



October 28, 2016

Eldred Township
Floodplain Administrator
154 Ridge Road
Pitman, PA 17964

Re: Atlantic Sunrise Project
Central Penn Line South
Eldred Township, Schuylkill County
Floodplain Management Analysis

Dear Sir or Madam:

Transcontinental Gas Pipeline Company, LLC (Transco) proposes to construct and operate the Atlantic Sunrise Project (Project) to provide 1.7 million dekatherms per day of incremental firm transportation of natural gas from the Marcellus Shale production areas in northern Pennsylvania (PA) to its existing market areas, extending to as far south as the Station 85 Pooling Point in Choctaw County, Alabama. The Project includes modifications to the existing Transco Mainline System to reverse the direction of flow, enabling new north-to-south capabilities (bi-directional flow) to transport this new source of natural gas to existing markets. The Project consists of the following primary components within PA:

- Installing greenfield pipeline facilities of approximately 58.6 miles of new 30-inch-diameter pipe from Susquehanna County, PA to Columbia County, PA.
- Installing greenfield pipeline facilities of approximately 127.3 miles of 42-inch-diameter pipe from Columbia County, PA to Lancaster County, PA.;
- Installing two pipeline loops (pipeline laid parallel to existing facilities):
 - 8.56 miles of 42-inch pipeline loop located in Lycoming County, PA known as the Unity Loop;
 - 2.50 miles of 36-inch pipeline in Clinton County, PA, known as the Chapman Loop;
- Constructing two new compressor stations, one in Wyoming County and one in Columbia County, PA;
- Additional ancillary facilities, such as mainline valves, cathodic protection, communication facilities, and internal inspection device (e.g., pig) launchers and receivers;
- Two new meter stations and three new regulator stations with interconnecting piping;
- Additional compression and related modifications to one existing compressor station; and,
- Modification to an existing meter station for use of shared facilities with a new meter station.

Transco's consultants, BL Companies and TRC Solutions (TRC), have completed an analysis of potential impacts on FEMA delineated floodways from the Project in accordance with 25 Pa. Code § 105.13. The analysis for Eldred Township is provided below for your review and comment.

Eldred Township
October 28, 2016
BL Project No. 14C4909
Page 1 of 3

**ATLANTIC SUNRISE PROJECT
FEMA FLOODPLAIN CROSSINGS
ELRED TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA**

Description of Impact	Structure Type and Dimensions	Resource ID	Resource Name	Chapter 93 Classification, Wetland Classification (EV or Other), or Floodway Type	Floodway Fill (cu. yds.)	Impact area (acres)		Latitude	Longitude
						Temporary	Permanent		
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T11-9001	Floodway to Mahantango Creek	FEMA Detailed	N/A	0.8067	0.0843 ¹	40.69885	-76.493853

¹ Permanent impacts associated with utility pipeline crossings are based on the permanent pipe footprint within the floodplain (pipe trench width x pipe crossing length). No permanent alternation to the floodway contours and elevation is associated with these permanent impacts.

The floodway crossing listed above is depicted on the enclosed plans from the Project’s PADEP Chapter 105 Permit Application.

Please note that construction activities are not expected to create permanent loss of flood storage capacity or hydraulic capacity, as all pre-construction surface elevations will be re-established during restoration. The temporary and permanent impacts noted above are associated with vegetation management and underground pipe installation only, and do not represent a permanent modification of ground elevation or loss of flood storage capacity or hydraulic capacity. No structures are proposed within the FEMA 100-year floodplain, no fill will be placed in the floodways, and no increase in 100-year flood elevation is anticipated as a result of the proposed Project.

On behalf of Transco, BL and TRC respectfully request that Eldred Township review this analysis and, if applicable, provide comments to:

Steve Crescenzo
TRC Environmental Corporation
2200 Liberty Avenue, Suite 100
Pittsburgh, PA 15222

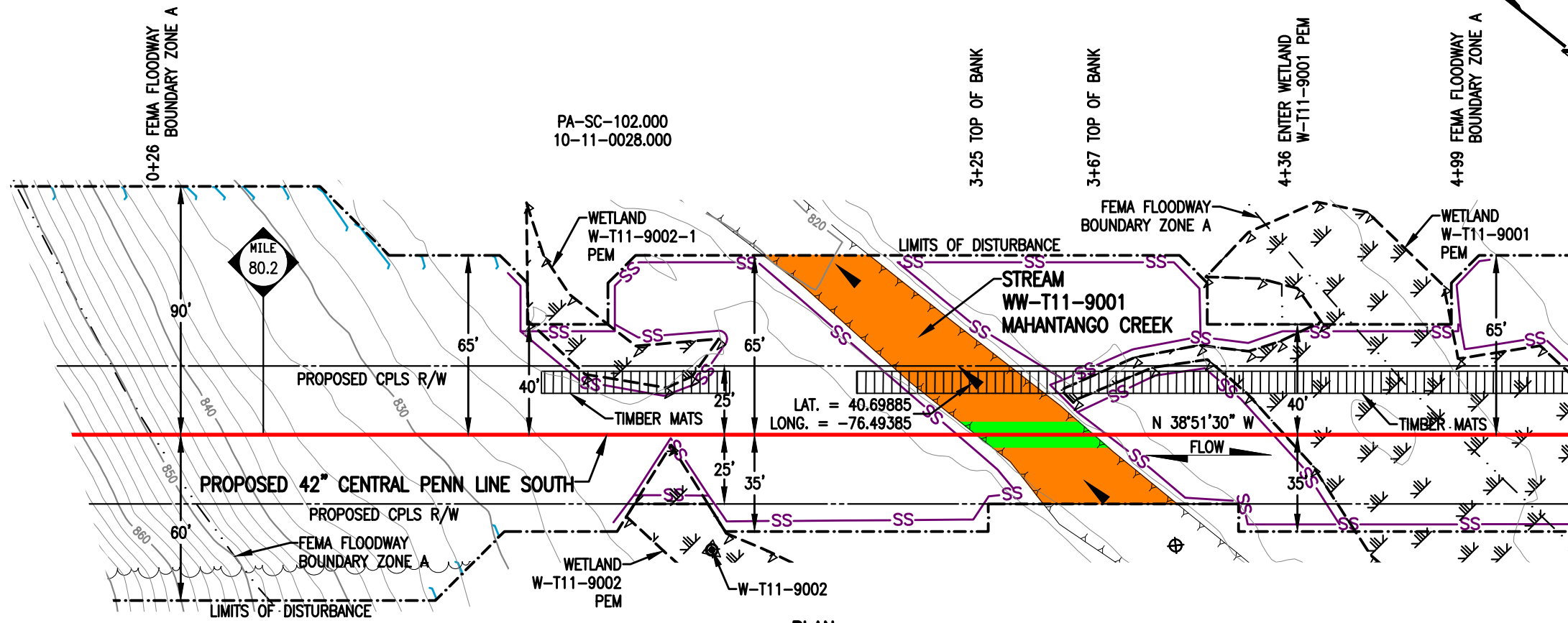
Please do not send comments directly to the PADEP, as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at abusher@blcompanies.com.

Sincerely,



Alaric J. Busher, PE
Senior Engineer

Enclosures: Water Obstruction and Encroachment Permit Impact Maps
Eldred Township
October 28, 2016
BL Project No. 14C4909
Page 2 of 3

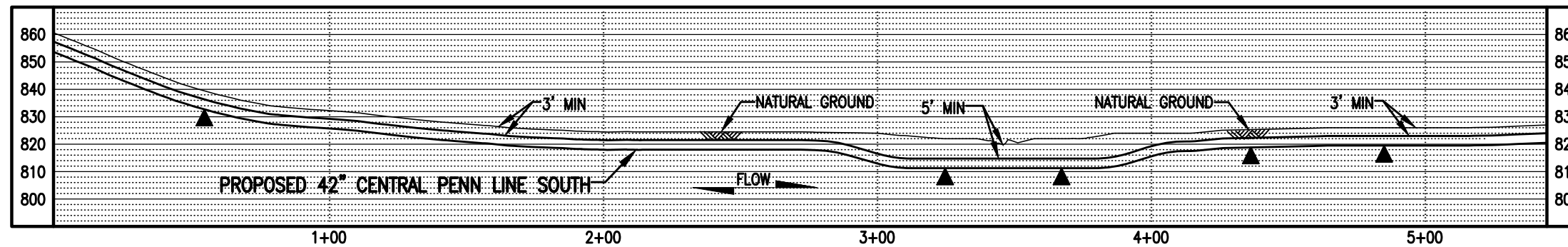


PLAN
SCALE: 1" = 50'

STREAM DISTURBANCE:

STREAM WW-T11-9001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0765
PERMANENT STREAM DISTURBANCE	0.0097
TOTAL STREAM DISTURBANCE	0.0862
TEMPORARY FLOODWAY DISTURBANCE	0.8067
PERMANENT FLOODWAY DISTURBANCE	0.0843
TOTAL FLOODWAY DISTURBANCE	0.8910

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	42.47
STREAM LENGTH	143.91



PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 50' VERTICAL

GENERAL NOTES:

1. STREAM CROSSING METHOD SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
3. STATION 3+00 SHOWN IS EQUAL TO STATION 4236+89 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 53' RT. OF M.P. 80.29, ELEV. = 826.67' (NAVD88).



LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	EXISTING PIPELINES		PHOTO DATA POINT		12" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		18" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		24" SEDIMENT BARRIER
	PROPOSED CPLS R/W		WELL POINT		32" SEDIMENT BARRIER
	PROPERTY LINE		TRENCH PLUG		TOP OF BANK
	FOREIGN PIPELINE		WATERBODY		PERMANENT STREAM IMPACT
	WETLAND AREA		TREE LINE		TEMPORARY STREAM IMPACT
	STREAM FLOW		FLOODWAY BOUNDARY		
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY		
	EXISTING FENCE				

DRAWING NO.	REFERENCE TITLE					
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	08/04/15	AT	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH
1	11/01/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
STREAM CROSSING WW-T11-9001
© M.P. 80.25
ELDRED TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA

DRAWN BY: JB	DATE: 03/18/15	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 05/15/15	ISSUED FOR CONSTRUCTION:	REVISION: 1
APPROVED BY: MJH	DATE: 05/19/15	DRAWING NUMBER: 24-1600-70-09-A/80.25-01	SHEET 1
W.O. NO.: 1161503			OF 1



October 28, 2016

Frailey Township
Floodplain Administrator
23 Maryland Street
Donaldson, PA 17981

Re: Atlantic Sunrise Project
Central Penn Line South
Frailey Township, Schuylkill County
Floodplain Management Analysis

Dear Sir or Madam:

Transcontinental Gas Pipeline Company, LLC (Transco) proposes to construct and operate the Atlantic Sunrise Project (Project) to provide 1.7 million dekatherms per day of incremental firm transportation of natural gas from the Marcellus Shale production areas in northern Pennsylvania (PA) to its existing market areas, extending to as far south as the Station 85 Pooling Point in Choctaw County, Alabama. The Project includes modifications to the existing Transco Mainline System to reverse the direction of flow, enabling new north-to-south capabilities (bi-directional flow) to transport this new source of natural gas to existing markets. The Project consists of the following primary components within PA:

- Installing greenfield pipeline facilities of approximately 58.6 miles of new 30-inch-diameter pipe from Susquehanna County, PA to Columbia County, PA.
- Installing greenfield pipeline facilities of approximately 127.3 miles of 42-inch-diameter pipe from Columbia County, PA to Lancaster County, PA.;
- Installing two pipeline loops (pipeline laid parallel to existing facilities):
 - 8.56 miles of 42-inch pipeline loop located in Lycoming County, PA known as the Unity Loop;
 - 2.50 miles of 36-inch pipeline in Clinton County, PA, known as the Chapman Loop;
- Constructing two new compressor stations, one in Wyoming County and one in Columbia County, PA;
- Additional ancillary facilities, such as mainline valves, cathodic protection, communication facilities, and internal inspection device (e.g., pig) launchers and receivers;
- Two new meter stations and three new regulator stations with interconnecting piping;
- Additional compression and related modifications to one existing compressor station; and,
- Modification to an existing meter station for use of shared facilities with a new meter station.

Transco's consultants, BL Companies and TRC Solutions (TRC), have completed an analysis of potential impacts on FEMA delineated floodways from the Project in accordance with 25 Pa. Code § 105.13. The analysis for Frailey Township is provided below for your review and comment.

Frailey Township
October 28, 2016
BL Project No. 14C4909
Page 1 of 3

**ATLANTIC SUNRISE PROJECT
FEMA FLOODPLAIN CROSSINGS
FRAILEY TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA**

Description of Impact	Structure Type and Dimensions	Resource ID	Resource Name	Chapter 93 Classification, Wetland Classification (EV or Other), or Floodway Type	Floodway Fill (cu. yds.)	Impact area (acres)		Latitude	Longitude
						Temporary	Permanent		
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T24-8001	Floodway to UNT to Lower Rausch Creek	FEMA Detailed ¹	N/A	1.7067	0.1790 ²	40.62080	-76.44122
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T35-8001	Floodway to Good Spring Creek	FEMA Detailed ¹	N/A	1.1190	0.1235 ²	40.62673	-76.44122

Notes:
¹ Multiple streams are included in these calculations as the floodways overlap.
² Permanent impacts associated with utility pipeline crossings are based on the permanent pipe footprint within the floodplain (pipe trench width x pipe crossing length). No permanent alternation to the floodway contours and elevation is associated with these permanent impacts.

The floodway crossing listed above is depicted on the enclosed plans from the Project’s PADEP Chapter 105 Permit Application.

Please note that construction activities are not expected to create permanent loss of flood storage capacity or hydraulic capacity, as all pre-construction surface elevations will be re-established during restoration. The temporary and permanent impacts noted above are associated with vegetation management and underground pipe installation only, and do not represent a permanent modification of ground elevation or loss of flood storage capacity or hydraulic capacity. No structures are proposed within the FEMA 100-year floodplain, no fill will be placed in the floodways, and no increase in 100-year flood elevation is anticipated as a result of the proposed Project.

On behalf of Transco, BL and TRC respectfully request that Frailey Township review this analysis and, if applicable, provide comments to:

Steve Crescenzo
 TRC Environmental Corporation
 2200 Liberty Avenue, Suite 100
 Pittsburgh, PA 15222

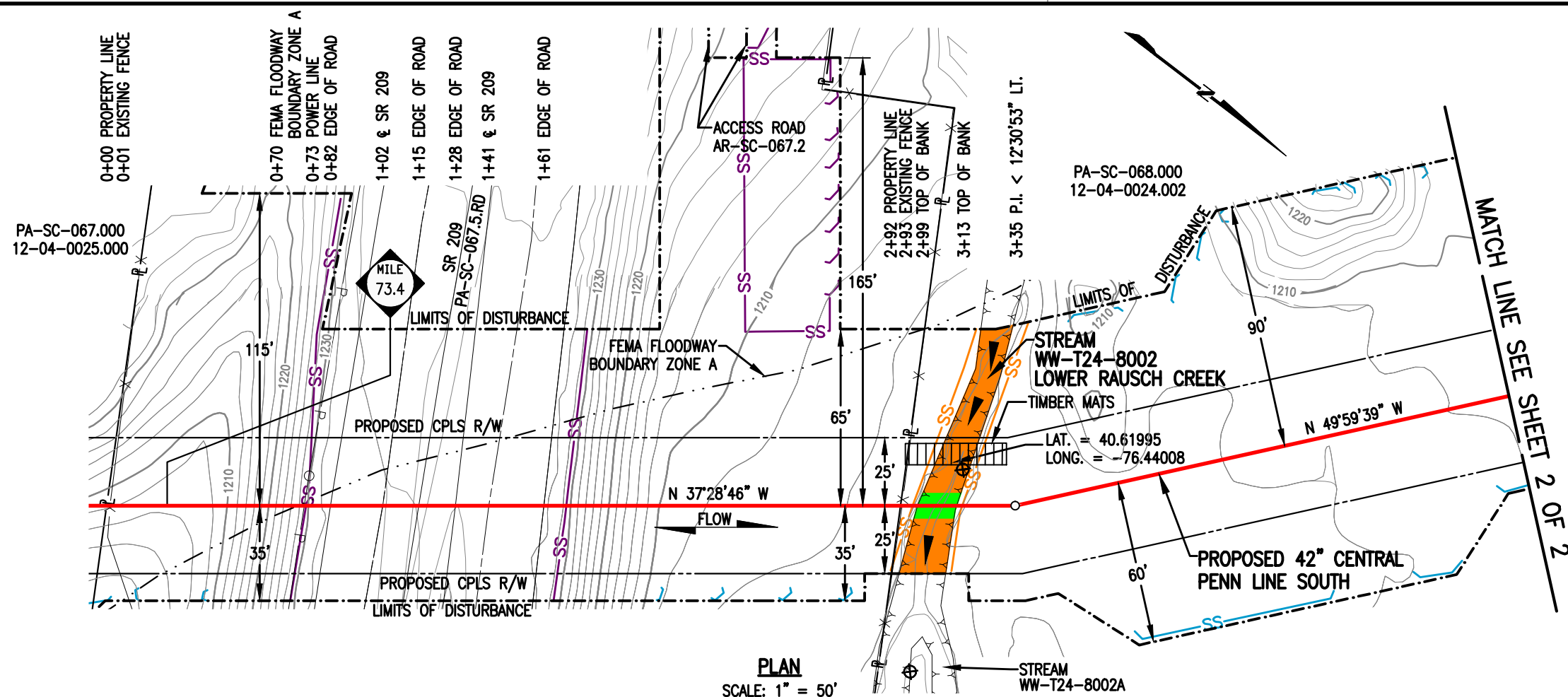
Please do not send comments directly to the PADEP, as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at abusher@blcompanies.com.

