



Transcontinental Gas Pipe Line Company, LLC.

REGIONAL ENERGY ACCESS EXPANSION PROJECT EFFORT LOOP CHAPTER 105 WATER OBSTRUCTION AND ENCROACHMENT

PERMIT APPLICATION

MONROE COUNTY, PENNSYLVANIA

13.78 MILES OF 42 INCH PIPELINE

April 2021
(Revised July 2022)

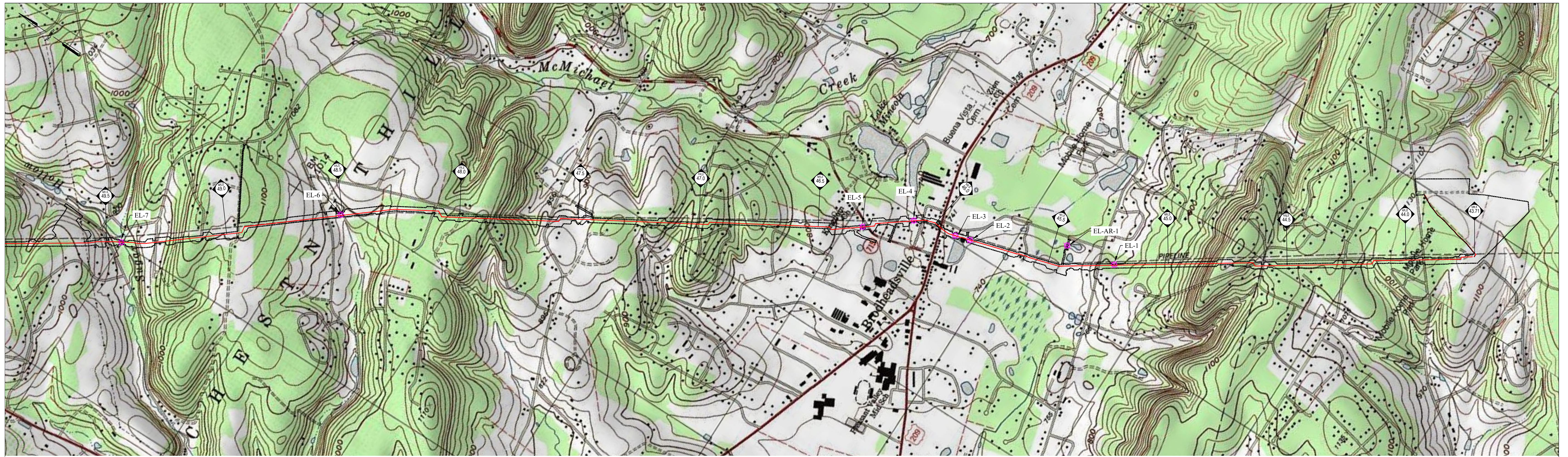


I, Patrick Wozinski, P.E., do hereby certify pursuant to the penalties of 18 Pa.C.S.A. Sec. 4904 to the best of my knowledge, information and belief, that the information contained in the accompanying plans, specifications and reports has been prepared in accordance with accepted engineering practice, is true and correct, and is in conformance with Chapter 105 of the rules and regulations of the Department of Environmental Protection.



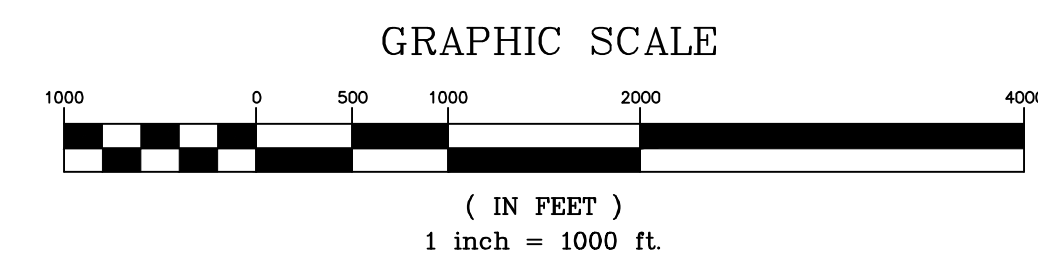
Transcontinental Gas Pipe Line Company, LLC
REGIONAL ENERGY ACCESS EXPANSION PROJECT
EFFORT LOOP
CHAPTER 105 WATER OBSTRUCTION AND ENCROACHMENT
PERMIT APPLICATION - RESOURCE CROSSING DRAWING SET

Crossing Number	Mile Post	Description	Sheet Number
N/A	-	Cover	1
N/A	-	Index	2
N/A	-	USGS Topo Location Map	3
N/A	-		4
N/A	-		5
EL-1	45.2	W1-T5	6
EL-AR-1	45.4	S2-T5	7
EL-2	45.8	W4-T6	8
EL-3	45.9	S3-T5	
EL-4	46.1	W1-T2	9
EL-5	46.3	W2-T2	10
EL-6	48.5	S1-T1	11
EL-7	49.4	W1-T1	12
		S1-T2	
EL-8	50.9	S4-T2	13
EL-9	52.7	W2-T1	14
		S2-T1	
EL-10	53.7	S5-T2	15
		W9-T2	
EL-11	55.2	W12-T2	16
EL-12	56.6	W4-T3	17
		W14-T2	
EL-13	57	S7-T2	18
		S8-T2	
		W3-T1	
		W15-T2	
EL-14	57.2	W3A-T1	19
		W4-T1	
EL-15	57.3	W4A-T1	19
EL-16	57.4	W6-T1	20
		S4-T1	
EL-AR-2	57.4	W10-T1	20
		W8-T1	
EL-AR-2	57.4	S4-T1	20



LEGEND

- LIMIT OF DISTURBANCE
- PROPOSED PIPELINE
- ⊗ CROSSING LOCATION



REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN
2	07/08/22	BH	REVISED TO PADEP JUNE 2022 TECHNICAL DEFICIENCY LETTER	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
 REGIONAL ENERGY ACCESS EXPANSION PROJECT -
 EFFORT LOOP
 WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
 TOPOGRAPHIC / AERIAL LOCATION MAPS
 MONROE COUNTY, PENNSYLVANIA

Williams

DRAWN BY: BWH	DATE: 03/17/21	ISSUED FOR BID:	SCALE: 1" = 1000'
CHECKED BY: RJN	DATE: 03/17/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: KCC	DATE: 03/17/21	DRAWING NUMBER: 26-1000-70-9-0	SHEET 3 OF 20
W.O. NO: 1222637	RID: 108		



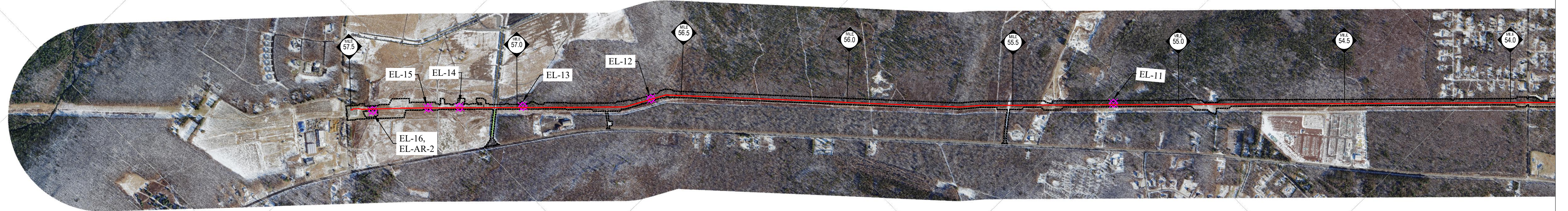
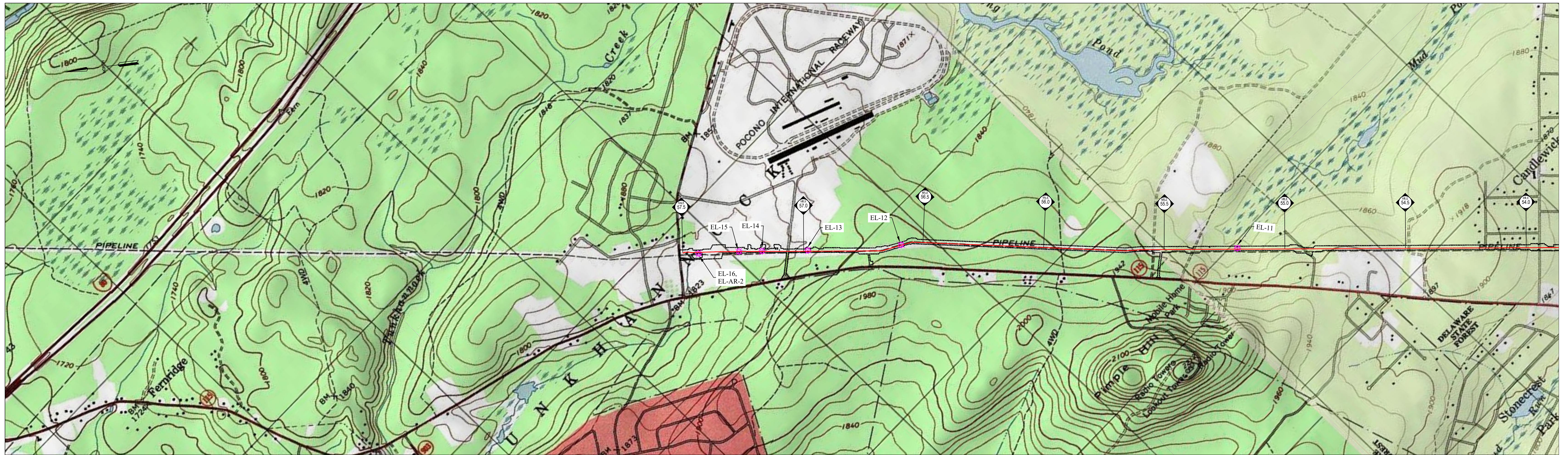
LEGEND

- LIMIT OF DISTURBANCE
- PROPOSED PIPELINE
- ✕ CROSSING LOCATION

REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN
2	07/08/22	BH	REVISED TO PADEP JUNE 2022 TECHNICAL DEFICIENCY LETTER	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
 REGIONAL ENERGY ACCESS EXPANSION PROJECT -
 EFFORT LOOP
 WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
 TOPOGRAPHIC / AERIAL LOCATION MAPS
 MONROE COUNTY, PENNSYLVANIA

DRAWN BY: BWH DATE: 03/17/21 ISSUED FOR BID: SCALE: 1" = 1000'
 CHECKED BY: RJN DATE: 03/17/21 ISSUED FOR CONSTRUCTION: REVISION:
 APPROVED BY: KCC DATE: 03/17/21
 W.O. NUMBER: 1222637 RID: 108 DRAWING NUMBER: 26-1000-70-9-D SHEET 4 OF 20




LEGEND

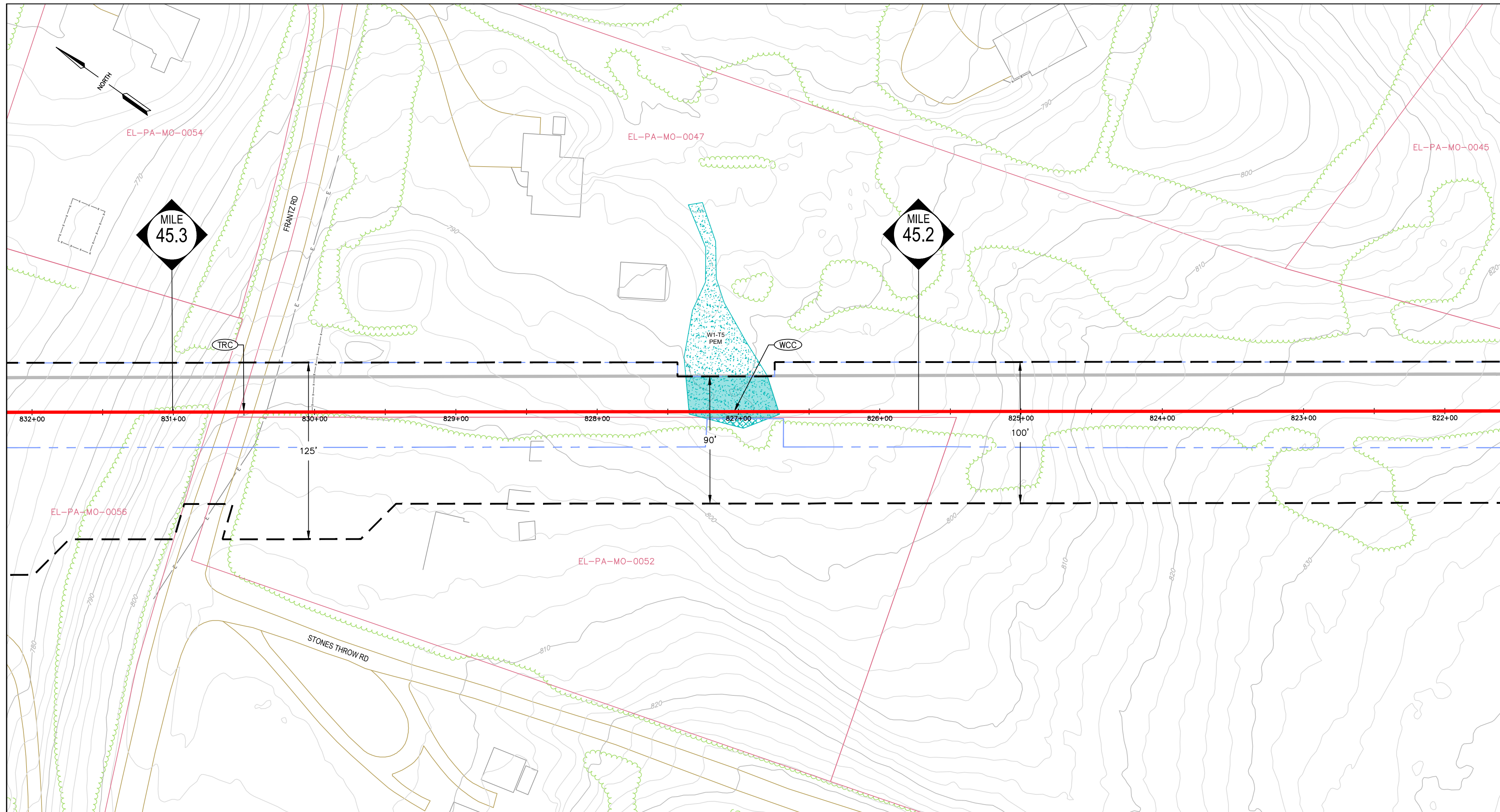
	LIMIT OF DISTURBANCE
	PROPOSED PIPELINE
	CROSSING LOCATION

REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN
2	07/08/22	BH	REVISED TO PADEP JUNE 2022 TECHNICAL DEFICIENCY LETTER	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
 REGIONAL ENERGY ACCESS EXPANSION PROJECT -
 EFFORT LOOP
 WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
 TOPOGRAPHIC / AERIAL LOCATION MAPS
 MONROE COUNTY, PENNSYLVANIA

DRAWN BY: BWH	DATE: 03/17/21	ISSUED FOR BID:	SCALE: 1" = 1000'
CHECKED BY: RJN	DATE: 03/17/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: KCC	DATE: 03/17/21		
WD: 1222637	RID: 108	DRAWING NUMBER: 26-1000-70-9-0	SHEET 5 OF 20





Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Area (ac) ⁷
EL-1	W1-T5	WETLAND	PEM	-	PERM	0.0412
	W1-T5	WETLAND	PEM	-	TEMP	0.0033

TABLE NOTES:

- UNIQUE IDENTIFIER FOR THE SINGLE AND COMPLETE CROSSING
- UNIQUE NAME FOR IMPACTED RESOURCE
- TYPE OF IMPACTED RESOURCE (STREAM/WETLAND/FLOODWAY)
- COWARDIN CLASSIFICATION OF IMPACTED WETLAND, APPLIES TO WETLANDS ONLY.
- FLOW REGIME OF THE IMPACTED STREAM APPLIES TO STREAMS ONLY.
- IMPACT TYPE IS EITHER PERMANENT OR TEMPORARY.
- THE AREA OF THE RESOURCE IMPACTED, IN ACRES. FOR AREAS WHERE THE WETLANDS AND FLOODWAY OVERLAP, FLOODWAY IMPACTS ARE INCLUDED WITHIN THE WETLAND IMPACT AREA (I.E. WETLAND AND FLOODWAY IMPACTS WERE NOT COUNTED IN DUPLICATE)

TEMPORARY IMPACTS

PIPELINE IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS MEASURED OUTSIDE THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONTOURS. PSS AND PFO WETLANDS WILL BE REVEGETATED TO THEIR PRE-EXISTING COVER TYPE.

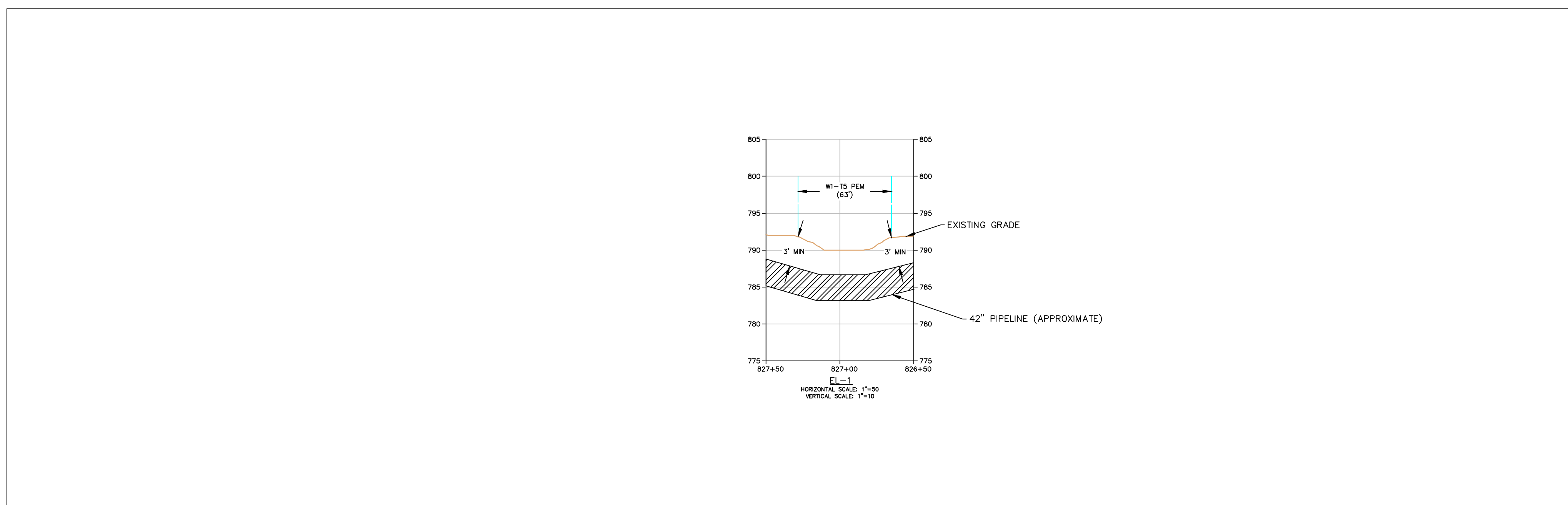
ACCESS ROAD IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE ON THE ACCESS ROADS. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONDITION.

PERMANENT IMPACTS

PIPELINE IMPACTS - PERMANENT IMPACTS INCLUDE THE AREA MEASURED WITHIN THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY (PROW), WHICH INCLUDES EXISTING AND PROPOSED ADDITIONAL PROW. THERE IS NO PERMANENT LOSS OF RESOURCES IN THE PROW AND THESE AREAS WILL BE RESTORED TO PRE-EXISTING CONTOURS. FOR PSS AND PFO WETLANDS WITHIN THE PROW, THE PERMANENT IMPACT VALUE REPRESENTS THE FUNCTIONAL CONVERSION AREA OF THESE RESOURCES.

