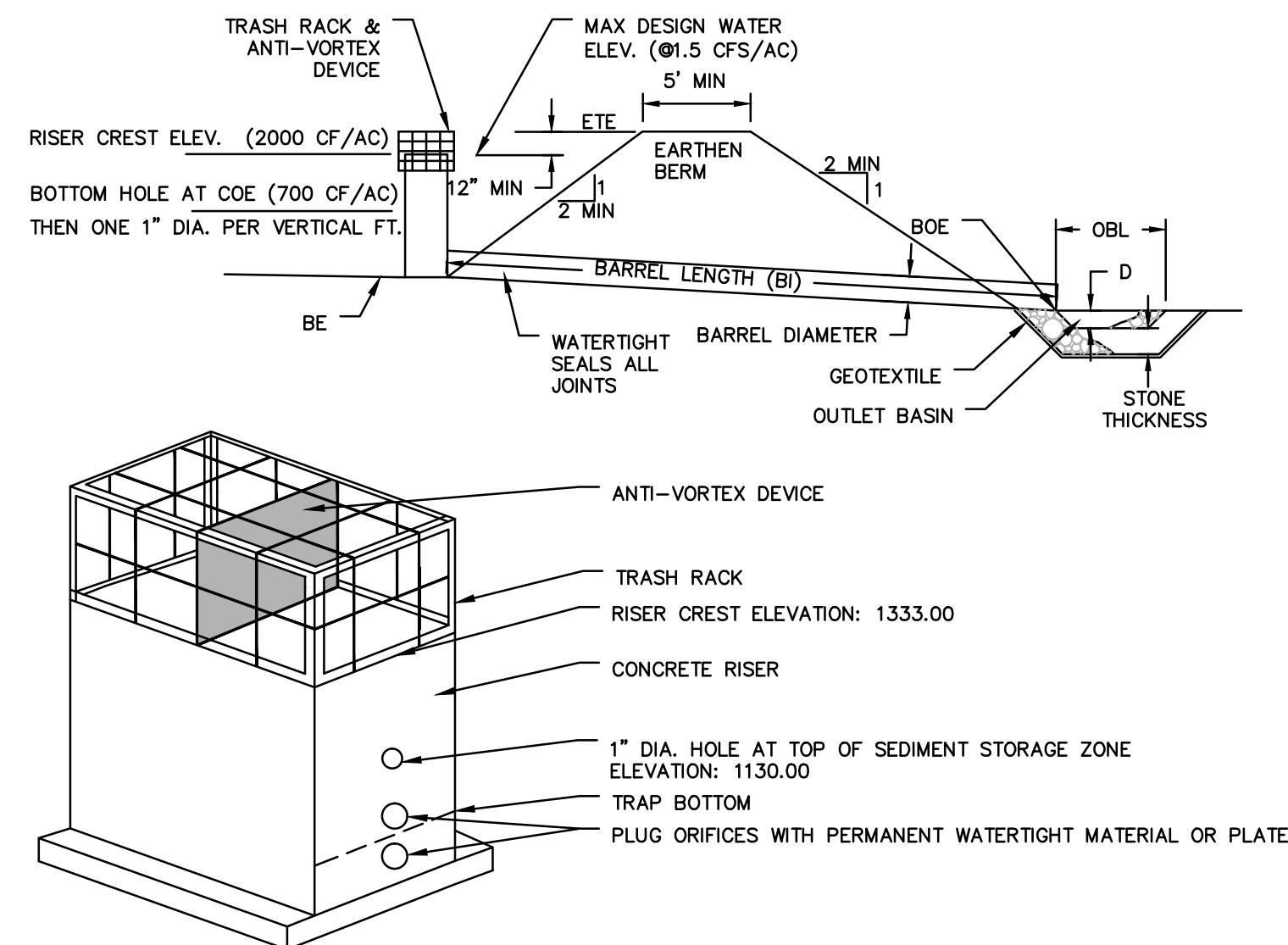


NOTES:

- TRASH RACK MATERIAL TO BE HOT DIPPED GALVANIZED STEEL.
- ATTACH TRASH RACK TO HEADWALL WITH 3/8" DIA. S.S. ANCHOR BOLTS.
- HINGED VERSION AVAILABLE.

### TYPE DW ENDWALL WITH TRASHRACK

N.T.S.



