



October 26, 2016

Clinton Township  
Floodplain Administrator  
P.O. Box 256, Creek Road  
Factoryville, PA 18419

Re: Atlantic Sunrise Project  
Central Penn Line North  
Clinton Township, Wyoming 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 Clinton Township is provided below for your review and comment.

**ATLANTIC SUNRISE PROJECT  
FEMA FLOODPLAIN CROSSINGS  
CLINTON TOWNSHIP, WYOMING 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-T19-20005	Floodway to Trout Brook	FEMA Detailed	N/A	0.0993	0.0092	41.55036	-75.82332
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T14-20003	Floodway to UNT South Branch Tunkhannock Creek	FEMA Detailed	N/A	1.1702	0.0571	41.56393	-75.80648

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 Clinton Township review this analysis and, if applicable, provide comments to:

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

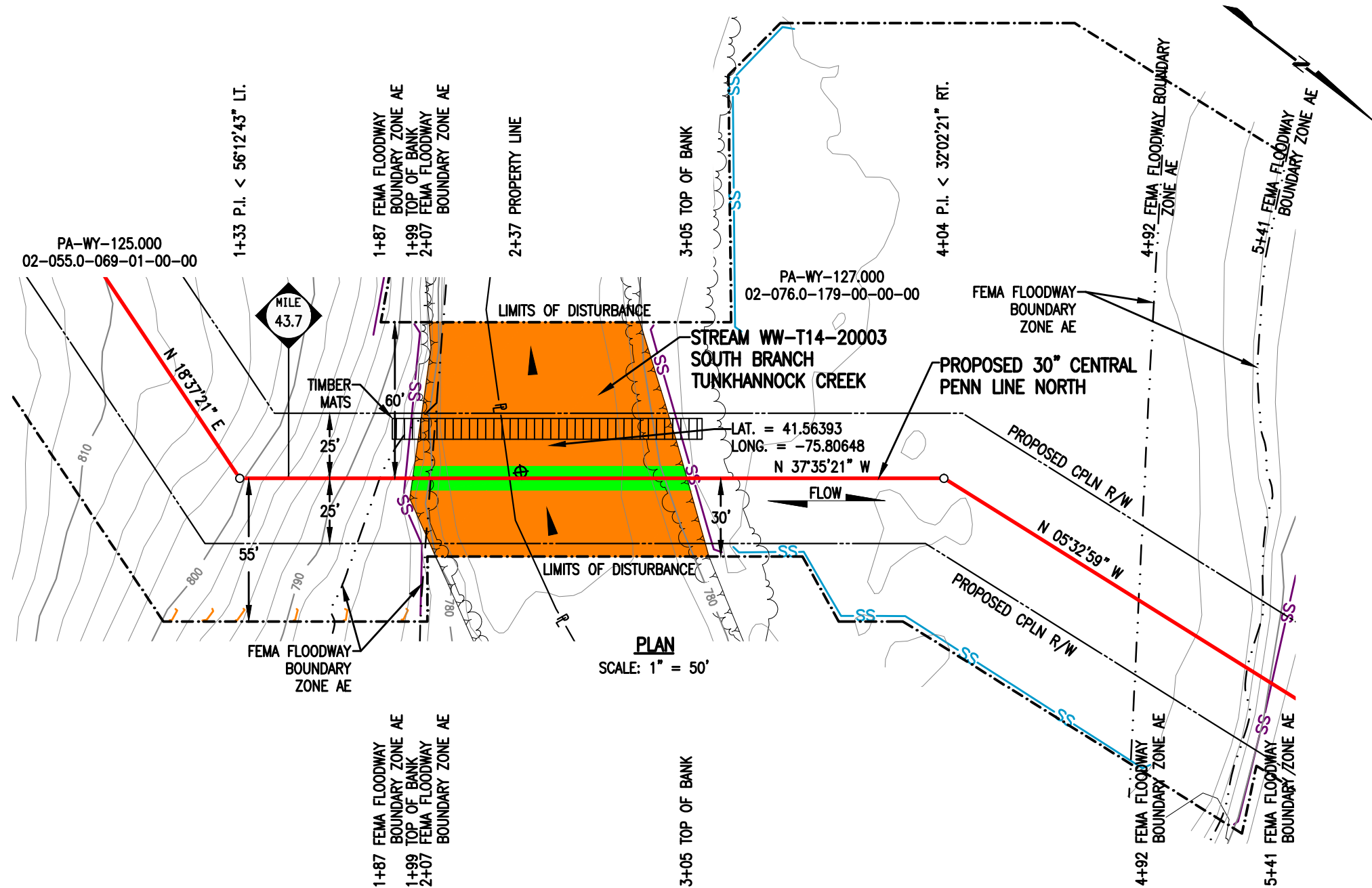
**Please do not send comments directly to the PADEP**, as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at [abusher@blcompanies.com](mailto:abusher@blcompanies.com).

Sincerely,



Alaric J. Busher, PE  
Senior Engineer

Enclosures: Water Obstruction and Encroachment Permit Impact Maps



**PLAN**  
SCALE: 1" = 50'

**STREAM DISTURBANCE:**

STREAM WW-T14-20003	ACRE
TEMPORARY STREAM DISTURBANCE	0.1768
PERMANENT STREAM DISTURBANCE	0.0242
<b>TOTAL STREAM DISTURBANCE</b>	<b>0.2010</b>
TEMPORARY FLOODWAY DISTURBANCE	1.1702
PERMANENT FLOODWAY DISTURBANCE	0.0571
<b>TOTAL FLOODWAY DISTURBANCE</b>	<b>1.2273</b>

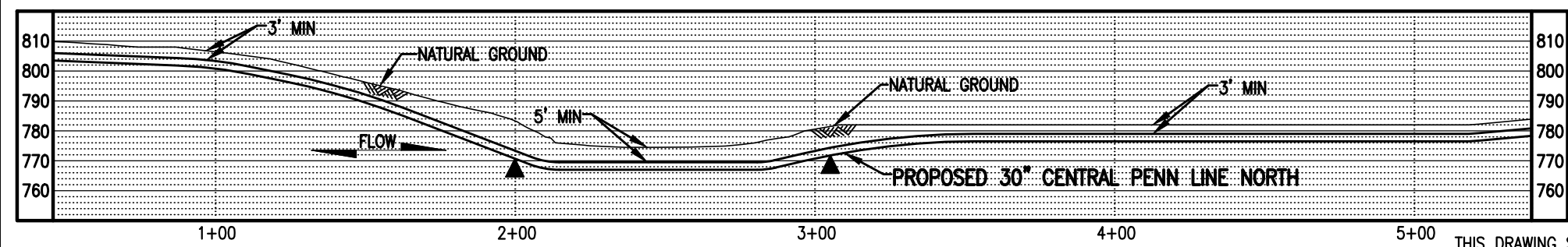
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	105.38
STREAM LENGTH	94.82

**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 2+00 SHOWN IS EQUAL TO STATION 2307+84 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

1. T.B.M. SURVEY CONTROL POINT - 50' RT. OF M.P. 43.72, ELEV. = 775.93' (NAVD88).



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



**LEGEND**

	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLN 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		12" SEDIMENT BARRIER
			18" SEDIMENT BARRIER
			24" SEDIMENT BARRIER
			32" SEDIMENT BARRIER
			TOP OF BANK
			PERMANENT STREAM IMPACT
			TEMPORARY STREAM IMPACT