Sincerely,



Alaric J. Busher, PE
 Senior Engineer
 Frailey Township
 October 28, 2016
 BL Project No. 14C4909
 Page 2 of 3

Enclosures: Water Obstruction and Encroachment Permit Impact Maps



PLAN
SCALE: 1" = 50'

STREAM DISTURBANCE:

STREAM WW-T24-8002	ACRE
TEMPORARY STREAM DISTURBANCE	0.0235
PERMANENT STREAM DISTURBANCE	0.0033
TOTAL STREAM DISTURBANCE	0.0268
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000

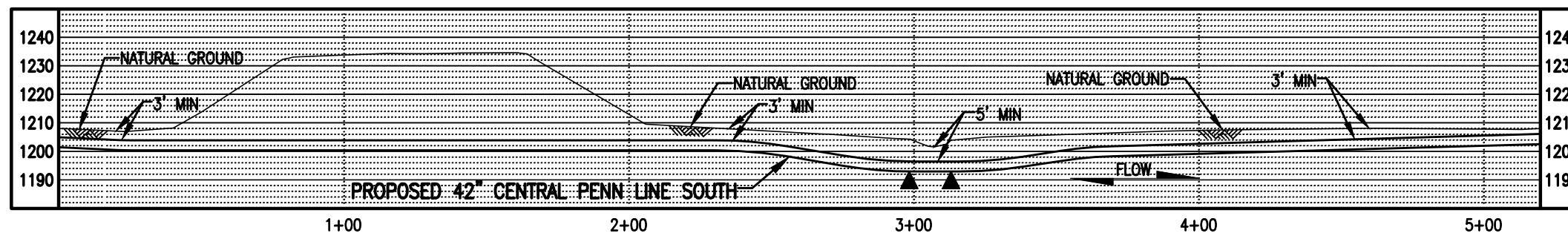
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	14.41
STREAM LENGTH	97.24

GENERAL NOTES:

1. STREAM CROSSING METHOD SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
3. FLOODWAY IMPACTS FOR STREAM WW-T24-8002 ARE INCORPORATED IN FLOODWAY IMPACTS OF STREAM WW-T24-8001 DUE TO OVERLAPPING FLOODWAY BOUNDARY.
4. STATION 6+00 SHOWN IS EQUAL TO STATION 3881+30 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 90' RT. OF M.P. 73.42, ELEV. = 1234.20' (NAVD88).



PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 50' VERTICAL



LEGEND

<p>— PROPOSED 42" CENTRAL PENN LINE SOUTH</p> <p>— EXISTING PIPELINES</p> <p>— EXISTING TGPL R/W</p> <p>--- LIMITS OF DISTURBANCE</p> <p>--- PROPOSED CPLS R/W</p> <p>— PROPERTY LINE</p> <p>— FOREIGN PIPELINE</p> <p>WETLAND AREA</p> <p>▲ STREAM FLOW</p> <p>— EXISTING POWER LINE</p> <p>— EXISTING FENCE</p>	<p>▲ WETLAND FLAGS</p> <p>▲ PHOTO DATA POINT</p> <p>▲ WETLAND DATA POINT</p> <p>▲ UPLAND DATA POINT</p> <p>▲ WELL POINT</p> <p>▲ TRENCH PLUG</p> <p>▲ WATERBODY</p> <p>▲ TREE LINE</p> <p>--- FLOODWAY BOUNDARY</p> <p>--- FEMA FLOODWAY BOUNDARY</p>	<p>▲ WOOD GROUP MUSTANG, INC.</p> <p>— SS — 12" SEDIMENT BARRIER</p> <p>— SS — 18" SEDIMENT BARRIER</p> <p>— SS — 24" SEDIMENT BARRIER</p> <p>— SS — 32" SEDIMENT BARRIER</p> <p>— TOP OF BANK</p> <p>■ PERMANENT STREAM IMPACT</p> <p>■ TEMPORARY STREAM IMPACT</p>
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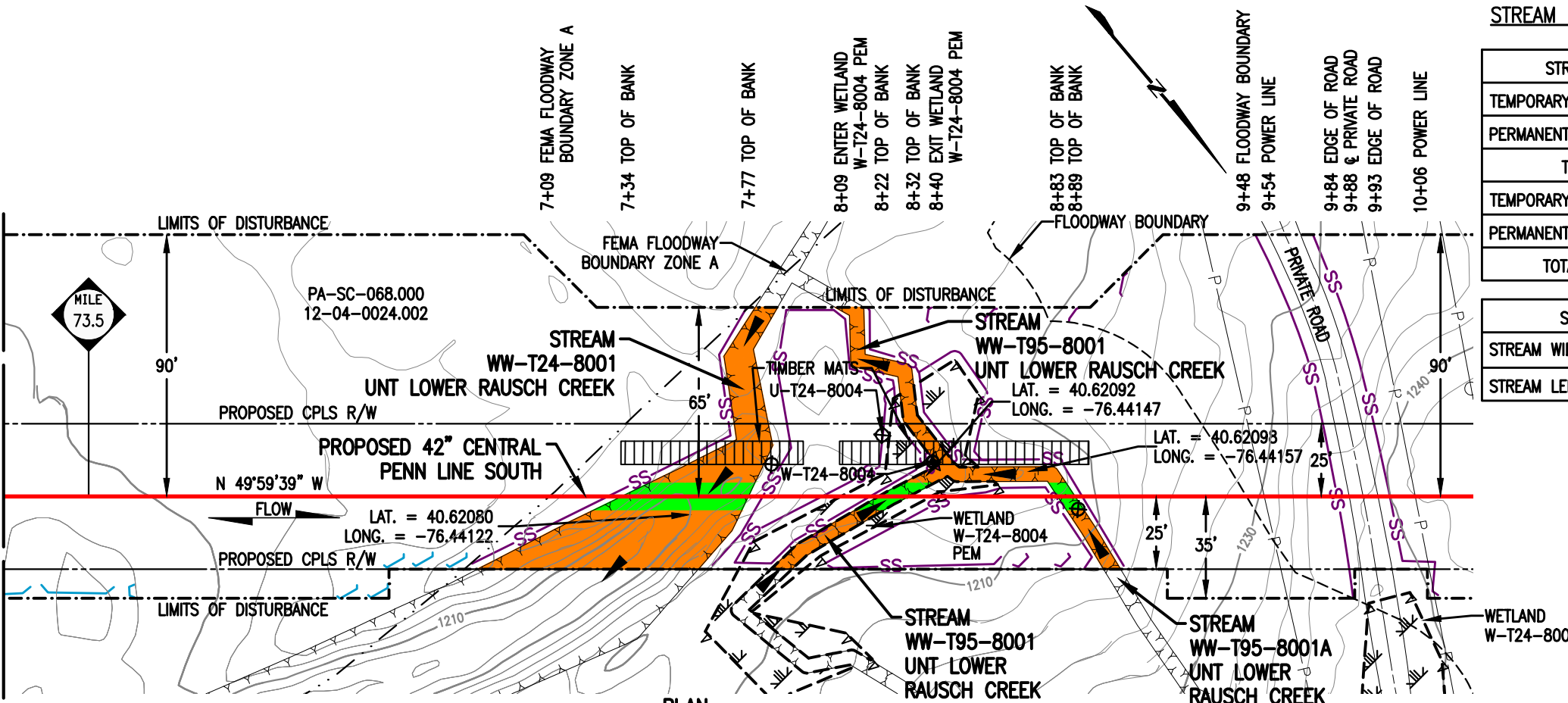
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	08/04/15	TL	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH
1	02/03/16	TL	ISSUED FOR INTERNAL USE	1161503	CLR	MJH
2	11/01/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
STREAM CROSSING WW-T24-8002
© M.P. 73.45
FRAILEY TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA

Williams

DRAWING NO.	REFERENCE TITLE	DRAWN BY: TL	DATE: 03/25/15	ISSUED FOR BID:	SCALE: 1" = 50'
		CHECKED BY: ML	DATE: 05/13/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
		APPROVED BY: MJH	DATE: 05/19/15	DRAWING NUMBER: 24-1600-70-09-A/73.45-01	SHEET 1
		W.O. NO. 1161503		9/30/2016 t3le	OF 2

MATCH LINE SEE SHEET 1 OF 2



PLAN
SCALE: 1" = 50'

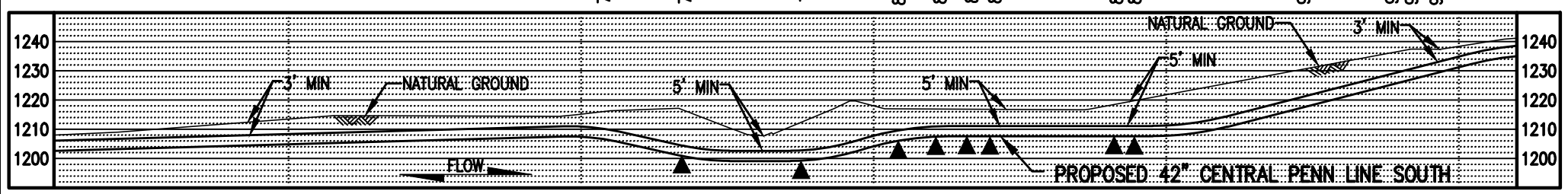
STREAM DISTURBANCE:

STREAM	ACRE	STREAM	ACRE
STREAM WW-T24-8001		STREAM WW-T95-8001	
TEMPORARY STREAM DISTURBANCE	0.0484	TEMPORARY STREAM DISTURBANCE	0.0137
PERMANENT STREAM DISTURBANCE	0.0100	PERMANENT STREAM DISTURBANCE	0.0024
TOTAL STREAM DISTURBANCE	0.0584	TOTAL STREAM DISTURBANCE	0.0161
TEMPORARY FLOODWAY DISTURBANCE	1.7067	TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.1790	PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	1.8857	TOTAL FLOODWAY DISTURBANCE	0.0000

STREAM DIMENSION	FT.	STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	43.55	STREAM WIDTH (TOB TO TOB)	10.41
STREAM LENGTH	111.63	STREAM LENGTH	141.30

STREAM	ACRE
STREAM WW-T95-8001A	
TEMPORARY STREAM DISTURBANCE	0.0074
PERMANENT STREAM DISTURBANCE	0.0014
TOTAL STREAM DISTURBANCE	0.0088
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	5.96
STREAM LENGTH	75.05



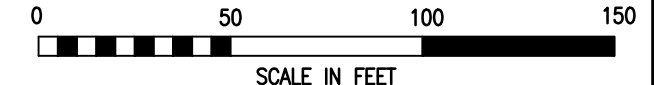
PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 50' VERTICAL

GENERAL NOTES:

1. STREAM CROSSING METHOD FOR STREAMS WW-T95-8001, WW-T95-8001A, AND WW-T24-8001 SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOODPLAIN PER FEMA FLOOD MAP DATA.
3. STATION 6+00 SHOWN IS EQUAL TO STATION 3881+30 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 90' RT. OF M.P. 73.42, ELEV. = 1234.20' (NAVD88).



LEGEND

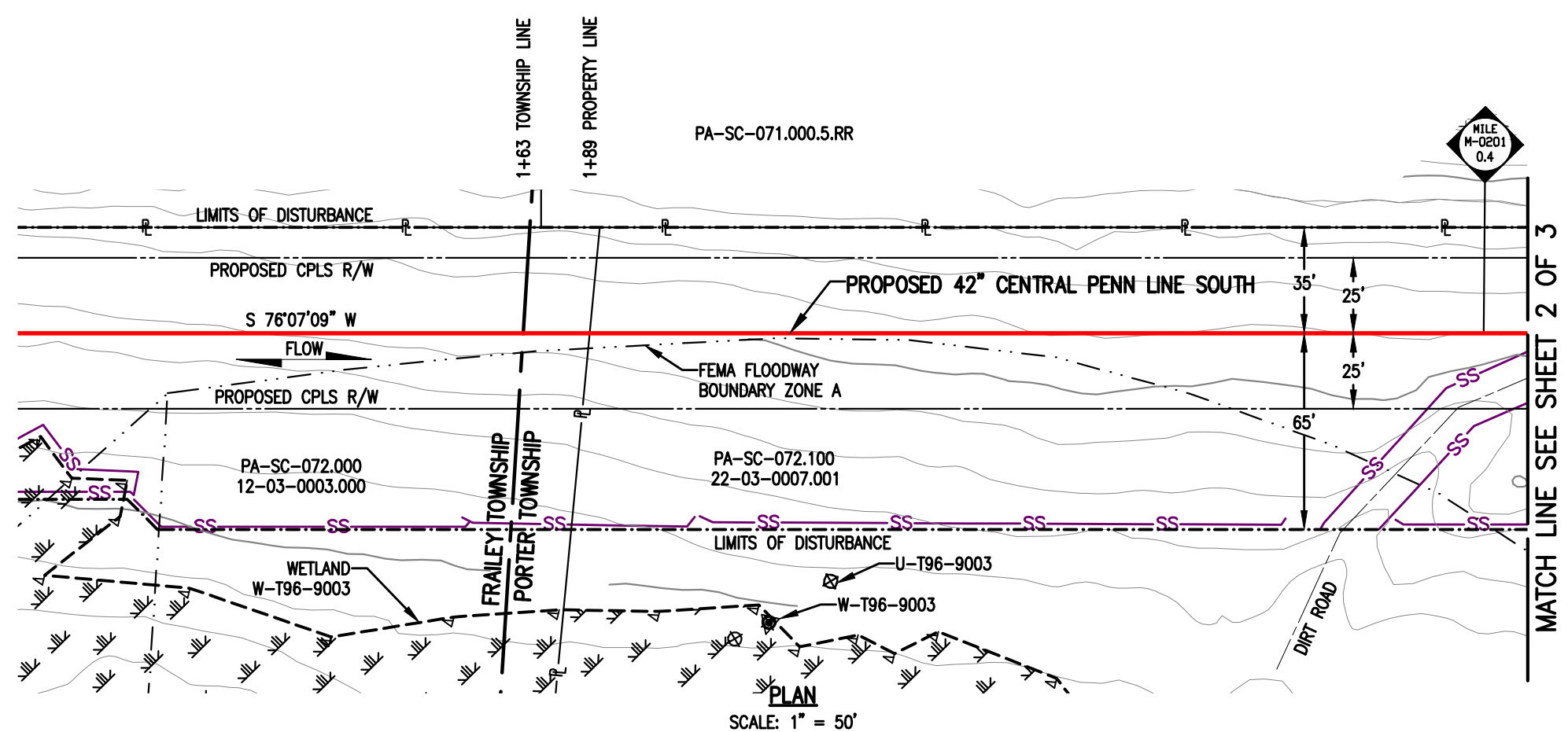
- PROPOSED 42" CENTRAL PENN LINE SOUTH
- EXISTING PIPELINES
- EXISTING TGPL R/W
- - - LIMITS OF DISTURBANCE
- - - PROPOSED CPLS R/W
- P — PROPERTY LINE
- FOREIGN PIPELINE
- WETLAND AREA
- ▲ STREAM FLOW
- P — EXISTING POWER LINE
- X — EXISTING FENCE

- ▽ WETLAND FLAGS
- ⊗ PHOTO DATA POINT
- ⊗ WETLAND DATA POINT
- ⊗ UPLAND DATA POINT
- ☼ WELL POINT
- ▲ TRENCH PLUG
- WATERBODY
- TREE LINE
- - - FLOODWAY BOUNDARY
- - - FEMA FLOODWAY BOUNDARY

WOOD GROUP MUSTANG, INC.