TRAP NO.	Z1 (FT)	Z2 (FT)	RISER BOT. PERF. ELEV. (FT)	MAT'L	DIA. DB (IN)	INLET ELEV. (FT)	LENGTH H BI (FT)	OUTLET ELEV. BOE (FT)	EMBANKMENT TOP ELEV. ETE (FT)	TOP WIDTH (FT)	CLEAN OUT ELEV. COE (FT)	BOTTOM ELEV. BE (FT)
1	3	3	1130	RCP	15	1336	32	1127	1134	10	1130	1129

FILL MATERIAL FOR THE BERM SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE BERM SHALL BE COMPACTED IN LAYERED LIFTS OF NOT MORE THAN 6" TO 9". THE MAXIMUM ROCK SIZE SHALL BE NO GREATER THAN 2/3 THE LIFT THICKNESS.

UPON COMPLETION, THE BERM SHALL BE SEED, MULCHED, BLANKETED OR OTHERWISE STABILIZED ACCORDING TO THE SPECIFICATIONS OF THE E&S PLAN DRAWINGS.

ALL SEDIMENT TRAPS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT.

ACCESS FOR SEDIMENT REMOVAL AND OTHER REQUIRED MAINTENANCE ACTIVITIES SHALL BE PROVIDED.

A CLEAN OUT STAKE SHALL BE PLACED NEAR THE CENTER OF EACH TRAP. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED THE CLEAN OUT ELEVATION ON THE STAKE AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS. DISPOSE OF MATERIALS REMOVED FROM THE TRAP IN THE MANNER DESCRIBED IN THE E&S PLAN.

CHECK BERMS FOR EROSION, PIPING, AND SETTLEMENT. CLOGGED OR DAMAGED INLETS SHALL BE IMMEDIATELY RESTORED TO THE DESIGN SPECIFICATIONS.