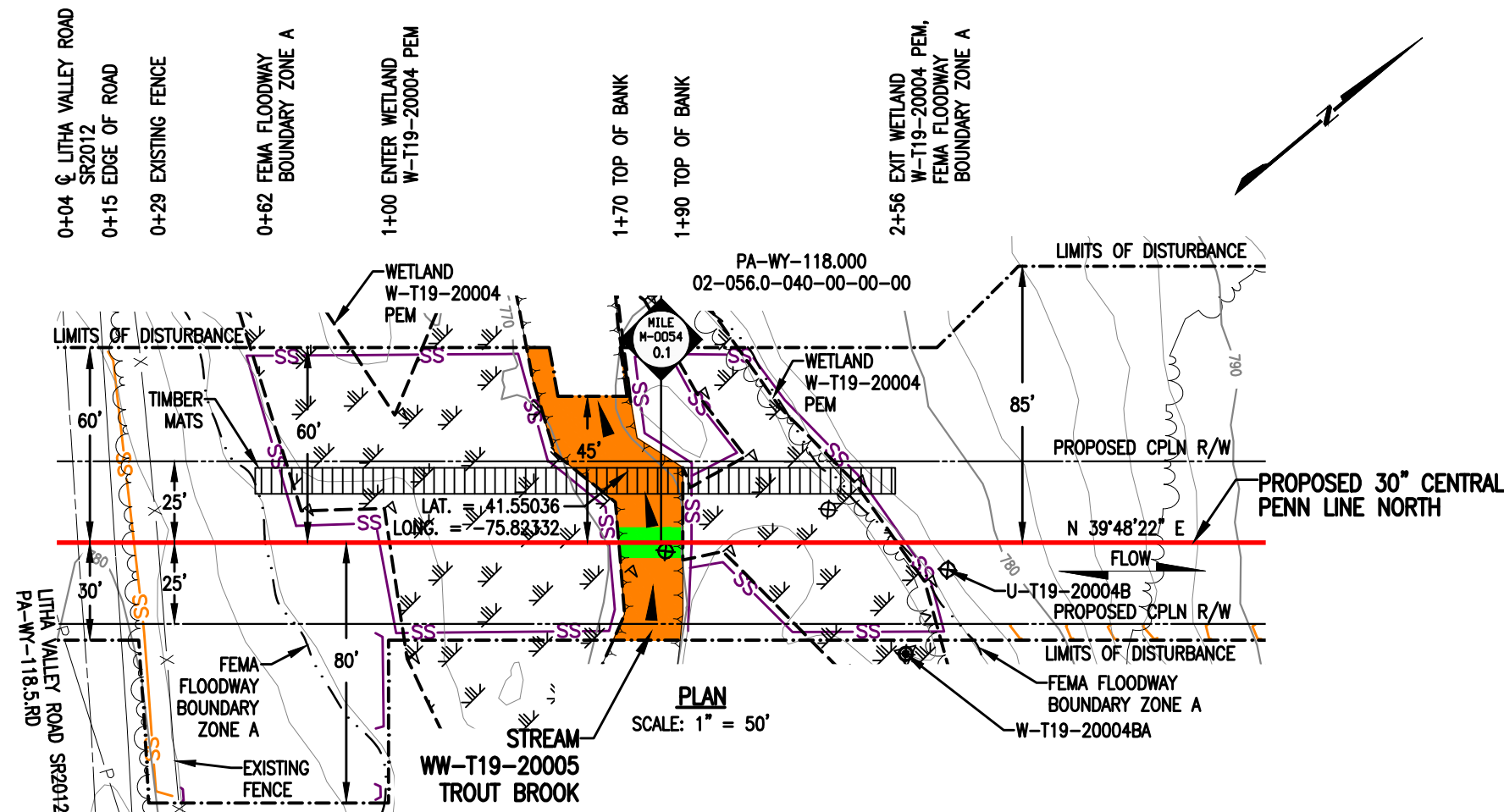


DRAWING NO.	REFERENCE TITLE					
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	08/11/15	AT	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH
1	10/13/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH

**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
**WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS**  
**ATLANTIC SUNRISE PROJECT**  
**PROPOSED 30" CENTRAL PENN LINE NORTH**  
**STREAM CROSSING WW-T14-20003**  
**© M.P. 43.72**  
**CLINTON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA**

**Williams**

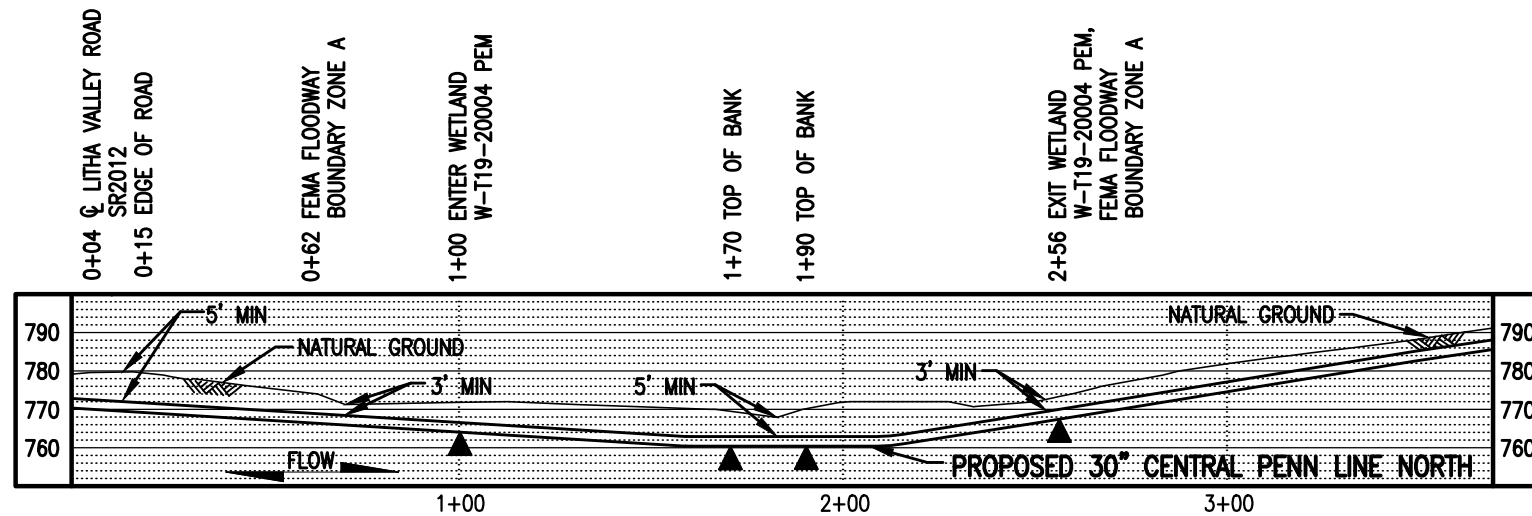
DRAWN BY: LL	DATE: 12/27/14	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: ML	DATE: 03/07/15	ISSUED FOR CONSTRUCTION:	REVISION: 1
APPROVED BY: MJH	DATE: 04/17/15	DRAWING NUMBER: 24-1601-70-09-A/43.71-02	SHEET 1
W.O. NUMBER: 1161481		9/20/2016	OF 1



**STREAM DISTURBANCE:**

STREAM WW-T19-20005	ACRE
TEMPORARY STREAM DISTURBANCE	0.0382
PERMANENT STREAM DISTURBANCE	0.0045
TOTAL STREAM DISTURBANCE	0.0427
TEMPORARY FLOODWAY DISTURBANCE	0.0993
PERMANENT FLOODWAY DISTURBANCE	0.0092
TOTAL FLOODWAY DISTURBANCE	0.1085

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	19.71
STREAM LENGTH	85.85



**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-0054 STATION 4+44 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

1. T.B.M. SURVEY CONTROL POINT - 6' RT. OF M-0054 M.P. 0.07, ELEV. = 779.17' (NAVD88).

THIS DRAWING SUPERCEDES 24-1601-70-09-A/M-0054-0.10-01



**LEGEND**

- PROPOSED 30" CENTRAL PENN LINE NORTH
- EXISTING PIPELINES
- EXISTING TGPL R/W
- - - LIMITS OF DISTURBANCE
- - - PROPOSED CPLN R/W
- PROPERTY LINE
- FOREIGN PIPELINE
- WETLAND AREA
- STREAM FLOW
- EXISTING POWER LINE
- EXISTING FENCE

**WOOD GROUP MUSTANG, INC.**

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

DRAWING NO.		REFERENCE TITLE		<b>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC</b> <b>WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS</b> <b>ATLANTIC SUNRISE PROJECT</b> <b>PROPOSED 30" CENTRAL PENN LINE NORTH</b> <b>STREAM CROSSING WW-T19-20005</b> <b>● M-0054 M.P. 0.10</b> <b>CLINTON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA</b>	
NO.		REVISION DESCRIPTION			
0	08/11/15	AT	ISSUED FOR PADEP 105 PERMIT	1161481	CLR MJH
1	10/13/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR MJH
DRAWN BY: LL		DATE: 01/06/15		ISSUED FOR BID:	
CHECKED BY: ML		DATE: 03/07/15		ISSUED FOR CONSTRUCTION:	
APPROVED BY: MJH		DATE: 04/17/15		DRAWING NUMBER: 24-1601-70-09-A/M-0054-0.10-02 SHEET 1	
WC: 1161481		9/20/2016		OF 1	



October 26, 2016

Eaton Township  
Floodplain Administrator  
1331 Hunter Highway  
P.O. Box 476  
Tunkhannock, PA 18657

Re: Atlantic Sunrise Project  
Central Penn Line North  
Eaton Township, Wyoming County  
Floodplain Management Analysis

Dear Sir or Madam:

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**ATLANTIC SUNRISE PROJECT  
FEMA FLOODPLAIN CROSSINGS  
EATON TOWNSHIP, WYOMING 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-T21-19001	Floodway to Susquehanna River	FEMA Detailed <sup>1</sup>	N/A	2.0395	0.0958	41.48052	-75.90543

Notes:

<sup>1</sup> Multiple streams are included in these calculations as the floodways overlap.

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.