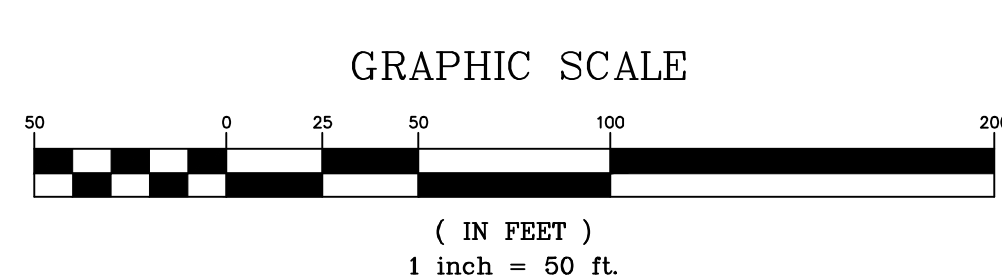
GENERAL NOTES:

- STREAM CROSSING METHODS WILL BE COMPLETED VIA OPEN CUT CONSTRUCTION METHODS. EITHER DAM AND PUMP (DPX) OR FLUMED (FX) DRY-CROSSING METHOD WILL BE UTILIZED BASED ON FIELD CONDITIONS DURING TIME OF CONSTRUCTION. A BRIDGE EQUIPMENT CROSSING (BEC), BRIDGE EQUIPMENT CROSSING WITH CENTERED OR MULTIPLE SUPPORTS (BCC) OR CULVERT EQUIPMENT CROSSING (CEC) WILL BE INSTALLED AT ALL STREAM CROSSINGS.
- WETLAND CROSSING METHODS WILL COMPLETED VIA OPEN CUT CONSTRUCTION METHODS AS OUTLINED IN WETLAND CROSSING CONFIGURATION (WCC-1, WCC-2, WCC-3), BASED ON FIELD CONDITIONS DURING THE TIME OF CONSTRUCTION. WETLANDS WILL BE CROSSED FOR ACCESS UTILIZING TIMBER MATS AS OUTLINED IN THE WETLAND EQUIPMENT CROSSING (WEC) CONSTRUCTION DETAIL. WETLAND CROSSINGS COMPLETED VIA CONVENTIONAL BORE WILL BE SPECIFICALLY NOTED ON THE PLAN VIEW AND THE W&X CONSTRUCTION DETAIL.
- TYPICAL VEGETATED CHANNEL & VEGETATION RESTORATION (VCR) DETAILS 1 AND 2 ARE IDENTIFIED FOR WATERBODY RESTORATION. VCR-1 WILL BE UTILIZED AT WATERBODIES WITH EXISTING FORESTED RIPARIAN BUFFERS. VCR-2 WILL BE UTILIZED AT WATERBODIES WITH NON-FORESTED RIPARIAN BUFFER.
- ALL TYPICAL CONSTRUCTION DETAILS FOR PROPOSED CROSSING METHODS ARE LOCATED WITHIN THE EROSION AND SEDIMENTATION CONTROL PLAN AND NARRATIVE.
- THE PROPOSED PIPELINE WILL BE INSTALLED WITH 3-FOOT MINIMUM COVER THROUGH WETLANDS AND 4-FOOT MINIMUM COVER THROUGH STREAM CHANNELS.
- EXISTING CULVERTS ARE NOT PROPOSED FOR MODIFICATION AND ARE TO BE USED AS-IS.



LEGEND	
	EXISTING ELECTRIC LINE/POLE
	EXISTING UNDERGROUND ELECTRIC LINE

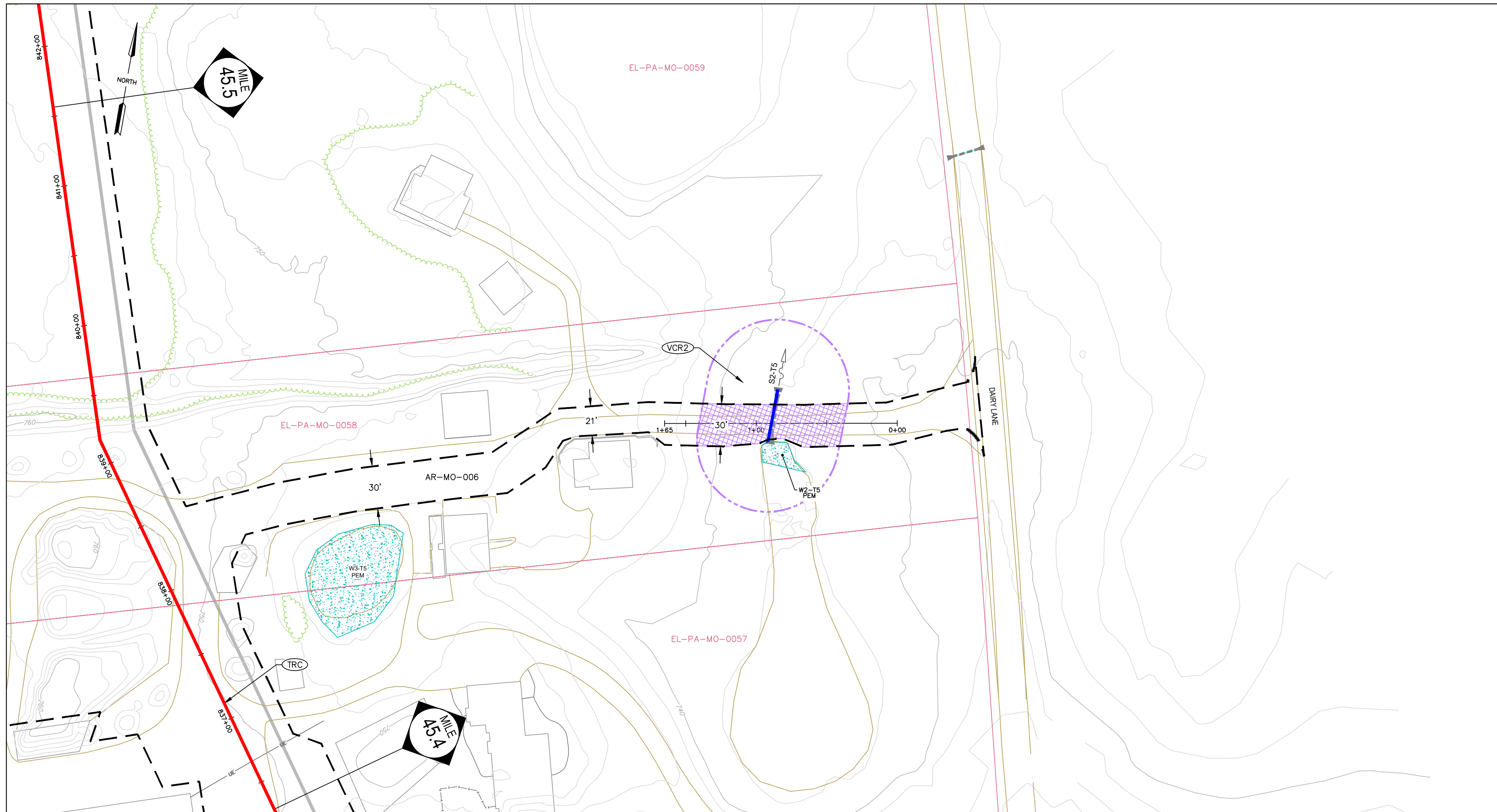
Crossing Name	Latitude	Longitude	Milepost	Municipality
EL-1	40.914620	-75.386563	45.2	Chestnuthill



REVISIONS					
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK. APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW RN
2	07/08/22	BH	REVISED TO PADEP JUNE 2022 TECHNICAL DEFICIENCY LETTER	1222637	DW RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
 REGIONAL ENERGY ACCESS EXPANSION PROJECT -
 EFFORT LOOP
 WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
 CROSSING EL-1
 MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 6 OF 20
W.O.: 1222637	RID: 108		



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-AR-1	S2-T5	STREAM	-	Ephemeral	TEMP	0.0005
	S2-T5	FLOODWAY	-	Ephemeral	TEMP	0.0665

TABLE NOTES:

- UNIQUE IDENTIFIER FOR THE SINGLE AND COMPLETE CROSSING
- UNIQUE NAME FOR IMPACTED RESOURCE
- TYPE OF IMPACTED RESOURCE (STREAM/WETLAND/FLOODWAY)
- COWARDIN CLASSIFICATION OF IMPACTED WETLAND, APPLIES TO WETLANDS ONLY.
- FLOW REGIME OF THE IMPACTED STREAM APPLIES TO STREAMS ONLY.
- IMPACT TYPE IS EITHER PERMANENT OR TEMPORARY.
- THE AREA OF THE RESOURCE IMPACTED, IN ACRES. FOR AREAS WHERE THE WETLANDS AND FLOODWAY OVERLAP, FLOODWAY IMPACTS ARE INCLUDED WITHIN THE WETLAND IMPACT AREA (I.E. WETLAND AND FLOODWAY IMPACTS WERE NOT COUNTED IN DUPLICATE)

TEMPORARY IMPACTS

PIPELINE IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS MEASURED OUTSIDE THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONTOURS. PSS AND PFO WETLANDS WILL BE REVEGETATED TO THEIR PRE-EXISTING COVER TYPE.

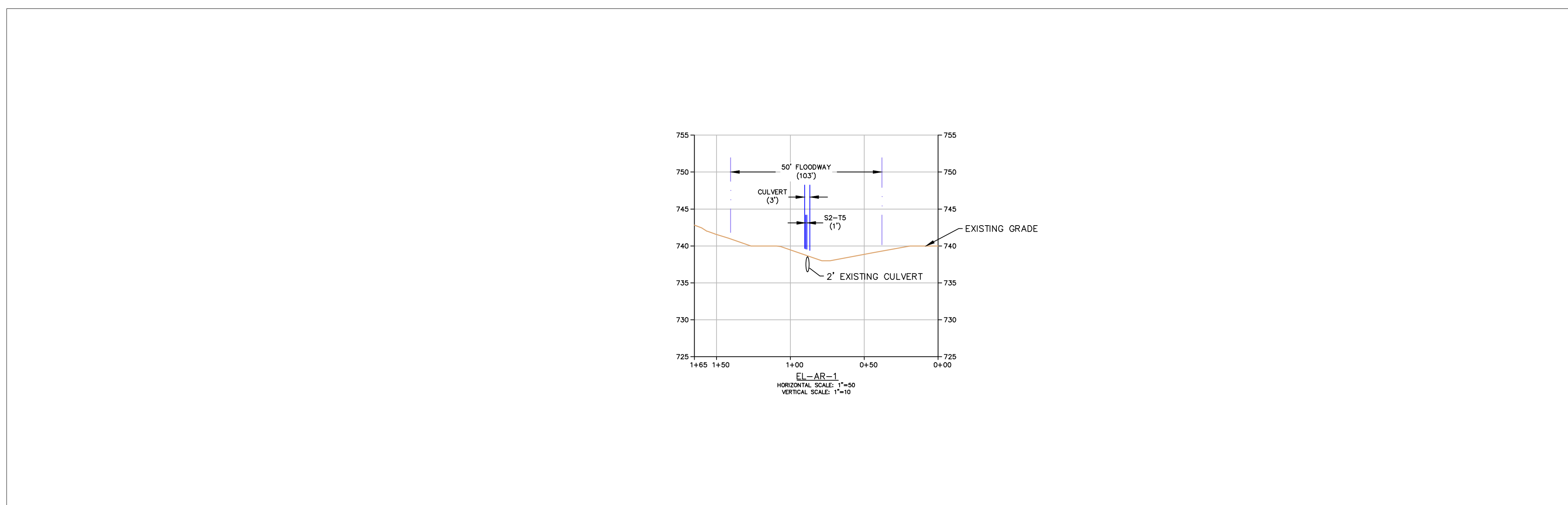
ACCESS ROAD IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE ON THE ACCESS ROADS. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONDITION.

PERMANENT IMPACTS

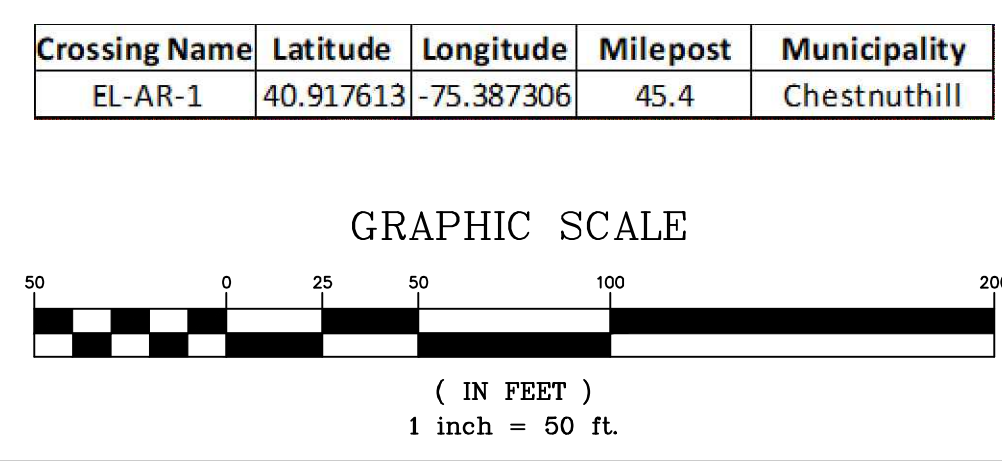
PIPELINE IMPACTS - PERMANENT IMPACTS INCLUDE THE AREA MEASURED WITHIN THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY (PROW), WHICH INCLUDES EXISTING AND PROPOSED ADDITIONAL PROW. THERE IS NO PERMANENT LOSS OF RESOURCES IN THE PROW AND THESE AREAS WILL BE RESTORED TO PRE-EXISTING CONTOURS. FOR PSS AND PFO WETLANDS WITHIN THE PROW, THE PERMANENT IMPACT VALUE REPRESENTS THE FUNCTIONAL CONVERSION AREA OF THESE RESOURCES.

GENERAL NOTES:

- STREAM CROSSING METHODS WILL BE COMPLETED VIA OPEN CUT CONSTRUCTION METHODS. EITHER DAM AND PUMP (DPX) OR FLUMED (FX) DRY-CROSSING METHOD WILL BE UTILIZED BASED ON FIELD CONDITIONS DURING TIME OF CONSTRUCTION. A BRIDGE EQUIPMENT CROSSING (BEC), BRIDGE EQUIPMENT CROSSING WITH CENTERED OR MULTIPLE SUPPORTS (BCC) OR CULVERT EQUIPMENT CROSSING (CEC) WILL BE INSTALLED AT ALL STREAM CROSSINGS.
- WETLAND CROSSING METHODS WILL COMPLETED VIA OPEN CUT CONSTRUCTION METHODS AS OUTLINED IN WETLAND CROSSING CONFIGURATION (WCC.1, WCC.2, WCC.3). BASED ON FIELD CONDITIONS DURING THE TIME OF CONSTRUCTION. WETLANDS WILL BE CROSSED FOR ACCESS UTILIZING TIMBER MATS AS OUTLINED IN THE WETLAND EQUIPMENT CROSSING (WEC) CONSTRUCTION DETAIL. WETLAND CROSSINGS COMPLETED VIA CONVENTIONAL BORE WILL BE SPECIFICALLY NOTED ON THE PLAN VIEW AND THE WBX CONSTRUCTION DETAIL.
- TYPICAL VEGETATED CHANNEL & VEGETATION RESTORATION (VCR) DETAILS 1 AND 2 ARE IDENTIFIED FOR WATERBODY RESTORATION. VCR-1 WILL BE UTILIZED AT WATERBODIES WITH EXISTING FORESTED RIPARIAN BUFFERS. VCR-2 WILL BE UTILIZED AT WATERBODIES WITH NON-FORESTED RIPARIAN BUFFER.
- ALL TYPICAL CONSTRUCTION DETAILS FOR PROPOSED CROSSING METHODS ARE LOCATED WITHIN THE EROSION AND SEDIMENTATION CONTROL PLAN AND NARRATIVE.
- THE PROPOSED PIPELINE WILL BE INSTALLED WITH 3-FEET MINIMUM COVER THROUGH WETLANDS AND 4-FEET MINIMUM COVER THROUGH STREAM CHANNELS.
- EXISTING CULVERTS ARE NOT PROPOSED FOR MODIFICATION AND ARE TO BE USED AS-IS.



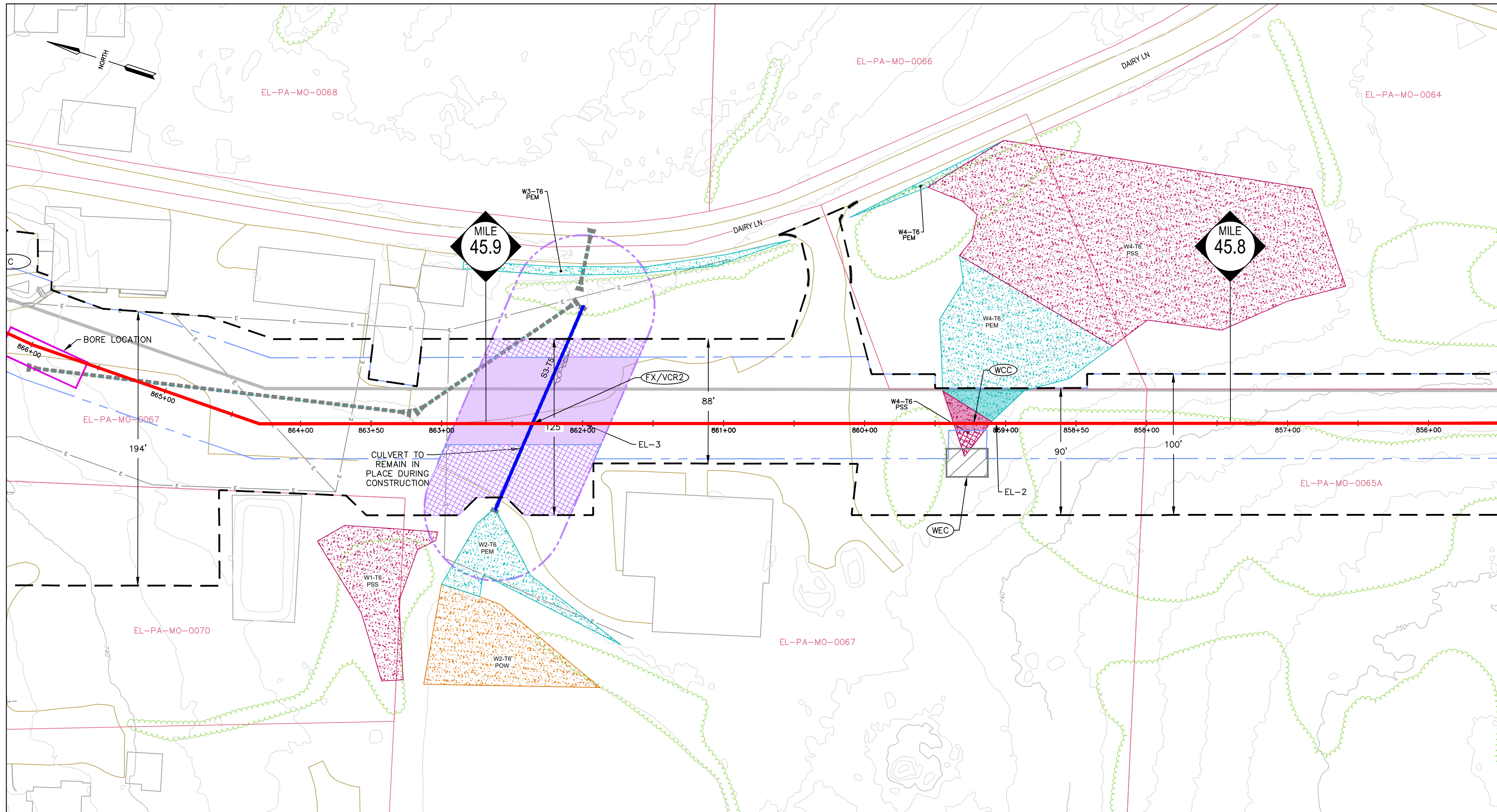
LEGEND		WETLANDS		STREAMS	
--- PROPOSED LIMITS OF DISTURBANCE (LOD)	--- EXISTING UNDERGROUND ELECTRIC LINE	EMERGENT WETLAND (PEM)	STREAM CHANNEL	PROPOSED PERMANENT STREAM CHANNEL IMPACT	PROPOSED PERMANENT FLOODWAY IMPACT
--- EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD	--- EXISTING GAS LINE	PROPOSED PEM PERMANENT IMPACTS	PROPOSED PERMANENT FLOODWAY IMPACT	PROPOSED TEMPORARY STREAM CHANNEL IMPACT	PROPOSED TEMPORARY FLOODWAY IMPACT
--- PROPOSED 42" PIPELINE	--- EXISTING WATER LINE	PROPOSED PEM TEMPORARY IMPACTS	FLOODWAY	--- FLOODWAY	--- FEMA FLOODPLAIN
--- EXISTING PIPELINES	--- EXISTING SANITARY LINE	SCRUB SHRUB WETLAND (PSS)	PROPOSED PERMANENT FLOODWAY IMPACT	---	---
--- EXISTING EDGE OF ROADWAY	--- EXISTING STORM SEWER	PROPOSED PSS PERMANENT IMPACTS	PROPOSED PERMANENT FLOODWAY IMPACT	---	---
--- PARCEL BOUNDARY	--- EXISTING TELEPHONE LINE	PROPOSED PSS TEMPORARY IMPACTS	PROPOSED PERMANENT FLOODWAY IMPACT	---	---
--- EXISTING CONTOUR (10' C.L.)	--- EXISTING FIBER OPTIC LINE	FORESTED WETLAND (PFO)	PROPOSED PERMANENT FLOODWAY IMPACT	---	---
--- EXISTING CONTOUR (2' C.L.)	--- EXISTING UNDERGROUND CABLE LINE	PROPOSED PFO PERMANENT IMPACTS	PROPOSED PERMANENT FLOODWAY IMPACT	---	---
--- CULVERT	--- EXISTING FENCE	PROPOSED PFO TEMPORARY IMPACTS	PROPOSED PERMANENT FLOODWAY IMPACT	---	---
--- TREELINE / SHRUB LINE	--- TIMBERMAT	OPEN WATER WETLAND (POW)	PROPOSED PERMANENT FLOODWAY IMPACT	---	---
--- EXISTING FENCE	--- EXISTING STRUCTURE	PROPOSED POW TEMPORARY IMPACTS	---	---	---



REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN
2	07/08/22	BH	REVISED TO PADEP JUNE 2022 TECHNICAL DEFICIENCY LETTER	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
 REGIONAL ENERGY ACCESS EXPANSION PROJECT -
 EFFORT LOOP
 WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
 CROSSING EL-AR-1
 MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 7 OF 20
WO: 1222637	RID: 108		



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Area (ac) ⁷
EL-2	W4-T6	WETLAND	PSS	-	PERM	0.0103
	W4-T6	WETLAND	PEM	-	PERM	0.0171
	W4-T6	WETLAND	PSS	-	TEMP	0.0043
EL-3	S3-T5	STREAM	-	Ephemeral	PERM	0.0015
	S3-T5	FLOODWAY	-	Ephemeral	PERM	0.1552
	S3-T5	FLOODWAY	-	Ephemeral	TEMP	0.1468
	S3-T5	STREAM	-	Ephemeral	TEMP	0.0003

TABLE NOTES:

- UNIQUE IDENTIFIER FOR THE SINGLE AND COMPLETE CROSSING
- UNIQUE NAME FOR IMPACTED RESOURCE
- TYPE OF IMPACTED RESOURCE (STREAM/WETLAND/FLOODWAY)
- COWARDIN CLASSIFICATION OF IMPACTED WETLAND, APPLIES TO WETLANDS ONLY.
- FLOW REGIME OF THE IMPACTED STREAM APPLIES TO STREAMS ONLY.
- IMPACT TYPE IS EITHER PERMANENT OR TEMPORARY.
- THE AREA OF THE RESOURCE IMPACTED, IN ACRES. FOR AREAS WHERE THE WETLANDS AND FLOODWAY OVERLAP, FLOODWAY IMPACTS ARE INCLUDED WITHIN THE WETLAND IMPACT AREA (I.E. WETLAND AND FLOODWAY IMPACTS WERE NOT COUNTED IN DUPLICATE)

TEMPORARY IMPACTS

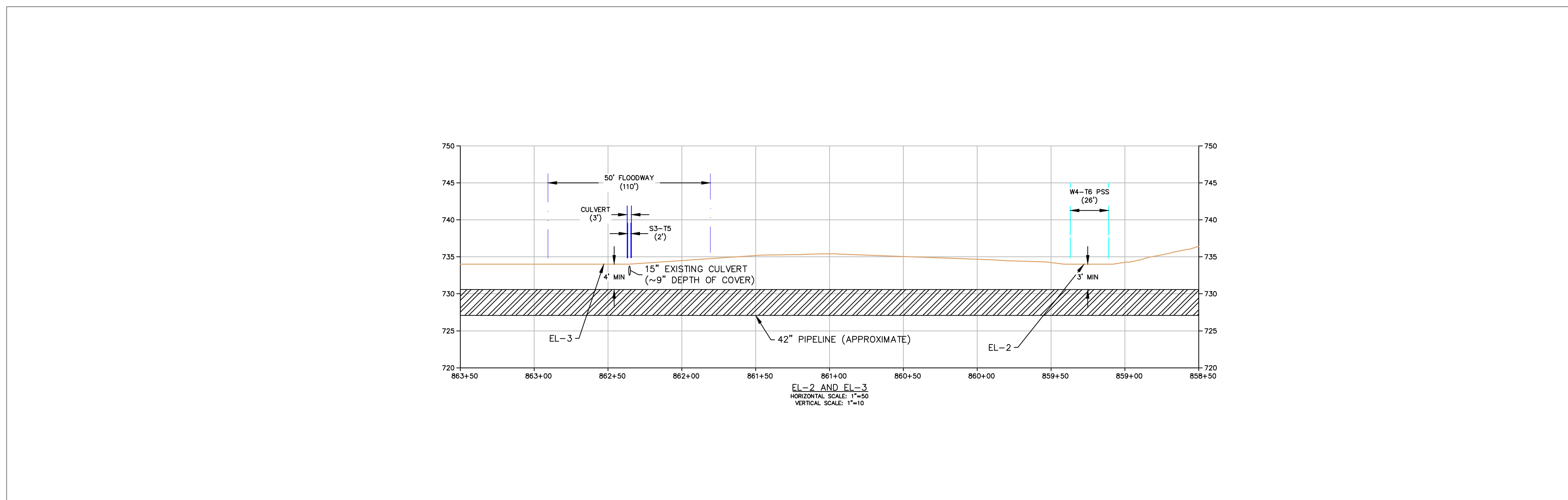
PIPELINE IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS MEASURED OUTSIDE THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONTOURS. PSS AND PFO WETLANDS WILL BE REVEGETATED TO THEIR PRE-EXISTING COVER TYPE.
ACCESS ROAD IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE ON THE ACCESS ROADS. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONDITION.

PERMANENT IMPACTS

PIPELINE IMPACTS - PERMANENT IMPACTS INCLUDE THE AREA MEASURED WITHIN THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY (PROW), WHICH INCLUDES EXISTING AND PROPOSED ADDITIONAL PROW. THERE IS NO PERMANENT LOSS OF RESOURCES IN THE PROW AND THESE AREAS WILL BE RESTORED TO PRE-EXISTING CONTOURS. FOR PSS AND PFO WETLANDS WITHIN THE PROW, THE PERMANENT IMPACT VALUE REPRESENTS THE FUNCTIONAL CONVERSION AREA OF THESE RESOURCES.

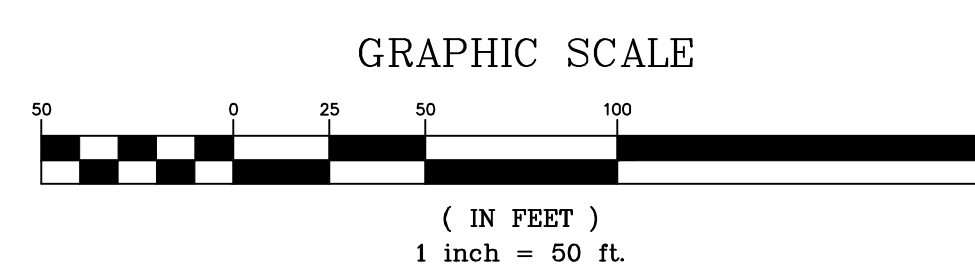
GENERAL NOTES:

- STREAM CROSSING METHODS WILL BE COMPLETED VIA OPEN CUT CONSTRUCTION METHODS. EITHER DAM AND PUMP (DPX) OR FLUMED (FX) DRY-CROSSING METHOD WILL BE UTILIZED BASED ON FIELD CONDITIONS DURING TIME OF CONSTRUCTION. A BRIDGE EQUIPMENT CROSSING (BEC), BRIDGE EQUIPMENT CROSSING WITH CENTERED OR MULTIPLE SUPPORTS (BCC) OR CULVERT EQUIPMENT CROSSING (CEC) WILL BE INSTALLED AT ALL STREAM CROSSINGS.
- WETLAND CROSSING METHODS WILL COMPLETED VIA OPEN CUT CONSTRUCTION METHODS AS OUTLINED IN WETLAND CROSSING CONFIGURATION (WCC.1, WCC.2, WCC.3), BASED ON FIELD CONDITIONS DURING THE TIME OF CONSTRUCTION. WETLANDS WILL BE CROSSED FOR ACCESS UTILIZING TIMBER MATS AS OUTLINED IN THE WETLAND EQUIPMENT CROSSING (WEC) CONSTRUCTION DETAIL. WETLAND CROSSINGS COMPLETED VIA CONVENTIONAL BORE WILL BE SPECIFICALLY NOTED ON THE PLAN VIEW AND THE WBX CONSTRUCTION DETAIL.
- TYPICAL VEGETATED CHANNEL & VEGETATION RESTORATION (VCR) DETAILS 1 AND 2 ARE IDENTIFIED FOR WATERBODY RESTORATION. VCR-1 WILL BE UTILIZED AT WATERBODIES WITH EXISTING FORESTED RIPARIAN BUFFERS. VCR-2 WILL BE UTILIZED AT WATERBODIES WITH NON-FORESTED RIPARIAN BUFFER.
- ALL TYPICAL CONSTRUCTION DETAILS FOR PROPOSED CROSSING METHODS ARE LOCATED WITHIN THE EROSION AND SEDIMENTATION CONTROL PLAN AND NARRATIVE.
- THE PROPOSED PIPELINE WILL BE INSTALLED WITH 3-FOOT MINIMUM COVER THROUGH WETLANDS AND 4-FOOT MINIMUM COVER THROUGH STREAM CHANNELS.
- EXISTING CULVERTS ARE NOT PROPOSED FOR MODIFICATION AND ARE TO BE USED AS-IS.



LEGEND	
— PROPOSED LIMITS OF DISTURBANCE (LOD)	— EXISTING UNDERGROUND ELECTRIC LINE
— EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD	— EXISTING GAS LINE
— PROPOSED 42" PIPELINE	— EXISTING WATER LINE
— EXISTING PIPELINES	— EXISTING SANITARY LINE
— EXISTING EDGE OF ROADWAY	— EXISTING STORM SEWER
— PARCEL BOUNDARY	— EXISTING TELEPHONE LINE
— EXISTING CONTOUR (10' C.L.)	— EXISTING FIBER OPTIC LINE
— EXISTING CONTOUR (2' C.L.)	— EXISTING UNDERGROUND CABLE LINE
— CULVERT	— EXISTING FENCE
— TREELINE / SHRUB LINE	— TIMBERMAT
— EXISTING FENCE	— EXISTING STRUCTURE
WETLANDS	STREAMS
— EMERGENT WETLAND (PEM)	— STREAM CHANNEL
— PROPOSED PEM PERMANENT IMPACTS	— PROPOSED PERMANENT STREAM CHANNEL IMPACT
— PROPOSED PEM TEMPORARY IMPACTS	— PROPOSED TEMPORARY STREAM CHANNEL IMPACT
— SCRUB SHRUB WETLAND (PSS)	FLOODWAY
— PROPOSED PSS PERMANENT IMPACTS	— FLOODWAY
— PROPOSED PSS TEMPORARY IMPACTS	— PROPOSED PERMANENT FLOODWAY IMPACT
— FORESTED WETLAND (PFO)	— PROPOSED TEMPORARY FLOODWAY IMPACT
— PROPOSED PFO PERMANENT IMPACTS	— FEMA
— PROPOSED PFO TEMPORARY IMPACTS	— FEMA FLOODPLAIN
— OPEN WATER WETLAND (POW)	
— PROPOSED POW TEMPORARY IMPACTS	

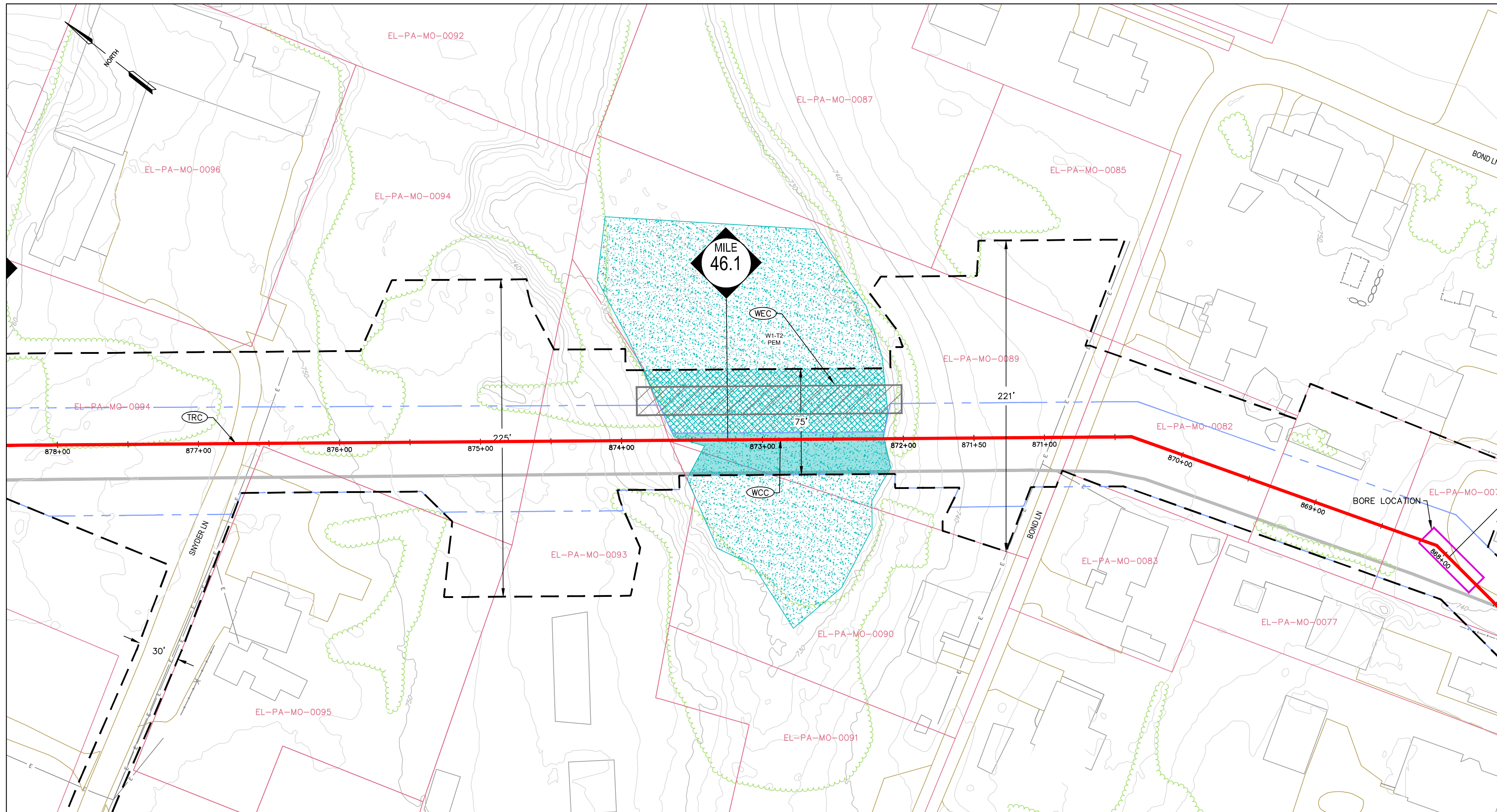
Crossing Name	Latitude	Longitude	Milepost	Municipality
EL-2	40.922655	-75.391061	45.8	Chestnut Hill
EL-3	40.923484	-75.391383	45.9	Chestnut Hill



REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN
2	07/08/22	BH	REVISED TO PADEP JUNE 2022 TECHNICAL DEFICIENCY LETTER	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
REGIONAL ENERGY ACCESS EXPANSION PROJECT - Effort Loop
WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
CROSSING EL-2 AND EL-3
MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 8 OF 20



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-4	W1-T2	WETLAND	PEM	-	TEMP	0.1670
	W1-T2	WETLAND	PEM	-	PERM	0.0948

TABLE NOTES:

- UNIQUE IDENTIFIER FOR THE SINGLE AND COMPLETE CROSSING
- UNIQUE NAME FOR IMPACTED RESOURCE
- TYPE OF IMPACTED RESOURCE (STREAM/WETLAND/FLOODWAY)
- COWARDIN CLASSIFICATION OF IMPACTED WETLAND, APPLIES TO WETLANDS ONLY.
- FLOW REGIME OF THE IMPACTED STREAM APPLIES TO STREAMS ONLY.
- IMPACT TYPE IS EITHER PERMANENT OR TEMPORARY.
- THE AREA OF THE RESOURCE IMPACTED, IN ACRES. FOR AREAS WHERE THE WETLANDS AND FLOODWAY OVERLAP, FLOODWAY IMPACTS ARE INCLUDED WITHIN THE WETLAND IMPACT AREA (I.E. WETLAND AND FLOODWAY IMPACTS WERE NOT COUNTED IN DUPLICATE)

TEMPORARY IMPACTS

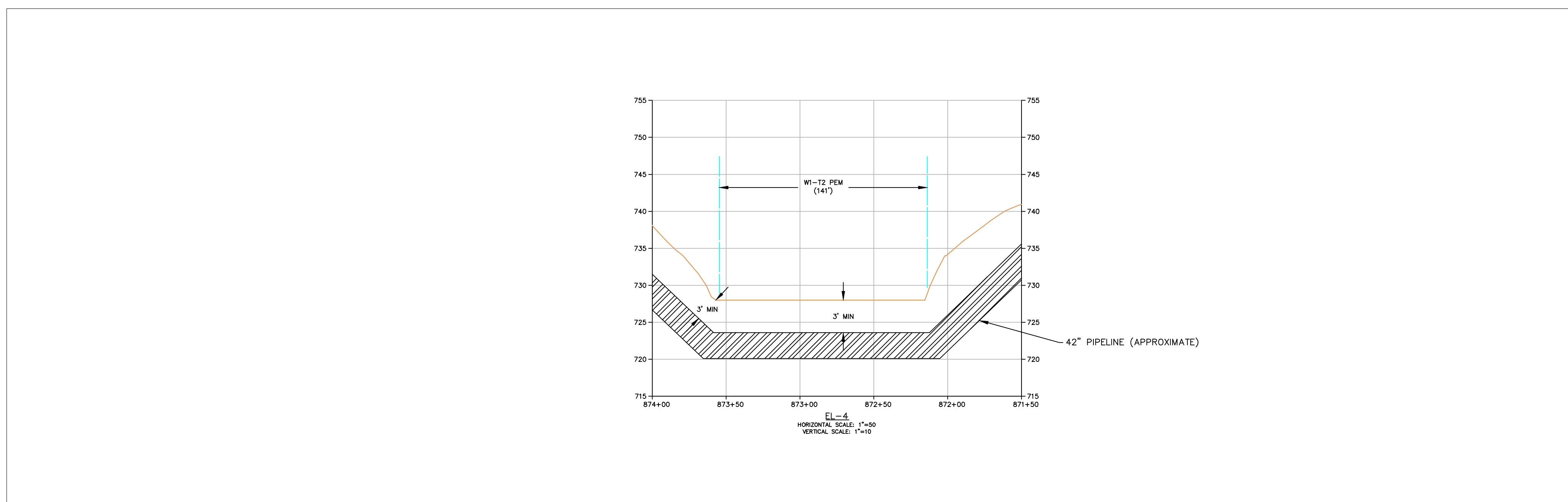
PIPELINE IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS MEASURED OUTSIDE THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONTOURS. PSS AND PFO WETLANDS WILL BE REVEGETATED TO THEIR PRE-EXISTING COVER TYPE.
ACCESS ROAD IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE ON THE ACCESS ROADS. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONDITION.

PERMANENT IMPACTS

PIPELINE IMPACTS - PERMANENT IMPACTS INCLUDE THE AREA MEASURED WITHIN THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY (PROW), WHICH INCLUDES EXISTING AND PROPOSED ADDITIONAL PROW. THERE IS NO PERMANENT LOSS OF RESOURCES IN THE PROW AND THESE AREAS WILL BE RESTORED TO PRE-EXISTING CONTOURS. FOR PSS AND PFO WETLANDS WITHIN THE PROW, THE PERMANENT IMPACT VALUE REPRESENTS THE FUNCTIONAL CONVERSION AREA OF THESE RESOURCES.