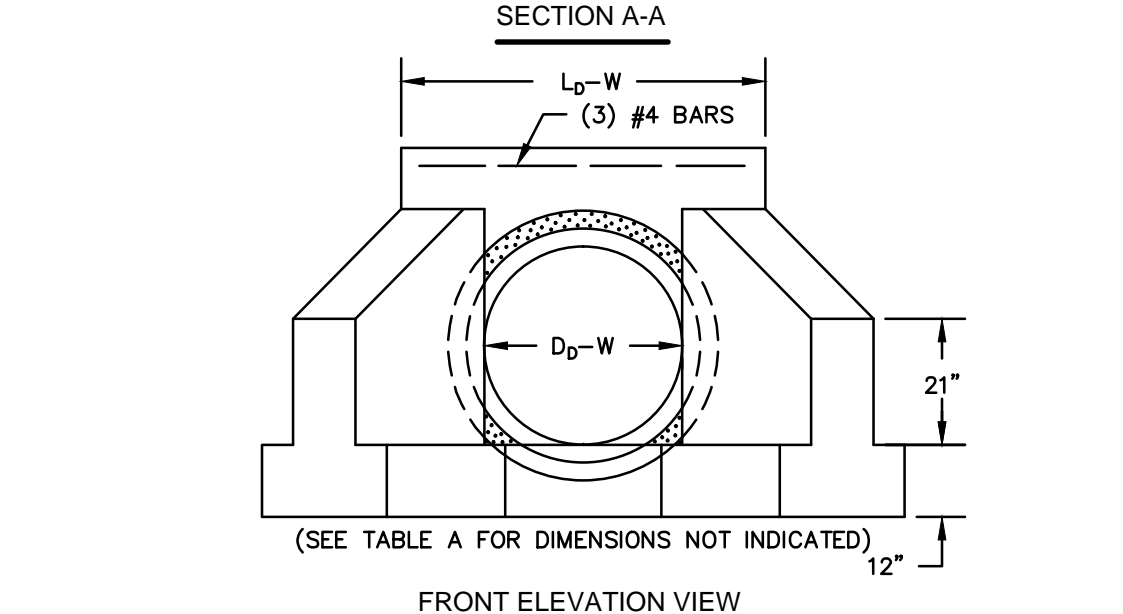
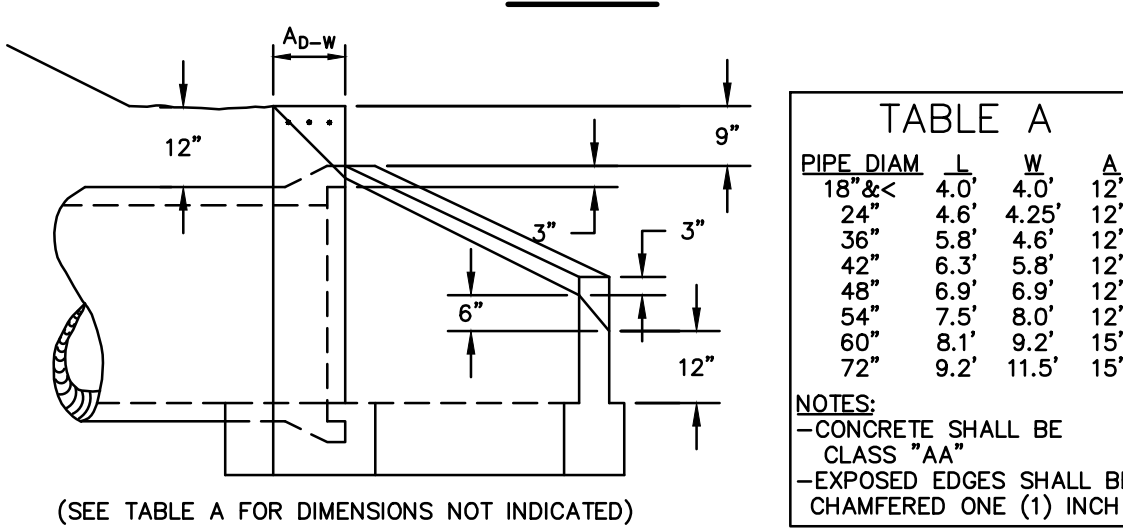
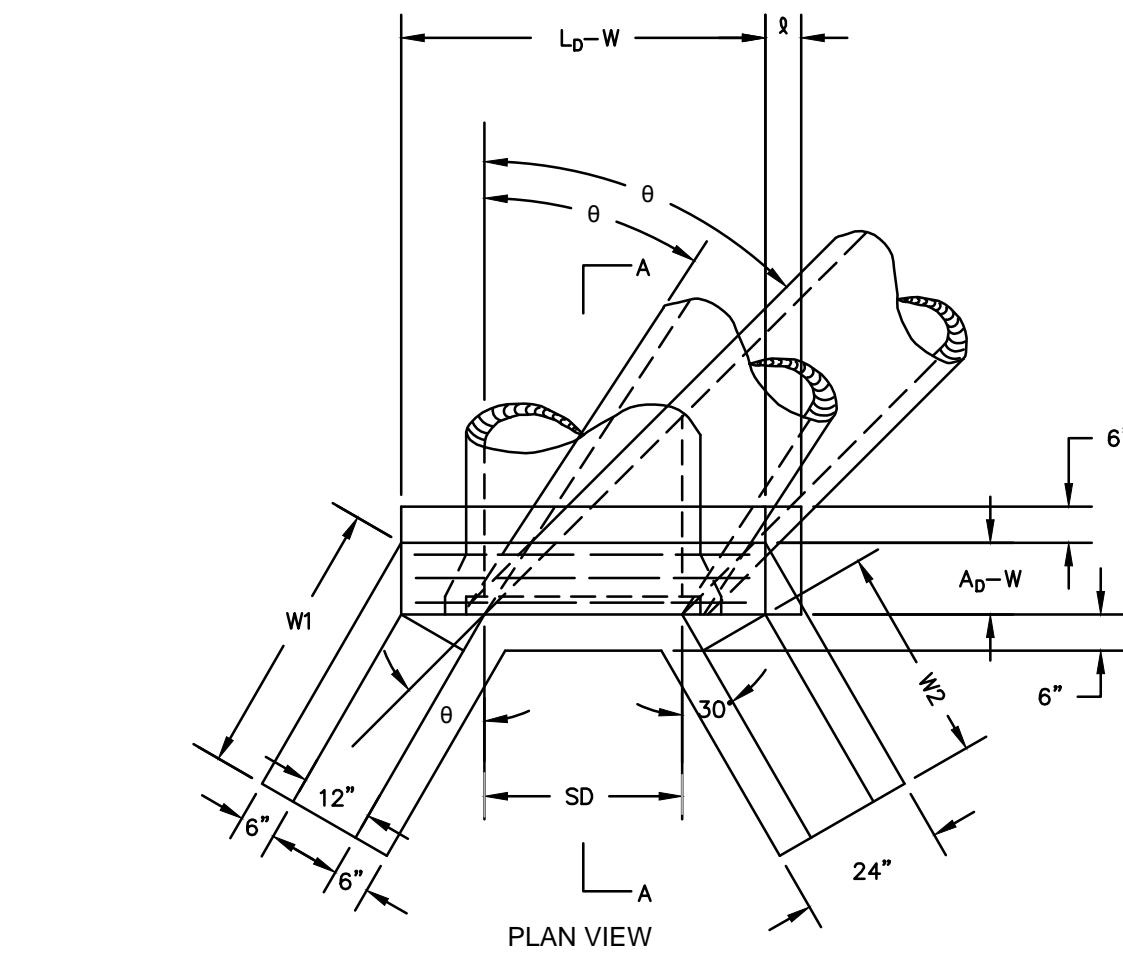
ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISTURBED AREAS INSIDE THE TRAP SHALL BE STABILIZED BEFORE CONVERSION TO A STORMWATER MANAGEMENT FACILITY.