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Steve Crescenzo  
TRC Environmental Corporation  
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Sincerely,



Alaric J. Busher, PE  
Senior Engineer

Enclosures: Water Obstruction and Encroachment Permit Impact Maps

**STREAM DISTURBANCE:**

SEE TABLE FOR HYDROSTATIC TEST WATER WITHDRAWAL EQUIPMENT ON PAGE 2 OF 3

STREAM WW-T21-19001	ACRE
TEMPORARY STREAM DISTURBANCE	0.7300
PERMANENT STREAM DISTURBANCE	0.1834
<b>TOTAL STREAM DISTURBANCE</b>	<b>0.9134</b>
TEMPORARY FLOODWAY DISTURBANCE	2.0395
PERMANENT FLOODWAY DISTURBANCE	0.0958
<b>TOTAL FLOODWAY DISTURBANCE</b>	<b>2.1353</b>

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	798.73
STREAM LENGTH	50.61

STREAM WW-T93-19001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0032
PERMANENT STREAM DISTURBANCE	0.0000
<b>TOTAL STREAM DISTURBANCE</b>	<b>0.0032</b>
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
<b>TOTAL FLOODWAY DISTURBANCE</b>	<b>0.0000</b>

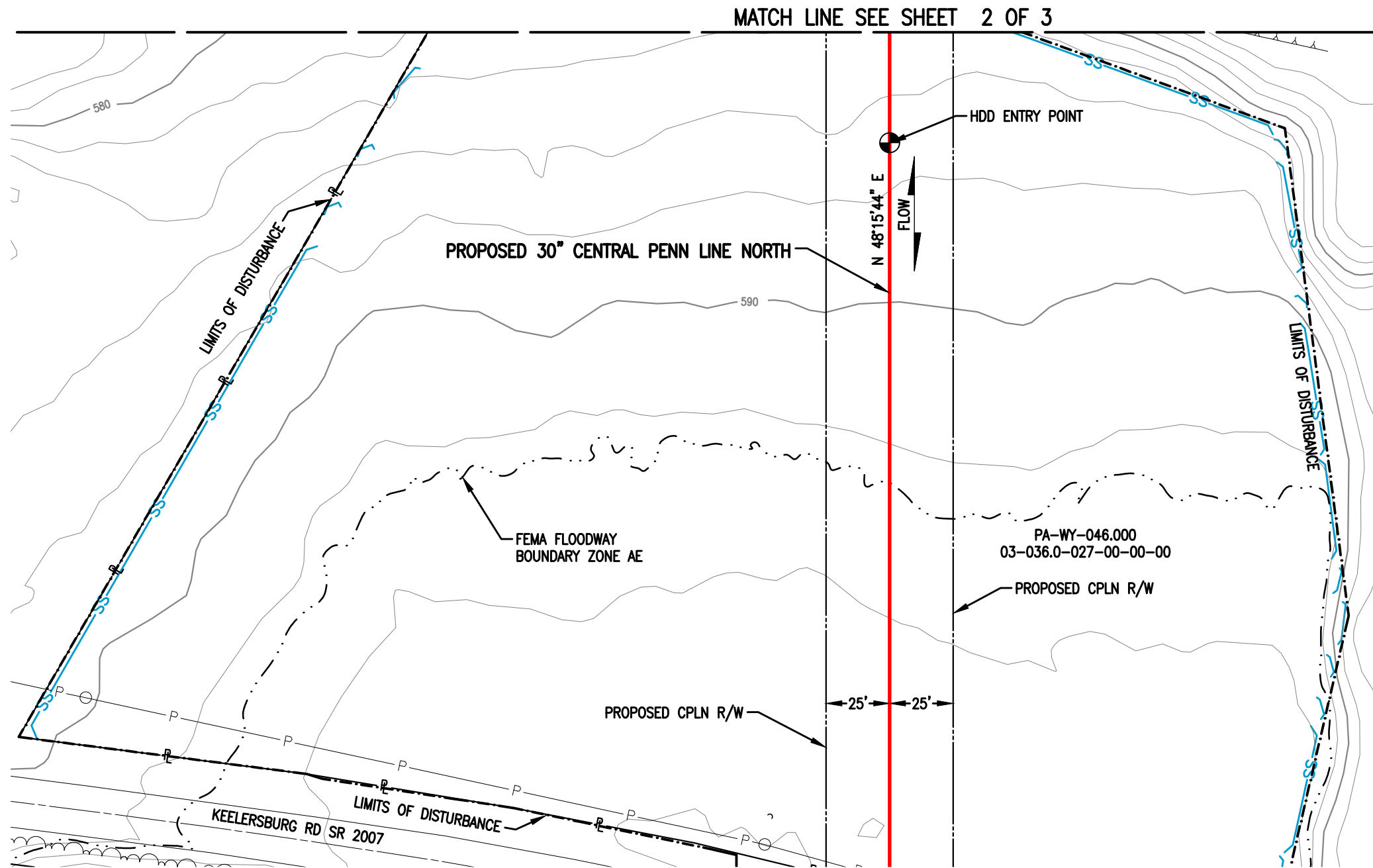
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	5.52
STREAM LENGTH	60.73

**GENERAL NOTES:**

1. STREAM CROSSING METHOD SHALL BE HDD. 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 STATION 1842+66 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

1. T.B.M. SURVEY CONTROL POINT - 13' LT. OF M.P. 39.92, ELEV. = 565.35' (NAVD88).



**PLAN**  
SCALE: 1" = 50'

THIS DRAWING SUPERCEDES 24-1601-70-09-A/34.98-01

**LEGEND**

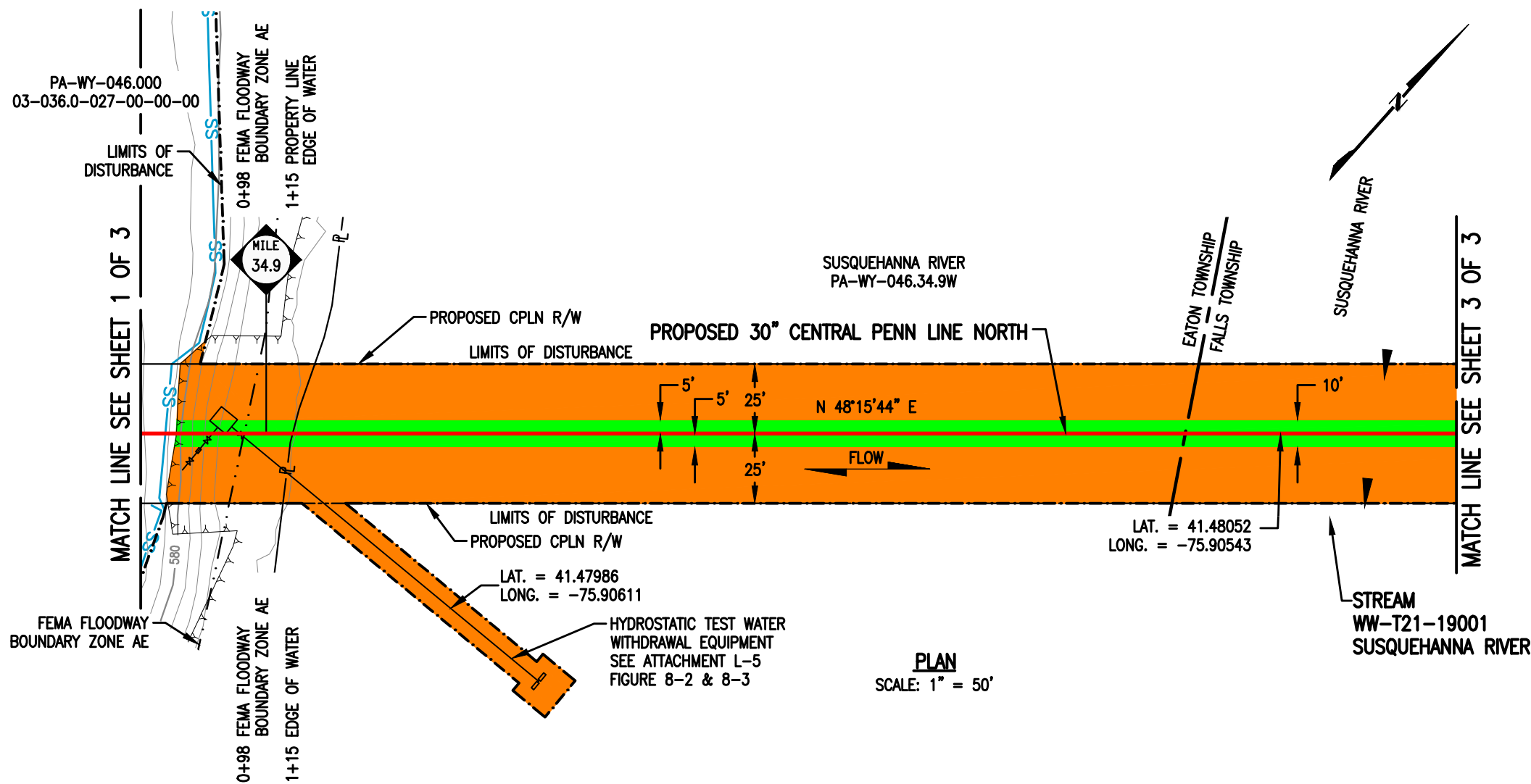
- PROPOSED 30" CENTRAL PENN LINE NORTH
- EXISTING PIPELINES
- EXISTING TGPL R/W
- - - LIMITS OF DISTURBANCE
- - - PROPOSED CPLN R/W
- P — PROPERTY LINE
- F — FOREIGN PIPELINE
- - - WETLAND AREA
- ▶ STREAM FLOW
- P — EXISTING POWER LINE
- X — EXISTING FENCE