- SS — 12" SEDIMENT BARRIER
- SS — 18" SEDIMENT BARRIER
- SS — 24" SEDIMENT BARRIER
- SS — 32" SEDIMENT BARRIER
- Y — TOP OF BANK
- PERMANENT STREAM IMPACT
- TEMPORARY STREAM IMPACT

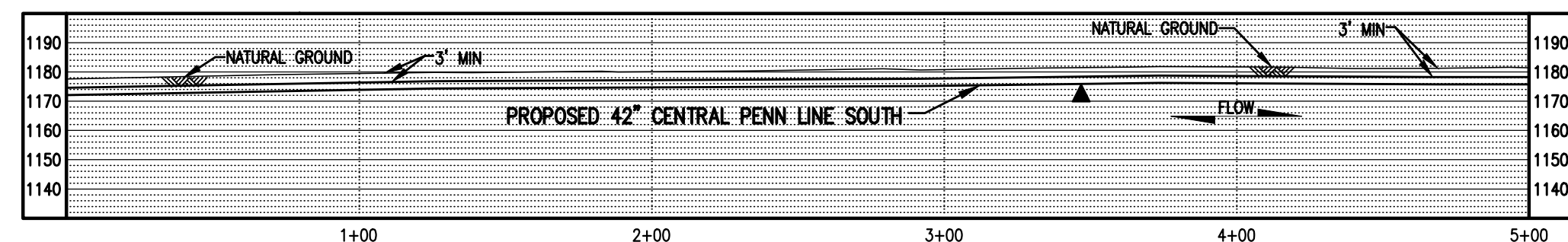
DRAWING NO.		REFERENCE TITLE		<p>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH STREAM CROSSINGS WW-T24-8001 @ M.P. 73.54, WW-T95-8001 @ M.P. 73.55, & WW-T95-8001A @ M.P. 73.56 FRAILEY TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA</p>		
NO.	DATE	BY	REVISION DESCRIPTION			W.O. NO.
0	11/01/16	THL	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH
DRAWN BY: TL		DATE: 07/01/16	ISSUED FOR BID:	SCALE: 1" = 50'		
CHECKED BY: CLR		DATE: 07/01/16	ISSUED FOR CONSTRUCTION:	REVISION: 0		
APPROVED BY: MJH		DATE: 07/01/16	DRAWING NUMBER: 24-1600-70-09-A/73.45-01	SHEET 2		
IWO: 1161503			10/5/2016	OF 2		



STREAM DISTURBANCE:

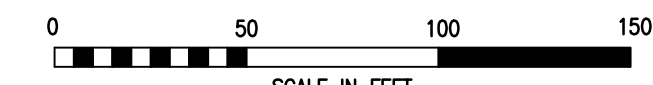
STREAM WW-T35-8001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0263
PERMANENT STREAM DISTURBANCE	0.0025
TOTAL STREAM DISTURBANCE	0.0288
TEMPORARY FLOODWAY DISTURBANCE	1.1190
PERMANENT FLOODWAY DISTURBANCE	0.0789
TOTAL FLOODWAY DISTURBANCE	1.1979

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	10.59
STREAM LENGTH	97.39



- GENERAL NOTES:**
1. STREAM CROSSING METHOD SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
 2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
 3. STATION 1+00 SHOWN IS EQUAL TO M-0201 STATION 17+32 ON THE EROSION AND SEDIMENT CONTROL PLAN.

- SURVEY NOTES:**
1. T.B.M. IRON ROD - 935' LT. OF M.P. 74.82, ELEV. = 1179.96' (NAVD88).

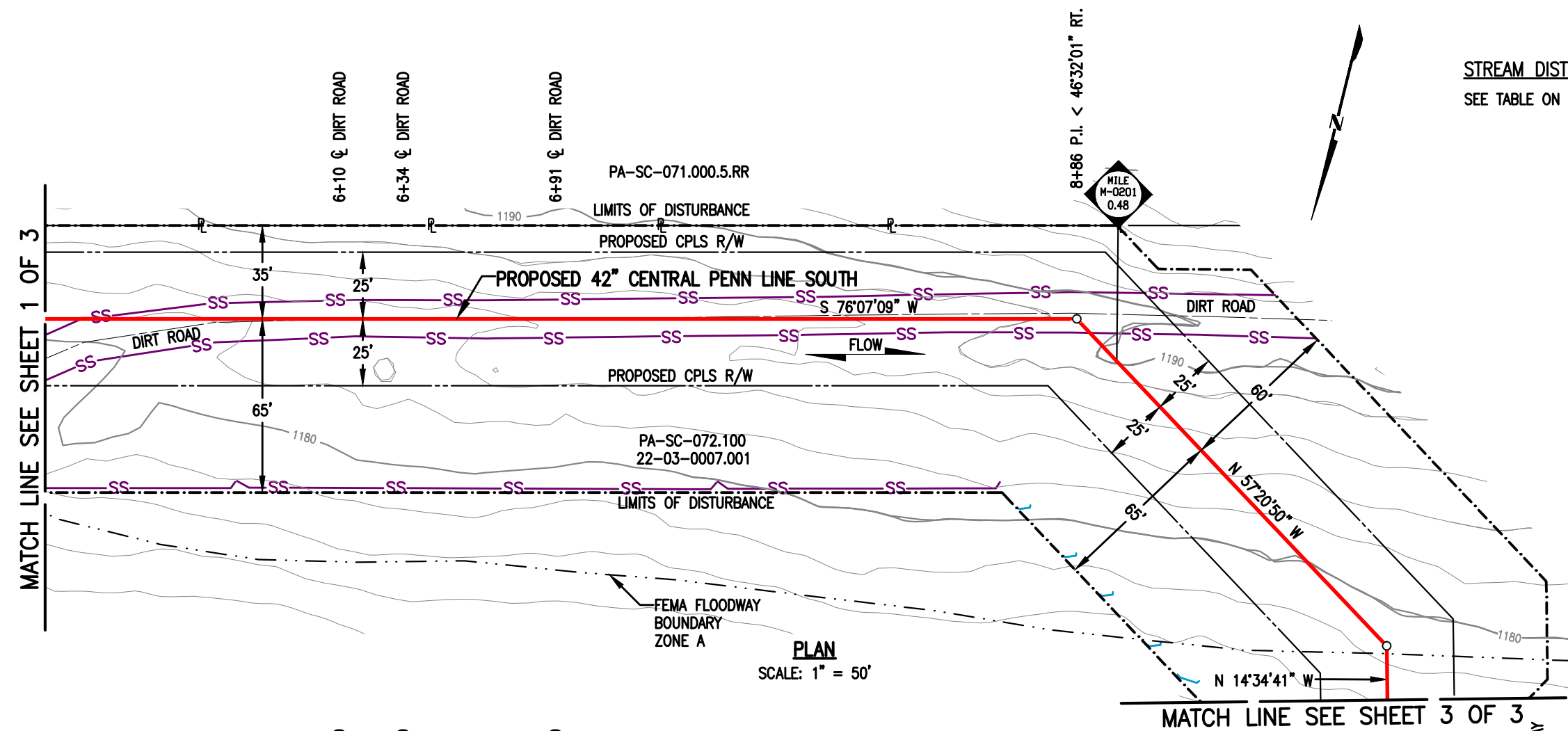


LEGEND

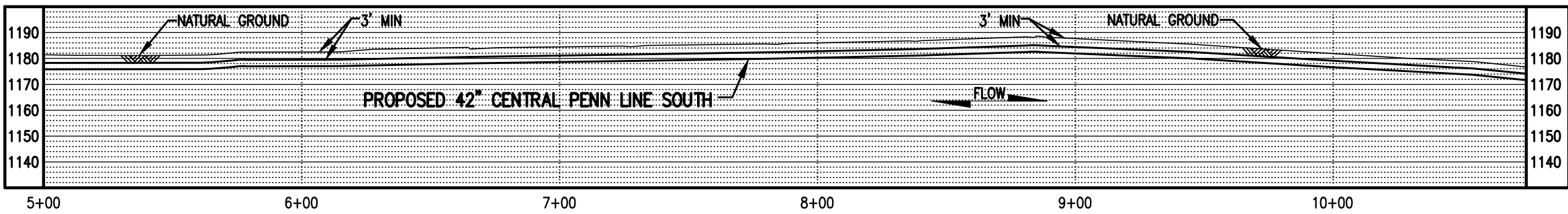
	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	EXISTING PIPELINES		PHOTO DATA POINT		12" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		18" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		24" SEDIMENT BARRIER
	PROPOSED CPLS R/W		WELL POINT		32" SEDIMENT BARRIER
	PROPERTY LINE		TRENCH PLUG		PERMANENT STREAM IMPACT
	FOREIGN PIPELINE		WATERBODY		TEMPORARY STREAM IMPACT
	WETLAND AREA		TREE LINE		
	STREAM FLOW		FLOODWAY BOUNDARY		
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY		
	EXISTING FENCE				

DRAWING NO.		REFERENCE TITLE		TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH STREAM CROSSING WW-T35-8001 © M.P. 74.74 FRAILEY/PORTER TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA	
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.
0	11/01/16	DLK	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR MJH
DRAWN BY: CM		DATE: 06/29/16	ISSUED FOR BID:	SCALE: 1" = 50'	
CHECKED BY: ML		DATE: 06/29/16	ISSUED FOR CONSTRUCTION:	REVISION: 0	
APPROVED BY: MJH		DATE: 06/29/16	DRAWING NUMBER: 24-1600-70-09-A/74.74-01	SHEET 1	
W.O. NUMBER: 1161503		DRAWING NUMBER: 24-1600-70-09-A/74.74-01		OF 3	

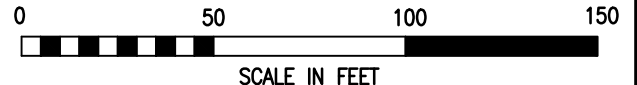
STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 3



PLAN
SCALE: 1" = 50'



PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 50' VERTICAL



LEGEND	
	PROPOSED 42" CENTRAL PENN LINE SOUTH
	EXISTING PIPELINES
	EXISTING TGPL R/W
	LIMITS OF DISTURBANCE
	PROPOSED CPLS R/W
	PROPERTY LINE
	FOREIGN PIPELINE
	WETLAND AREA
	STREAM FLOW
	EXISTING POWER LINE
	EXISTING FENCE
	WETLAND FLAGS
	PHOTO DATA POINT
	WETLAND DATA POINT
	UPLAND DATA POINT
	WELL POINT
	TRENCH PLUG
	WATERBODY
	TREE LINE
	FLOODWAY BOUNDARY
	FEMA FLOODWAY BOUNDARY
	12" SEDIMENT BARRIER
	18" SEDIMENT BARRIER
	24" SEDIMENT BARRIER
	32" SEDIMENT BARRIER
	TOP OF BANK
	PERMANENT STREAM IMPACT
	TEMPORARY STREAM IMPACT

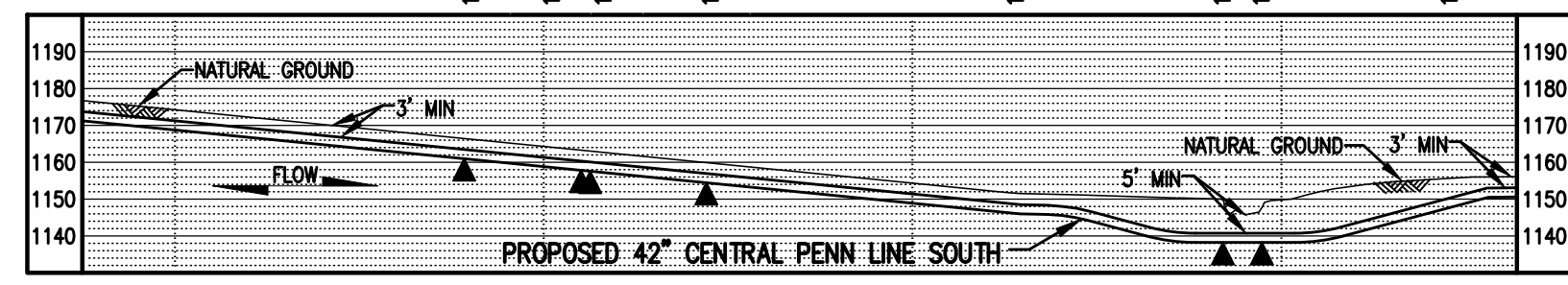
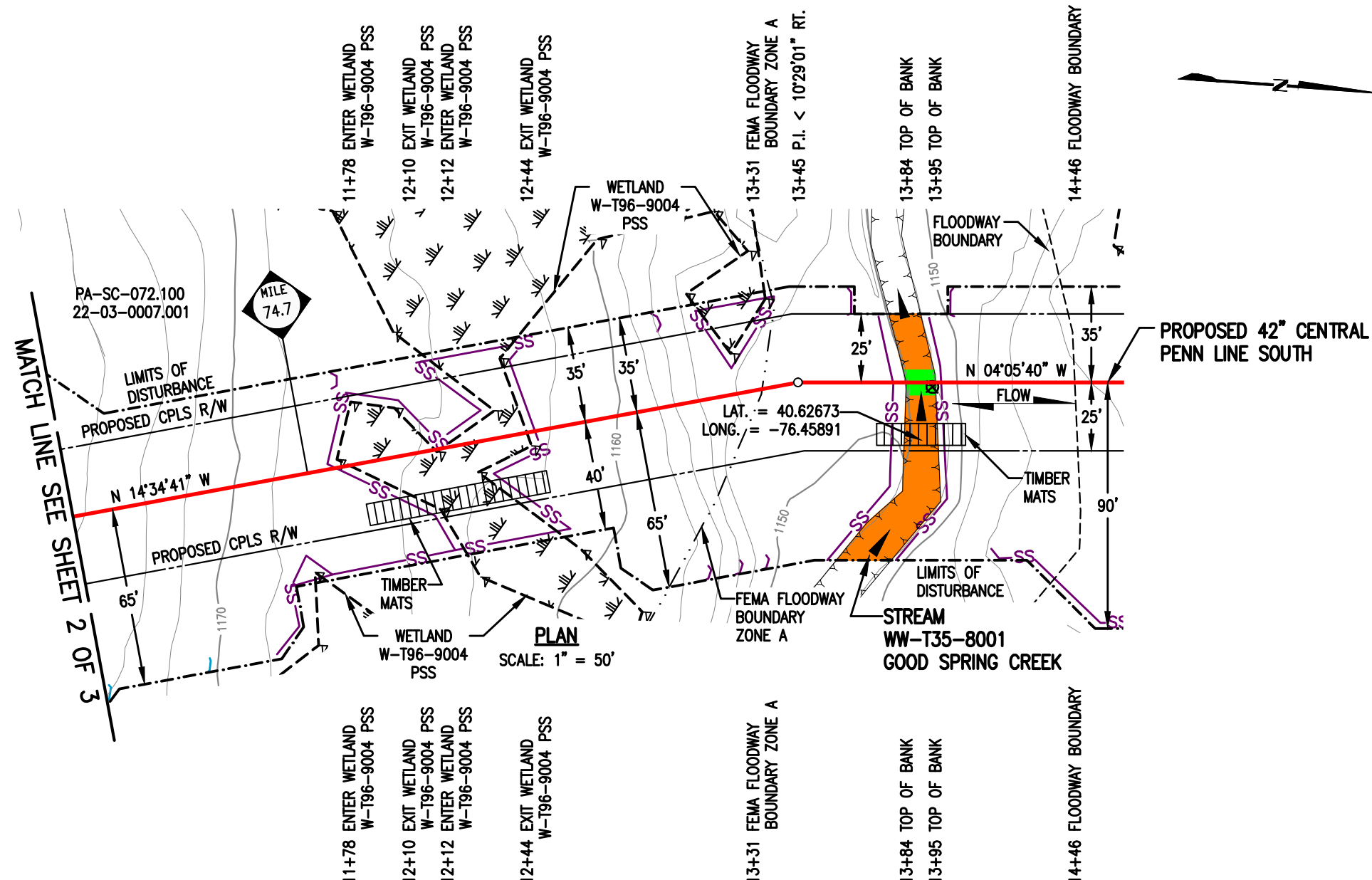