ANTI-VORTEX DEVICE IS OPTIONAL FOR THIS TRAP.

### CONCRETE RISER WITH TEMPORARY DEWATERING HOLES DETAIL

N.T.S.

PADEP-8-8

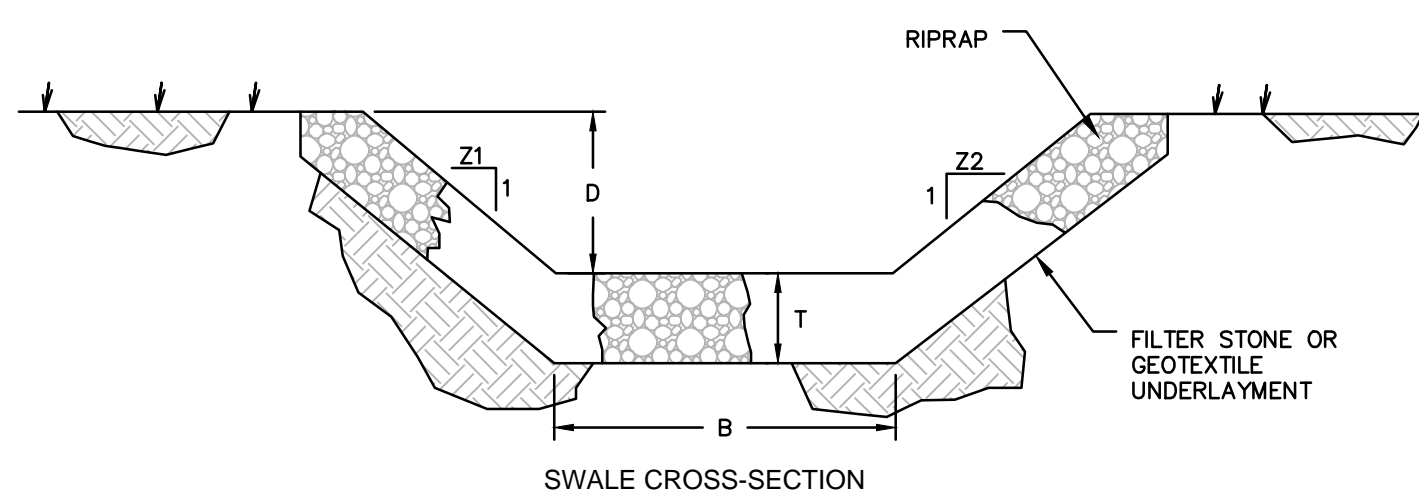


NOTES:

- ALL ENDWALLS AND HEADWALLS SHALL HAVE A TRASH SCREEN (SEE DETAIL).

### TYPE DW ENDWALL

N.T.S.



SWALE	STATIONS	B	D	Z1	Z2	RIPRAP GRADATION	T	UNDERLAYMENT	UNDERLAYMENT THICKNESS
DITCH 1	NA	2	3	2	2	R-4	18	GEOTEXTILE	NA
DITCH 5	NA	2	4	2	2	R-4	18	GEOTEXTILE	NA
DITCH 6	NA	2	5	2	2	R-4	18	GEOTEXTILE	NA
DITCH 8	NA	2	4	2	2	R-4	18	GEOTEXTILE	NA
DITCH 9	NA	2	5	2	2	R-4	18	GEOTEXTILE	NA
DITCH 10	NA	2	5	2	2	R-4	18	GEOTEXTILE	NA
DITCH 11	NA	2	6	2	2	R-4	18	GEOTEXTILE	NA
DITCH 13	NA	2	5	2	2	R-4	18	GEOTEXTILE	NA

FILTER STONE UNDERLAYMENT FOR BED SLOPES GREATER THAN OR EQUAL TO .10 FT/FT SHALL BE USED.