- ▲ 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><b>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC</b>  <b>WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS</b>  <b>ATLANTIC SUNRISE PROJECT</b>  <b>PROPOSED 30" CENTRAL PENN LINE NORTH</b>  <b>STREAM CROSSINGS WW-T21-19001 @ M.P. 34.97 &amp;</b>  <b>WW-T93-19001 @ M.P. 35.05</b>  <b>EATON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA</b></p>								
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: LL	DATE: 01/07/15	ISSUED FOR BID:	SCALE: 1" = 50'
0	08/11/15	TL	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH	CHECKED BY: ML	DATE: 04/13/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
1	02/03/15	TL	ISSUED FOR INTERNAL USE	1161481	CLR	MJH	APPROVED BY: MJH	DATE: 04/17/15	DRAWING NUMBER: 24-1601-70-09-A/34.98-02	SHEET 1
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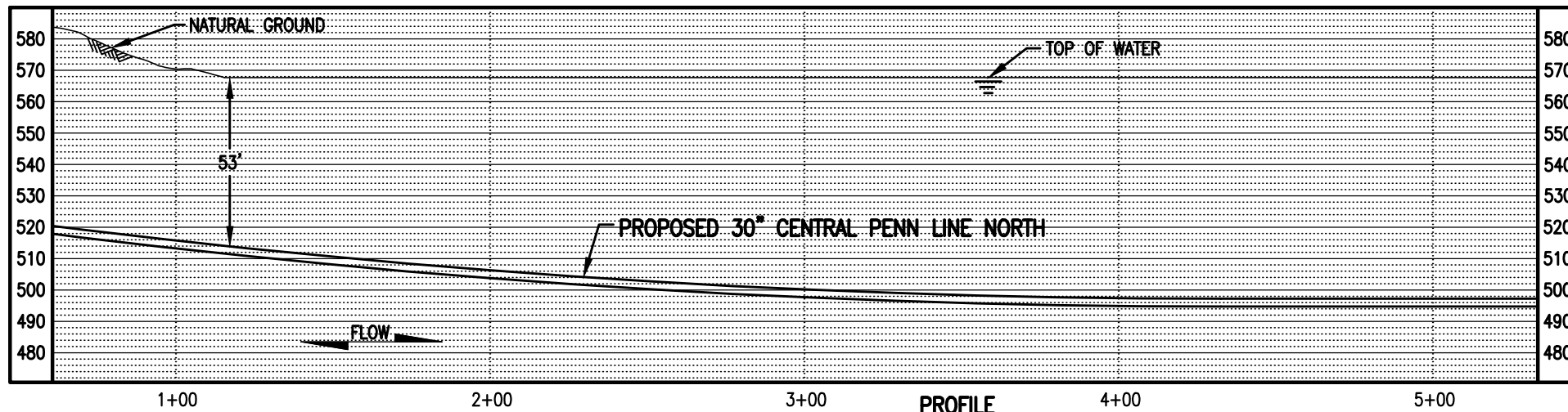


**STREAM DISTURBANCE:**  
SEE TABLE ON PAGE 1 OF 3

STREAM DISTURBANCE FOR HYDROSTATIC TEST WATER WITHDRAWAL EQUIPMENT

STREAM WW-T21-19001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0277
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0277
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	798.73
STREAM LENGTH	116.28



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

THIS DRAWING SUPERCEDES 24-1601-70-09-A/34.98-01  
SCALE IN FEET

**LEGEND**

- PROPOSED 30" CENTRAL PENN LINE NORTH
- EXISTING PIPELINES
- EXISTING TGPL R/W
- - - LIMITS OF DISTURBANCE
- - - PROPOSED CPLN R/W
- PL — 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
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- - - FEMA FLOODWAY BOUNDARY
- SS — 12" SEDIMENT BARRIER
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- SS — 24" SEDIMENT BARRIER
- SS — 32" SEDIMENT BARRIER
- Y — Y — Y — TOP OF BANK
- █ PERMANENT STREAM IMPACT
- █ TEMPORARY STREAM IMPACT

**WOOD GROUP MUSTANG, INC.**

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1	10/13/16	CL	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH

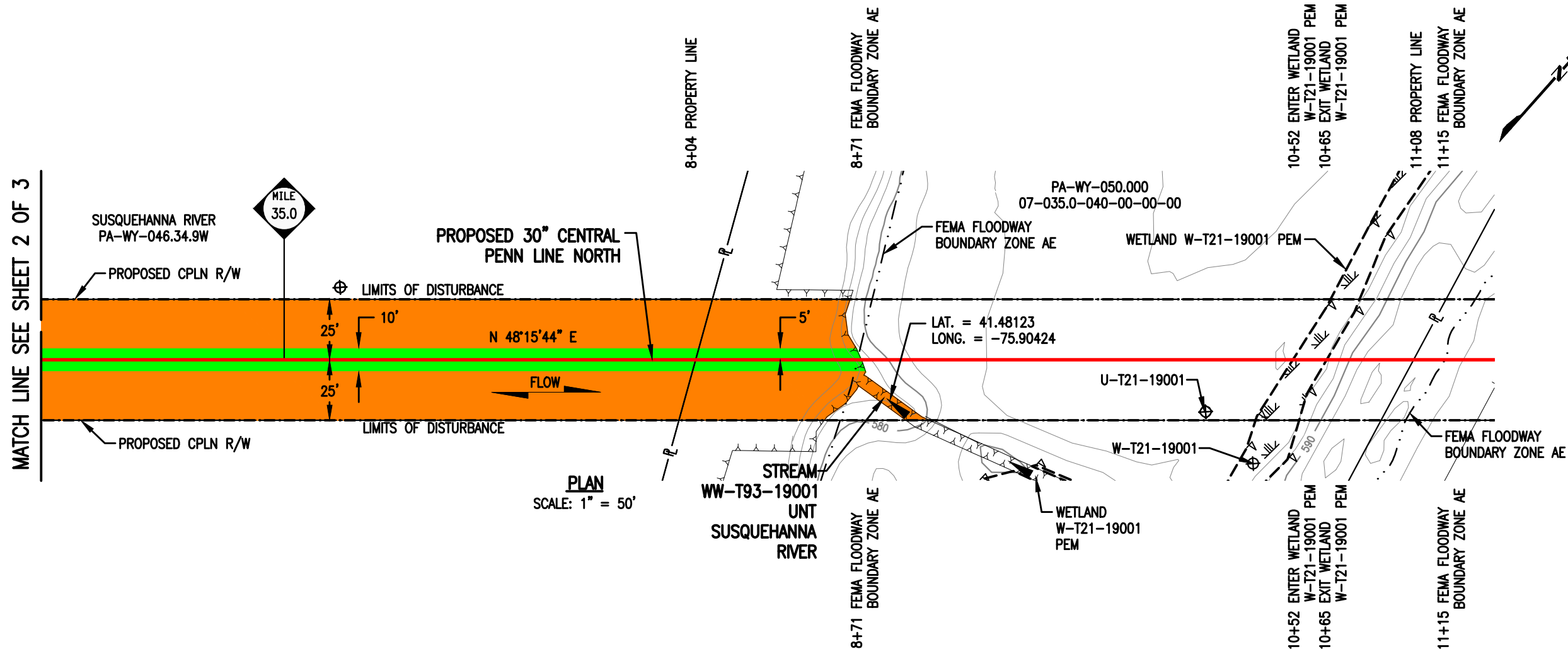
**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS  
ATLANTIC SUNRISE PROJECT  
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STREAM CROSSINGS WW-T21-19001 @ M.P. 34.97 &  
WW-T93-19001 @ M.P. 35.05  
EATON & FALLS TOWNSHIPS, WYOMING COUNTY, PENNSYLVANIA

**Williams**

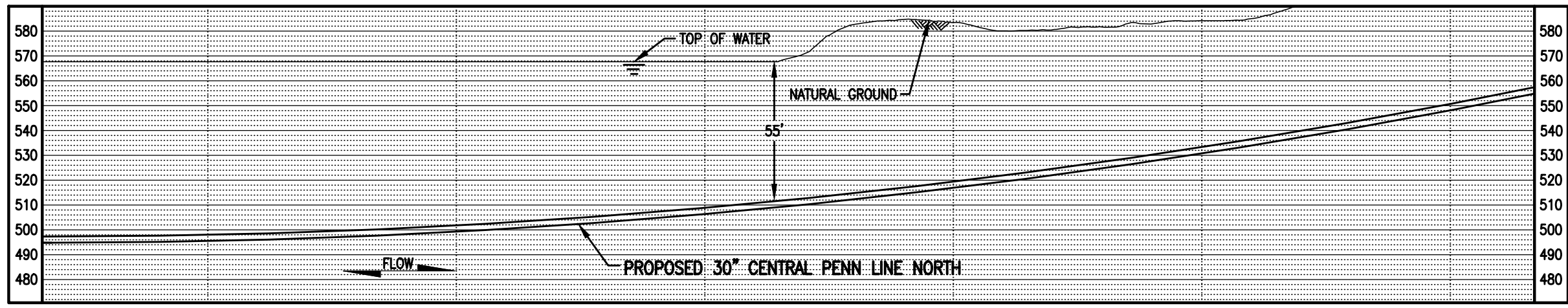
DRAWN BY: LL	DATE: 01/07/15	ISSUED FOR BID:	SCALE: 1" = 50'
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APPROVED BY: MJH	DATE: 04/17/15	DRAWING NUMBER: 24-1601-70-09-A/34.98-02	SHEET 2
IWO: 1161481	10/3/2016	altraha	OF 3