DRAWING NO.		REFERENCE TITLE				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	11/01/16	DLK	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH

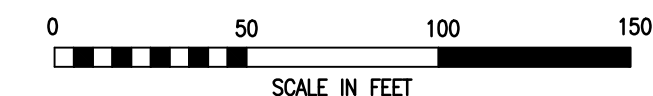
TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
STREAM CROSSING WW-T35-8001
M.P. 74.74
PORTER TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA

DRAWN BY: CM	DATE: 06/29/16	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: ML	DATE: 06/29/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 06/29/16	DRAWING NUMBER: 24-1600-70-09-A/74.74-01	SHEET 2
WO: 1161503		10/3/2016 11:01:01	OF 3

STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 3



PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 50' VERTICAL



LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	EXISTING PIPELINES		PHOTO DATA POINT		12" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		18" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		24" SEDIMENT BARRIER
	PROPOSED CPLS R/W		WELL POINT		32" SEDIMENT BARRIER
	PROPERTY LINE		TRENCH PLUG		TOP OF BANK
	FOREIGN PIPELINE		WATERBODY		PERMANENT STREAM IMPACT
	WETLAND AREA		TREE LINE		TEMPORARY STREAM IMPACT
	STREAM FLOW		FLOODWAY BOUNDARY		
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY		
	EXISTING FENCE				

DRAWING NO.		REFERENCE TITLE	
NO.	DATE	BY	REVISION DESCRIPTION
0	08/04/15	AT	ISSUED FOR PADEP 105 PERMIT
1	02/03/16	TL	ISSUED FOR INTERNAL USE
2	11/01/16	DLK	ISSUED FOR PADEP SUBMITTAL #2

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
STREAM CROSSING WW-T35-8001
© M.P. 74.74
PORTER TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA

W.O. NO.	CHK.	APP.	DRAWN BY: CM	DATE: 02/06/15	ISSUED FOR BID:	SCALE: 1" = 50'
1161503	CLR	MJH	CHECKED BY: ML	DATE: 04/10/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
1161503	CLR	MJH	APPROVED BY: MJH	DATE: 05/19/15	DRAWING NUMBER: 24-1600-70-09-A/74.74-01	SHEET 3
1161503	CLR	MJH	IWO: 1161503		10/3/2016 11:03:43 AM	OF 3



October 28, 2016

Hegins Township
Floodplain Administrator
421 South Gap Street
Valley View, PA 17983

Re: Atlantic Sunrise Project
Central Penn Line South
Hegins Township, Schuylkill County
Floodplain Management Analysis

Dear Sir or Madam:

Transcontinental Gas Pipeline Company, LLC (Transco) proposes to construct and operate the Atlantic Sunrise Project (Project) to provide 1.7 million dekatherms per day of incremental firm transportation of natural gas from the Marcellus Shale production areas in northern Pennsylvania (PA) to its existing market areas, extending to as far south as the Station 85 Pooling Point in Choctaw County, Alabama. The Project includes modifications to the existing Transco Mainline System to reverse the direction of flow, enabling new north-to-south capabilities (bi-directional flow) to transport this new source of natural gas to existing markets. The Project consists of the following primary components within PA:

- Installing greenfield pipeline facilities of approximately 58.6 miles of new 30-inch-diameter pipe from Susquehanna County, PA to Columbia County, PA.
- Installing greenfield pipeline facilities of approximately 127.3 miles of 42-inch-diameter pipe from Columbia County, PA to Lancaster County, PA.;
- Installing two pipeline loops (pipeline laid parallel to existing facilities):
 - 8.56 miles of 42-inch pipeline loop located in Lycoming County, PA known as the Unity Loop;
 - 2.50 miles of 36-inch pipeline in Clinton County, PA, known as the Chapman Loop;
- Constructing two new compressor stations, one in Wyoming County and one in Columbia County, PA;
- Additional ancillary facilities, such as mainline valves, cathodic protection, communication facilities, and internal inspection device (e.g., pig) launchers and receivers;
- Two new meter stations and three new regulator stations with interconnecting piping;
- Additional compression and related modifications to one existing compressor station; and,
- Modification to an existing meter station for use of shared facilities with a new meter station.

Transco's consultants, BL Companies and TRC Solutions (TRC), have completed an analysis of potential impacts on FEMA delineated floodways from the Project in accordance with 25 Pa. Code § 105.13. The analysis for Hegins Township is provided below for your review and comment.

Hegins Township
October 28, 2016
BL Project No. 14C4909
Page 1 of 3

**ATLANTIC SUNRISE PROJECT
FEMA FLOODPLAIN CROSSINGS
HEGINS TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA**

Description of Impact	Structure Type and Dimensions	Resource ID	Resource Name	Chapter 93 Classification, Wetland Classification (EV or Other), or Floodway Type	Floodway Fill (cu. yds.)	Impact area (acres)		Latitude	Longitude
						Temporary	Permanent		
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T20-8001	Floodway to Pine Creek	FEMA Detailed ^{1,2}	N/A	0.6545	0.0532 ³	40.64681	-76.46069
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T16-9003	Floodway to Deep Creek	FEMA Detailed	N/A	0.3868	0.0427 ³	40.67189	-76.46870

Notes:
¹ Multiple streams are included in these calculations as the floodways overlap.
² Includes both FEMA Detailed and Assumed 50 Foot buffers.
³ Permanent impacts associated with utility pipeline crossings are based on the permanent pipe footprint within the floodplain (pipe trench width x pipe crossing length). No permanent alternation to the floodway contours and elevation is associated with these permanent impacts.

The floodway crossings listed above are depicted on the enclosed plans from the Project’s PADEP Chapter 105 Permit Application.

Please note that construction activities are not expected to create permanent loss of flood storage capacity or hydraulic capacity, as all pre-construction surface elevations will be re-established during restoration. The temporary and permanent impacts noted above are associated with vegetation management and underground pipe installation only, and do not represent a permanent modification of ground elevation or loss of flood storage capacity or hydraulic capacity. No structures are proposed within the FEMA 100-year floodplain, no fill will be placed in the floodways, and no increase in 100-year flood elevation is anticipated as a result of the proposed Project.

On behalf of Transco, BL and TRC respectfully request that Hegins Township review this analysis and, if applicable, provide comments to:

Steve Crescenzo
 TRC Environmental Corporation
 2200 Liberty Avenue, Suite 100
 Pittsburgh, PA 15222

Please do not send comments directly to the PADEP, as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Buser at (717)-651-9850 or via email at abuser@blcompanies.com.

Sincerely,



Alaric J. Buser, PE
 Senior Engineer

Enclosures: Water Obstruction and Encroachment Permit Impact Maps

STREAM DISTURBANCE:

STREAM WW-T20-8001A	ACRE
TEMPORARY STREAM DISTURBANCE	0.0104
PERMANENT STREAM DISTURBANCE	0.0013
TOTAL STREAM DISTURBANCE	0.0117
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	5.83
STREAM LENGTH	139.75

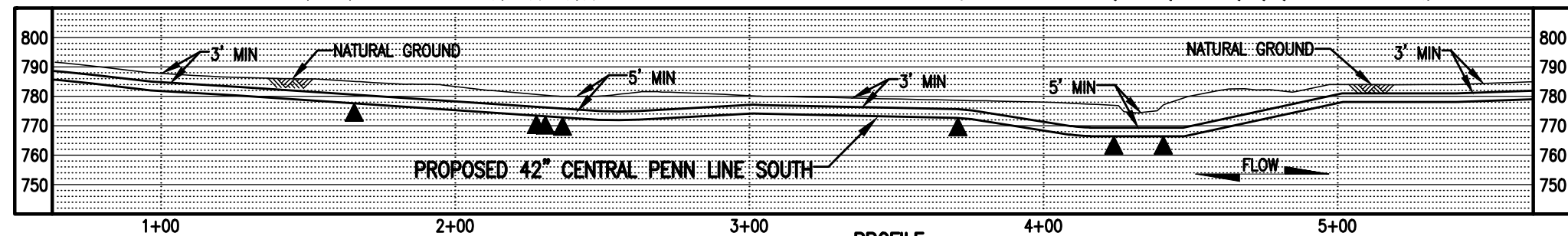
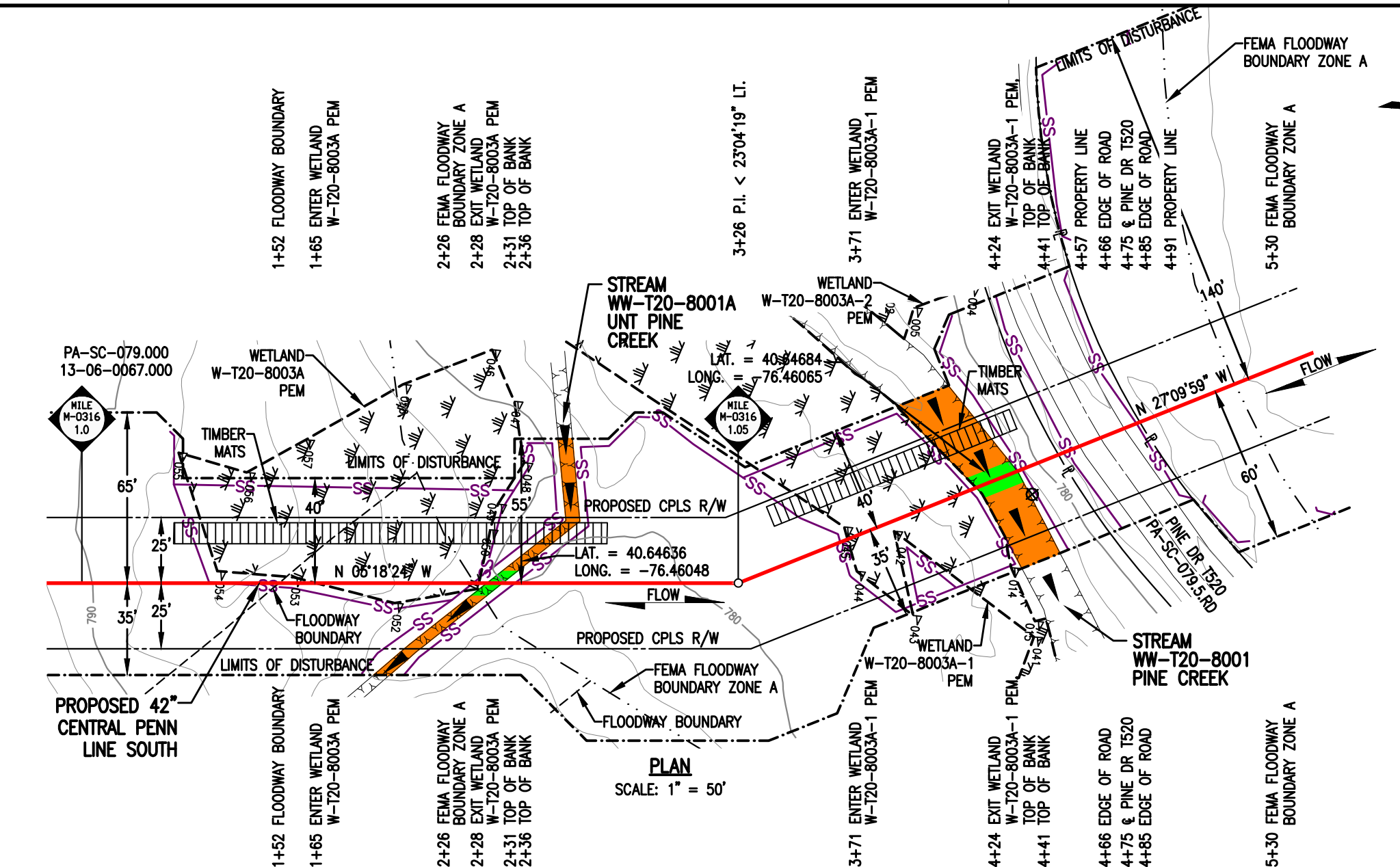
STREAM WW-T20-8001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0264
PERMANENT STREAM DISTURBANCE	0.0038
TOTAL STREAM DISTURBANCE	0.0302
TEMPORARY FLOODWAY DISTURBANCE	0.6545
PERMANENT FLOODWAY DISTURBANCE	0.0562
TOTAL FLOODWAY DISTURBANCE	0.7107
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	16.85
STREAM LENGTH	77.40

GENERAL NOTES:

1. STREAM CROSSINGS METHOD FOR STREAM WW-T20-8001 & WW-T20-8001A SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. STREAM WW-T20-8001 IS LOCATED WITHIN THE 100 YEARS FLOOD PLAIN PER FEMA FLOOD MAP DATA. A PORTION OF STREAM WW-T20-8001A IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP.
3. STATION 1+00 SHOWN IS EQUAL TO M-0316 STATION 53+03 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 154.5' RT. OF M.P. 76.11, ELEV. = 787.68 (NAVD88).



LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	EXISTING PIPELINES		PHOTO DATA POINT		WETLAND DATA POINT
	EXISTING TGPL R/W		UPLAND DATA POINT		WELL POINT
	LIMITS OF DISTURBANCE		TRENCH PLUG		WATERBODY
	PROPOSED CPLS R/W		TREE LINE		12" SEDIMENT BARRIER (SS) 18" SEDIMENT BARRIER (SS) 24" SEDIMENT BARRIER (SS) 32" SEDIMENT BARRIER (SS)
	PROPERTY LINE		FLOODWAY BOUNDARY		PERMANENT STREAM IMPACT (Green) TEMPORARY STREAM IMPACT (Orange)
	FOREIGN PIPELINE		FEMA FLOODWAY BOUNDARY		
	WETLAND AREA				
	STREAM FLOW				
	EXISTING POWER LINE				
	EXISTING FENCE				

DRAWING NO.		REFERENCE TITLE		TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC						
				WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS						
				ATLANTIC SUNRISE PROJECT						
				PROPOSED 42" CENTRAL PENN LINE SOUTH						
				STREAM CROSSINGS WW-T20-8001A &						
				WW-T20-8001 @ M-0316 M.P. 1.03						
				HEGINS TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA						
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: LL	DATE: 01/26/16	ISSUED FOR BID:	SCALE: 1" = 50'
0	02/03/16	LL	ISSUED FOR INTERNAL USE	1161503	CLR	MJH	CHECKED BY: ML	DATE: 01/28/16	ISSUED FOR CONSTRUCTION:	REVISION: 1
1	11/01/16	VC	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	APPROVED BY: MJH	DATE: 02/03/16	DRAWING NUMBER: 24-1600-70-09-A/M-0316-1.05-01	SHEET 1
				DRAWING NUMBER: 24-1600-70-09-A/M-0316-1.05-01		DATE: 02/03/16		ISSUED FOR CONSTRUCTION:		OF 1
				W.O. NO. 1161503		DATE: 02/03/16		DRAWING NUMBER: 24-1600-70-09-A/M-0316-1.05-01		OF 1



October 28, 2016

Pine Grove Township
Floodplain Administrator
175 Oak Grove Road
Pine Grove, PA 17963

Re: Atlantic Sunrise Project
Central Penn Line South
Pine Grove Township, Schuylkill County
Floodplain Management Analysis

Dear Sir or Madam:

Transcontinental Gas Pipeline Company, LLC (Transco) proposes to construct and operate the Atlantic Sunrise Project (Project) to provide 1.7 million dekatherms per day of incremental firm transportation of natural gas from the Marcellus Shale production areas in northern Pennsylvania (PA) to its existing market areas, extending to as far south as the Station 85 Pooling Point in Choctaw County, Alabama. The Project includes modifications to the existing Transco Mainline System to reverse the direction of flow, enabling new north-to-south capabilities (bi-directional flow) to transport this new source of natural gas to existing markets. The Project consists of the following primary components within PA:

- Installing greenfield pipeline facilities of approximately 58.6 miles of new 30-inch-diameter pipe from Susquehanna County, PA to Columbia County, PA.
- Installing greenfield pipeline facilities of approximately 127.3 miles of 42-inch-diameter pipe from Columbia County, PA to Lancaster County, PA.;
- Installing two pipeline loops (pipeline laid parallel to existing facilities):
 - 8.56 miles of 42-inch pipeline loop located in Lycoming County, PA known as the Unity Loop;
 - 2.50 miles of 36-inch pipeline in Clinton County, PA, known as the Chapman Loop;
- Constructing two new compressor stations, one in Wyoming County and one in Columbia County, PA;
- Additional ancillary facilities, such as mainline valves, cathodic protection, communication facilities, and internal inspection device (e.g., pig) launchers and receivers;
- Two new meter stations and three new regulator stations with interconnecting piping;
- Additional compression and related modifications to one existing compressor station; and,
- Modification to an existing meter station for use of shared facilities with a new meter station.