SWALE DIMENSIONS ARE FOR THE COMPLETED SWALE AFTER ROCK PLACEMENT. SWALE MUST BE OVER-EXCAVATED A SUFFICIENT AMOUNT TO ALLOW FOR THE VOLUME OF ROCK PLACED WITHIN THE SWALE WHILE PROVIDING THE SPECIFIED FINISHED DIMENSIONS.

SWALE DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. SWALE SHALL BE CLEANED WHENEVER TOTAL SWALE DEPTH IS REDUCED BY 25% AT ANY LOCATION. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO SWALE WITHOUT FURTHER DAMAGE.

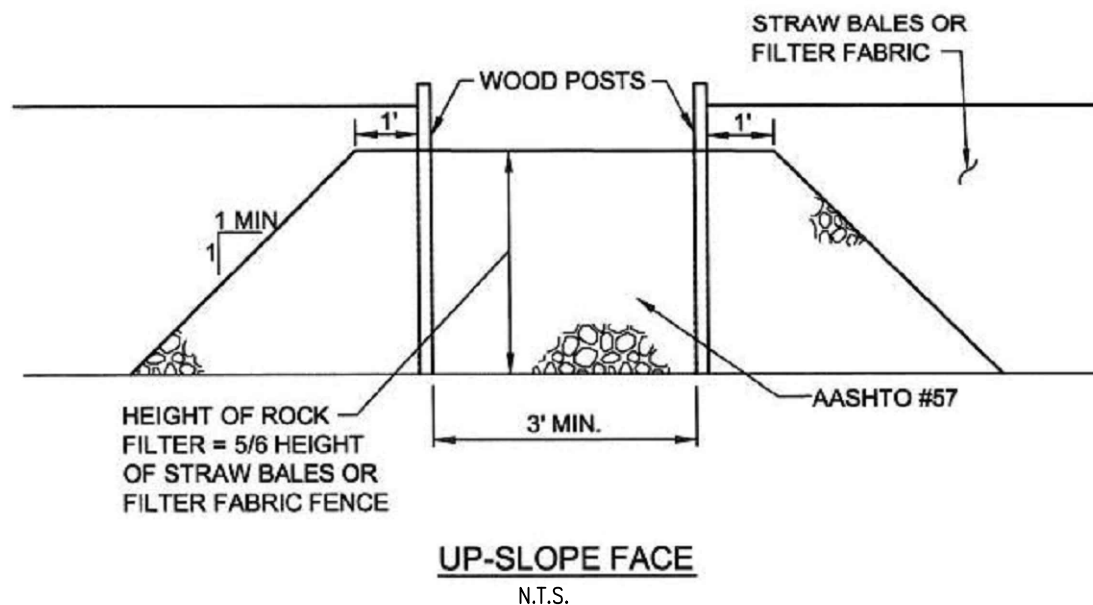
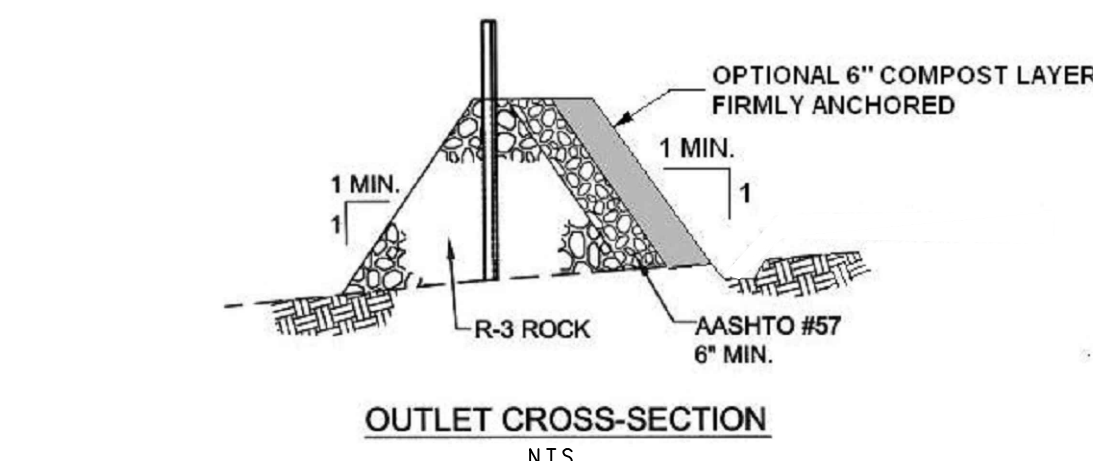
DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.