STREAM DISTURBANCE:  
SEE TABLE ON PAGE 1 OF 3



PLAN  
SCALE: 1" = 50'



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



THIS DRAWING SUPERCEDES 24-1601-70-09-A/34.98-01

**LEGEND**

	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLN 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



NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
**WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS**  
**ATLANTIC SUNRISE PROJECT**  
**PROPOSED 30" CENTRAL PENN LINE NORTH**  
**STREAM CROSSINGS WW-T21-19001 @ M.P. 34.97 &**  
**WW-T93-19001 @ M.P. 35.05**  
**FALLS TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA**

**Williams**

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							WC: 1161481		7-40am K:\103646-CPLN\Mapping\Waterbodies\Revised 105\24-1601-70-09-A_34.98-02.dwg	OF 3



October 26, 2016

Nicholson Township  
Floodplain Administrator  
90 Padula Road  
Tunkhannock, PA 18657

Re: Atlantic Sunrise Project  
Central Penn Line North  
Nicholson Township, Wyoming 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 Nicholson Township is provided below for your review and comment.

**ATLANTIC SUNRISE PROJECT  
FEMA FLOODPLAIN CROSSINGS  
NICHOLSON TOWNSHIP, WYOMING 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-T54-21001	Floodway to Tunkhannock Creek	FEMA Detailed	N/A	4.1235	0.3523	41.62682	-75.76035

Notes:

<sup>1</sup> Multiple streams are included in these calculations as the floodways overlap.

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 Nicholson Township review this analysis and, if applicable, provide comments to:

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

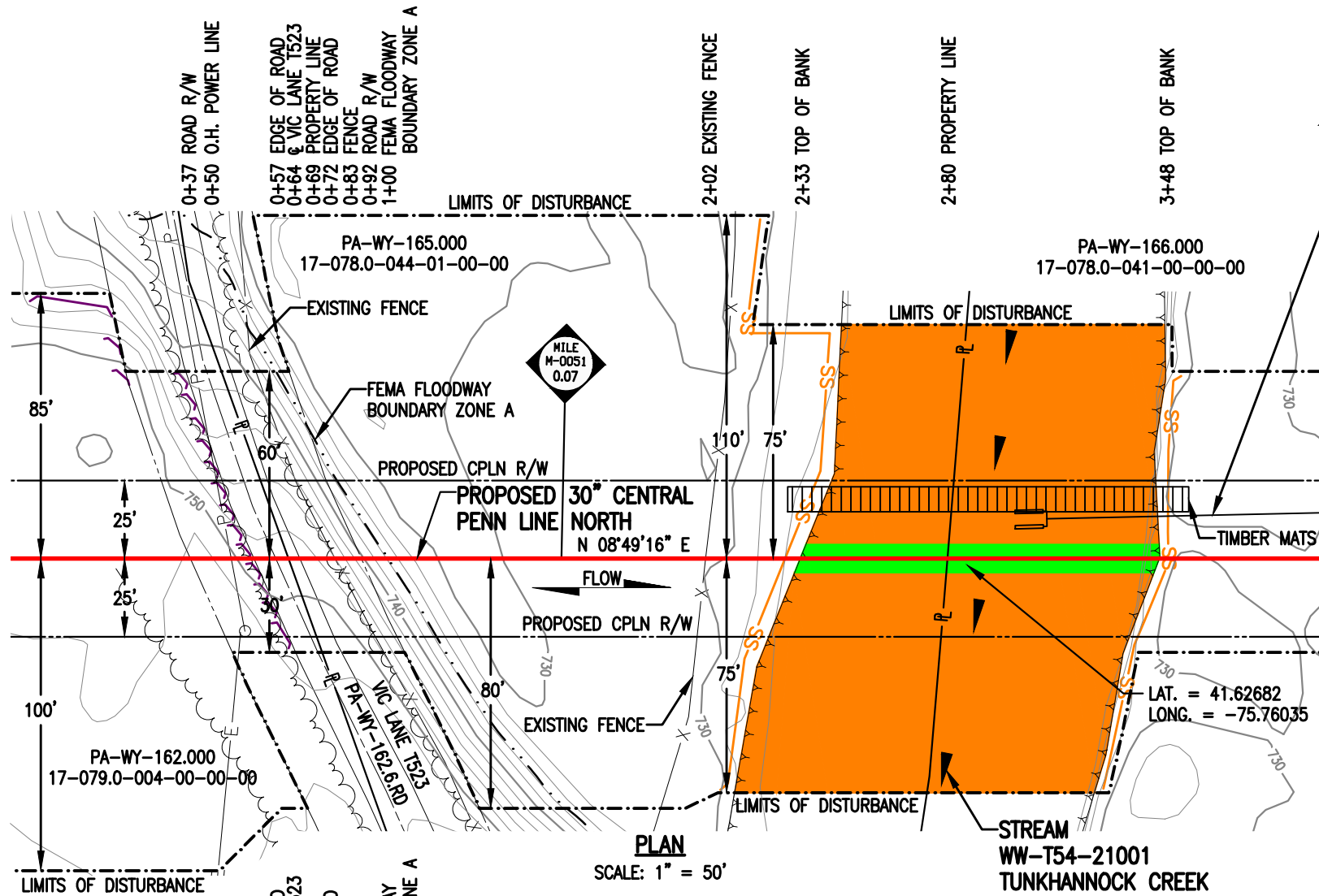
**Please do not send comments directly to the PADEP**, as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at [abusher@blcompanies.com](mailto:abusher@blcompanies.com).

Sincerely,



Alaric J. Busher, PE  
Senior Engineer

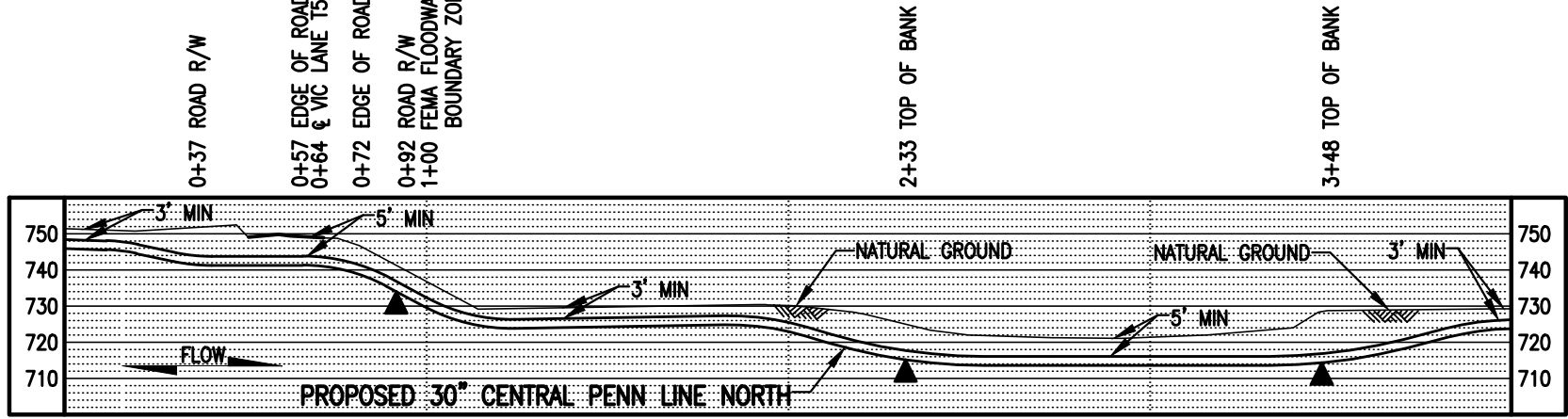
Enclosures: Water Obstruction and Encroachment Permit Impact Maps



**STREAM DISTURBANCE:**

STREAM WW-T54-21001	ACRE
TEMPORARY STREAM DISTURBANCE	0.3552
PERMANENT STREAM DISTURBANCE	0.0263
TOTAL STREAM DISTURBANCE	0.3815
TEMPORARY FLOODWAY DISTURBANCE	4.1235
PERMANENT FLOODWAY DISTURBANCE	0.3523
TOTAL FLOODWAY DISTURBANCE	4.4758

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	115.08
STREAM LENGTH	152.36



**GENERAL NOTES:**

1. STREAM CROSSING METHOD FOR WW-T54-21001 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 2+00 SHOWN IS EQUAL TO STATION 2640+88 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