Transco's consultants, BL Companies and TRC Solutions (TRC), have completed an analysis of potential impacts on FEMA delineated floodways from the Project in accordance with 25 Pa. Code § 105.13. The analysis for Pine Grove Township is provided below for your review and comment.

**ATLANTIC SUNRISE PROJECT
FEMA FLOODPLAIN CROSSINGS
PINE GROVE TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA**

Description of Impact	Structure Type and Dimensions	Resource ID	Resource Name	Chapter 93 Classification, Wetland Classification (EV or Other), or Floodway Type	Floodway Fill (cu. yds.)	Impact area (acres)		Latitude	Longitude
						Temporary	Permanent		
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T35-7002	Floodway to Mill Creek	FEMA Detailed ¹	N/A	0.4100	0.0386 ²	40.53687	-76.47601
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T34-7002	Floodway to UNT to Mill Creek	FEMA Detailed	N/A	0.19418	0.0176 ²	40.53791	-76.47381
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T34-8001	Floodway to UNT to Swatara Creek	FEMA Detailed	N/A	0.4628	0.0534 ²	40.54168	-76.46100
Temporary Road Crossing	Equipment Access and E&S Controls	WW-T35-7002	Floodway to UNT to Swatara Creek	FEMA Detailed	N/A	0.0392	0.00	40.53444	-76.47780
Temporary Road Crossing	Equipment Access and E&S Controls	WW-T65-8001	Floodway to UNT to Swatara Creek	FEMA Detailed	N/A	0.0503	0.00	40.53476	-76.46213

Notes:
¹ Multiple streams are included in these calculations as the floodways overlap.
² Permanent impacts associated with utility pipeline crossings are based on the permanent pipe footprint within the floodplain (pipe trench width x pipe crossing length). No permanent alternation to the floodway contours and elevation is associated with these permanent impacts.
³ Floodway fill is associated with a temporary access road. Pre development contours will be restored prior to permit termination.

The floodway crossings listed above are depicted on the enclosed plans from the Project's PADEP Chapter 105 Permit Application.

Please note that construction activities are not expected to create permanent loss of flood storage capacity or hydraulic capacity, as all pre-construction surface elevations will be re-established during restoration. The temporary and permanent impacts noted above are associated with vegetation management and underground pipe installation and temporary access road grading only, and do not represent a permanent modification of ground elevation or loss of flood storage capacity or hydraulic capacity. No structures are proposed within the FEMA 100-year floodplain, no permanent fill will be placed in the floodways, and no increase in 100-year flood elevation is anticipated as a result of the proposed Project.

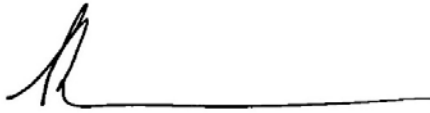
On behalf of Transco, BL and TRC respectfully request that Pine Grove Township review this analysis and, if applicable, provide comments to:

Steve Crescenzo
 TRC Environmental Corporation
 2200 Liberty Avenue, Suite 100
 Pittsburgh, PA 15222

Please do not send comments directly to the PADEP, as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at abusher@blcompanies.com.

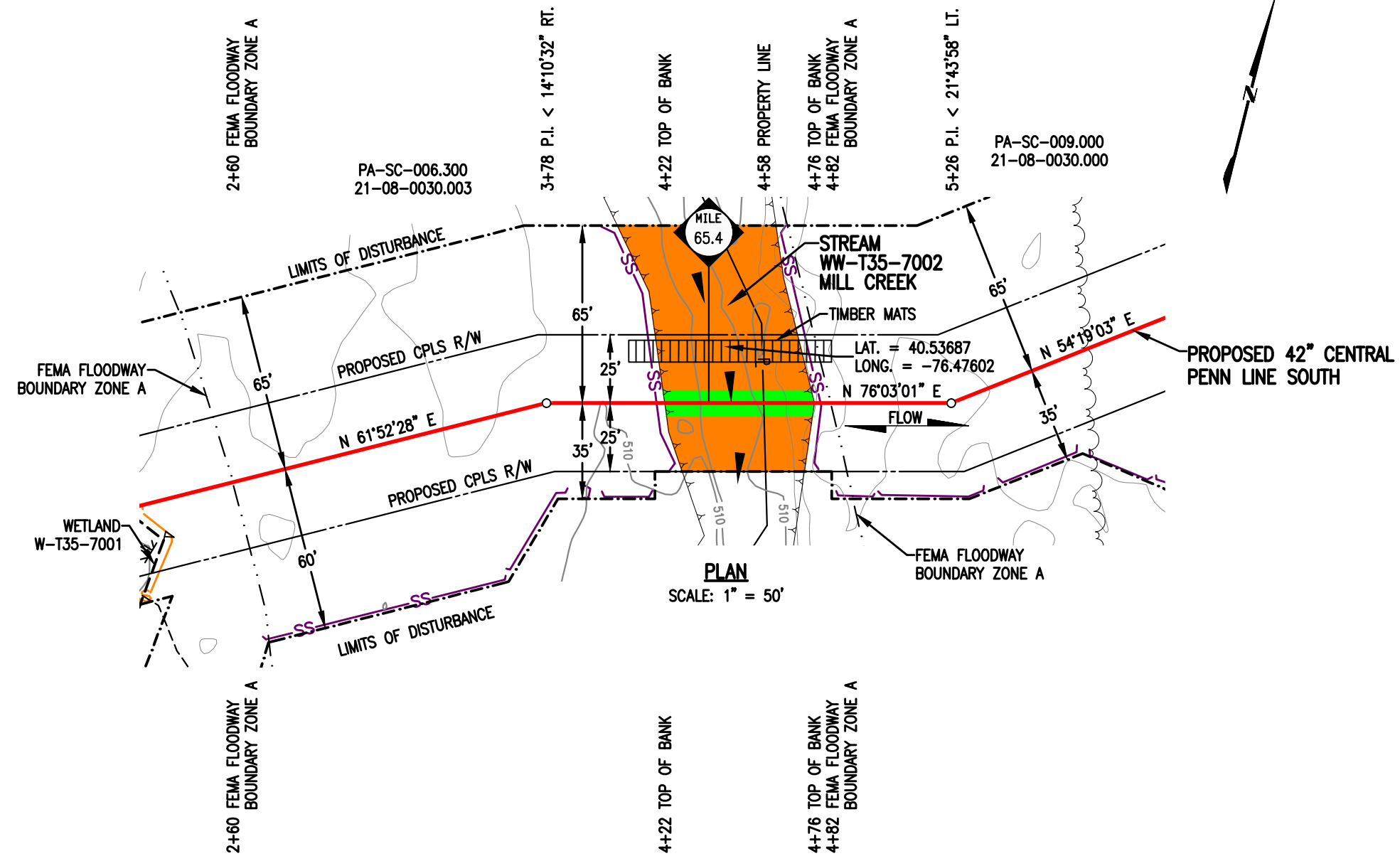
Sincerely,

Pine Grove Township
 October 28, 2016
 BL Project No. 14C4909
 Page 2 of 3



Alaric J. Busher, PE
Senior Engineer

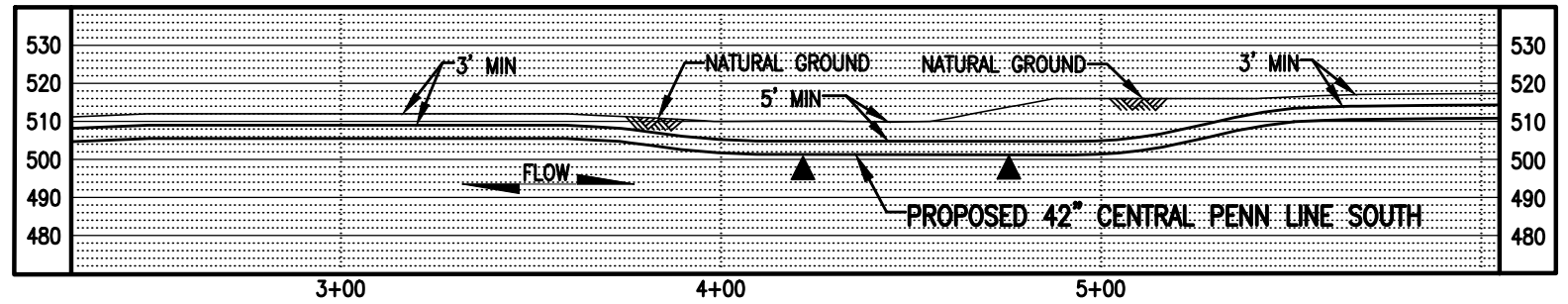
Enclosures: Water Obstruction and Encroachment Permit Impact Maps



STREAM DISTURBANCE:

STREAM WW-T35-7002	ACRE
TEMPORARY STREAM DISTURBANCE	0.0957
PERMANENT STREAM DISTURBANCE	0.0125
TOTAL STREAM DISTURBANCE	0.1082
TEMPORARY FLOODWAY DISTURBANCE	0.4100
PERMANENT FLOODWAY DISTURBANCE	0.0386
TOTAL FLOODWAY DISTURBANCE	0.4486

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	54.75
STREAM LENGTH	94.78

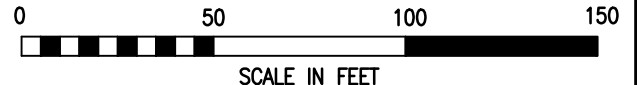


GENERAL NOTES:

1. STREAM CROSSING METHOD FOR WW-T35-7002 SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
3. STATION 4+00 IS EQUAL TO STATION 3452+78 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

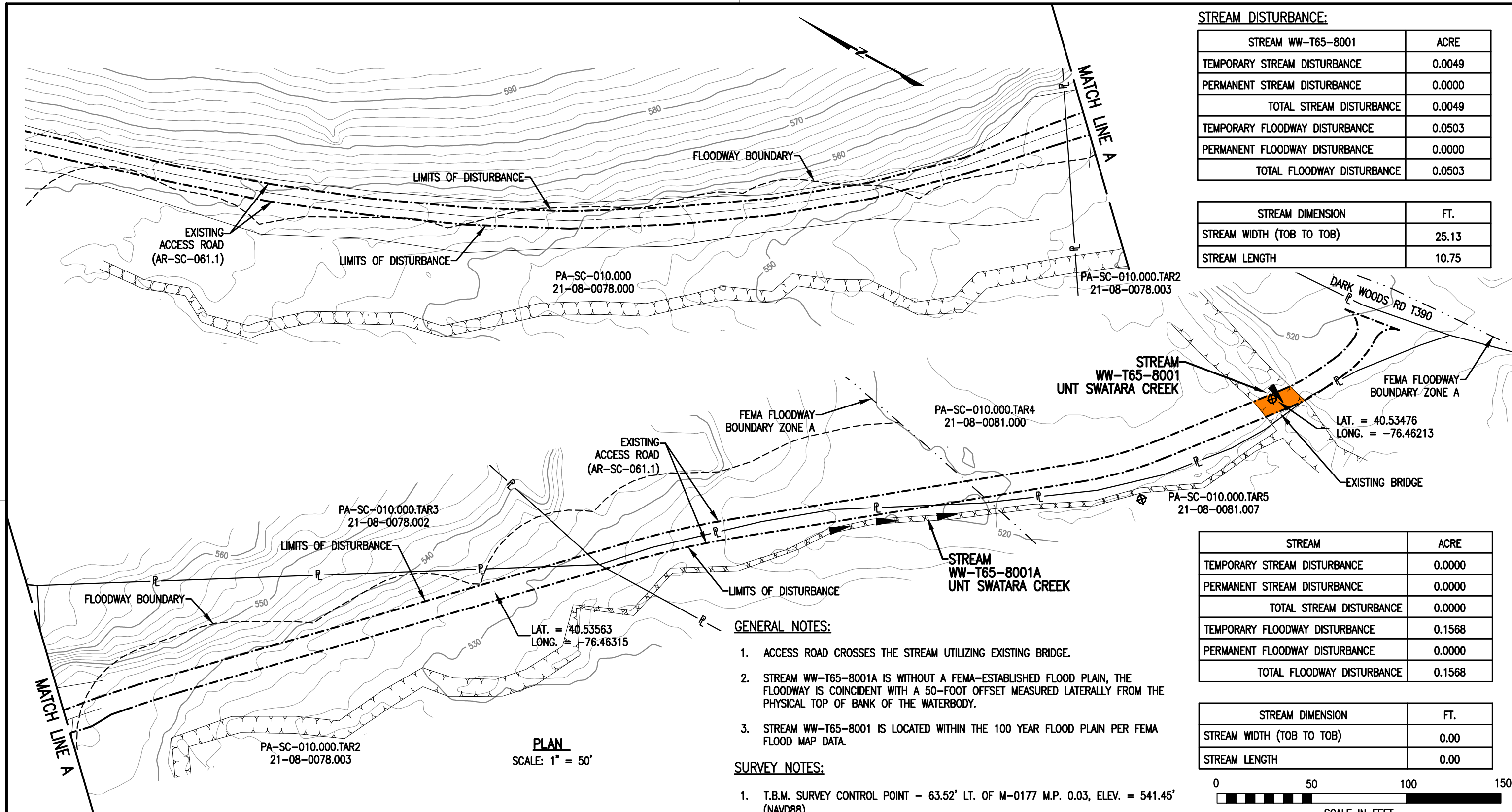
1. T.B.M. SURVEY CONTROL POINT - 74' LT. OF M.P. 65.40, ELEV. = 509.53' (NAVD88).



LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	EXISTING PIPELINES		PHOTO DATA POINT		12" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		18" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		24" SEDIMENT BARRIER
	PROPOSED CPLS R/W		WELL POINT		32" SEDIMENT BARRIER
	PROPERTY LINE		TRENCH PLUG		TOP OF BANK
	FOREIGN PIPELINE		WATERBODY		PERMANENT STREAM IMPACT
	WETLAND AREA		TREE LINE		TEMPORARY STREAM IMPACT
	STREAM FLOW		FLOODWAY BOUNDARY		
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY		
	EXISTING FENCE				

DRAWING NO.		REFERENCE TITLE		TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC						
				WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS						
				ATLANTIC SUNRISE PROJECT						
				PROPOSED 42" CENTRAL PENN LINE SOUTH						
				STREAM CROSSING WW-T35-7002						
				M.P. 65.40						
				PINE GROVE TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA						
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: TL	DATE: 04/08/15	ISSUED FOR BID:	SCALE: 1" = 50'
0	08/04/15	TL	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH	CHECKED BY: CLR	DATE: 04/09/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
1	02/03/16	LL	ISSUED FOR INTERNAL USE	1161503	CLR	MJH	APPROVED BY: MJH	DATE: 05/19/15	DRAWING NUMBER: 24-1600-70-09-A/65.40-01	SHEET 1
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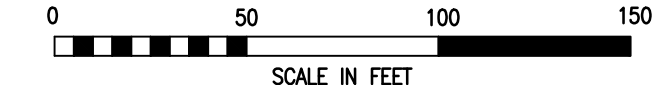
STREAM DISTURBANCE:

STREAM WW-T65-8001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0049
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0049
TEMPORARY FLOODWAY DISTURBANCE	0.0503
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0503

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	25.13
STREAM LENGTH	10.75

STREAM	ACRE
TEMPORARY STREAM DISTURBANCE	0.0000
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0000
TEMPORARY FLOODWAY DISTURBANCE	0.1568
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.1568

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	0.00
STREAM LENGTH	0.00



PLAN
SCALE: 1" = 50'

GENERAL NOTES:

1. ACCESS ROAD CROSSES THE STREAM UTILIZING EXISTING BRIDGE.
2. STREAM WW-T65-8001A IS WITHOUT A FEMA-ESTABLISHED FLOOD PLAIN, THE FLOODWAY IS COINCIDENT WITH A 50-FOOT OFFSET MEASURED LATERALLY FROM THE PHYSICAL TOP OF BANK OF THE WATERBODY.
3. STREAM WW-T65-8001 IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 63.52' LT. OF M-0177 M.P. 0.03, ELEV. = 541.45' (NAVD88).