THE MINIMUM ROCK THICKNESS (T) SHALL BE 1.5 TIMES THE MAX ROCK SIZE.

### RIPRAP SWALE DETAIL

N.T.S.

PADEP-6-3



ADAPTED FROM MARYLAND DOE

NOTES:

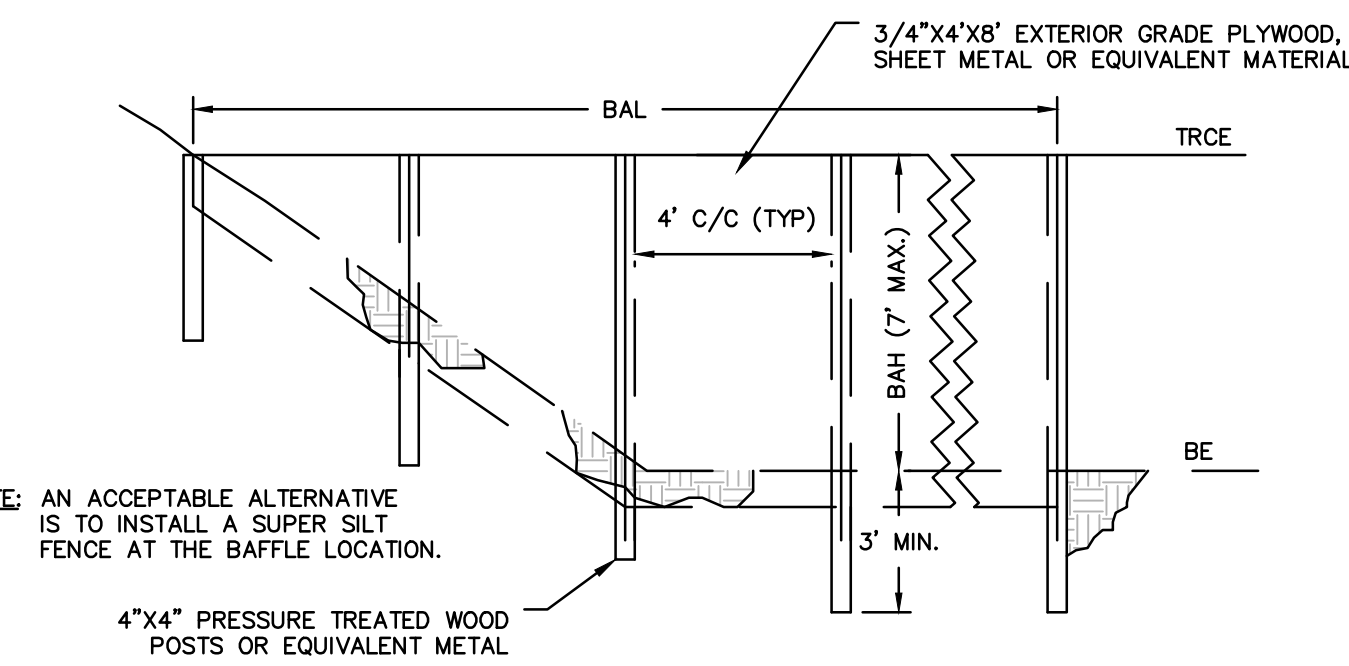
- A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A STRAW BALE BARRIER OR FILTER FABRIC FENCE HAS OCCURRED DUE TO CONCENTRATED FLOW.
- SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

PADEP SUPPLEMENTAL NOTE:

- ANCHORED COMPOST LAYER SHALL BE USED ON UP-SLOPE FACE IN HQ AND EV WATERSHEDS.

### ROCK FILTER OUTLET

N.T.S.



NOTE: AN ACCEPTABLE ALTERNATIVE IS TO INSTALL A SUPER SILT FENCE AT THE BAFFLE LOCATION.

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IN POOLS WITH DEPTHS EXCEEDING 7', THE TOP OF THE PLYWOOD BAFFLE DOES NOT NEED TO EXTEND TO THE TEMPORARY RISER CREST. SUPER SILT FENCE BAFFLES NEED NOT EXTEND TO TRCE ELEVATION.