1. T.B.M. IRON ROD - 79.53' LT. OF M-0051 M.P. 0.04, ELEV. = 745.41' (NAVD88).



**LEGEND**

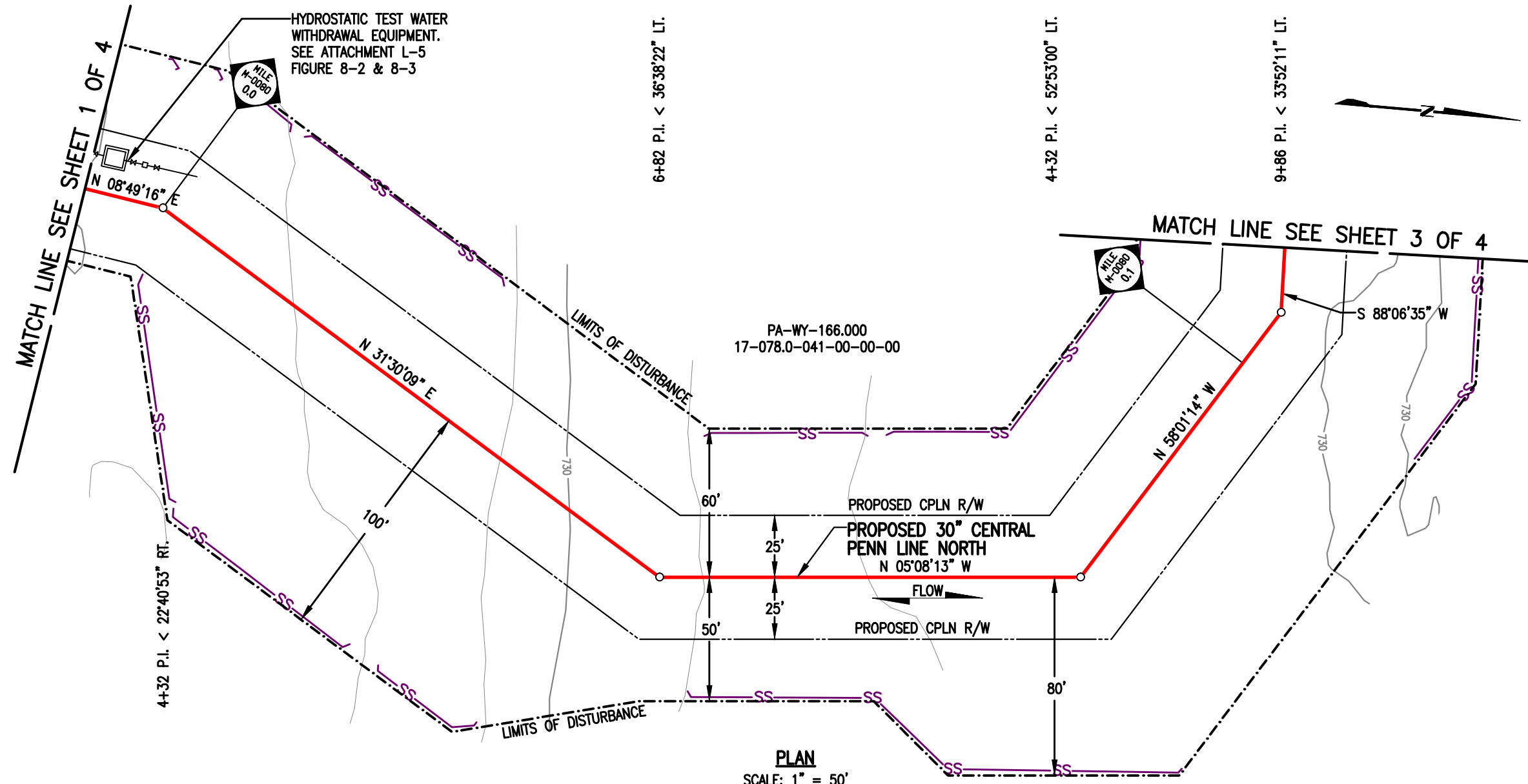
	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLN R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND AREA		TREE LINE
	STREAM FLOW		FLOODWAY BOUNDARY
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY
	EXISTING FENCE		PERMANENT STREAM IMPACT
			TEMPORARY STREAM IMPACT

**WOOD GROUP MUSTANG, INC.**

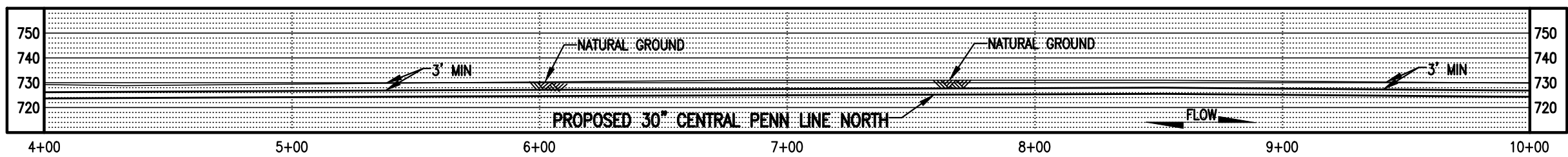
SS 12" SEDIMENT BARRIER  
SS 18" SEDIMENT BARRIER  
SS 24" SEDIMENT BARRIER  
SS 32" SEDIMENT BARRIER  
--- TOP OF BANK

DRAWING NO.		REFERENCE TITLE		<b>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC</b> <b>WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS</b> <b>ATLANTIC SUNRISE PROJECT</b> <b>PROPOSED 30" CENTRAL PENN LINE NORTH</b> <b>STREAM CROSSING WW-T54-21001</b> <b>M-0051 M.P. 0.08</b> <b>NICHOLSON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA</b>	
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK. APPR.
0	10/13/16	DG	ISSUED FOR PADEP SUBMITTAL #21161481	CLR	MJH
DRAWN BY: TL		DATE: 06/16/16	ISSUED FOR BID:	SCALE: 1" = 50'	
CHECKED BY: CLR		DATE: 06/28/16	ISSUED FOR CONSTRUCTION:	REVISION: 0	
APPROVED BY: MJH		DATE: 06/29/16	DRAWING NUMBER: 24-1601-70-09-A/M-0051-0.08-01	SHEET 1	
W.O. NUMBER: 1161481		10/20/2016	8:06am	OF 4	

STREAM DISTURBANCE:  
SEE TABLE ON SHEET 1 OF 4



PLAN  
SCALE: 1" = 50'



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



LEGEND	
	PROPOSED 30" CENTRAL PENN LINE NORTH
	EXISTING PIPELINES
	EXISTING TGPL R/W
	LIMITS OF DISTURBANCE
	PROPOSED CPLN 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

**WOOD GROUP MUSTANG, INC.**

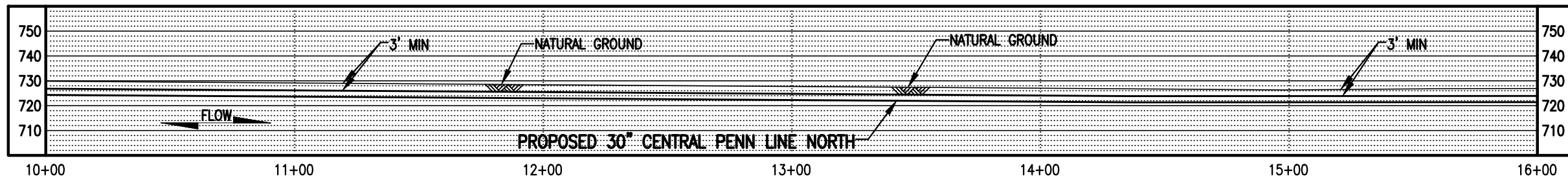
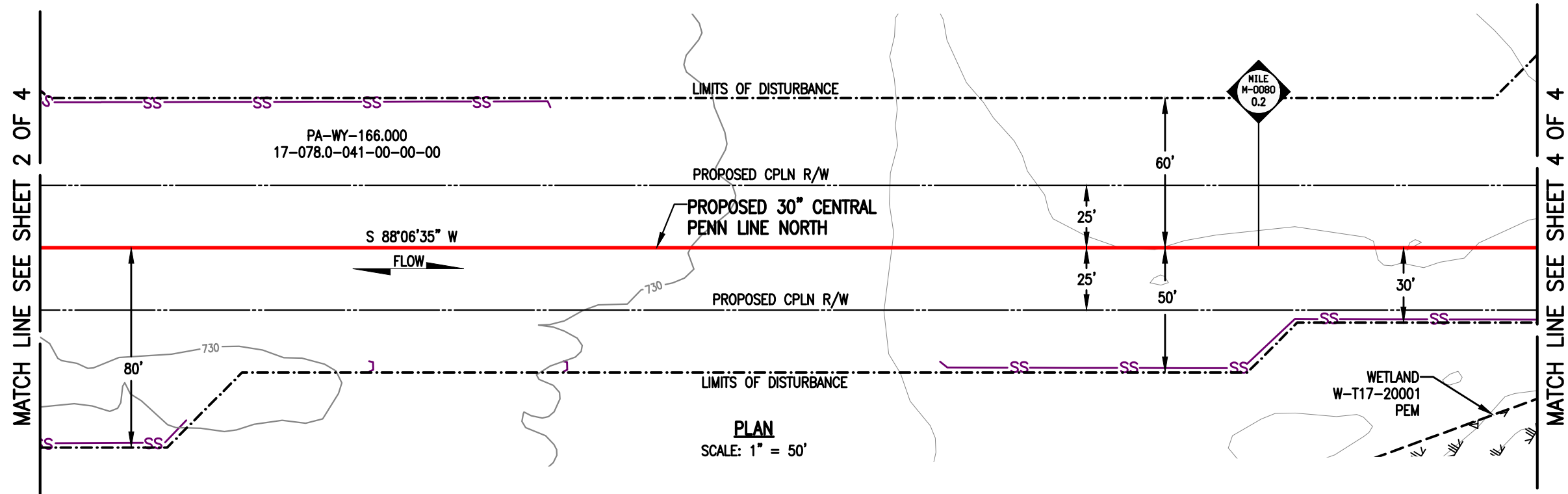
DRAWING NO.	REFERENCE TITLE					
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	10/13/16	DG	ISSUED FOR PADEP SUBMITTAL #21161481	CLR	MJH	