LEGEND

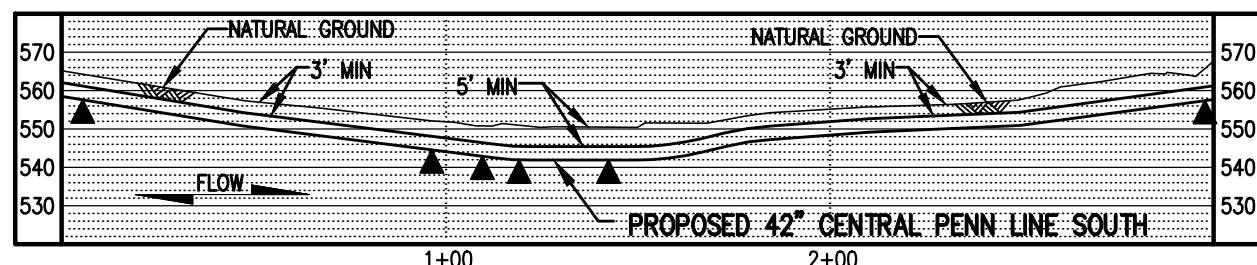
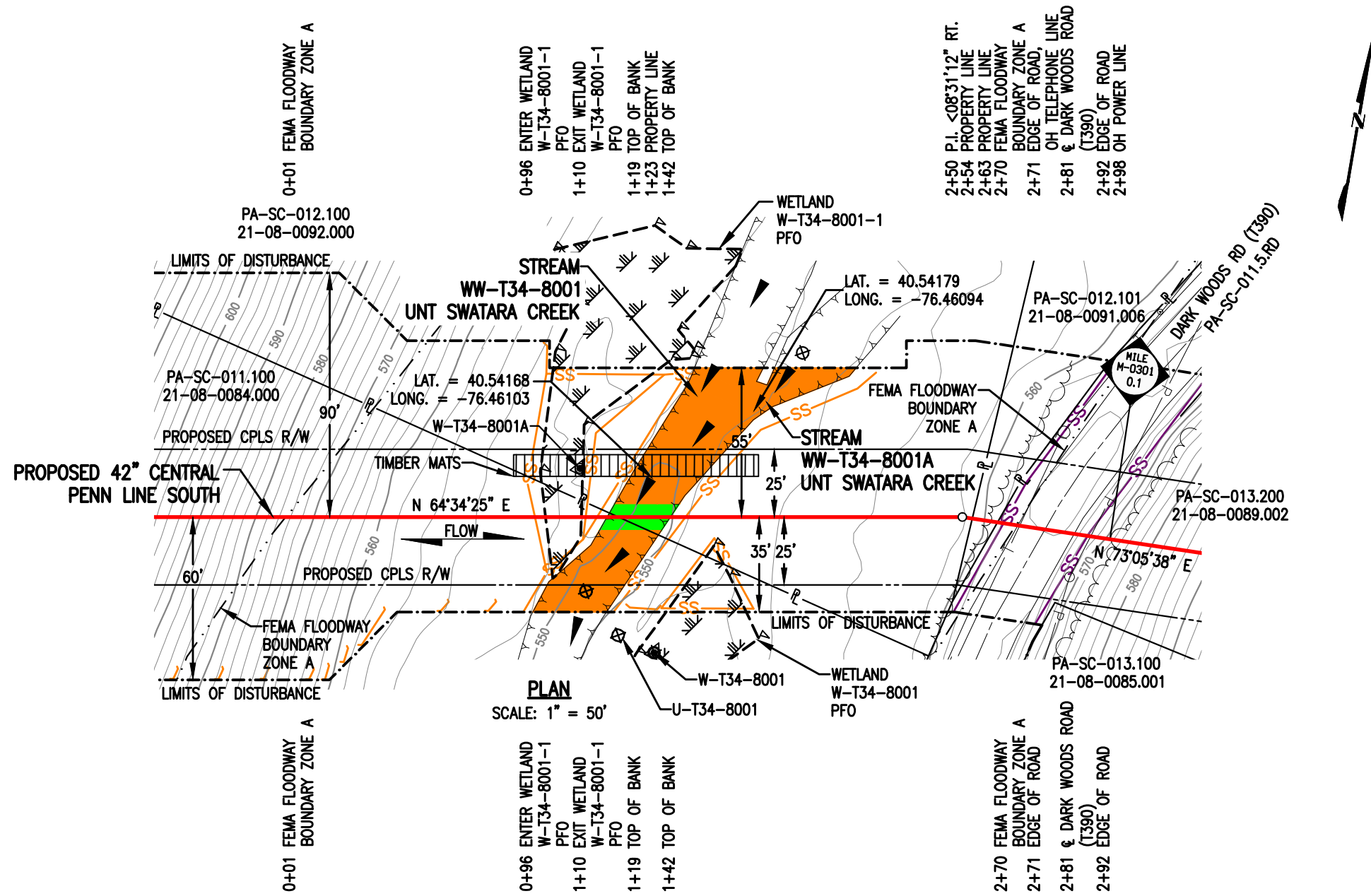
- PROPOSED 42" CENTRAL PENN LINE SOUTH
- EXISTING PIPELINES
- - - EXISTING TGPL R/W
- - - LIMITS OF DISTURBANCE
- - - PROPOSED CPLS R/W
- P - PROPERTY LINE
- - - FOREIGN PIPELINE
- WETLAND AREA
- ▲ STREAM FLOW
- P - EXISTING POWER LINE
- X - EXISTING FENCE

- ▲ WETLAND FLAGS
- ⊗ PHOTO DATA POINT
- ▲ WETLAND DATA POINT
- ▲ UPLAND DATA POINT
- ☼ WELL POINT
- ▲ TRENCH PLUG
- ▲ WATERBODY
- TREE LINE
- - - FLOODWAY BOUNDARY
- - - FEMA FLOODWAY BOUNDARY

WOOD GROUP MUSTANG, INC.

- SS — 12" SEDIMENT BARRIER
- SS — 18" SEDIMENT BARRIER
- SS — 24" SEDIMENT BARRIER
- SS — 32" SEDIMENT BARRIER
- Y — Y — Y — TOP OF BANK
- PERMANENT STREAM IMPACT
- TEMPORARY STREAM IMPACT

DRAWING NO.		REFERENCE TITLE		TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH STREAM CROSSING WW-T65-8001 & WW-T65-8001A © M-0177 M.P. 0.03 PINE GROVE TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA						
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: THL	DATE: 06/24/16	ISSUED FOR BID:	SCALE: 1" = 50'
0	11/01/16	THL	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	CHECKED BY: CLR	DATE: 06/24/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
							APPROVED BY: MJH	DATE: 06/25/16	DRAWING NUMBER: 24-1600-70-09-A/AR-SC-061.1-01 SHEET 1	
							WO: 1161503	10/19/2016		OF 1



STREAM DISTURBANCE:

STREAM WW-T34-8001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0346
PERMANENT STREAM DISTURBANCE	0.0033
TOTAL STREAM DISTURBANCE	0.0379
TEMPORARY FLOODWAY DISTURBANCE	0.4628
PERMANENT FLOODWAY DISTURBANCE	0.0534
TOTAL FLOODWAY DISTURBANCE	0.5162
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	14.39
STREAM LENGTH	103.05

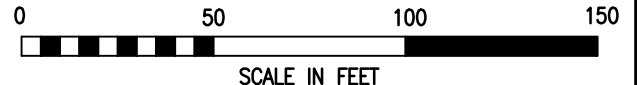
STREAM WW-T34-8001A	ACRE
TEMPORARY STREAM DISTURBANCE	0.0226
PERMANENT STREAM DISTURBANCE	0.0020
TOTAL STREAM DISTURBANCE	0.0246
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	8.90
STREAM LENGTH	112.25

GENERAL NOTES:

1. STREAM CROSSING METHOD FOR WW-T34-8001 & FOR WW-T34-8001A SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
3. STATION 0+00 SHOWN IS EQUAL TO STATION 2+23 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 18.15' RT. OF M-0301 M.P. 0.06, ELEV. = 551.79' (NAVD88).



LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	EXISTING PIPELINES		PHOTO DATA POINT		12" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		18" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		24" SEDIMENT BARRIER
	PROPOSED CPLS R/W		WELL POINT		32" SEDIMENT BARRIER
	PROPERTY LINE		TRENCH PLUG		TOP OF BANK
	FOREIGN PIPELINE		WATERBODY		PERMANENT STREAM IMPACT
	WETLAND AREA		TREE LINE		TEMPORARY STREAM IMPACT
	STREAM FLOW		FLOODWAY BOUNDARY		
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY		
	EXISTING FENCE				

DRAWING NO.	REFERENCE TITLE	TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH STREAM CROSSINGS WW-T34-8001 @ M-0301 M.P. 0.07 & WW-T34-8001A @ M-0301 M.P. 0.08 PINE GROVE TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA								
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: THL	DATE: 01/26/16	ISSUED FOR BID:	SCALE: 1" = 50'
0	02/03/16	THL	ISSUED FOR INTERNAL USE	1161503	CLR	MJH	CHECKED BY: CLR	DATE: 01/28/16	ISSUED FOR CONSTRUCTION:	REVISION: 1
1	11/01/16	JB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	APPROVED BY: MJH	DATE: 02/03/16	DRAWING NUMBER: 24-1600-70-09-A/M-0301-0.07-01	SHEET 1
							W.O. NO.: 1161503		9/29/2016	OF 1



October 28, 2016

Porter Township
Floodplain Administrator
309 West Wiconisco Street
Muir, PA 17957

Re: Atlantic Sunrise Project
Central Penn Line South
Porter Township, Schuylkill County
Floodplain Management Analysis

Dear Sir or Madam:

Transcontinental Gas Pipeline Company, LLC (Transco) proposes to construct and operate the Atlantic Sunrise Project (Project) to provide 1.7 million dekatherms per day of incremental firm transportation of natural gas from the Marcellus Shale production areas in northern Pennsylvania (PA) to its existing market areas, extending to as far south as the Station 85 Pooling Point in Choctaw County, Alabama. The Project includes modifications to the existing Transco Mainline System to reverse the direction of flow, enabling new north-to-south capabilities (bi-directional flow) to transport this new source of natural gas to existing markets. The Project consists of the following primary components within PA:

- Installing greenfield pipeline facilities of approximately 58.6 miles of new 30-inch-diameter pipe from Susquehanna County, PA to Columbia County, PA.
- Installing greenfield pipeline facilities of approximately 127.3 miles of 42-inch-diameter pipe from Columbia County, PA to Lancaster County, PA.;
- Installing two pipeline loops (pipeline laid parallel to existing facilities):
 - 8.56 miles of 42-inch pipeline loop located in Lycoming County, PA known as the Unity Loop;
 - 2.50 miles of 36-inch pipeline in Clinton County, PA, known as the Chapman Loop;
- Constructing two new compressor stations, one in Wyoming County and one in Columbia County, PA;
- Additional ancillary facilities, such as mainline valves, cathodic protection, communication facilities, and internal inspection device (e.g., pig) launchers and receivers;
- Two new meter stations and three new regulator stations with interconnecting piping;
- Additional compression and related modifications to one existing compressor station; and,
- Modification to an existing meter station for use of shared facilities with a new meter station.

Transco's consultants, BL Companies and TRC Solutions (TRC), have completed an analysis of potential impacts on FEMA delineated floodways from the Project in accordance with 25 Pa. Code § 105.13. The analysis for Porter Township is provided below for your review and comment.

Porter Township
October 28, 2016
BL Project No. 14C4909
Page 1 of 2

**ATLANTIC SUNRISE PROJECT
FEMA FLOODPLAIN CROSSINGS
PORTER TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA**

Description of Impact	Structure Type and Dimensions	Resource ID	Resource Name	Chapter 93 Classification, Wetland Classification (EV or Other), or Floodway Type	Floodway Fill (cu. yds.)	Impact area (acres)		Latitude	Longitude
						Temporary	Permanent		
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T35-8001	Floodway to Good Spring Creek	FEMA Detailed ¹	N/A	1.1190	0.1235 ²	40.62673	-76.44122

Notes:
¹ Multiple streams are included in these calculations as the floodways overlap.
² Permanent impacts associated with utility pipeline crossings are based on the permanent pipe footprint within the floodplain (pipe trench width x pipe crossing length). No permanent alternation to the floodway contours and elevation is associated with these permanent impacts.

The floodway crossing listed above is depicted on the enclosed plans from the Project’s PADEP Chapter 105 Permit Application.

Please note that construction activities are not expected to create permanent loss of flood storage capacity or hydraulic capacity, as all pre-construction surface elevations will be re-established during restoration. The temporary and permanent impacts noted above are associated with vegetation management and underground pipe installation only, and do not represent a permanent modification of ground elevation or loss of flood storage capacity or hydraulic capacity. No structures are proposed within the FEMA 100-year floodplain, no fill will be placed in the floodways, and no increase in 100-year flood elevation is anticipated as a result of the proposed Project.

On behalf of Transco, BL and TRC respectfully request that Porter Township review this analysis and, if applicable, provide comments to:

Steve Crescenzo
 TRC Environmental Corporation
 2200 Liberty Avenue, Suite 100
 Pittsburgh, PA 15222

Please do not send comments directly to the PADEP. as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at abusher@blcompanies.com.