BASIN	BAFFLE	TEMP. RISER	BOTTOM
BASIN OR TRAP NO.	LENGTH BAL (FT)	HEIGHT BAH (FT)	CREST ELEV. TRCE (FT)
BASIN #1	387	2.00	954.00
SEDIMENT TRAP #1	93	2.00	1,131.00

SEE APPROPRIATE BASIN DETAIL FOR PROPER LOCATION AND ORIENTATION.

BAFFLES SHALL BE TIED INTO ONE SIDE OF THE BASIN UNLESS OTHERWISE SHOWN ON THE PLAN DRAWINGS.

SUBSTITUTION OF MATERIALS NOT SPECIFIED IN THIS DETAIL SHALL BE APPROVED BY THE DEPARTMENT OR THE LOCAL CONSERVATION DISTRICT BEFORE INSTALLATION.

DAMAGED OR WARPED BAFFLES SHALL BE REPLACED WITHIN 7 DAYS OF INSPECTION.

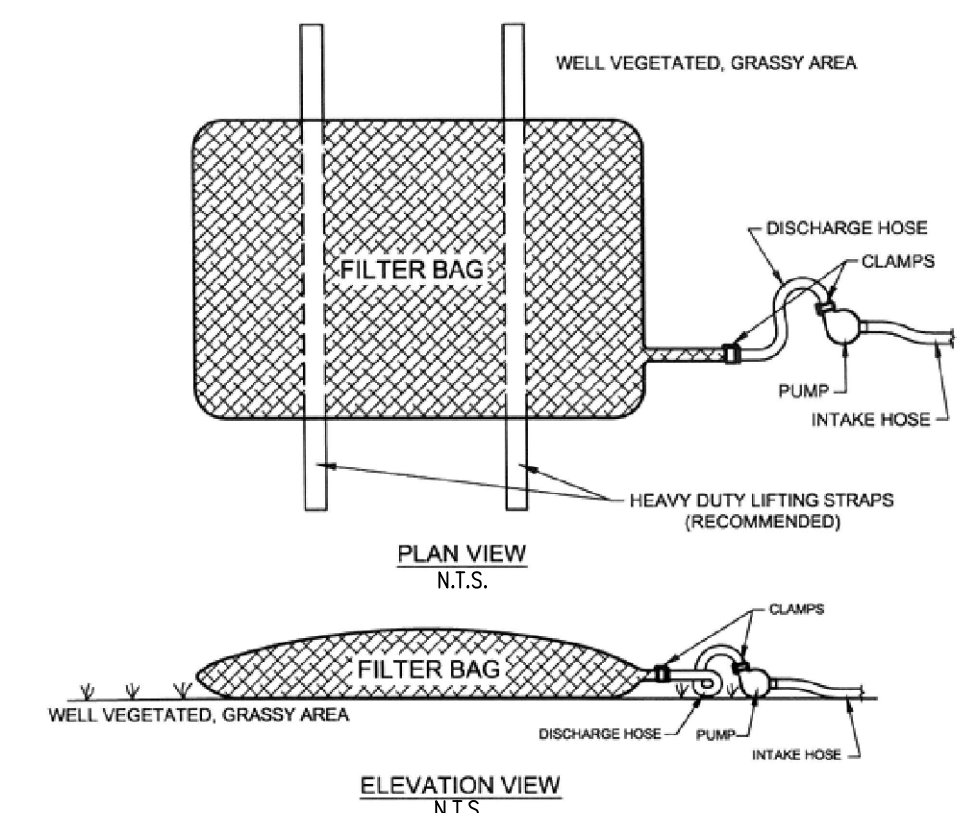
BAFFLES REQUIRING SUPPORT POSTS SHALL NOT BE INSTALLED IN BASINS REQUIRING IMPERVIOUS LINERS.

### BAFFLE

N.T.S.

PADEP-7-14

NOTE: THIS WILLIAMS STANDARD DETAIL IS BASED ON PADEP STANDARD CONSTRUCTION DETAIL #4-6.



NOTE: THIS WILLIAMS STANDARD DETAIL IS BASED ON PADEP STANDARD CONSTRUCTION DETAIL #3-16.