GENERAL NOTES:

- STREAM CROSSING METHODS WILL BE COMPLETED VIA OPEN CUT CONSTRUCTION METHODS. EITHER DAM AND PUMP (DPX) OR FLUMED (FX) DRY-CROSSING METHOD WILL BE UTILIZED BASED ON FIELD CONDITIONS DURING TIME OF CONSTRUCTION. A BRIDGE EQUIPMENT CROSSING (BEC), BRIDGE EQUIPMENT CROSSING WITH CENTERED OR MULTIPLE SUPPORTS (BCC) OR CULVERT EQUIPMENT CROSSING (CEC) WILL BE INSTALLED AT ALL STREAM CROSSINGS.
- WETLAND CROSSING METHODS WILL COMPLETED VIA OPEN CUT CONSTRUCTION METHODS AS OUTLINED IN WETLAND CROSSING CONFIGURATION (WCC-1, WCC-2, WCC-3), BASED ON FIELD CONDITIONS DURING THE TIME OF CONSTRUCTION. WETLANDS WILL BE CROSSED FOR ACCESS UTILIZING TIMBER MATS AS OUTLINED IN THE WETLAND EQUIPMENT CROSSING (WEC) CONSTRUCTION DETAIL. WETLAND CROSSINGS COMPLETED VIA CONVENTIONAL BORE WILL BE SPECIFICALLY NOTED ON THE PLAN VIEW AND THE WBX CONSTRUCTION DETAIL.
- TYPICAL VEGETATED CHANNEL & VEGETATION RESTORATION (VCR) DETAILS 1 AND 2 ARE IDENTIFIED FOR WATERBODY RESTORATION. VCR-1 WILL BE UTILIZED AT WATERBODIES WITH EXISTING FORESTED RIPARIAN BUFFERS. VCR-2 WILL BE UTILIZED AT WATERBODIES WITH NON-FORESTED RIPARIAN BUFFER.
- ALL TYPICAL CONSTRUCTION DETAILS FOR PROPOSED CROSSING METHODS ARE LOCATED WITHIN THE EROSION AND SEDIMENTATION CONTROL PLAN AND NARRATIVE.
- THE PROPOSED PIPELINE WILL BE INSTALLED WITH 3-FOOT MINIMUM COVER THROUGH WETLANDS AND 4-FOOT MINIMUM COVER THROUGH STREAM CHANNELS.
- EXISTING CULVERTS ARE NOT PROPOSED FOR MODIFICATION AND ARE TO BE USED AS-IS.



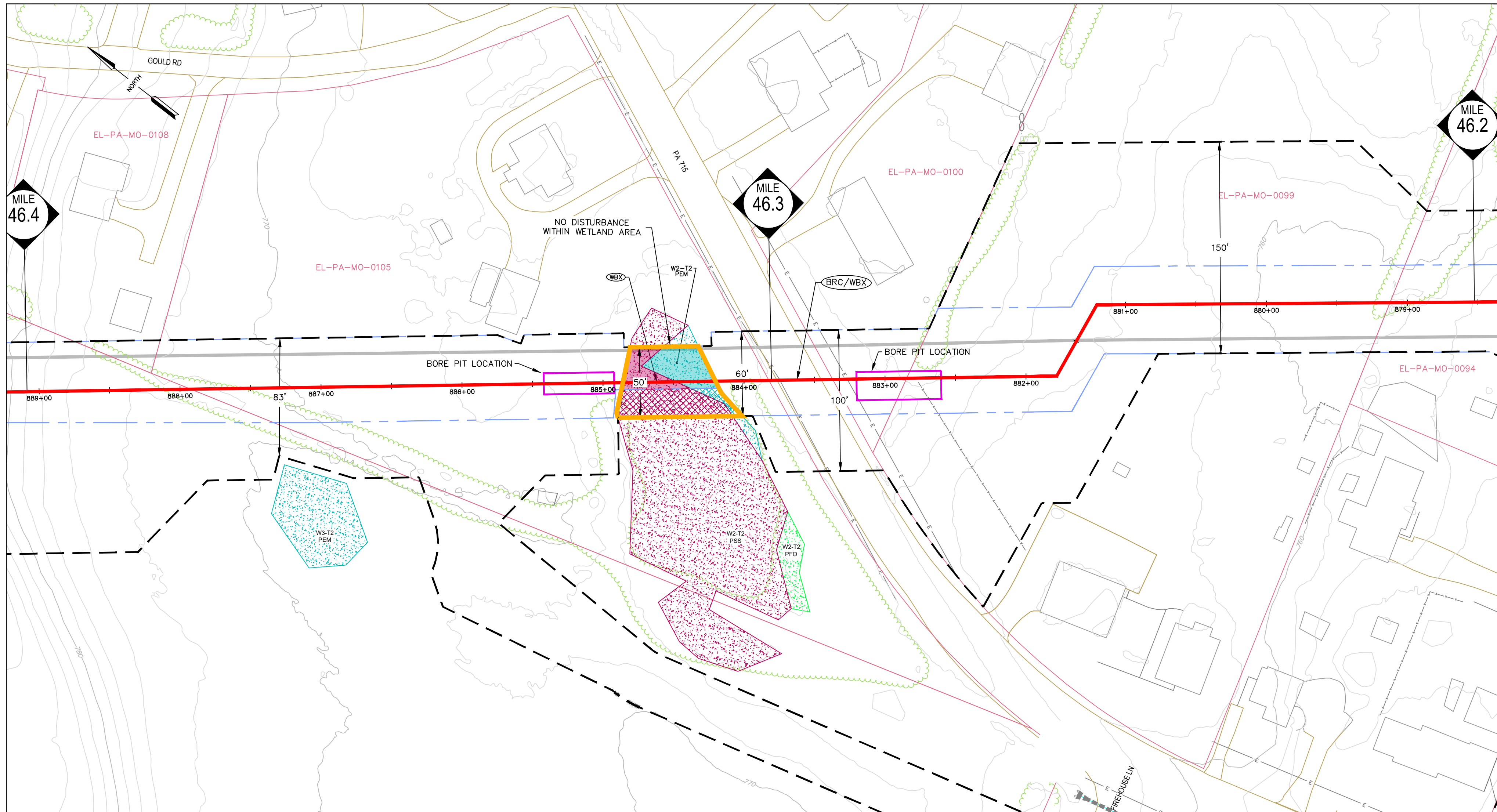
LEGEND	
	PROPOSED LIMITS OF DISTURBANCE (LOD)
	EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD
	PROPOSED 42" PIPELINE
	EXISTING PIPELINES
	EXISTING EDGE OF ROADWAY
	PARCEL BOUNDARY
	EXISTING CONTOUR (10' CL)
	EXISTING CONTOUR (2' CL)
	CULVERT
	TREELINE / SHRUB LINE
	EXISTING FENCE
	EXISTING ELECTRIC LINE/POLE
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING GAS LINE
	EXISTING WATER LINE
	EXISTING SANITARY LINE
	EXISTING STORM SEWER
	EXISTING TELEPHONE LINE
	EXISTING FIBER OPTIC LINE
	EXISTING UNDERGROUND CABLE LINE
	EXISTING FENCE
	TIMBERMAT
	EXISTING STRUCTURE
	EMERGENT WETLAND (PEM)
	PROPOSED PEM PERMANENT IMPACTS
	PROPOSED PEM TEMPORARY IMPACTS
	SCRUB SHRUB WETLAND (PSS)
	PROPOSED PSS PERMANENT IMPACTS
	PROPOSED PSS TEMPORARY IMPACTS
	FORESTED WETLAND (PFO)
	PROPOSED PFO PERMANENT IMPACTS
	PROPOSED PFO TEMPORARY IMPACTS
	OPEN WATER WETLAND (POW)
	PROPOSED POW TEMPORARY IMPACTS
	STREAM CHANNEL
	PROPOSED PERMANENT STREAM CHANNEL IMPACT
	PROPOSED TEMPORARY STREAM CHANNEL IMPACT
	FLOODWAY
	PROPOSED PERMANENT FLOODWAY IMPACT
	PROPOSED TEMPORARY FLOODWAY IMPACT
	FEMA FLOODPLAIN

Crossing Name	Latitude	Longitude	Milepost	Municipality
EL-4	40.926154	-75.392215	46.1	Chestnuthill

GRAPHIC SCALE

REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN
2	07/08/22	BH	REVISED TO PADEP JUNE 2022 TECHNICAL DEFICIENCY LETTER	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC REGIONAL ENERGY ACCESS EXPANSION PROJECT - EFFORT LOOP WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS CROSSING EL-4 MONROE COUNTY, PENNSYLVANIA				
DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'	
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:	
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 9 OF 20	
WO: 1222637	RID: 108			



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-5	W2-T2	WETLAND	PEM	-	PERM	0.0237
	W2-T2	WETLAND	PSS	-	TEMP	0.0320
	W2-T2	WETLAND	PEM	-	TEMP	0.0041
	W2-T2	WETLAND	PSS	-	PERM	0.0167

TABLE NOTES:

- UNIQUE IDENTIFIER FOR THE SINGLE AND COMPLETE CROSSING
- UNIQUE NAME FOR IMPACTED RESOURCE
- TYPE OF IMPACTED RESOURCE (STREAM/WETLAND/FLOODWAY)
- COWARDIN CLASSIFICATION OF IMPACTED WETLAND, APPLIES TO WETLANDS ONLY
- FLOW REGIME OF THE IMPACTED STREAM APPLIES TO STREAMS ONLY
- IMPACT TYPE IS EITHER PERMANENT OR TEMPORARY
- THE AREA OF THE RESOURCE IMPACTED, IN ACRES. FOR AREAS WHERE THE WETLANDS AND FLOODWAY OVERLAP, FLOODWAY IMPACTS ARE INCLUDED WITHIN THE WETLAND IMPACT AREA (I.E. WETLAND AND FLOODWAY IMPACTS WERE NOT COUNTED IN DUPLICATE)

TEMPORARY IMPACTS

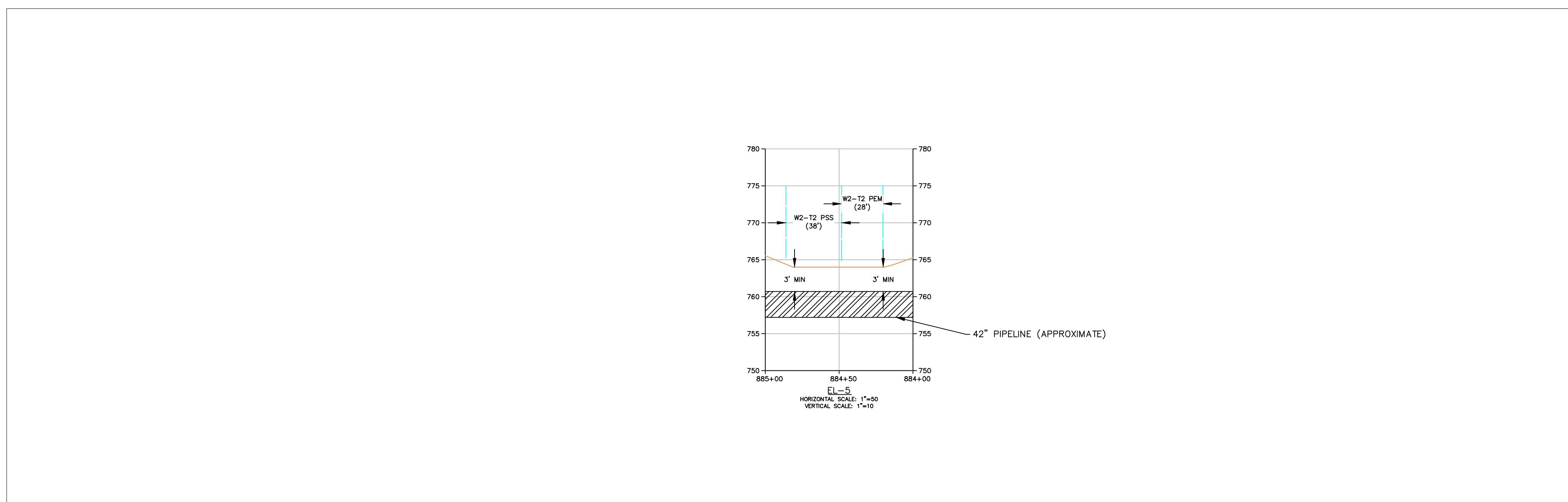
PIPELINE IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS MEASURED OUTSIDE THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONTOURS. PSS AND PFO WETLANDS WILL BE REVEGETATED TO THEIR PRE-EXISTING COVER TYPE.
ACCESS ROAD IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE ON THE ACCESS ROADS. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONDITION.

PERMANENT IMPACTS

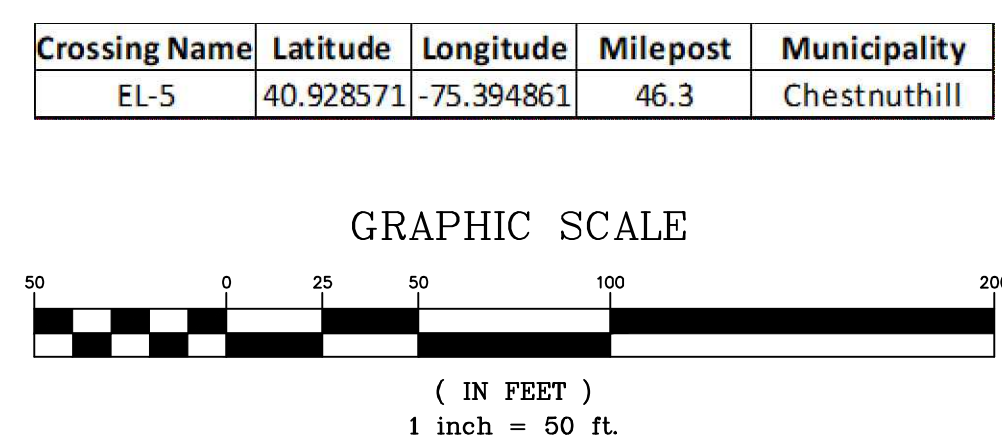
PIPELINE IMPACTS - PERMANENT IMPACTS INCLUDE THE AREA MEASURED WITHIN THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY (PROW), WHICH INCLUDES EXISTING AND PROPOSED ADDITIONAL PROW. THERE IS NO PERMANENT LOSS OF RESOURCES IN THE PROW AND THESE AREAS WILL BE RESTORED TO PRE-EXISTING CONTOURS. FOR PSS AND PFO WETLANDS WITHIN THE PROW, THE PERMANENT IMPACT VALUE REPRESENTS THE FUNCTIONAL CONVERSION AREA OF THESE RESOURCES.

GENERAL NOTES:

- STREAM CROSSING METHODS WILL BE COMPLETED VIA OPEN CUT CONSTRUCTION METHODS. EITHER DAM AND PUMP (DPX) OR FLUMED (FX) DRY-CROSSING METHOD WILL BE UTILIZED BASED ON FIELD CONDITIONS DURING TIME OF CONSTRUCTION. A BRIDGE EQUIPMENT CROSSING (BEC), BRIDGE EQUIPMENT CROSSING WITH CENTERED OR MULTIPLE SUPPORTS (BCC) OR CULVERT EQUIPMENT CROSSING (CEC) WILL BE INSTALLED AT ALL STREAM CROSSINGS.
- WETLAND CROSSING METHODS WILL COMPLETED VIA OPEN CUT CONSTRUCTION METHODS AS OUTLINED IN WETLAND CROSSING CONFIGURATION (WCC-1, WCC-2, WCC-3), BASED ON FIELD CONDITIONS DURING THE TIME OF CONSTRUCTION. WETLANDS WILL BE CROSSED FOR ACCESS UTILIZING TIMBER MATS AS OUTLINED IN THE WETLAND EQUIPMENT CROSSING (WEC) CONSTRUCTION DETAIL. WETLAND CROSSINGS COMPLETED VIA CONVENTIONAL BORE WILL BE SPECIFICALLY NOTED ON THE PLAN VIEW AND THE WBX CONSTRUCTION DETAIL.
- TYPICAL VEGETATED CHANNEL & VEGETATION RESTORATION (VCR) DETAILS 1 AND 2 ARE IDENTIFIED FOR WATERBODY RESTORATION. VCR-1 WILL BE UTILIZED AT WATERBODIES WITH EXISTING FORESTED RIPARIAN BUFFERS. VCR-2 WILL BE UTILIZED AT WATERBODIES WITH NON-FORESTED RIPARIAN BUFFER.
- ALL TYPICAL CONSTRUCTION DETAILS FOR PROPOSED CROSSING METHODS ARE LOCATED WITHIN THE EROSION AND SEDIMENTATION CONTROL PLAN AND NARRATIVE.
- THE PROPOSED PIPELINE WILL BE INSTALLED WITH 3-FOOT MINIMUM COVER THROUGH WETLANDS AND 4-FOOT MINIMUM COVER THROUGH STREAM CHANNELS.
- EXISTING CULVERTS ARE NOT PROPOSED FOR MODIFICATION AND ARE TO BE USED AS-IS.

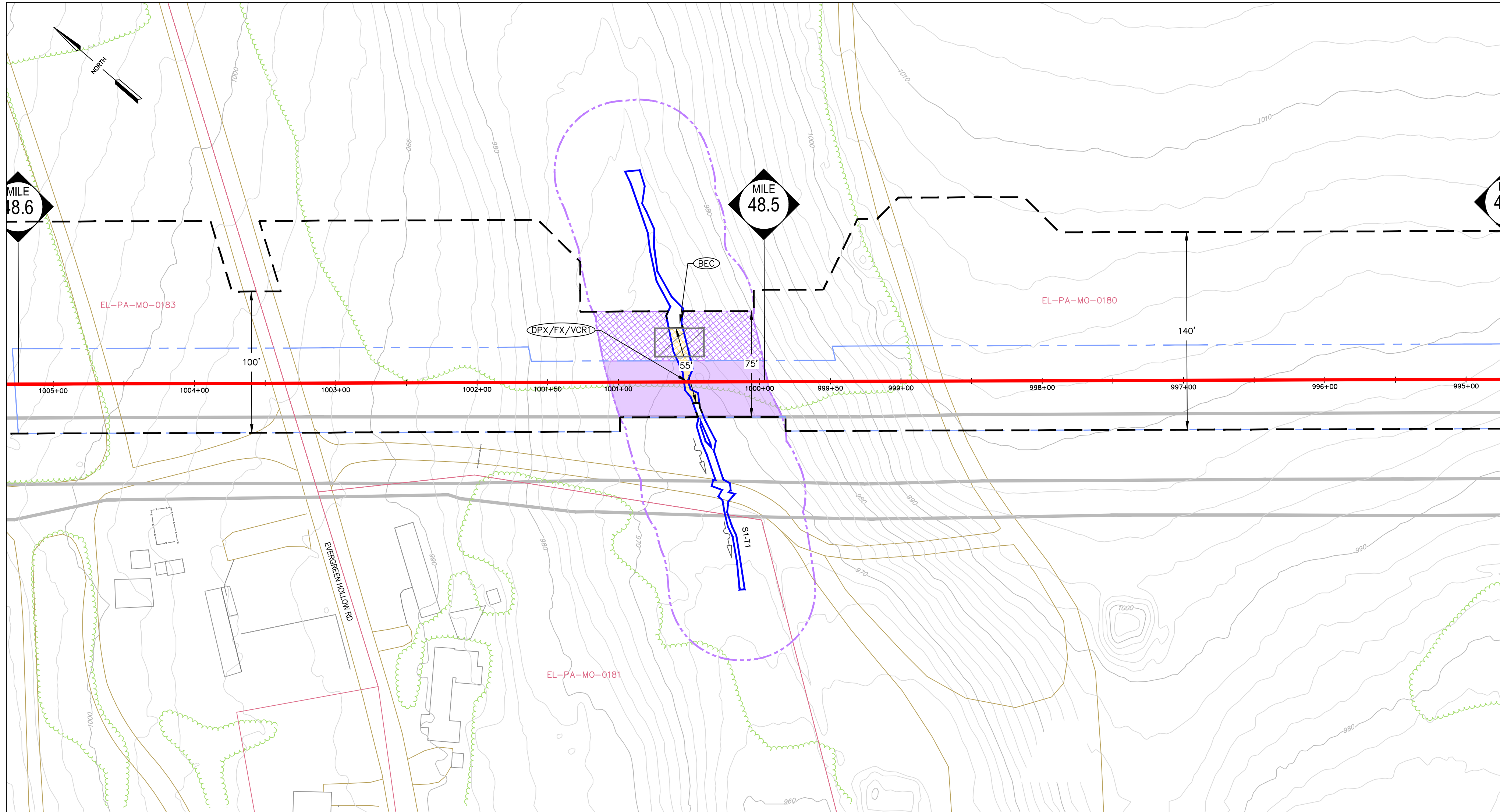


LEGEND	
— PROPOSED LIMITS OF DISTURBANCE (LOD)	— EXISTING UNDERGROUND ELECTRIC LINE
— EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD	— EXISTING GAS LINE
— PROPOSED 42" PIPELINE	— EXISTING WATER LINE
— EXISTING PIPELINES	— EXISTING SANITARY LINE
— EXISTING EDGE OF ROADWAY	— EXISTING STORM SEWER
— PARCEL BOUNDARY	— EXISTING TELEPHONE LINE
— EXISTING CONTOUR (10' C.I.)	— EXISTING FIBER OPTIC LINE
— EXISTING CONTOUR (2' C.I.)	— EXISTING UNDERGROUND CABLE LINE
— CULVERT	— EXISTING FENCE
— TREELINE / SHRUB LINE	— TIMBERMAT
— EXISTING FENCE	— EXISTING STRUCTURE
WETLANDS	STREAMS
— EMERGENT WETLAND (PEM)	— STREAM CHANNEL
— PROPOSED PEM PERMANENT IMPACTS	— PROPOSED PERMANENT STREAM CHANNEL IMPACT
— PROPOSED PEM TEMPORARY IMPACTS	— PROPOSED TEMPORARY STREAM CHANNEL IMPACT
— SCRUB SHRUB WETLAND (PSS)	FLOODWAY
— PROPOSED PSS PERMANENT IMPACTS	— FLOODWAY
— PROPOSED PSS TEMPORARY IMPACTS	— PROPOSED PERMANENT FLOODWAY IMPACT
— FORESTED WETLAND (PFO)	— PROPOSED TEMPORARY FLOODWAY IMPACT
— PROPOSED PFO PERMANENT IMPACTS	— FEMA
— PROPOSED PFO TEMPORARY IMPACTS	— FEMA FLOODPLAIN
— OPEN WATER WETLAND (POW)	
— PROPOSED POW TEMPORARY IMPACTS	



REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN
2	07/08/22	BH	REVISED TO PADEP JUNE 2022 TECHNICAL DEFICIENCY LETTER	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC REGIONAL ENERGY ACCESS EXPANSION PROJECT - EFFORT LOOP WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS CROSSING EL-5 MONROE COUNTY, PENNSYLVANIA			
DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 10 OF 20
WO: 1222637	RID: 108		



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Area (ac) ⁷
EL-6	S1-T1	STREAM	-	Intermittent	TEMP	0.0054
	S1-T1	FLOODWAY	-	Intermittent	PERM	0.0989
	S1-T1	FLOODWAY	-	Intermittent	TEMP	0.0822
	S1-T1	STREAM	-	Intermittent	PERM	0.0039

TABLE NOTES:

- UNIQUE IDENTIFIER FOR THE SINGLE AND COMPLETE CROSSING
- UNIQUE NAME FOR IMPACTED RESOURCE
- TYPE OF IMPACTED RESOURCE (STREAM/WETLAND/FLOODWAY)
- COWARDIN CLASSIFICATION OF IMPACTED WETLAND, APPLIES TO WETLANDS ONLY
- FLOW REGIME OF THE IMPACTED STREAM APPLIES TO STREAMS ONLY
- IMPACT TYPE IS EITHER PERMANENT OR TEMPORARY
- THE AREA OF THE RESOURCE IMPACTED, IN ACRES. FOR AREAS WHERE THE WETLANDS AND FLOODWAY OVERLAP, FLOODWAY IMPACTS ARE INCLUDED WITHIN THE WETLAND IMPACT AREA (I.E. WETLAND AND FLOODWAY IMPACTS WERE NOT COUNTED IN DUPLICATE)

TEMPORARY IMPACTS

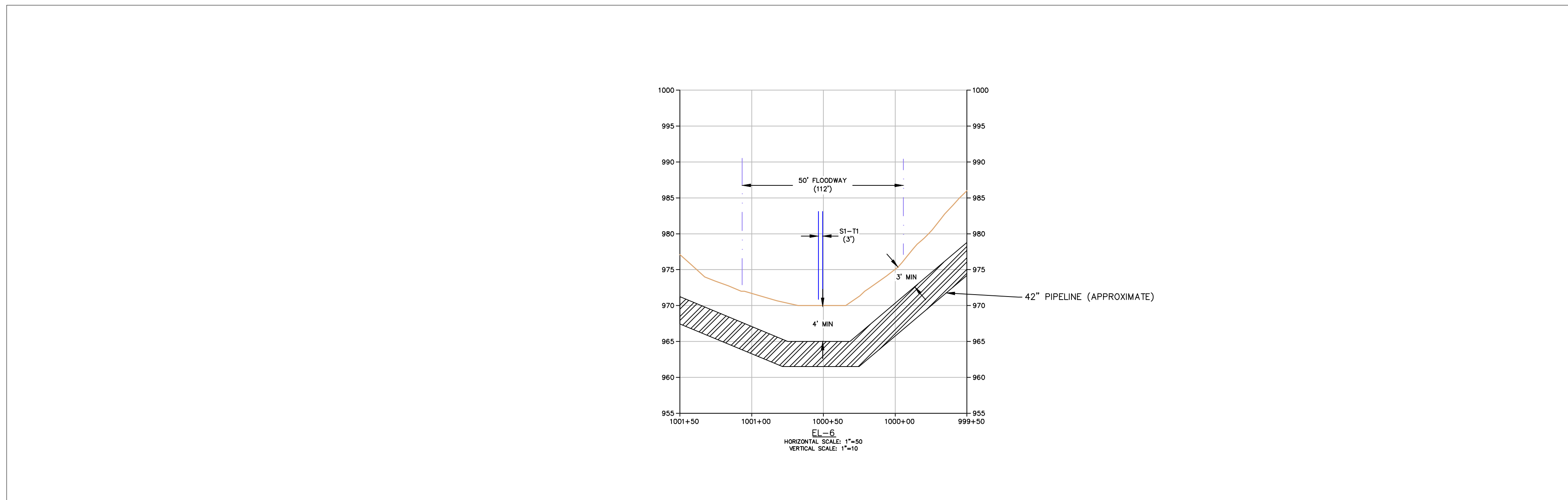
PIPELINE IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS MEASURED OUTSIDE THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONTOURS. PSS AND PFO WETLANDS WILL BE REVEGETATED TO THEIR PRE-EXISTING COVER TYPE.
ACCESS ROAD IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE ON THE ACCESS ROADS. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONDITION.

PERMANENT IMPACTS

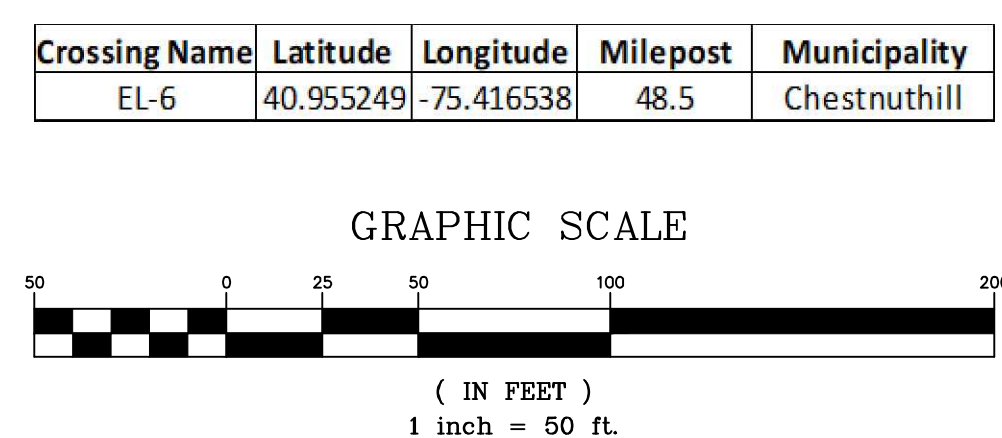
PIPELINE IMPACTS - PERMANENT IMPACTS INCLUDE THE AREA MEASURED WITHIN THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY (PROW), WHICH INCLUDES EXISTING AND PROPOSED ADDITIONAL PROW. THERE IS NO PERMANENT LOSS OF RESOURCES IN THE PROW AND THESE AREAS WILL BE RESTORED TO PRE-EXISTING CONTOURS. FOR PSS AND PFO WETLANDS WITHIN THE PROW, THE PERMANENT IMPACT VALUE REPRESENTS THE FUNCTIONAL CONVERSION AREA OF THESE RESOURCES.

GENERAL NOTES:

- STREAM CROSSING METHODS WILL BE COMPLETED VIA OPEN CUT CONSTRUCTION METHODS. EITHER DAM AND PUMP (DPX) OR FLUMED (FX) DRY-CROSSING METHOD WILL BE UTILIZED BASED ON FIELD CONDITIONS DURING TIME OF CONSTRUCTION. A BRIDGE EQUIPMENT CROSSING (BEC), BRIDGE EQUIPMENT CROSSING WITH CENTERED OR MULTIPLE SUPPORTS (BCC) OR CULVERT EQUIPMENT CROSSING (CEC) WILL BE INSTALLED AT ALL STREAM CROSSINGS.
- WETLAND CROSSING METHODS WILL COMPLETED VIA OPEN CUT CONSTRUCTION METHODS AS OUTLINED IN WETLAND CROSSING CONFIGURATION (WCC.1, WCC.2, WCC.3), BASED ON FIELD CONDITIONS DURING THE TIME OF CONSTRUCTION. WETLANDS WILL BE CROSSED FOR ACCESS UTILIZING TIMBER MATS AS OUTLINED IN THE WETLAND EQUIPMENT CROSSING (WEC) CONSTRUCTION DETAIL. WETLAND CROSSINGS COMPLETED VIA CONVENTIONAL BORE WILL BE SPECIFICALLY NOTED ON THE PLAN VIEW AND THE WBX CONSTRUCTION DETAIL.
- TYPICAL VEGETATED CHANNEL & VEGETATION RESTORATION (VCR) DETAILS 1 AND 2 ARE IDENTIFIED FOR WATERBODY RESTORATION. VCR-1 WILL BE UTILIZED AT WATERBODIES WITH EXISTING FORESTED RIPARIAN BUFFERS. VCR-2 WILL BE UTILIZED AT WATERBODIES WITH NON-FORESTED RIPARIAN BUFFER.
- ALL TYPICAL CONSTRUCTION DETAILS FOR PROPOSED CROSSING METHODS ARE LOCATED WITHIN THE EROSION AND SEDIMENTATION CONTROL PLAN AND NARRATIVE.
- THE PROPOSED PIPELINE WILL BE INSTALLED WITH 3-FEET MINIMUM COVER THROUGH WETLANDS AND 4-FEET MINIMUM COVER THROUGH STREAM CHANNELS.
- EXISTING CULVERTS ARE NOT PROPOSED FOR MODIFICATION AND ARE TO BE USED AS-IS.

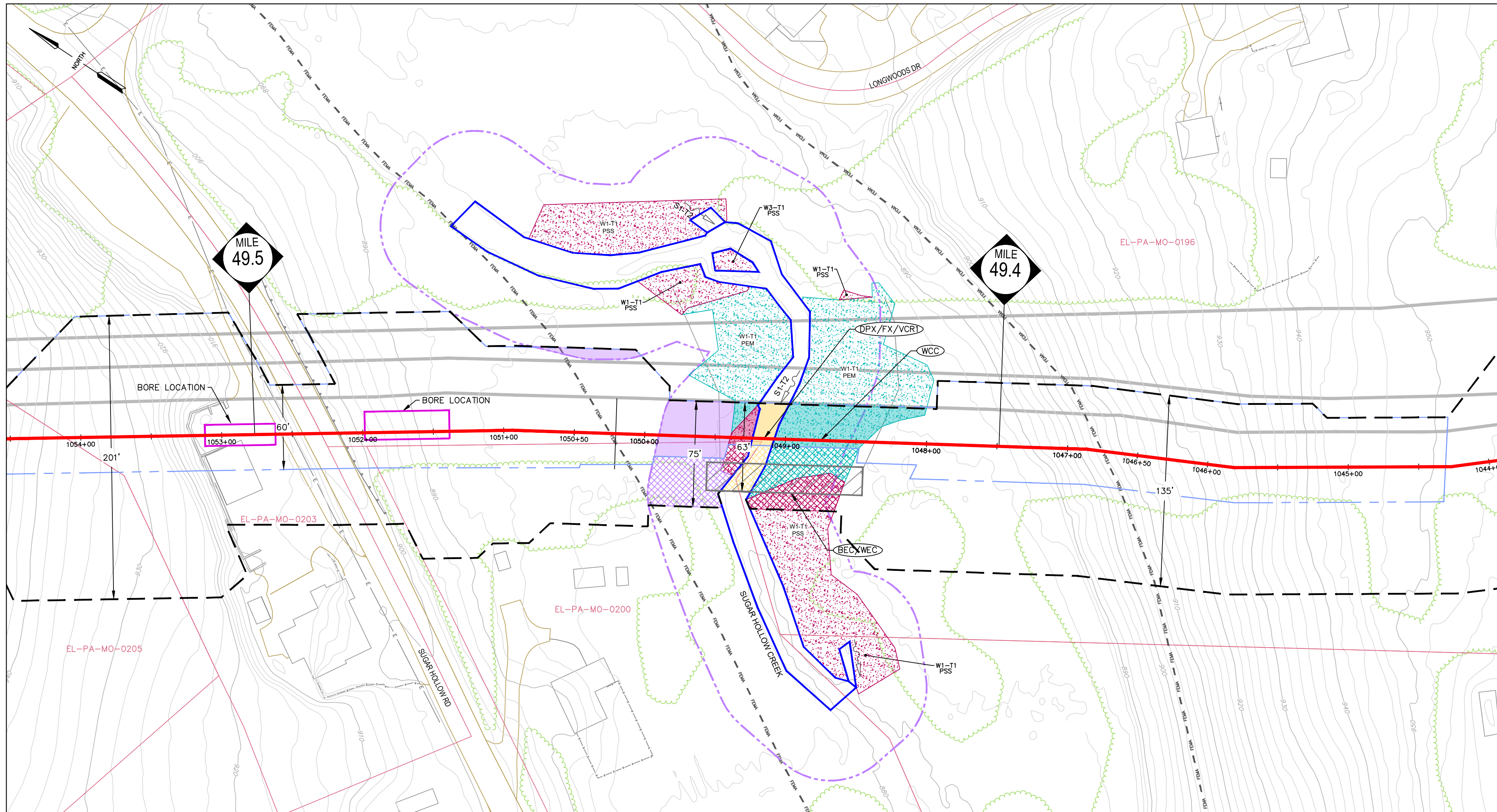


LEGEND	
— PROPOSED LIMITS OF DISTURBANCE (LOD)	— EXISTING UNDERGROUND ELECTRIC LINE
— EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD	— EXISTING UNDERGROUND GAS LINE
— PROPOSED 42" PIPELINE	— EXISTING WATER LINE
— EXISTING PIPELINES	— EXISTING SANITARY LINE
— EXISTING EDGE OF ROADWAY	— EXISTING STORM SEWER
— PARCEL BOUNDARY	— EXISTING TELEPHONE LINE
— EXISTING CONTOUR (10' C.L.)	— EXISTING FIBER OPTIC LINE
— EXISTING CONTOUR (2' C.L.)	— EXISTING UNDERGROUND CABLE LINE
— CULVERT	— EXISTING FENCE
— TREELINE / SHRUB LINE	— EXISTING STRUCTURE
— EXISTING FENCE	
WETLANDS	STREAMS
— EMERGENT WETLAND (PEM)	— STREAM CHANNEL
— PROPOSED PEM PERMANENT IMPACTS	— PROPOSED PERMANENT STREAM CHANNEL IMPACT
— PROPOSED PEM TEMPORARY IMPACTS	— PROPOSED TEMPORARY STREAM CHANNEL IMPACT
— SCRUB SHRUB WETLAND (PSS)	FLOODWAY
— PROPOSED PSS PERMANENT IMPACTS	— FLOODWAY
— PROPOSED PSS TEMPORARY IMPACTS	— PROPOSED PERMANENT FLOODWAY IMPACT
— FORESTED WETLAND (PFO)	— PROPOSED TEMPORARY FLOODWAY IMPACT
— PROPOSED PFO PERMANENT IMPACTS	— FEMA
— PROPOSED PFO TEMPORARY IMPACTS	— FEMA FLOODPLAIN
— OPEN WATER WETLAND (PWO)	
— PROPOSED PWO TEMPORARY IMPACTS	



REVISIONS					
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK. APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW RN
2	07/08/22	BH	REVISED TO PADEP JUNE 2022 TECHNICAL DEFICIENCY LETTER	1222637	DW RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC REGIONAL ENERGY ACCESS EXPANSION PROJECT - EFFORT LOOP WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS CROSSING EL-6 MONROE COUNTY, PENNSYLVANIA				
DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'	
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:	
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-0	SHEET 11 OF 20	
WO: 1222637	RID: 108			



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-7	S1-T2	STREAM	-	Perennial	TEMP	0.0133
	S1-T2	FLOODWAY	-	Perennial	PERM	0.0553
	S1-T2	FLOODWAY	-	Perennial	TEMP	0.0419
	S1-T2	STREAM	-	Perennial	PERM	0.0118
	W1-T1	WETLAND	PSS	-	PERM	0.0070
	W1-T1	WETLAND	PEM	-	PERM	0.0571
	W1-T1	WETLAND	PSS	-	TEMP	0.0358
	W1-T1	WETLAND	PEM	-	TEMP	0.0349

TABLE NOTES:

- UNIQUE IDENTIFIER FOR THE SINGLE AND COMPLETE CROSSING
- UNIQUE NAME FOR IMPACTED RESOURCE
- TYPE OF IMPACTED RESOURCE (STREAM/WETLAND/FLOODWAY)
- COWARDIN CLASSIFICATION OF IMPACTED WETLAND, APPLIES TO WETLANDS ONLY
- FLOW REGIME OF THE IMPACTED STREAM APPLIES TO STREAMS ONLY
- IMPACT TYPE IS EITHER PERMANENT OR TEMPORARY
- THE AREA OF THE RESOURCE IMPACTED, IN ACRES. FOR AREAS WHERE THE WETLANDS AND FLOODWAY OVERLAP, FLOODWAY IMPACTS ARE INCLUDED WITHIN THE WETLAND IMPACT AREA (I.E. WETLAND AND FLOODWAY IMPACTS WERE NOT COUNTED IN DUPLICATES)

TEMPORARY IMPACTS

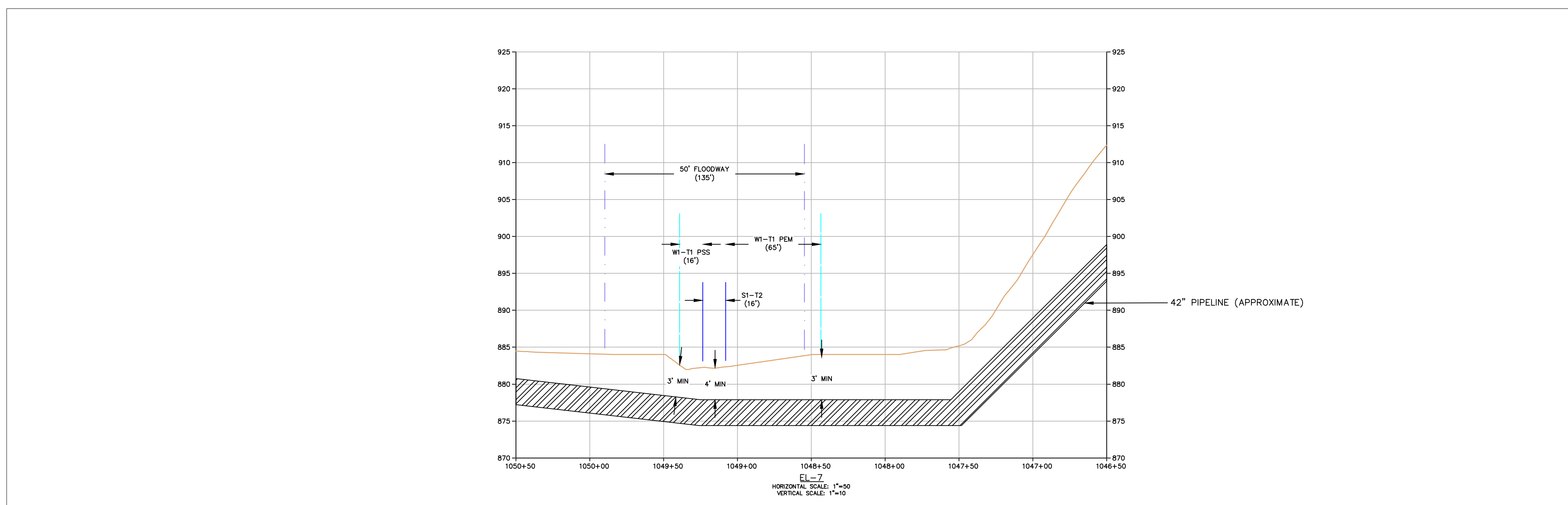
PIPELINE IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS MEASURED OUTSIDE THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONTOURS. PSS AND PFO WETLANDS WILL BE REVEGETATED TO THEIR PRE-EXISTING COVER TYPE.
ACCESS ROAD IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE ON THE ACCESS ROADS. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONDITION.

PERMANENT IMPACTS

PIPELINE IMPACTS - PERMANENT IMPACTS INCLUDE THE AREA MEASURED WITHIN THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY (PROW), WHICH INCLUDES EXISTING AND PROPOSED ADDITIONAL PROW. THERE IS NO PERMANENT LOSS OF RESOURCES IN THE PROW AND THESE AREAS WILL BE RESTORED TO PRE-EXISTING CONTOURS. FOR PSS AND PFO WETLANDS WITHIN THE PROW, THE PERMANENT IMPACT VALUE REPRESENTS THE FUNCTIONAL CONVERSION AREA OF THESE RESOURCES.