Sincerely,



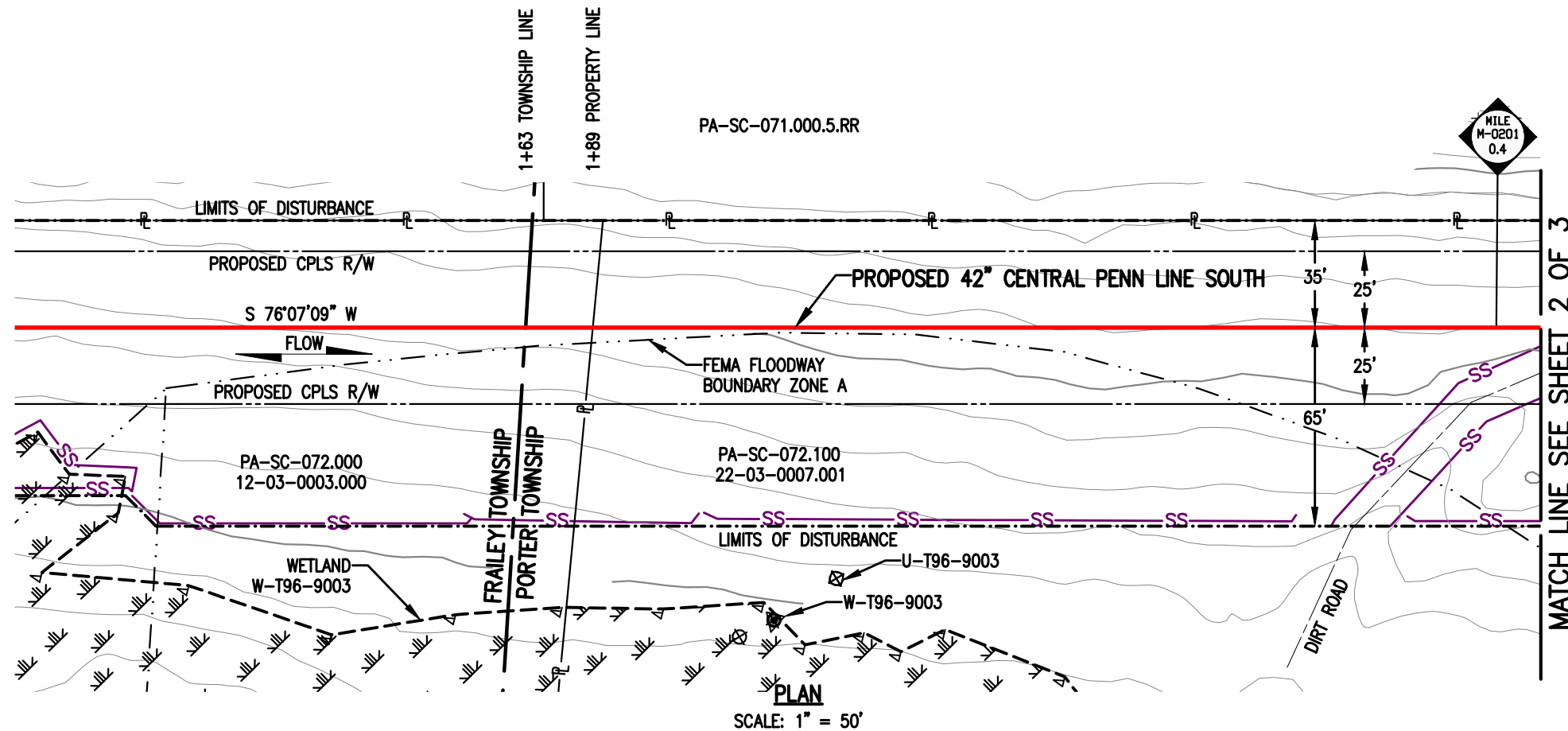
Alaric J. Busher, PE
 Senior Engineer

Enclosures: Water Obstruction and Encroachment Permit Impact Maps

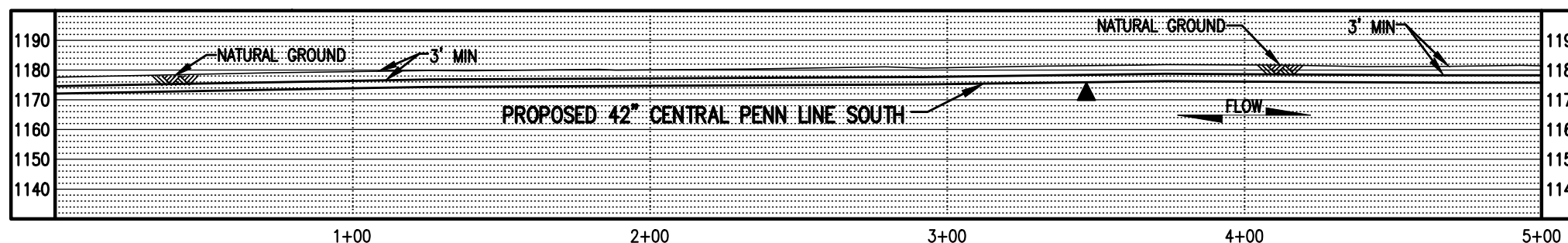
STREAM DISTURBANCE:

STREAM WW-T35-8001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0263
PERMANENT STREAM DISTURBANCE	0.0025
TOTAL STREAM DISTURBANCE	0.0288
TEMPORARY FLOODWAY DISTURBANCE	1.1190
PERMANENT FLOODWAY DISTURBANCE	0.0789
TOTAL FLOODWAY DISTURBANCE	1.1979

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	10.59
STREAM LENGTH	97.39



MATCH LINE SEE SHEET 2 OF 3



GENERAL NOTES:

1. STREAM CROSSING METHOD SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
3. STATION 1+00 SHOWN IS EQUAL TO M-0201 STATION 17+32 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. IRON ROD - 935' LT. OF M.P. 74.82, ELEV. = 1179.96' (NAVD88).

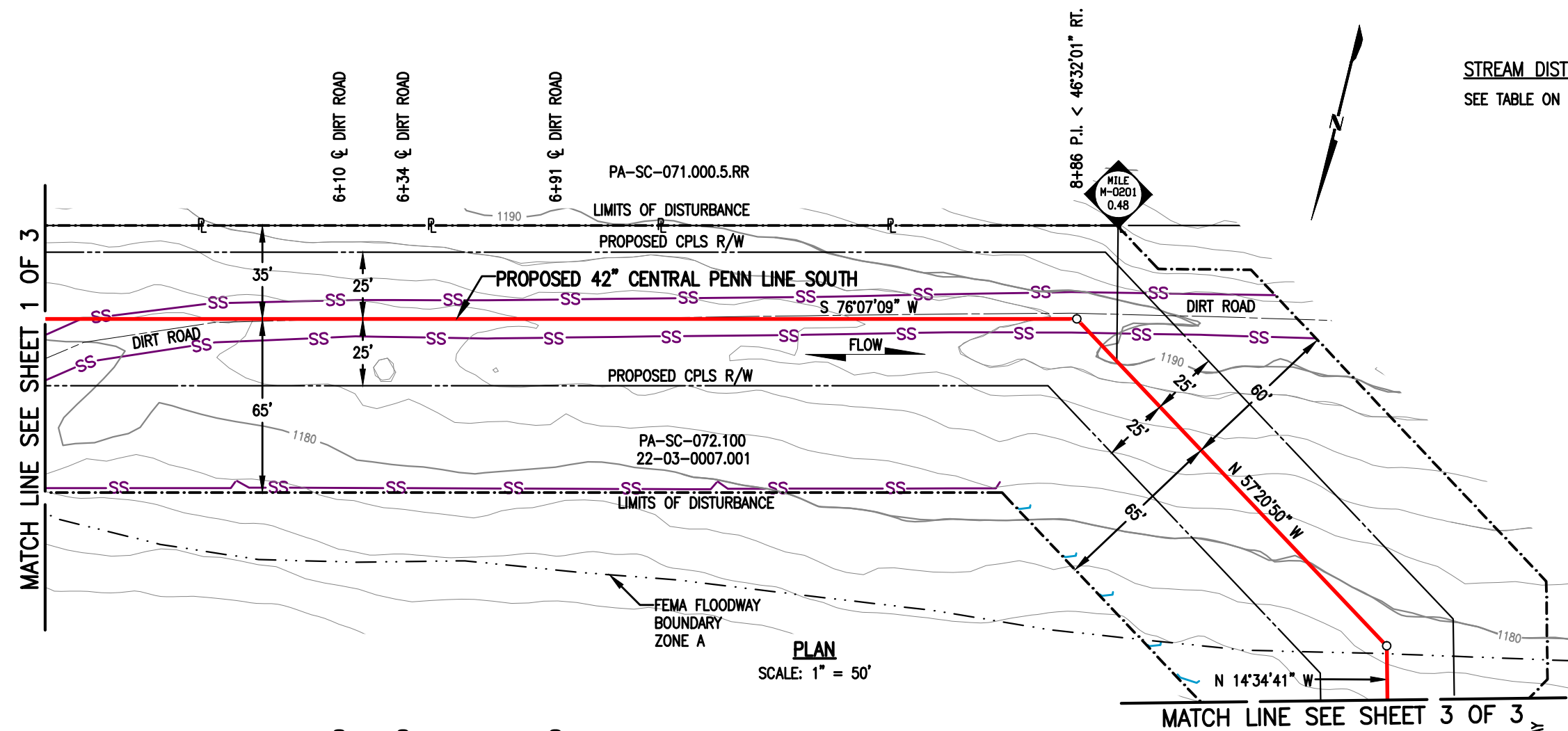


LEGEND

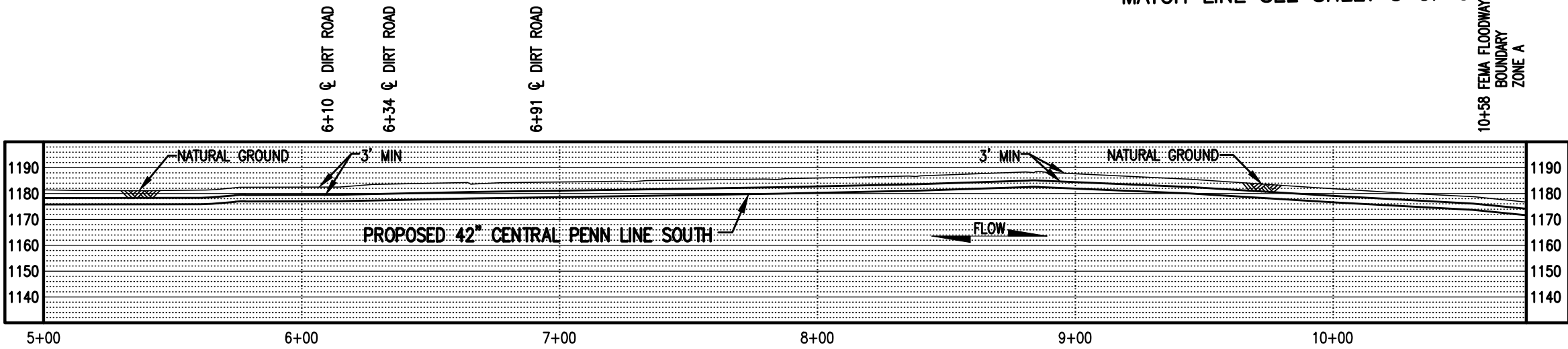
	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	EXISTING PIPELINES		PHOTO DATA POINT		12" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		18" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		24" SEDIMENT BARRIER
	PROPOSED CPLS R/W		WELL POINT		32" SEDIMENT BARRIER
	PROPERTY LINE		TRENCH PLUG		TOP OF BANK
	FOREIGN PIPELINE		WATERBODY		PERMANENT STREAM IMPACT
	WETLAND AREA		TREE LINE		TEMPORARY STREAM IMPACT
	STREAM FLOW		FLOODWAY BOUNDARY		
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY		
	EXISTING FENCE				

DRAWING NO.		REFERENCE TITLE		TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH STREAM CROSSING WW-T35-8001 @ M.P. 74.74 FRAILEY/PORTER TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA			
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: CM CHECKED BY: ML APPROVED BY: MJH W.O.: 1161503
0	11/01/16	DLK	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	DATE: 06/29/16 DATE: 06/29/16 DATE: 06/29/16 ISSUED FOR CONSTRUCTION: DRAWING NUMBER: 24-1600-70-09-A/74.74-01 SCALE: 1" = 50' REVISION: 0 SHEET 1 OF 3

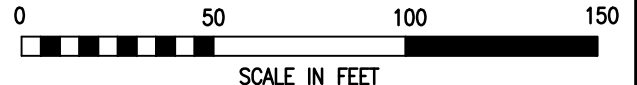
STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 3



PLAN
SCALE: 1" = 50'



PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 50' VERTICAL



LEGEND	
	PROPOSED 42" CENTRAL PENN LINE SOUTH
	EXISTING PIPELINES
	EXISTING TGPL R/W
	LIMITS OF DISTURBANCE
	PROPOSED CPLS R/W
	PROPERTY LINE
	FOREIGN PIPELINE
	WETLAND AREA
	STREAM FLOW
	EXISTING POWER LINE
	EXISTING FENCE
	WETLAND FLAGS
	PHOTO DATA POINT
	WETLAND DATA POINT
	UPLAND DATA POINT
	WELL POINT
	TRENCH PLUG
	WATERBODY
	TREE LINE
	FLOODWAY BOUNDARY
	FEMA FLOODWAY BOUNDARY
	12" SEDIMENT BARRIER
	18" SEDIMENT BARRIER
	24" SEDIMENT BARRIER
	32" SEDIMENT BARRIER
	TOP OF BANK
	PERMANENT STREAM IMPACT
	TEMPORARY STREAM IMPACT

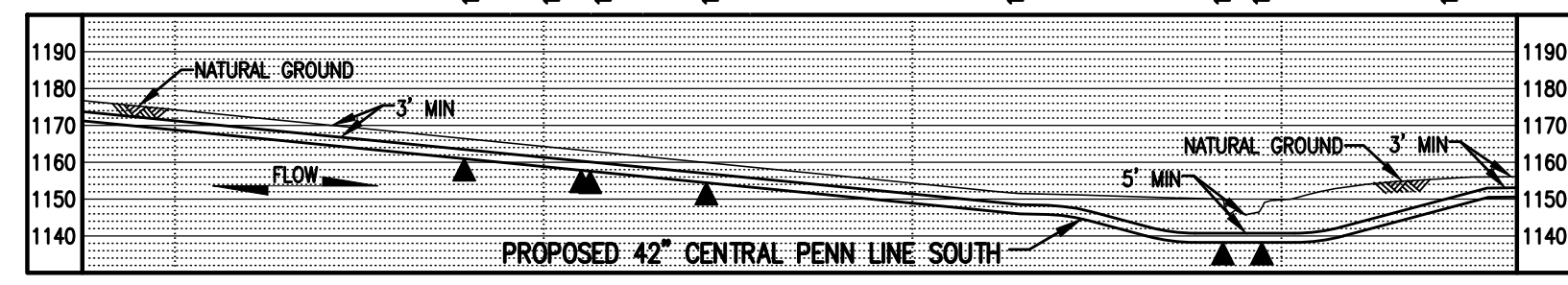
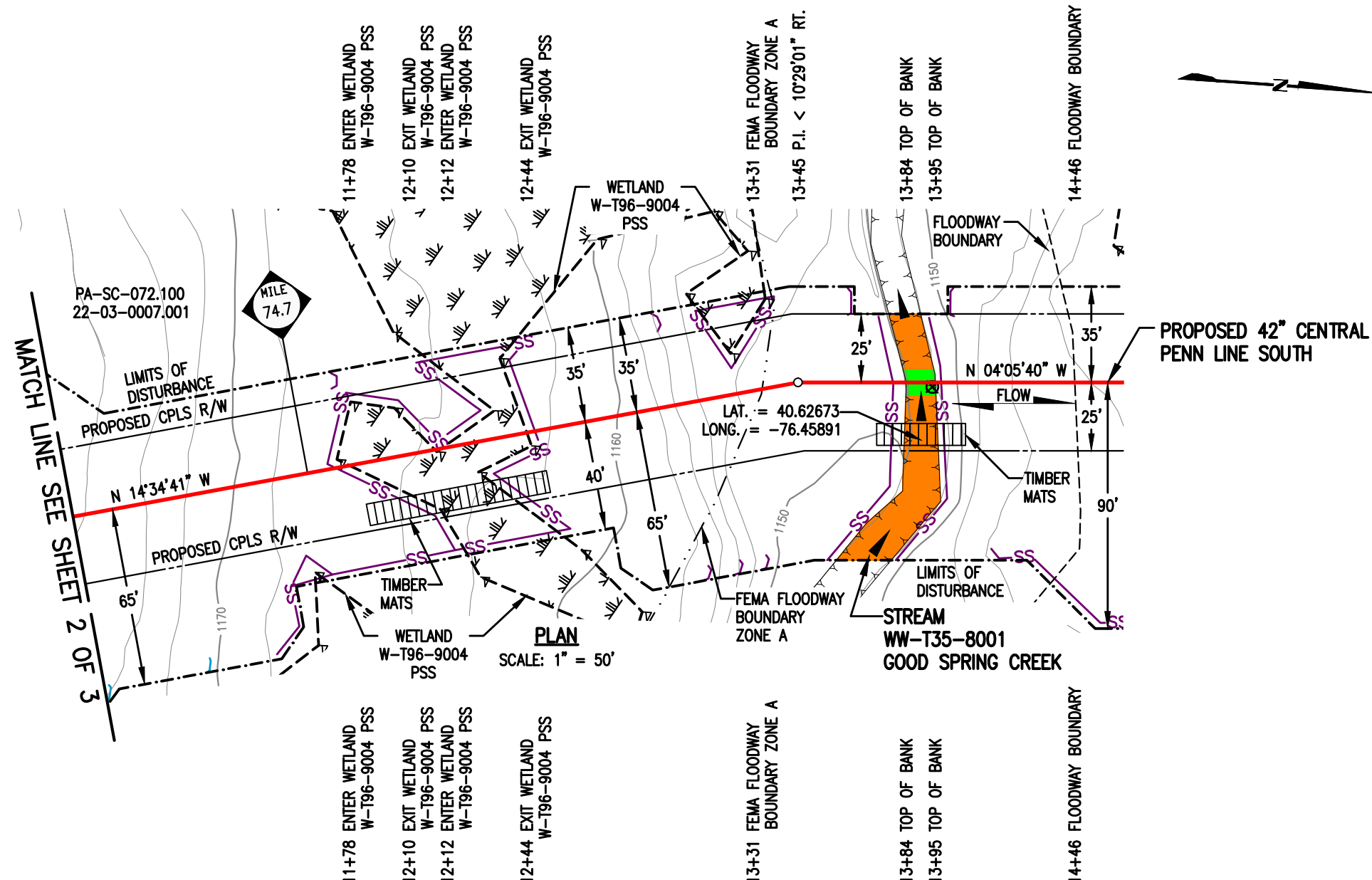