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED 'J' TYPE. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS MAY BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AO5 % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS TO BE PLACED ON STRIPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRIPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

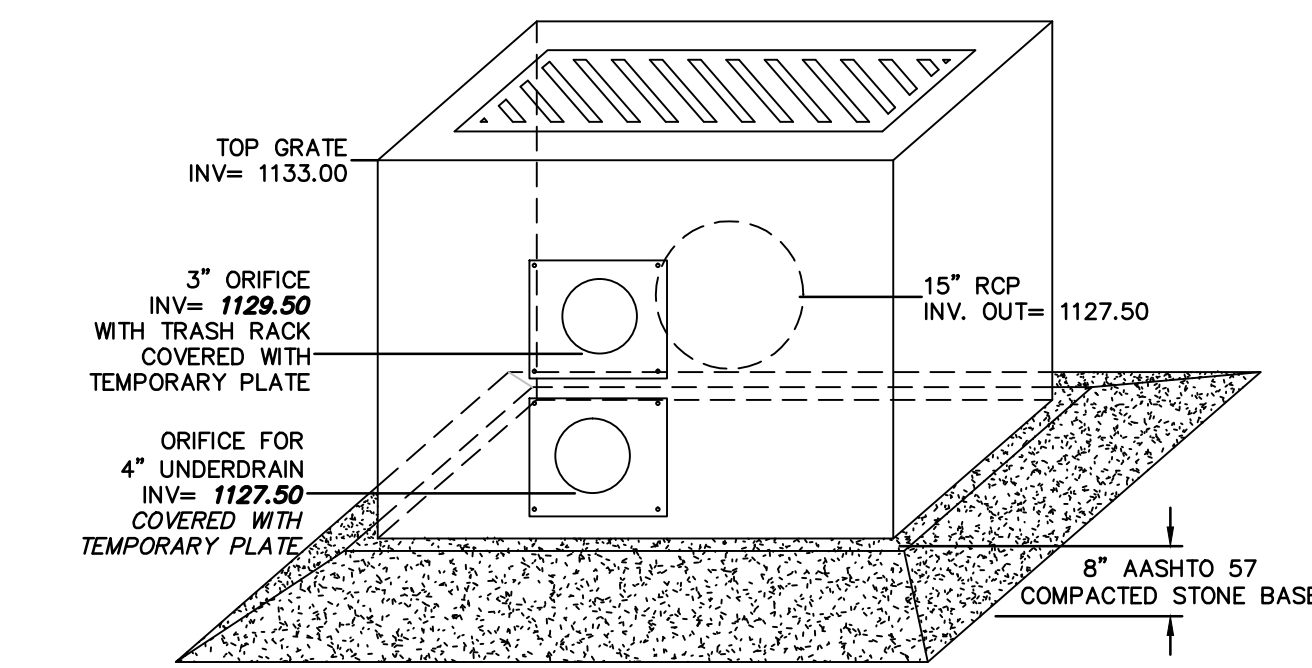
THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

ADAPTED FROM PADEP

### PUMPED WATER FILTER BAG

N.T.S.



NOTES:

- THE PROPOSED OUTLET STRUCTURE SHALL BE A TYPE 'M' INLET IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 605 AND STANDARDS FOR ROADWAY CONSTRUCTION, RC-34.
- OUTLET STRUCTURE SHALL CONTAIN A TRASH RACK.

### PERMANENT OUTLET STRUCTURE 5 (RAINGARDEN #3)

N.T.S.

REVISIONS				W.D. NO.		CHK.		APP.	
NO.	DATE	BY	DESCRIPTION	NO.	NO.	NO.	NO.	NO.	NO.
0	08/26/2015	BL	ISSUED FOR PADEP SUBMITTAL	W0161497	DAK	AJB			
1	12/02/2015	BL	ISSUED FOR PADEP RESUBMITTAL	W0161497	DAK	AJB			
2	05/27/2016	BL	UPDATED PER BASIC SYSTEMS DESIGN COORDINATION	W0161497	DAK	AJB			
3	Oct. 2016	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #1	W0161497	AJB	AJB			
4	Apr. 2017	BL	PADEP TECHNICAL DEFICIENCY RESPONSE #2	W0161497	AJB	AJB			

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC									
ATLANTIC SUNRISE PROJECT- PROPOSED 30" NATURAL GAS PIPELINE									
SOIL EROSION & SEDIMENT CONTROL AND LAYOUT PLANS									
FOR COMPRESSOR STATION 605									
CLINTON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA									
SOIL EROSION & SEDIMENT CONTROL DETAILS									
DRAWN BY:	ADE	DATE:	04/03/15	ISSUED FOR BID:		SCALE:	AS NOTED		
CHECKED BY:	AJB	DATE:	04/03/15	ISSUED FOR CONSTRUCTION:		REVISION:	4		
APPROVED BY:	AJB	DATE:	07/17/15	DRAWING NUMBER:	(66-0605)F-1A-11	SHEET	14		
W.D.:	1161497								