**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
**WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS**  
**ATLANTIC SUNRISE PROJECT**  
**PROPOSED 30" CENTRAL PENN LINE NORTH**  
**STREAM CROSSING WW-T54-21001**  
**© M-0051 M.P. 0.08**  
**NICHOLSON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA**

**Williams**

DRAWN BY: TL	DATE: 06/16/16	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 06/28/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 06/29/16	DRAWING NUMBER: 24-1601-70-09-A/M-0051-0.08-01	SHEET 2
WC: 1161481	10/19/2016	1:56pm	OF 4

STREAM DISTURBANCE:  
SEE TABLE ON SHEET 1 OF 4



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



LEGEND	
	PROPOSED 30" CENTRAL PENN LINE NORTH
	EXISTING PIPELINES
	EXISTING TGPL R/W
	LIMITS OF DISTURBANCE
	PROPOSED CPLN 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
	PERMANENT STREAM IMPACT
	TEMPORARY STREAM IMPACT
	12" SEDIMENT BARRIER
	18" SEDIMENT BARRIER
	24" SEDIMENT BARRIER
	32" SEDIMENT BARRIER
	TOP OF BANK



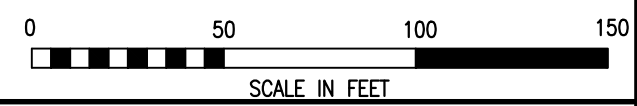
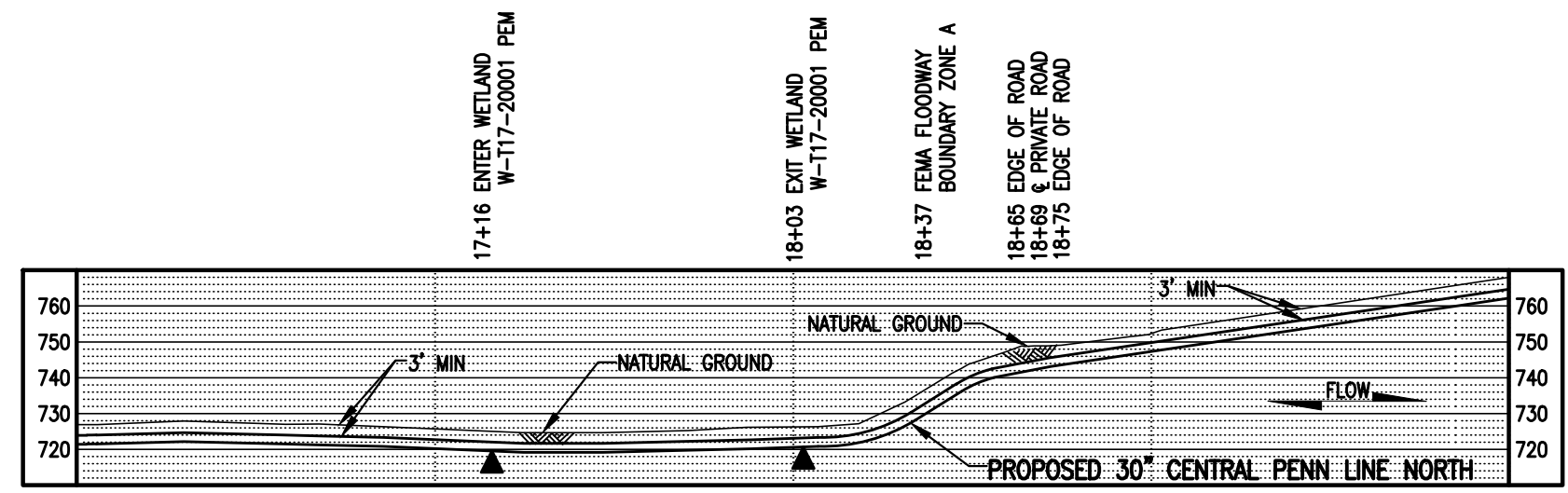
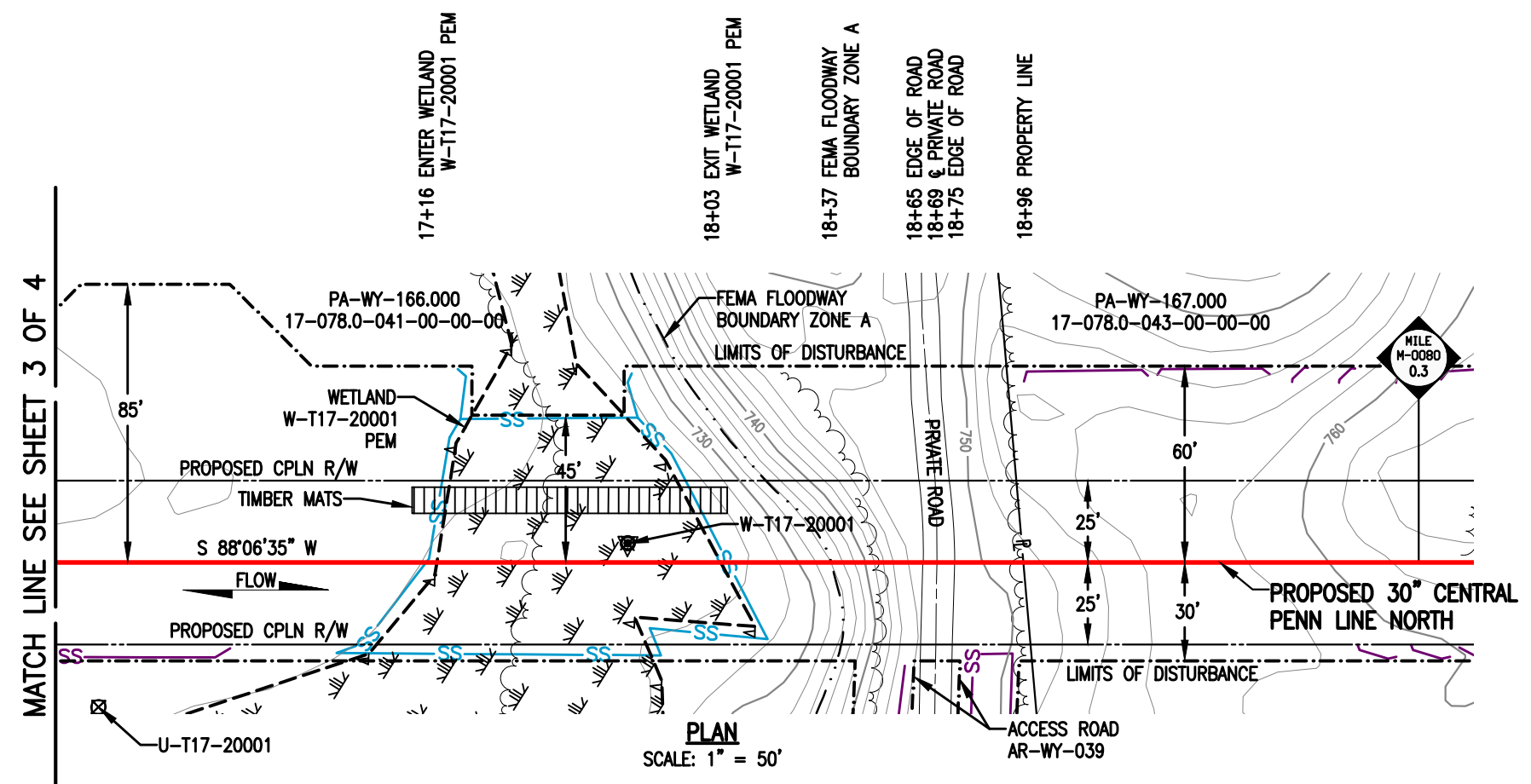
DRAWING NO.	REFERENCE TITLE

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	10/13/16	DG	ISSUED FOR PADEP SUBMITTAL #21161481	CLR	MJH	

**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
**WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS**  
**ATLANTIC SUNRISE PROJECT**  
**PROPOSED 30" CENTRAL PENN LINE NORTH**  
**STREAM CROSSING WW-T54-21001**  
**© M-0051 M.P. 0.08**  
**NICHOLSON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA**