DRAWING NO.		REFERENCE TITLE				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	11/01/16	DLK	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH

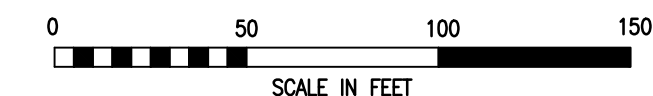
TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
 WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS
 ATLANTIC SUNRISE PROJECT
 PROPOSED 42" CENTRAL PENN LINE SOUTH
 STREAM CROSSING WW-T35-8001
 M.P. 74.74
 PORTER TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA

DRAWN BY: CM	DATE: 06/29/16	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: ML	DATE: 06/29/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 06/29/16	DRAWING NUMBER: 24-1600-70-09-A/74.74-01	SHEET 2
WO: 1161503		10/3/2016 11:01:01	OF 3

STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 3



PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 50' VERTICAL



LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	EXISTING PIPELINES		PHOTO DATA POINT		12" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		18" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		24" SEDIMENT BARRIER
	PROPOSED C/PLS R/W		WELL POINT		32" SEDIMENT BARRIER
	PROPERTY LINE		TRENCH PLUG		TOP OF BANK
	FOREIGN PIPELINE		WATERBODY		PERMANENT STREAM IMPACT
	WETLAND AREA		TREE LINE		TEMPORARY STREAM IMPACT
	STREAM FLOW		FLOODWAY BOUNDARY		
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY		
	EXISTING FENCE				

DRAWING NO.		REFERENCE TITLE	
NO.	DATE	BY	REVISION DESCRIPTION
0	08/04/15	AT	ISSUED FOR PADEP 105 PERMIT
1	02/03/16	TL	ISSUED FOR INTERNAL USE
2	11/01/16	DLK	ISSUED FOR PADEP SUBMITTAL #2

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
STREAM CROSSING WW-T35-8001
© M.P. 74.74
PORTER TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA

W.O. NO.	CHK.	APP.	DRAWN BY: CM	DATE: 02/06/15	ISSUED FOR BID:	SCALE: 1" = 50'
1161503	CLR	MJH	CHECKED BY: ML	DATE: 04/10/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
1161503	CLR	MJH	APPROVED BY: MJH	DATE: 05/19/15	DRAWING NUMBER: 24-1600-70-09-A/74.74-01	SHEET 3
1161503	CLR	MJH	IWO: 1161503		10/3/2016 11:03:43 AM	OF 3



October 28, 2016

Tremont Township
Floodplain Administrator
166 Molleystown Road
Pine Grove, PA 17963

Re: Atlantic Sunrise Project
Central Penn Line South
Tremont Township, Schuylkill County
Floodplain Management Analysis

Dear Sir or Madam:

Transcontinental Gas Pipeline Company, LLC (Transco) proposes to construct and operate the Atlantic Sunrise Project (Project) to provide 1.7 million dekatherms per day of incremental firm transportation of natural gas from the Marcellus Shale production areas in northern Pennsylvania (PA) to its existing market areas, extending to as far south as the Station 85 Pooling Point in Choctaw County, Alabama. The Project includes modifications to the existing Transco Mainline System to reverse the direction of flow, enabling new north-to-south capabilities (bi-directional flow) to transport this new source of natural gas to existing markets. The Project consists of the following primary components within PA:

- Installing greenfield pipeline facilities of approximately 58.6 miles of new 30-inch-diameter pipe from Susquehanna County, PA to Columbia County, PA.
- Installing greenfield pipeline facilities of approximately 127.3 miles of 42-inch-diameter pipe from Columbia County, PA to Lancaster County, PA.;
- Installing two pipeline loops (pipeline laid parallel to existing facilities):
 - 8.56 miles of 42-inch pipeline loop located in Lycoming County, PA known as the Unity Loop;
 - 2.50 miles of 36-inch pipeline in Clinton County, PA, known as the Chapman Loop;
- Constructing two new compressor stations, one in Wyoming County and one in Columbia County, PA;
- Additional ancillary facilities, such as mainline valves, cathodic protection, communication facilities, and internal inspection device (e.g., pig) launchers and receivers;
- Two new meter stations and three new regulator stations with interconnecting piping;
- Additional compression and related modifications to one existing compressor station; and,
- Modification to an existing meter station for use of shared facilities with a new meter station.

Transco's consultants, BL Companies and TRC Solutions (TRC), have completed an analysis of potential impacts on FEMA delineated floodways from the Project in accordance with 25 Pa. Code § 105.13. The analysis for Tremont Township is provided below for your review and comment.

Tremont Township
October 28, 2016
BL Project No. 14C4909
Page 1 of 2

**ATLANTIC SUNRISE PROJECT
FEMA FLOODPLAIN CROSSINGS
TREMONT TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA**

Description of Impact	Structure Type and Dimensions	Resource ID	Resource Name	Chapter 93 Classification, Wetland Classification (EV or Other), or Floodway Type	Floodway Fill (cu. yds.)	Impact area (acres)		Latitude	Longitude
						Temporary	Permanent		
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T31-8001	Floodway to Lorberry Creek	FEMA Detailed ¹	N/A	0.3099	0.0347 ²	40.58899	-76.41957

Notes:
¹ Multiple streams are included in these calculations as the floodways overlap.
² Permanent impacts associated with utility pipeline crossings are based on the permanent pipe footprint within the floodplain (pipe trench width x pipe crossing length). No permanent alternation to the floodway contours and elevation is associated with these permanent impacts.

The floodway crossing listed above is depicted on the enclosed plans from the Project’s PADEP Chapter 105 Permit Application.

Please note that construction activities are not expected to create permanent loss of flood storage capacity or hydraulic capacity, as all pre-construction surface elevations will be re-established during restoration. The temporary and permanent impacts noted above are associated with vegetation management and underground pipe installation only, and do not represent a permanent modification of ground elevation or loss of flood storage capacity or hydraulic capacity. No structures are proposed within the FEMA 100-year floodplain, no fill will be placed in the floodways, and no increase in 100-year flood elevation is anticipated as a result of the proposed Project.

On behalf of Transco, BL and TRC respectfully request that Tremont Township review this analysis and, if applicable, provide comments to:

Steve Crescenzo
 TRC Environmental Corporation
 2200 Liberty Avenue, Suite 100
 Pittsburgh, PA 15222

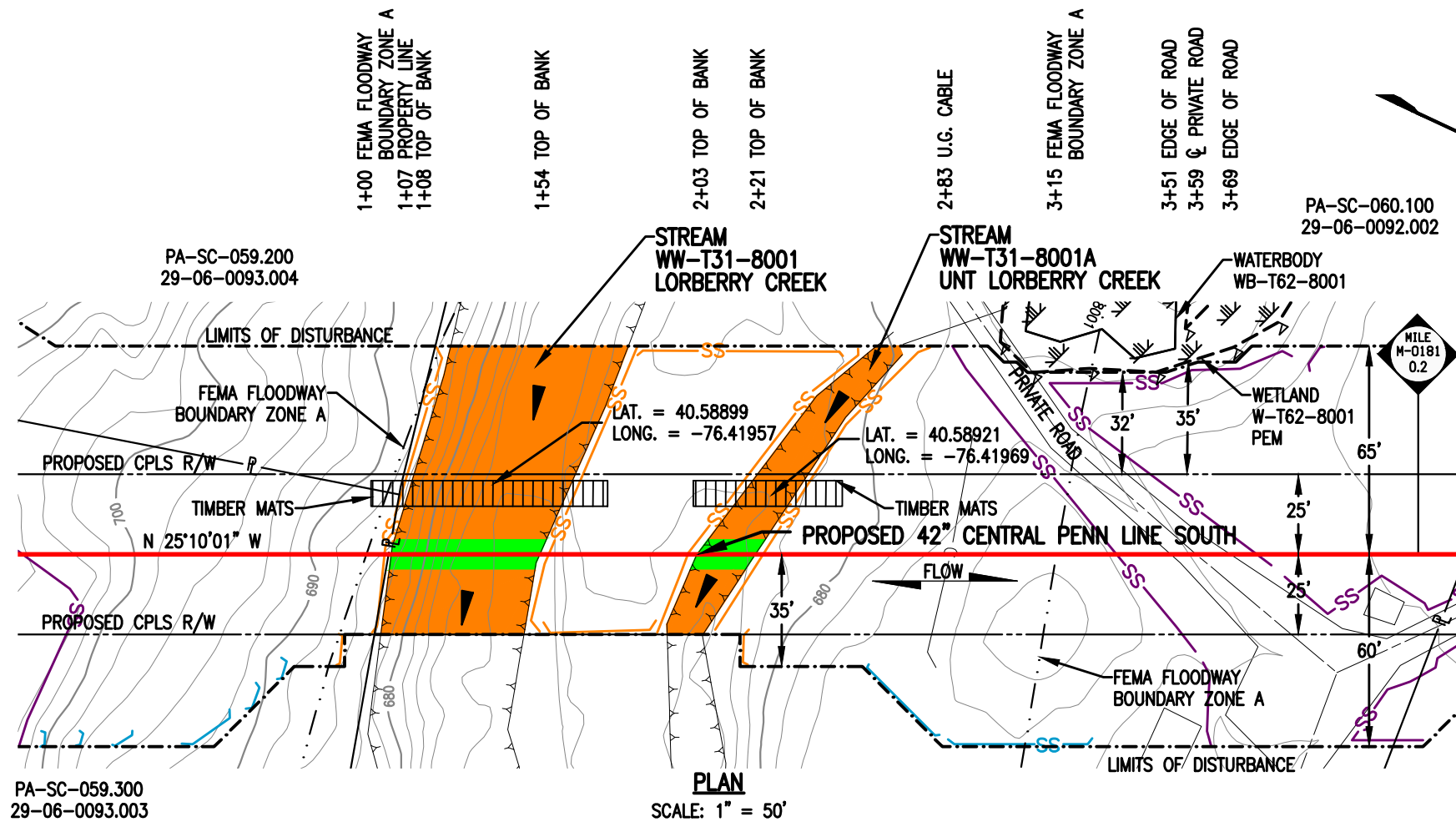
Please do not send comments directly to the PADEP. as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at abusher@blcompanies.com.

Sincerely,



Alaric J. Busher, PE
 Senior Engineer

Enclosures: Water Obstruction and Encroachment Permit Impact Maps



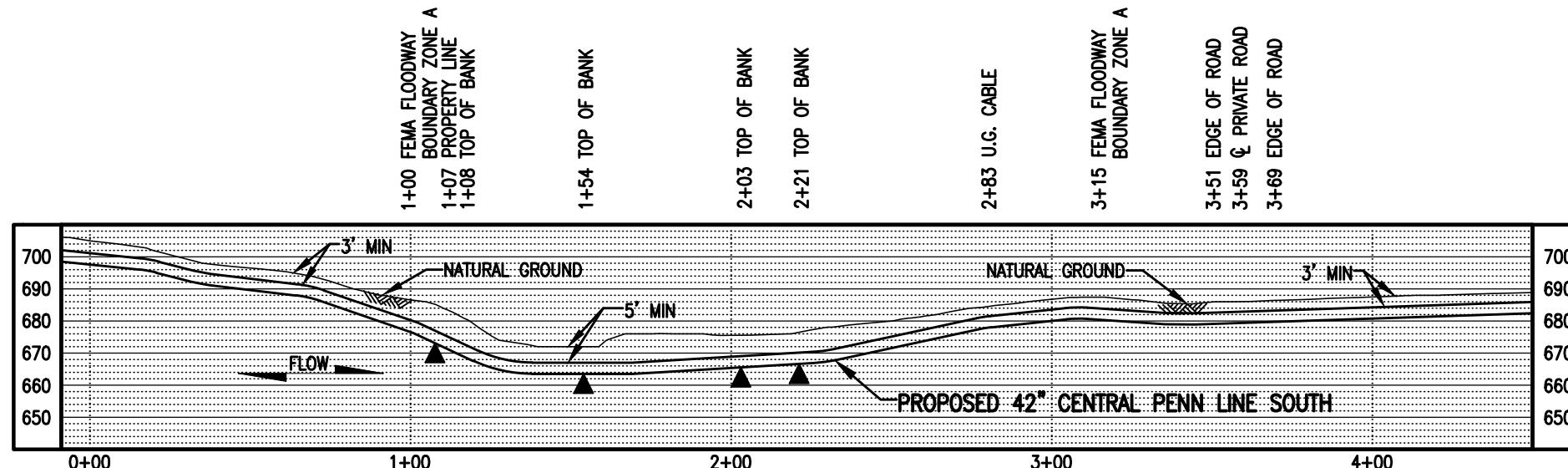
STREAM DISTURBANCE:

STREAM WW-T31-8001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0917
PERMANENT STREAM DISTURBANCE	0.0106
TOTAL STREAM DISTURBANCE	0.1023
TEMPORARY FLOODWAY DISTURBANCE	0.3100
PERMANENT FLOODWAY DISTURBANCE	0.0347
TOTAL FLOODWAY DISTURBANCE	0.3447

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	46.32
STREAM LENGTH	91.73

STREAM WW-T31-8001A	ACRE
TEMPORARY STREAM DISTURBANCE	0.0272
PERMANENT STREAM DISTURBANCE	0.0041
TOTAL STREAM DISTURBANCE	0.0313
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	18.19
STREAM LENGTH	107.18



GENERAL NOTES:

1. STREAM CROSSING METHOD FOR WW-T31-8001 AND WW-T31-8001A SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
3. STATION 1+00 SHOWN IS EQUAL TO M-0181 STATION 07+28 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 32' LT. OF M-0181 M.P. 0.05, ELEV. = 686.16' (NAVD88).



LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLS R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND AREA		TREE LINE
	STREAM FLOW		FLOODWAY BOUNDARY
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY
	EXISTING FENCE		PERMANENT STREAM IMPACT
			TEMPORARY STREAM IMPACT

WOOD GROUP MUSTANG, INC.

12" SEDIMENT BARRIER || | 18" SEDIMENT BARRIER |
	24" SEDIMENT BARRIER
	32" SEDIMENT BARRIER
	TOP OF BANK

DRAWING NO.		REFERENCE TITLE								
TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH STREAM CROSSINGS WW-T31-8001 @ M-0181 M.P. 0.14 & WW-T31-8001A @ M-0181 M.P. 0.16 TREMONT TOWNSHIP, SCHUYLKILL COUNTY, PENNSYLVANIA										
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: TL	DATE: 04/02/15	ISSUED FOR BID:	SCALE: 1" = 50'
0	08/04/15	TL	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH	CHECKED BY: DS	DATE: 05/15/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
1	02/03/16	SY	ISSUED FOR INTERNAL USE	1161503	CLR	MJH	APPROVED BY: MJH	DATE: 05/19/15	DRAWING NUMBER: 24-1600-70-09-A/M-0181-0.15-01	SHEET 1
2	11/01/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	IWO: 1161503	DATE: 10/5/2016	o1traha	OF 1