GENERAL NOTES:

- STREAM CROSSING METHODS WILL BE COMPLETED VIA OPEN CUT CONSTRUCTION METHODS. EITHER DAM AND PUMP (DPX) OR FLUMED (FX) DRY-CROSSING METHOD WILL BE UTILIZED BASED ON FIELD CONDITIONS DURING TIME OF CONSTRUCTION. A BRIDGE EQUIPMENT CROSSING (BEC), BRIDGE EQUIPMENT CROSSING WITH CENTERED OR MULTIPLE SUPPORTS (BCC) OR CULVERT EQUIPMENT CROSSING (CEC) WILL BE INSTALLED AT ALL STREAM CROSSINGS.
- WETLAND CROSSING METHODS WILL COMPLETED VIA OPEN CUT CONSTRUCTION METHODS AS OUTLINED IN WETLAND CROSSING CONFIGURATION (WCC-1, WCC-2, WCC-3), BASED ON FIELD CONDITIONS DURING THE TIME OF CONSTRUCTION. WETLANDS WILL BE CROSSED FOR ACCESS UTILIZING TIMBER MATS AS OUTLINED IN THE WETLAND EQUIPMENT CROSSING (WEC) CONSTRUCTION DETAIL. WETLAND CROSSINGS COMPLETED VIA CONVENTIONAL BORE WILL BE SPECIFICALLY NOTED ON THE PLAN VIEW AND THE WBX CONSTRUCTION DETAIL.
- TYPICAL VEGETATED CHANNEL & VEGETATION RESTORATION (VCR) DETAILS 1 AND 2 ARE IDENTIFIED FOR WATERBODY RESTORATION. VCR-1 WILL BE UTILIZED AT WATERBODIES WITH EXISTING FORESTED RIPARIAN BUFFERS. VCR-2 WILL BE UTILIZED AT WATERBODIES WITH NON-FORESTED RIPARIAN BUFFER.
- ALL TYPICAL CONSTRUCTION DETAILS FOR PROPOSED CROSSING METHODS ARE LOCATED WITHIN THE EROSION AND SEDIMENTATION CONTROL PLAN AND NARRATIVE.
- THE PROPOSED PIPELINE WILL BE INSTALLED WITH 3-FEET MINIMUM COVER THROUGH WETLANDS AND 4-FEET MINIMUM COVER THROUGH STREAM CHANNELS.
- EXISTING CULVERTS ARE NOT PROPOSED FOR MODIFICATION AND ARE TO BE USED AS-IS.



LEGEND	
--- PROPOSED LIMITS OF DISTURBANCE (LOD)	--- EXISTING UNDERGROUND ELECTRIC LINE
--- EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD	--- EXISTING GAS LINE
--- PROPOSED 42" PIPELINE	--- EXISTING WATER LINE
--- EXISTING PIPELINES	--- EXISTING SANITARY LINE
--- EXISTING EDGE OF ROADWAY	--- EXISTING STORM SEWER
--- PARCEL BOUNDARY	--- EXISTING TELEPHONE LINE
--- EXISTING CONTOUR (10' C.L.)	--- EXISTING FIBER OPTIC LINE
--- EXISTING CONTOUR (2' C.L.)	--- EXISTING UNDERGROUND CABLE LINE
--- CULVERT	--- EXISTING FENCE
--- TREELINE / SHRUB LINE	--- TIMBERMATS
--- EXISTING FENCE	--- EXISTING STRUCTURE

Crossing Name	Latitude	Longitude	Milepost	Municipality
EL-7	40.965362	-75.427673	49.4	Chestnuthill

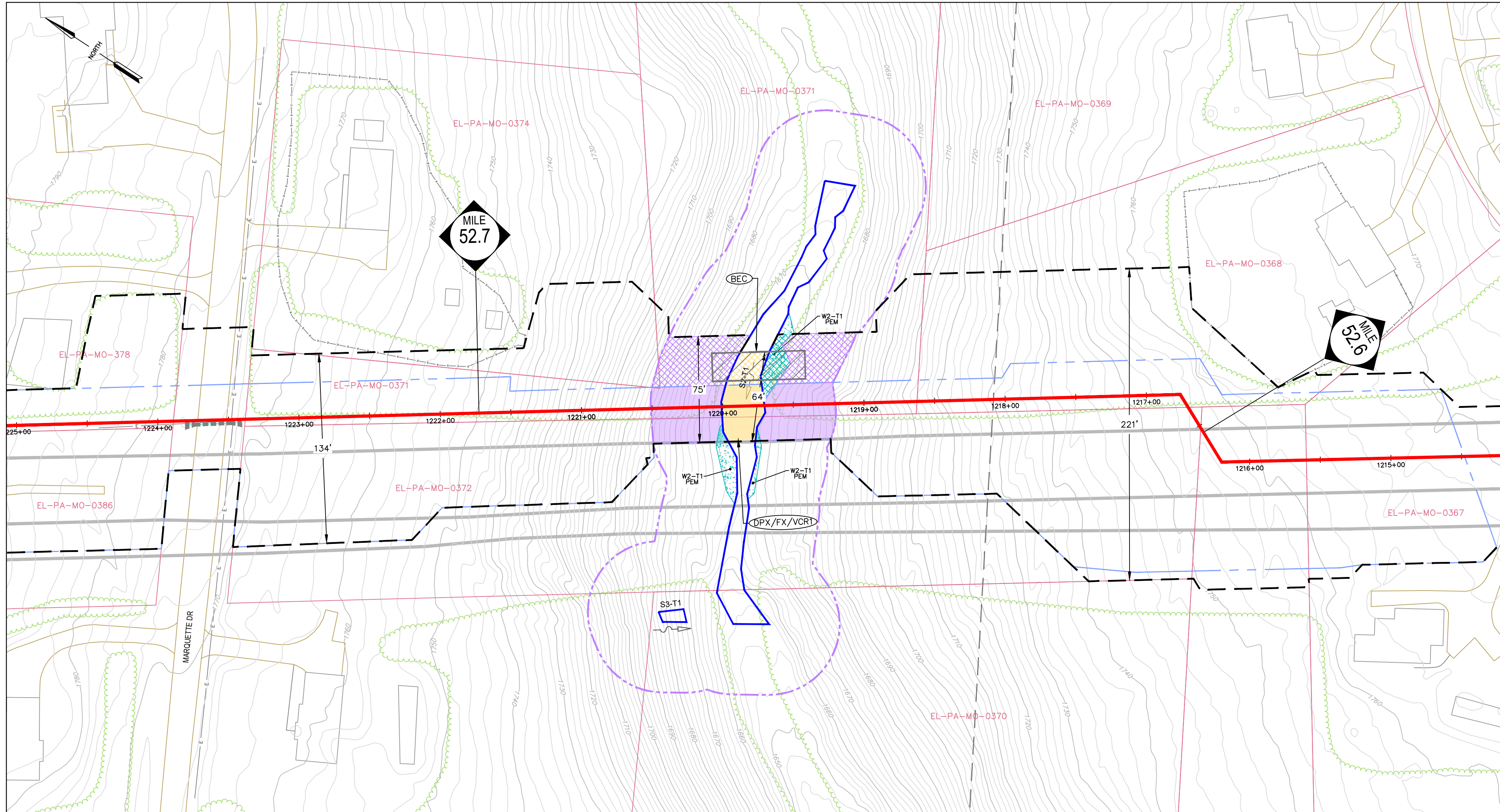
GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

REVISIONS				
NO.	DATE	BY	DESCRIPTION	W.O. NO.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637
2	07/08/22	BH	REVISED TO PADEP JUNE 2022 TECHNICAL DEFICIENCY LETTER	1222637

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
REGIONAL ENERGY ACCESS EXPANSION PROJECT - EFFORT LOOP
WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
CROSSING EL-7
MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 12 OF 20



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-9	S2-T1	STREAM	-	Perennial	PERM	0.0247
	S2-T1	FLOODWAY	-	Perennial	PERM	0.0912
	S2-T1	STREAM	-	Perennial	TEMP	0.0119
	S2-T1	FLOODWAY	-	Perennial	TEMP	0.0782
	W2-T1	WETLAND	PEM	-	PERM	0.0016
	W2-T1	WETLAND	PEM	-	TEMP	0.0117

TABLE NOTES:

- UNIQUE IDENTIFIER FOR THE SINGLE AND COMPLETE CROSSING
- UNIQUE NAME FOR IMPACTED RESOURCE
- TYPE OF IMPACTED RESOURCE (STREAM/WETLAND/FLOODWAY)
- COWARDIN CLASSIFICATION OF IMPACTED WETLAND, APPLIES TO WETLANDS ONLY.
- FLOW REGIME OF THE IMPACTED STREAM APPLIES TO STREAMS ONLY.
- IMPACT TYPE IS EITHER PERMANENT OR TEMPORARY.
- THE AREA OF THE RESOURCE IMPACTED, IN ACRES. FOR AREAS WHERE THE WETLANDS AND FLOODWAY OVERLAP, FLOODWAY IMPACTS ARE INCLUDED WITHIN THE WETLAND IMPACT AREA (I.E. WETLAND AND FLOODWAY IMPACTS WERE NOT COUNTED IN DUPLICATE)

TEMPORARY IMPACTS

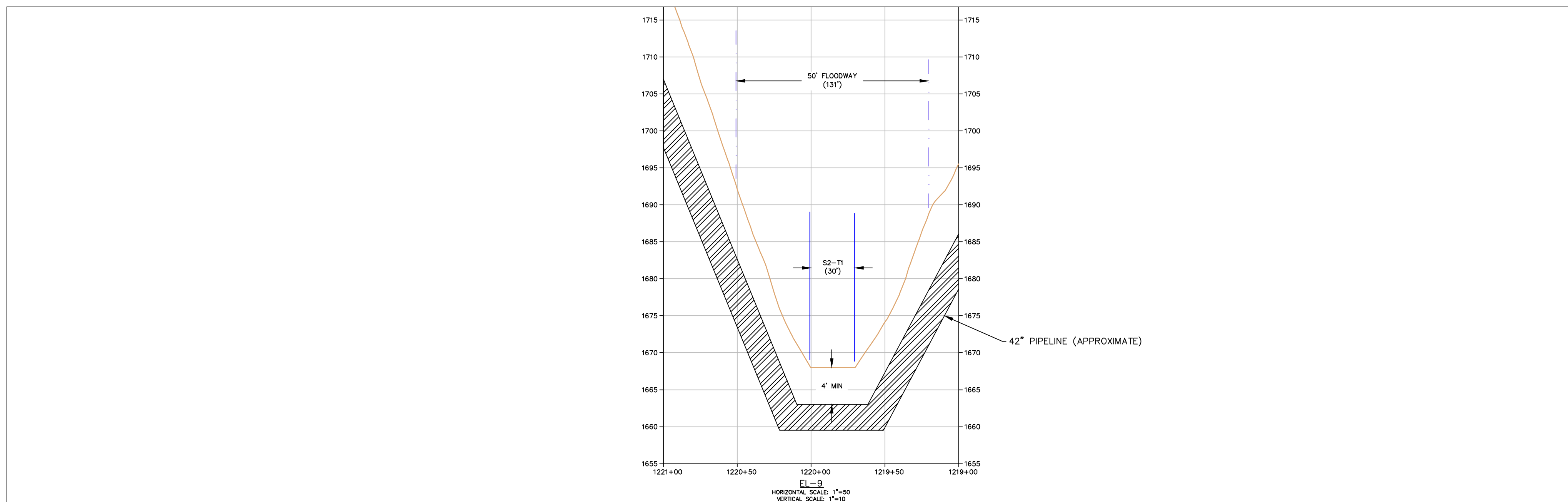
PIPELINE IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS MEASURED OUTSIDE THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONTOURS. PSS AND PFO WETLANDS WILL BE REVEGETATED TO THEIR PRE-EXISTING COVER TYPE.
ACCESS ROAD IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE ON THE ACCESS ROADS. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONDITION.

PERMANENT IMPACTS

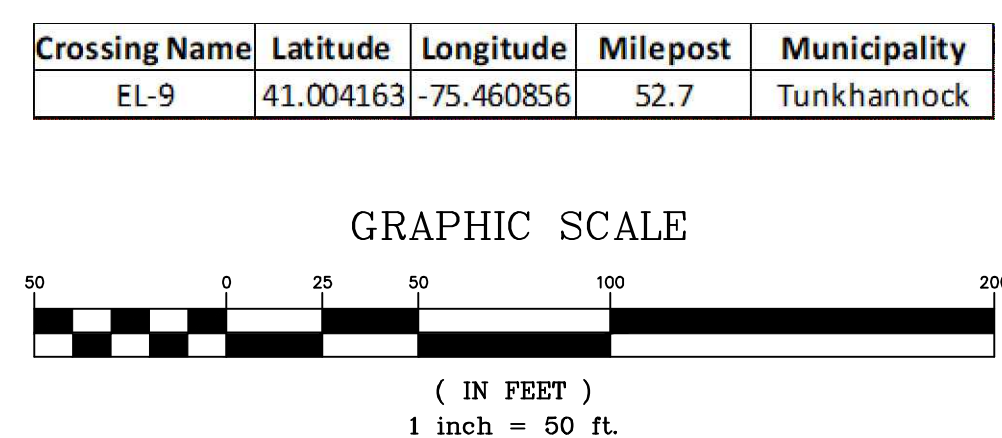
PIPELINE IMPACTS - PERMANENT IMPACTS INCLUDE THE AREA MEASURED WITHIN THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY (PROW), WHICH INCLUDES EXISTING AND PROPOSED ADDITIONAL PROW. THERE IS NO PERMANENT LOSS OF RESOURCES IN THE PROW AND THESE AREAS WILL BE RESTORED TO PRE-EXISTING CONTOURS. FOR PSS AND PFO WETLANDS WITHIN THE PROW, THE PERMANENT IMPACT VALUE REPRESENTS THE FUNCTIONAL CONVERSION AREA OF THESE RESOURCES.

GENERAL NOTES:

- STREAM CROSSING METHODS WILL BE COMPLETED VIA OPEN CUT CONSTRUCTION METHODS. EITHER DAM AND PUMP (DPX) OR FLUMED (FX) DRY-CROSSING METHOD WILL BE UTILIZED BASED ON FIELD CONDITIONS DURING TIME OF CONSTRUCTION. A BRIDGE EQUIPMENT CROSSING (BEC), BRIDGE EQUIPMENT CROSSING WITH CENTERED OR MULTIPLE SUPPORTS (BCC) OR CULVERT EQUIPMENT CROSSING (CEC) WILL BE INSTALLED AT ALL STREAM CROSSINGS.
- WETLAND CROSSING METHODS WILL COMPLETED VIA OPEN CUT CONSTRUCTION METHODS AS OUTLINED IN WETLAND CROSSING CONFIGURATION (WCC.1, WCC.2, WCC.3), BASED ON FIELD CONDITIONS DURING THE TIME OF CONSTRUCTION. WETLANDS WILL BE CROSSED FOR ACCESS UTILIZING TIMBER MATS AS OUTLINED IN THE WETLAND EQUIPMENT CROSSING (WEC) CONSTRUCTION DETAIL. WETLAND CROSSINGS COMPLETED VIA CONVENTIONAL BORE WILL BE SPECIFICALLY NOTED ON THE PLAN VIEW AND THE WBX CONSTRUCTION DETAIL.
- TYPICAL VEGETATED CHANNEL & VEGETATION RESTORATION (VCR) DETAILS 1 AND 2 ARE IDENTIFIED FOR WATERBODY RESTORATION. VCR-1 WILL BE UTILIZED AT WATERBODIES WITH EXISTING FORESTED RIPARIAN BUFFERS. VCR-2 WILL BE UTILIZED AT WATERBODIES WITH NON-FORESTED RIPARIAN BUFFER.
- ALL TYPICAL CONSTRUCTION DETAILS FOR PROPOSED CROSSING METHODS ARE LOCATED WITHIN THE EROSION AND SEDIMENTATION CONTROL PLAN AND NARRATIVE.
- THE PROPOSED PIPELINE WILL BE INSTALLED WITH 3-FEET MINIMUM COVER THROUGH WETLANDS AND 4-FEET MINIMUM COVER THROUGH STREAM CHANNELS.
- EXISTING CULVERTS ARE NOT PROPOSED FOR MODIFICATION AND ARE TO BE USED AS-IS.

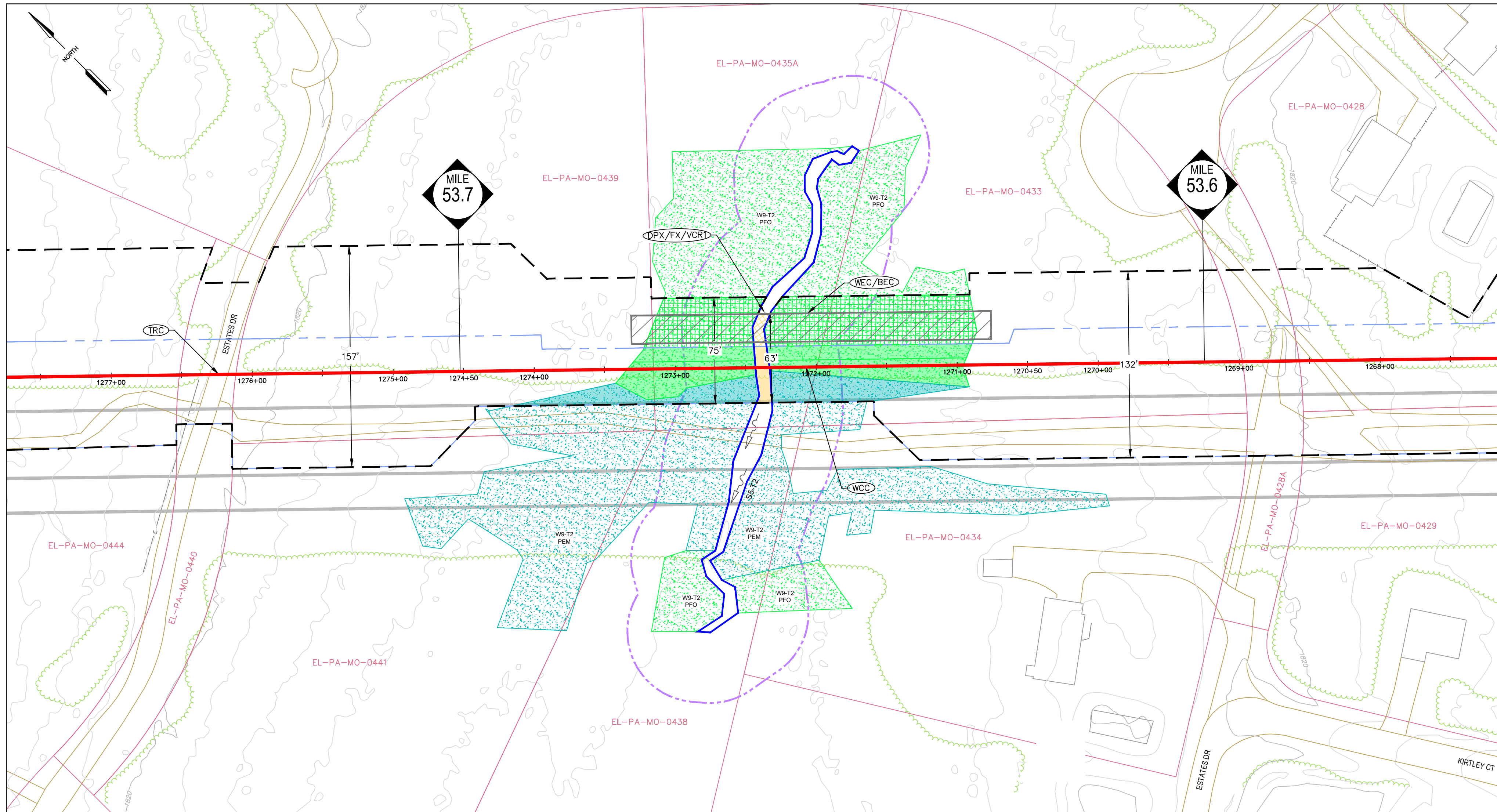


LEGEND		WETLANDS		STREAMS	
--- PROPOSED LIMITS OF DISTURBANCE (LOD)	--- EXISTING UNDERGROUND ELECTRIC LINE	EMERGENT WETLAND (PEM)	STREAM CHANNEL	--- STREAM CHANNEL	--- FLOODWAY
--- EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD	--- EXISTING GAS LINE	PROPOSED PEM PERMANENT IMPACTS	PROPOSED PERMANENT STREAM CHANNEL IMPACT	--- PROPOSED PERMANENT STREAM CHANNEL IMPACT	--- PROPOSED PERMANENT FLOODWAY IMPACT
--- PROPOSED 42" PIPELINE	--- EXISTING WATER LINE	PROPOSED PEM TEMPORARY IMPACTS	PROPOSED TEMPORARY STREAM CHANNEL IMPACT	--- PROPOSED TEMPORARY STREAM CHANNEL IMPACT	--- PROPOSED TEMPORARY FLOODWAY IMPACT
--- EXISTING PIPELINES	--- EXISTING SANITARY LINE	SCRUB SHRUB WETLAND (PSS)	--- FLOODWAY	--- FLOODWAY	--- FLOODWAY
--- EXISTING EDGE OF ROADWAY	--- EXISTING STORM SEWER	PROPOSED PSS PERMANENT IMPACTS	--- FLOODWAY	--- FLOODWAY	--- FLOODWAY
--- PARCEL BOUNDARY	--- EXISTING TELEPHONE LINE	PROPOSED PSS TEMPORARY IMPACTS	--- FLOODWAY	--- FLOODWAY	--- FLOODWAY
--- EXISTING CONTOUR (10' C.L.)	--- EXISTING FIBER OPTIC LINE	FORESTED WETLAND (PFO)	--- FLOODWAY	--- FLOODWAY	--- FLOODWAY
--- EXISTING CONTOUR (2' C.L.)	--- EXISTING UNDERGROUND CABLE LINE	PROPOSED PFO PERMANENT IMPACTS	--- FLOODWAY	--- FLOODWAY	--- FLOODWAY
--- CULVERT	--- EXISTING FENCE	PROPOSED PFO TEMPORARY IMPACTS	--- FLOODWAY	--- FLOODWAY	--- FLOODWAY
--- TREELINE / SHRUB LINE	--- TIMBERMATS	OPEN WATER WETLAND (PWO)	--- FLOODWAY	--- FLOODWAY	--- FLOODWAY
--- EXISTING FENCE	--- EXISTING STRUCTURE	PROPOSED PWO TEMPORARY IMPACTS	--- FLOODWAY	--- FLOODWAY	--- FLOODWAY



REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN
2	07/08/22	BH	REVISED TO PADEP JUNE 2022 TECHNICAL DEFICIENCY LETTER	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC REGIONAL ENERGY ACCESS EXPANSION PROJECT - EFFORT LOOP WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS CROSSING EL-9 MONROE COUNTY, PENNSYLVANIA			
DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 14 OF 20
WO: 1222637	RID: 108		



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-10	S5-T2	STREAM	-	Perennial	PERM	0.0088
	S5-T2	STREAM	-	Perennial	TEMP	0.0046
	W9-T2	WETLAND	PEM	-	PERM	0.0830
	W9-T2	WETLAND	PFO	-	TEMP	0.1750
	W9-T2	WETLAND	PFO	-	PERM-PFO/PSS	0.0516
	W9-T2	WETLAND	PFO	-	PERM	0.0850

TABLE NOTES:

- UNIQUE IDENTIFIER FOR THE SINGLE AND COMPLETE CROSSING
- UNIQUE NAME FOR IMPACTED RESOURCE
- TYPE OF IMPACTED RESOURCE (STREAM/WETLAND/FLOODWAY)
- COWARDIN CLASSIFICATION OF IMPACTED WETLAND, APPLIES TO WETLANDS ONLY.
- FLOW REGIME OF THE IMPACTED STREAM APPLIES TO STREAMS ONLY.
- IMPACT TYPE IS EITHER PERMANENT OR TEMPORARY.
- THE AREA OF THE RESOURCE IMPACTED, IN ACRES. FOR AREAS WHERE THE WETLANDS AND FLOODWAY OVERLAP, FLOODWAY IMPACTS ARE INCLUDED WITHIN THE WETLAND IMPACT AREA (I.E. WETLAND AND FLOODWAY IMPACTS WERE NOT COUNTED IN DUPLICATE)

TEMPORARY IMPACTS

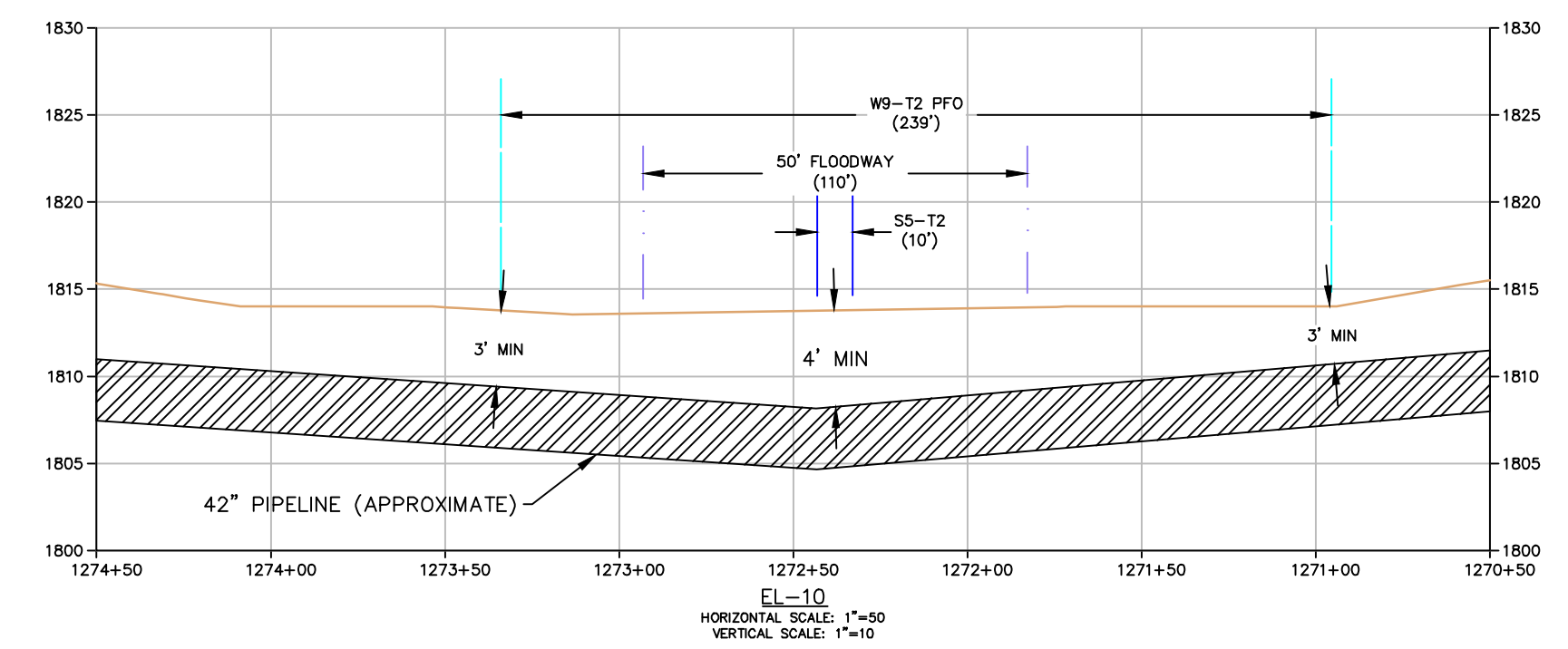
PIPELINE IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS MEASURED OUTSIDE THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONTOURS. PSS AND PFO WETLANDS WILL BE REVEGETATED TO THEIR PRE-EXISTING COVER TYPE.
ACCESS ROAD IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE ON THE ACCESS ROADS. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONDITION.

PERMANENT IMPACTS

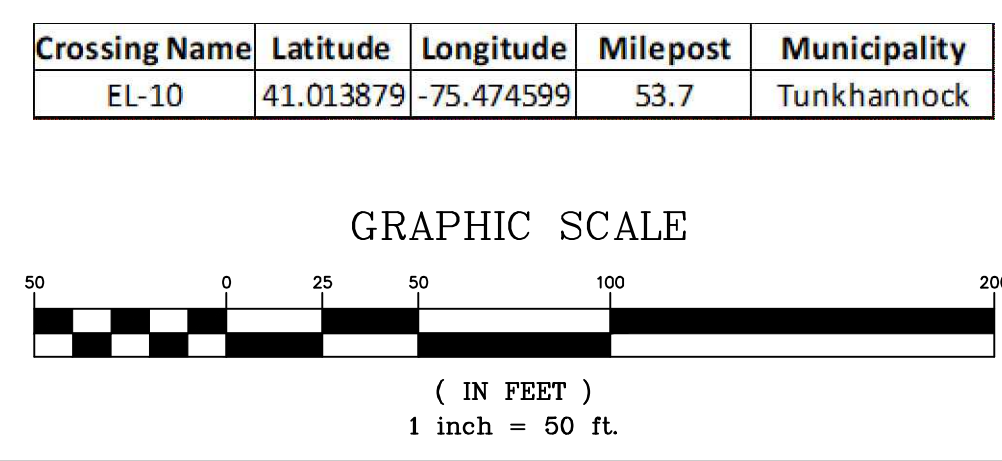
PIPELINE IMPACTS - PERMANENT IMPACTS INCLUDE THE AREA MEASURED WITHIN THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY (PROW), WHICH INCLUDES EXISTING AND PROPOSED ADDITIONAL PROW. THERE IS NO PERMANENT LOSS OF RESOURCES IN THE PROW AND THESE AREAS WILL BE RESTORED TO PRE-EXISTING CONTOURS. FOR PSS AND PFO WETLANDS WITHIN THE PROW, THE PERMANENT IMPACT VALUE REPRESENTS THE FUNCTIONAL CONVERSION AREA OF THESE RESOURCES.

GENERAL NOTES:

- STREAM CROSSING METHODS WILL BE COMPLETED VIA OPEN CUT CONSTRUCTION METHODS. EITHER DAM AND PUMP (DPX) OR FLUMED (FX) DRY-CROSSING METHOD WILL BE UTILIZED BASED ON FIELD CONDITIONS DURING TIME OF CONSTRUCTION. A BRIDGE EQUIPMENT CROSSING (BEC), BRIDGE EQUIPMENT CROSSING WITH CENTERED OR MULTIPLE SUPPORTS (BCC) OR CULVERT EQUIPMENT CROSSING (CEC) WILL BE INSTALLED AT ALL STREAM CROSSINGS.
- WETLAND CROSSING METHODS WILL COMPLETED VIA OPEN CUT CONSTRUCTION METHODS AS OUTLINED IN WETLAND CROSSING CONFIGURATION (WCC.1, WCC.2, WCC.3), BASED ON FIELD CONDITIONS DURING THE TIME OF CONSTRUCTION. WETLANDS WILL BE CROSSED FOR ACCESS UTILIZING TIMBER MATS AS OUTLINED IN THE WETLAND EQUIPMENT CROSSING (WEC) CONSTRUCTION DETAIL. WETLAND CROSSINGS COMPLETED VIA CONVENTIONAL BORE WILL BE SPECIFICALLY NOTED ON THE PLAN VIEW AND THE WBX CONSTRUCTION DETAIL.
- TYPICAL VEGETATED CHANNEL & VEGETATION RESTORATION (VCR) DETAILS 1 AND 2 ARE IDENTIFIED FOR WATERBODY RESTORATION. VCR-1 WILL BE UTILIZED AT WATERBODIES WITH EXISTING FORESTED RIPARIAN BUFFERS. VCR-2 WILL BE UTILIZED AT WATERBODIES WITH NON-FORESTED RIPARIAN BUFFER.
- ALL TYPICAL CONSTRUCTION DETAILS FOR PROPOSED CROSSING METHODS ARE LOCATED WITHIN THE EROSION AND SEDIMENTATION CONTROL PLAN AND NARRATIVE.
- THE PROPOSED PIPELINE WILL BE INSTALLED WITH 3-FEET MINIMUM COVER THROUGH WETLANDS AND 4-FEET MINIMUM COVER THROUGH STREAM CHANNELS.
- EXISTING CULVERTS ARE NOT PROPOSED FOR MODIFICATION AND ARE TO BE USED AS-IS.



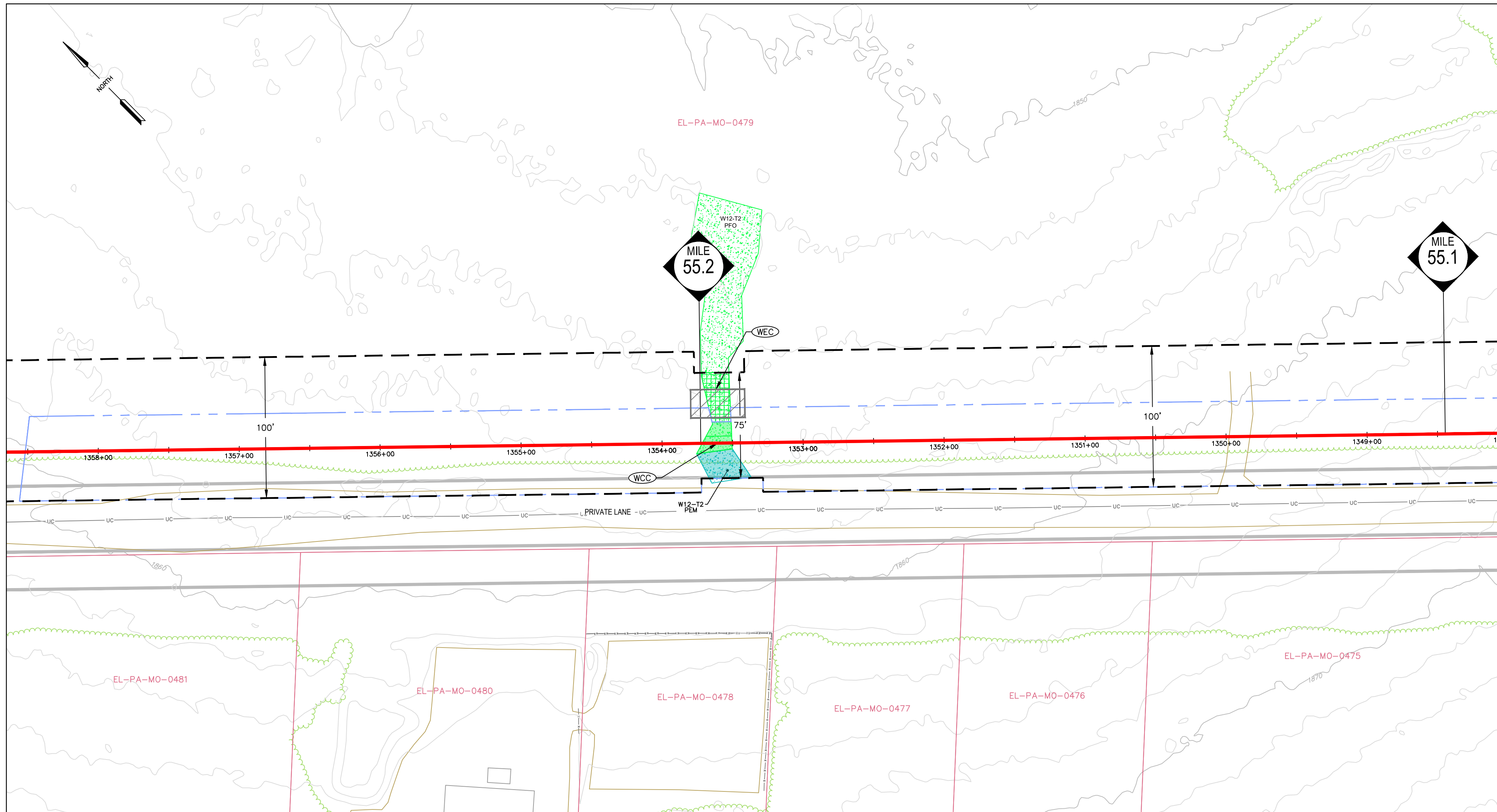
LEGEND	
— PROPOSED LIMITS OF DISTURBANCE (LOD)	— EXISTING UNDERGROUND ELECTRIC LINE
— EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD	— EXISTING GAS LINE
— PROPOSED 42" PIPELINE	— EXISTING WATER LINE
— EXISTING PIPELINES	— EXISTING SANITARY LINE
— EXISTING EDGE OF ROADWAY	— EXISTING STORM SEWER
— PARCEL BOUNDARY	— EXISTING TELEPHONE LINE
— EXISTING CONTOUR (10' C.L.)	— EXISTING FIBER OPTIC LINE
— EXISTING CONTOUR (2' C.L.)	— EXISTING UNDERGROUND CABLE LINE
— CULVERT	— EXISTING FENCE
— TREELINE / SHRUB LINE	— TIMBERMATS
— EXISTING FENCE	— EXISTING STRUCTURE



REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN
2	07/08/22	BH	REVISED TO PADEP JUNE 2022 TECHNICAL DEFICIENCY LETTER	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
 REGIONAL ENERGY ACCESS EXPANSION PROJECT -
 EFFORT LOOP
 WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
 CROSSING EL-10
 MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 15 OF 20



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-11	W12-T2	WETLAND	PEM	-	PERM	0.0126
	W12-T2	WETLAND	PFO	-	TEMP	0.0134
	W12-T2	WETLAND	PFO	-	PERM	0.0053
	W12-T2	WETLAND	PFO	-	PERM-PFO/PSS	0.0035

TABLE NOTES:

- UNIQUE IDENTIFIER FOR THE SINGLE AND COMPLETE CROSSING
- UNIQUE NAME FOR IMPACTED RESOURCE
- TYPE OF IMPACTED RESOURCE (STREAM/WETLAND/FLOODWAY)
- COWARDIN CLASSIFICATION OF IMPACTED WETLAND, APPLIES TO WETLANDS ONLY.
- FLOW REGIME OF THE IMPACTED STREAM APPLIES TO STREAMS ONLY.
- IMPACT TYPE IS EITHER PERMANENT OR TEMPORARY.
- THE AREA OF THE RESOURCE IMPACTED, IN ACRES. FOR AREAS WHERE THE WETLANDS AND FLOODWAY OVERLAP, FLOODWAY IMPACTS ARE INCLUDED WITHIN THE WETLAND IMPACT AREA (I.E. WETLAND AND FLOODWAY IMPACTS WERE NOT COUNTED IN DUPLICATE)

TEMPORARY IMPACTS

PIPELINE IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS MEASURED OUTSIDE THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONTOURS. PSS AND PFO WETLANDS WILL BE REVEGETATED TO THEIR PRE-EXISTING COVER TYPE.

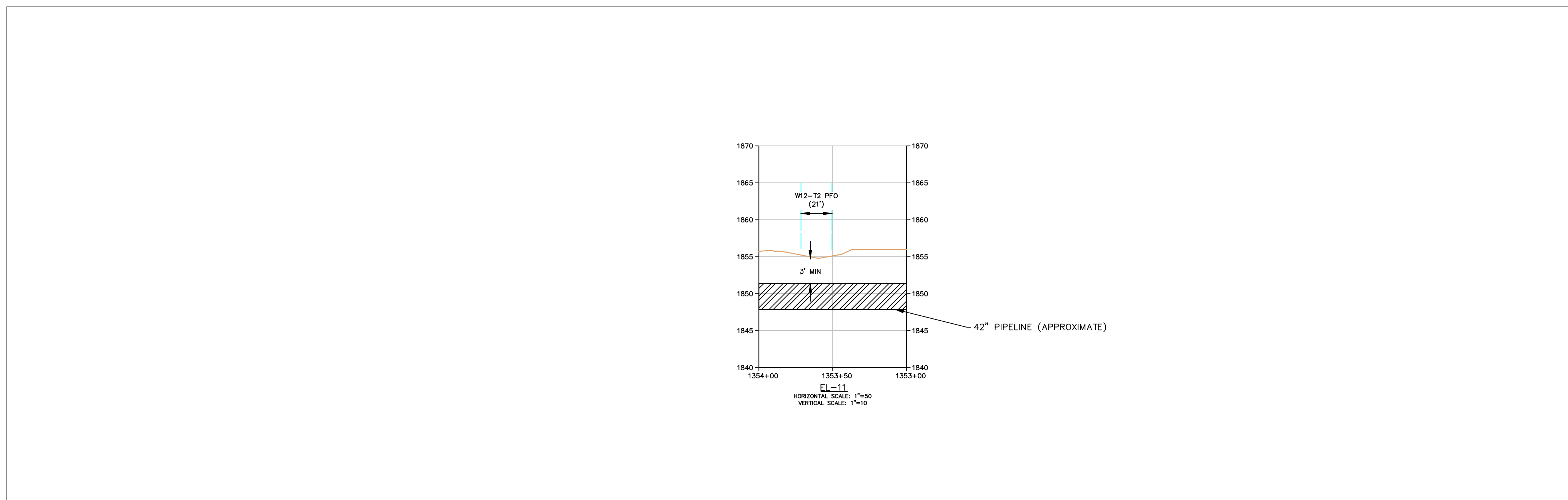
ACCESS ROAD IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE ON THE ACCESS ROADS. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONDITION.