DRAWN BY: TL	DATE: 06/16/16	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 06/28/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 06/29/16	DRAWING NUMBER: 24-1601-70-09-A/M-0051-0.08-01	SHEET 3
WC: 1161481	10/19/2016	1:59pm	OF 4

STREAM DISTURBANCE:  
SEE TABLE ON SHEET 1 OF 4



LEGEND		WOOD GROUP MUSTANG, INC.	
	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLN 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

DRAWING NO.	REFERENCE TITLE

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	10/13/16	DG	ISSUED FOR PADEP SUBMITTAL #21161481	CLR	MJH	

**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
**WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS**  
**ATLANTIC SUNRISE PROJECT**  
**PROPOSED 30" CENTRAL PENN LINE NORTH**  
**STREAM CROSSING WW-T54-21001**  
**● M-0051 M.P. 0.08**  
**NICHOLSON TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA**

DRAWN BY: TL	DATE: 06/16/16	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 06/28/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 06/29/16	DRAWING NUMBER: 24-1601-70-09-A/M-0051-0.08-01	SHEET 4
WC: 1161481	10/19/2016	ti-curli	OF 4



October 26, 2016

Northmoreland Township  
Floodplain Administrator  
15 Municipal Lane  
Dallas, PA 18612

Re: Atlantic Sunrise Project  
Central Penn Line North  
Northmoreland Township, Wyoming 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:

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- 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;
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- 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 Northmoreland Township is provided below for your review and comment.



**ATLANTIC SUNRISE PROJECT  
FEMA FLOODPLAIN CROSSINGS  
NORTHMORELAND TOWNSHIP, WYOMING 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-T05-18001	Floodway to Mill Creek	FEMA Detailed <sup>1</sup>	N/A	0.8285	0.1110	41.43833	-75.93058

Notes:

<sup>1</sup> Multiple streams are included in these calculations as the floodways overlap.

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 Northmoreland Township review this analysis and, if applicable, provide comments to:

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

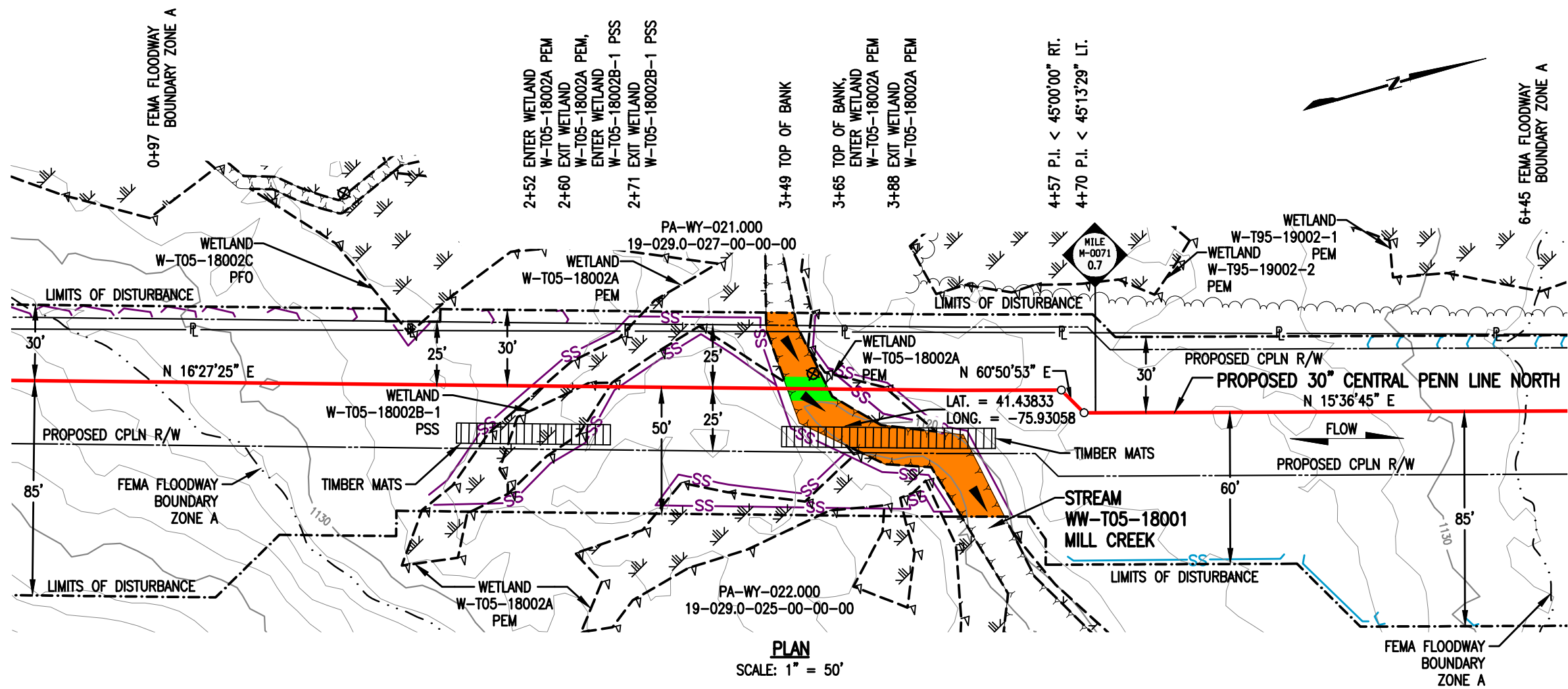
**Please do not send comments directly to the PADEP**, as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at [abusher@blcompanies.com](mailto:abusher@blcompanies.com).

Sincerely,

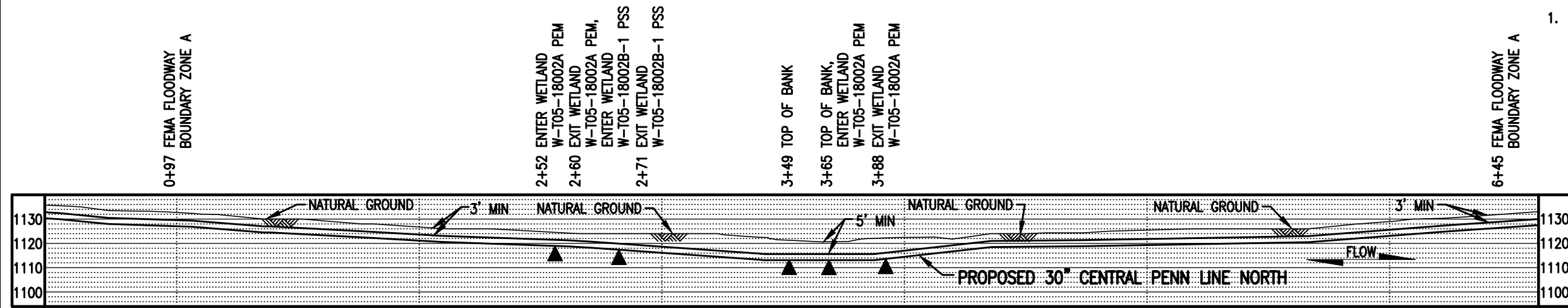


Alaric J. Busher, PE  
Senior Engineer

Enclosures: Water Obstruction and Encroachment Permit Impact Maps



**PLAN**  
SCALE: 1" = 50'



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

**STREAM DISTURBANCE:**

STREAM WW-T05-18001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0383
PERMANENT STREAM DISTURBANCE	0.0038
TOTAL STREAM DISTURBANCE	0.0421
TEMPORARY FLOODWAY DISTURBANCE	0.8285
PERMANENT FLOODWAY DISTURBANCE	0.1110
TOTAL FLOODWAY DISTURBANCE	0.9395

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	16.34
STREAM LENGTH	118.60

- GENERAL NOTES:**
1. STREAM CROSSING METHOD SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
  2. THIS IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
  3. STATION 1+00 IS EQUAL TO STATION M-0071 33+22 ON THE EROSION AND SEDIMENT CONTROL PLAN.

- SURVEY NOTES:**
1. T.B.M. SURVEY CONTROL POINT - 53' LT. OF M-0071 M.P. 0.67, ELEV. = 1123.77' (NAVD88).

**LEGEND**

	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLN 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



DRAWING NO.	REFERENCE TITLE					
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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1	10/13/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH

**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
**WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS**  
**ATLANTIC SUNRISE PROJECT**  
**PROPOSED 30" CENTRAL PENN LINE NORTH**  
**STREAM CROSSING WW-T05-18001**  
**M-0071 M.P. 0.68**  
**NORTHMORELAND TOWNSHIP, WYOMING COUNTY, PENNSYLVANIA**

DRAWN BY: LL	DATE: 03/06/15	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: ML	DATE: 04/13/15	ISSUED FOR CONSTRUCTION:	REVISION: 1
APPROVED BY: MJH	DATE: 04/17/15	DRAWING NUMBER: 24-1601-70-09-A/M-0071-0.68-01	SHEET 1
W.O. NO.: 1161481	DATE: 9/20/2016	FILE: 1161481.dwg	OF 1