PERMANENT IMPACTS

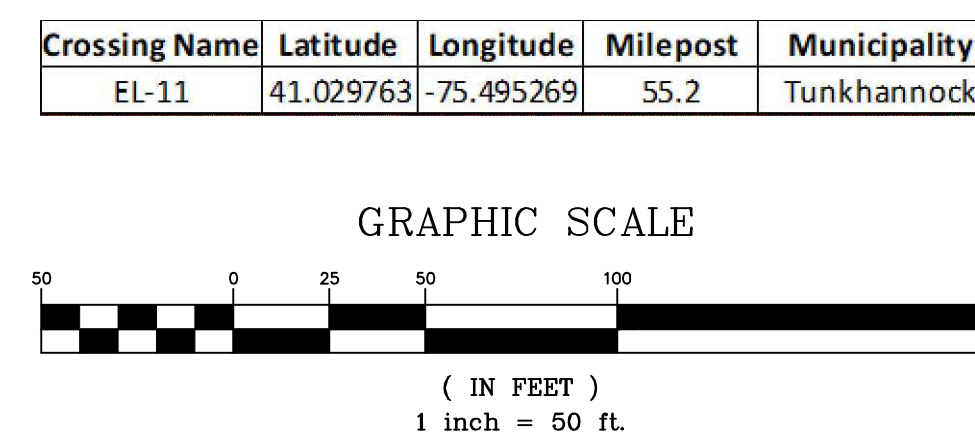
PIPELINE IMPACTS - PERMANENT IMPACTS INCLUDE THE AREA MEASURED WITHIN THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY (PROW), WHICH INCLUDES EXISTING AND PROPOSED ADDITIONAL PROW. THERE IS NO PERMANENT LOSS OF RESOURCES IN THE PROW AND THESE AREAS WILL BE RESTORED TO PRE-EXISTING CONTOURS. FOR PSS AND PFO WETLANDS WITHIN THE PROW, THE PERMANENT IMPACT VALUE REPRESENTS THE FUNCTIONAL CONVERSION AREA OF THESE RESOURCES.

GENERAL NOTES:

- STREAM CROSSING METHODS WILL BE COMPLETED VIA OPEN CUT CONSTRUCTION METHODS. EITHER DAM AND PUMP (DPX) OR FLUMED (FX) DRY-CROSSING METHOD WILL BE UTILIZED BASED ON FIELD CONDITIONS DURING TIME OF CONSTRUCTION. A BRIDGE EQUIPMENT CROSSING (BEC), BRIDGE EQUIPMENT CROSSING WITH CENTERED OR MULTIPLE SUPPORTS (BCC) OR CULVERT EQUIPMENT CROSSING (CEC) WILL BE INSTALLED AT ALL STREAM CROSSINGS.
- WETLAND CROSSING METHODS WILL COMPLETED VIA OPEN CUT CONSTRUCTION METHODS AS OUTLINED IN WETLAND CROSSING CONFIGURATION (WCC.1, WCC.2, WCC.3), BASED ON FIELD CONDITIONS DURING THE TIME OF CONSTRUCTION. WETLANDS WILL BE CROSSED FOR ACCESS UTILIZING TIMBER MATS AS OUTLINED IN THE WETLAND EQUIPMENT CROSSING (WEC) CONSTRUCTION DETAIL. WETLAND CROSSINGS COMPLETED VIA CONVENTIONAL BORE WILL BE SPECIFICALLY NOTED ON THE PLAN VIEW AND THE WBX CONSTRUCTION DETAIL.
- TYPICAL VEGETATED CHANNEL & VEGETATION RESTORATION (VCR) DETAILS 1 AND 2 ARE IDENTIFIED FOR WATERBODY RESTORATION. VCR-1 WILL BE UTILIZED AT WATERBODIES WITH EXISTING FORESTED RIPARIAN BUFFERS. VCR-2 WILL BE UTILIZED AT WATERBODIES WITH NON-FORESTED RIPARIAN BUFFER.
- ALL TYPICAL CONSTRUCTION DETAILS FOR PROPOSED CROSSING METHODS ARE LOCATED WITHIN THE EROSION AND SEDIMENTATION CONTROL PLAN AND NARRATIVE.
- THE PROPOSED PIPELINE WILL BE INSTALLED WITH 3-FEET MINIMUM COVER THROUGH WETLANDS AND 4-FEET MINIMUM COVER THROUGH STREAM CHANNELS.
- EXISTING CULVERTS ARE NOT PROPOSED FOR MODIFICATION AND ARE TO BE USED AS-IS.



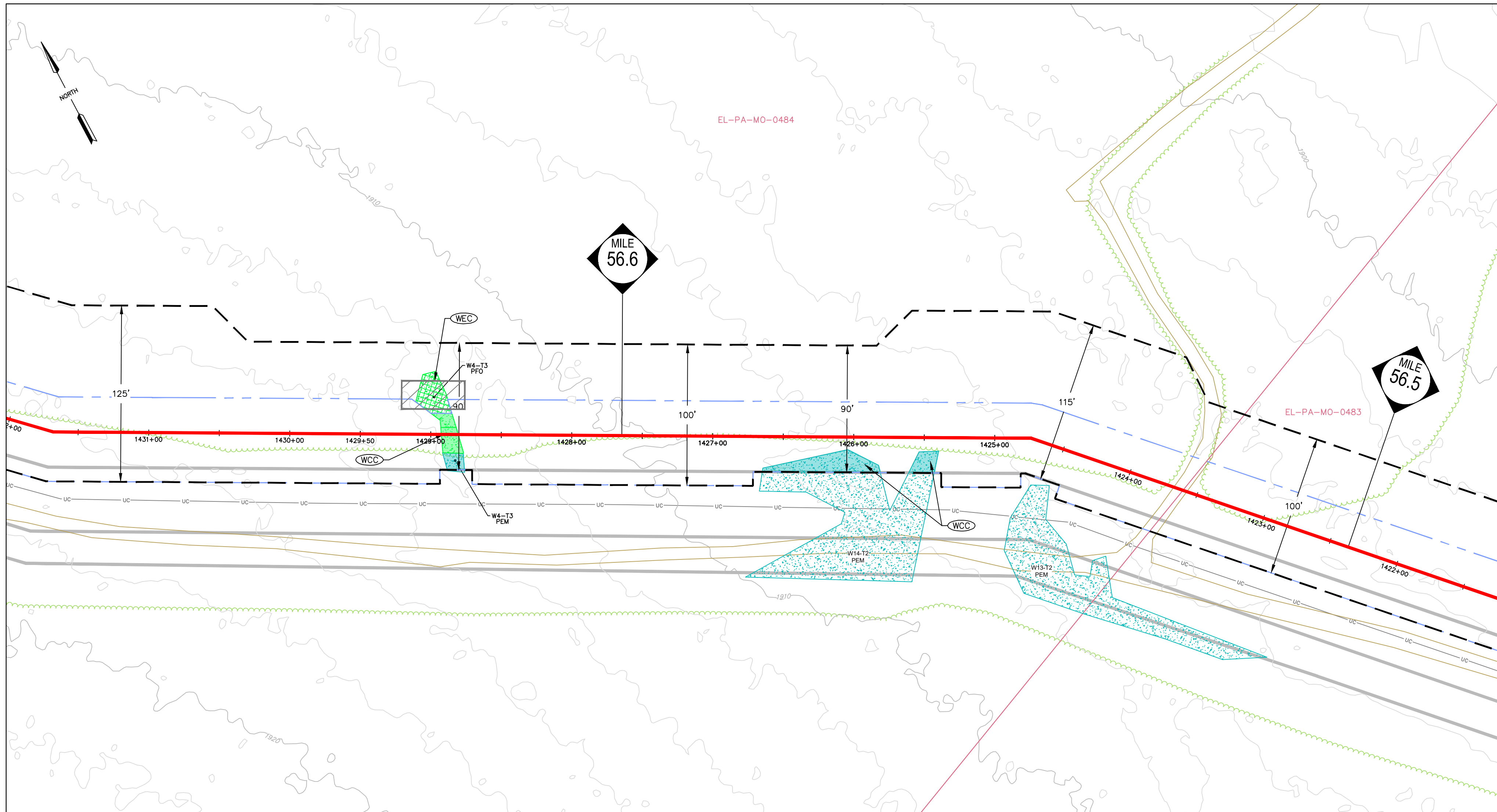
LEGEND	
— PROPOSED LIMITS OF DISTURBANCE (LOD)	— EXISTING UNDERGROUND ELECTRIC LINE
— EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD	— EXISTING GAS LINE
— PROPOSED 42" PIPELINE	— EXISTING WATER LINE
— EXISTING PIPELINES	— EXISTING SANITARY LINE
— EXISTING EDGE OF ROADWAY	— EXISTING STORM SEWER
— PARCEL BOUNDARY	— EXISTING TELEPHONE LINE
— EXISTING CONTOUR (10' C.I.)	— EXISTING FIBER OPTIC LINE
— EXISTING CONTOUR (2' C.I.)	— EXISTING UNDERGROUND CABLE LINE
— CULVERT	— EXISTING FENCE
— TREELINE / SHRUB LINE	— TIMBERMAT
— EXISTING FENCE	— EXISTING STRUCTURE
WETLANDS	EMERGENT WETLAND (PEM)
— PROPOSED PEM PERMANENT IMPACTS	— PROPOSED PEM TEMPORARY IMPACTS
— PROPOSED PSS PERMANENT IMPACTS	— PROPOSED PSS TEMPORARY IMPACTS
— FORESTED WETLAND (PFO)	— PROPOSED PFO PERMANENT IMPACTS
— PROPOSED PFO TEMPORARY IMPACTS	— OPEN WATER WETLAND (PWO)
— PROPOSED PWO PERMANENT IMPACTS	— PROPOSED PWO TEMPORARY IMPACTS
STREAMS	STREAM CHANNEL
— PROPOSED PERMANENT STREAM CHANNEL IMPACT	— PROPOSED TEMPORARY STREAM CHANNEL IMPACT
FLOODWAY	FLOODWAY
— PROPOSED PERMANENT FLOODWAY IMPACT	— PROPOSED TEMPORARY FLOODWAY IMPACT
— FEMA	— FEMA FLOODPLAIN



REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN
2	07/08/22	BH	REVISED TO PADEP JUNE 2022 TECHNICAL DEFICIENCY LETTER	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
 REGIONAL ENERGY ACCESS EXPANSION PROJECT -
 EFFORT LOOP
 WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
 CROSSING EL-11
 MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 16 OF 20



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-12	W4-T3	WETLAND	PFO	-	TEMP	0.0114
	W4-T3	WETLAND	PEM	-	PERM	0.0036
	W4-T3	WETLAND	PFO	-	PERM	0.0054
	W4-T3	WETLAND	PFO	-	PERM-PFO/PSS	0.0026
	W14-T2	WETLAND	PEM	-	PERM	0.0238

TABLE NOTES:

- UNIQUE IDENTIFIER FOR THE SINGLE AND COMPLETE CROSSING
- UNIQUE NAME FOR IMPACTED RESOURCE
- TYPE OF IMPACTED RESOURCE (STREAM/WETLAND/FLOODWAY)
- COWARDIN CLASSIFICATION OF IMPACTED WETLAND, APPLIES TO WETLANDS ONLY.
- FLOW REGIME OF THE IMPACTED STREAM APPLIES TO STREAMS ONLY.
- IMPACT TYPE IS EITHER PERMANENT OR TEMPORARY.
- THE AREA OF THE RESOURCE IMPACTED, IN ACRES. FOR AREAS WHERE THE WETLANDS AND FLOODWAY OVERLAP, FLOODWAY IMPACTS ARE INCLUDED WITHIN THE WETLAND IMPACT AREA (I.E. WETLAND AND FLOODWAY IMPACTS WERE NOT COUNTED IN DUPLICATE)

TEMPORARY IMPACTS

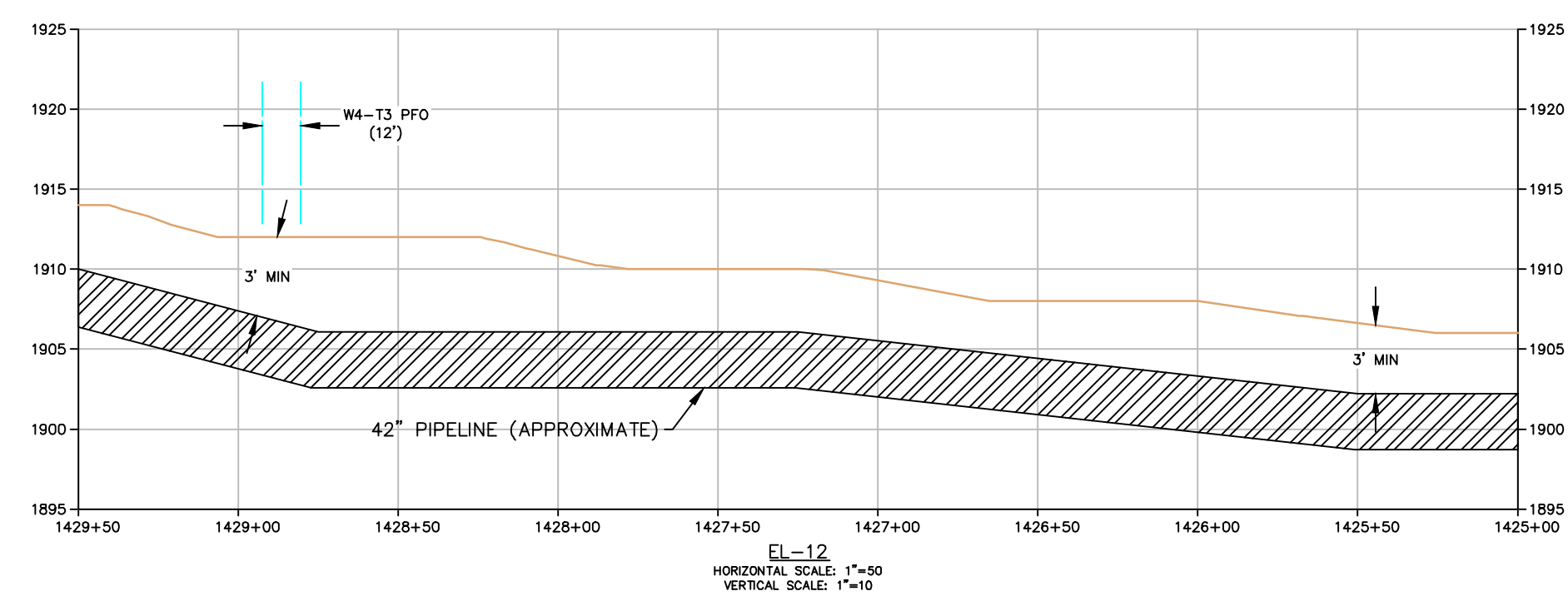
PIPELINE IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS MEASURED OUTSIDE THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONTOURS. PSS AND PFO WETLANDS WILL BE REVEGETATED TO THEIR PRE-EXISTING COVER TYPE.
ACCESS ROAD IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE ON THE ACCESS ROADS. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONDITION.

PERMANENT IMPACTS

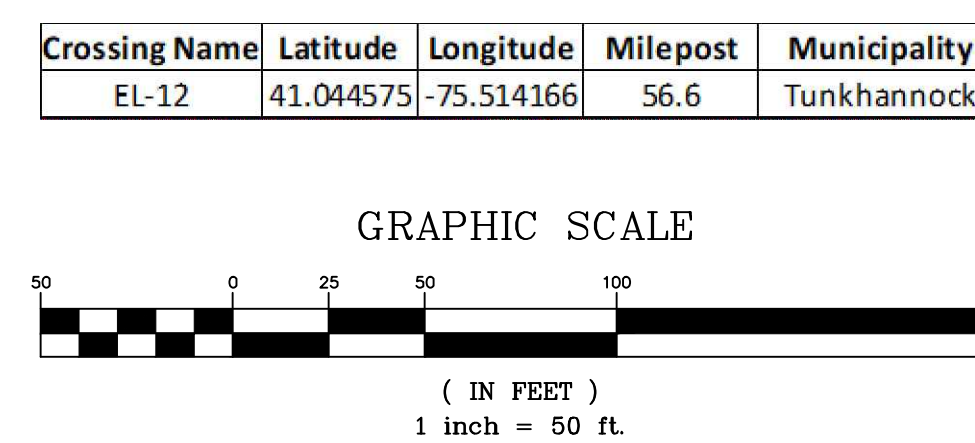
PIPELINE IMPACTS - PERMANENT IMPACTS INCLUDE THE AREA MEASURED WITHIN THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY (PROW), WHICH INCLUDES EXISTING AND PROPOSED ADDITIONAL PROW. THERE IS NO PERMANENT LOSS OF RESOURCES IN THE PROW AND THESE AREAS WILL BE RESTORED TO PRE-EXISTING CONTOURS. FOR PSS AND PFO WETLANDS WITHIN THE PROW, THE PERMANENT IMPACT VALUE REPRESENTS THE FUNCTIONAL CONVERSION AREA OF THESE RESOURCES.

GENERAL NOTES:

- STREAM CROSSING METHODS WILL BE COMPLETED VIA OPEN CUT CONSTRUCTION METHODS. EITHER DAM AND PUMP (DPX) OR FLUMED (FX) DRY-CROSSING METHOD WILL BE UTILIZED BASED ON FIELD CONDITIONS DURING TIME OF CONSTRUCTION. A BRIDGE EQUIPMENT CROSSING (BEC), BRIDGE EQUIPMENT CROSSING WITH CENTERED OR MULTIPLE SUPPORTS (BCC) OR CULVERT EQUIPMENT CROSSING (CEC) WILL BE INSTALLED AT ALL STREAM CROSSINGS.
- WETLAND CROSSING METHODS WILL COMPLETED VIA OPEN CUT CONSTRUCTION METHODS AS OUTLINED IN WETLAND CROSSING CONFIGURATION (WCC.1, WCC.2, WCC.3). BASED ON FIELD CONDITIONS DURING THE TIME OF CONSTRUCTION. WETLANDS WILL BE SPECIFICALLY FOR ACCESS UTILIZING TIMBER MATS AS OUTLINED IN THE WETLAND EQUIPMENT CROSSING (WEC) CONSTRUCTION DETAIL. WETLAND CROSSINGS COMPLETED VIA CONVENTIONAL BORE WILL BE SPECIFICALLY NOTED ON THE PLAN VIEW AND THE WBX CONSTRUCTION DETAIL.
- TYPICAL VEGETATED CHANNEL & VEGETATION RESTORATION (VCR) DETAILS 1 AND 2 ARE IDENTIFIED FOR WATERBODY RESTORATION. VCR-1 WILL BE UTILIZED AT WATERBODIES WITH EXISTING FORESTED RIPARIAN BUFFERS. VCR-2 WILL BE UTILIZED AT WATERBODIES WITH NON-FORESTED RIPARIAN BUFFER.
- ALL TYPICAL CONSTRUCTION DETAILS FOR PROPOSED CROSSING METHODS ARE LOCATED WITHIN THE EROSION AND SEDIMENTATION CONTROL PLAN AND NARRATIVE.
- THE PROPOSED PIPELINE WILL BE INSTALLED WITH 3-FOOT MINIMUM COVER THROUGH WETLANDS AND 4-FOOT MINIMUM COVER THROUGH STREAM CHANNELS.
- EXISTING CULVERTS ARE NOT PROPOSED FOR MODIFICATION AND ARE TO BE USED AS-IS.



LEGEND	
— PROPOSED LIMITS OF DISTURBANCE (LOD)	— EXISTING UNDERGROUND ELECTRIC LINE
— EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD	— EXISTING GAS LINE
— PROPOSED 42" PIPELINE	— EXISTING WATER LINE
— EXISTING PIPELINES	— EXISTING SANITARY LINE
— EXISTING EDGE OF ROADWAY	— EXISTING STORM SEWER
— EXISTING CONTOUR (10' C.I.)	— EXISTING TELEPHONE LINE
— EXISTING CONTOUR (2' C.I.)	— EXISTING FIBER OPTIC LINE
— CULVERT	— EXISTING UNDERGROUND CABLE LINE
— TREELINE / SHRUB LINE	— EXISTING FENCE
— EXISTING FENCE	— EXISTING STRUCTURE
WETLANDS	STREAMS
— EMERGENT WETLAND (PEM)	— STREAM CHANNEL
— PROPOSED PEM PERMANENT IMPACTS	— PROPOSED PERMANENT STREAM CHANNEL IMPACT
— PROPOSED PEM TEMPORARY IMPACTS	— PROPOSED TEMPORARY STREAM CHANNEL IMPACT
— SCRUB SHRUB WETLAND (PSS)	FLOODWAY
— PROPOSED PSS PERMANENT IMPACTS	— FLOODWAY
— PROPOSED PSS TEMPORARY IMPACTS	— PROPOSED PERMANENT FLOODWAY IMPACT
— FORESTED WETLAND (PFO)	— PROPOSED TEMPORARY FLOODWAY IMPACT
— PROPOSED PFO PERMANENT IMPACTS	— FEMA
— PROPOSED PFO TEMPORARY IMPACTS	— FEMA FLOODPLAIN
— OPEN WATER WETLAND (PWO)	
— PROPOSED PWO TEMPORARY IMPACTS	



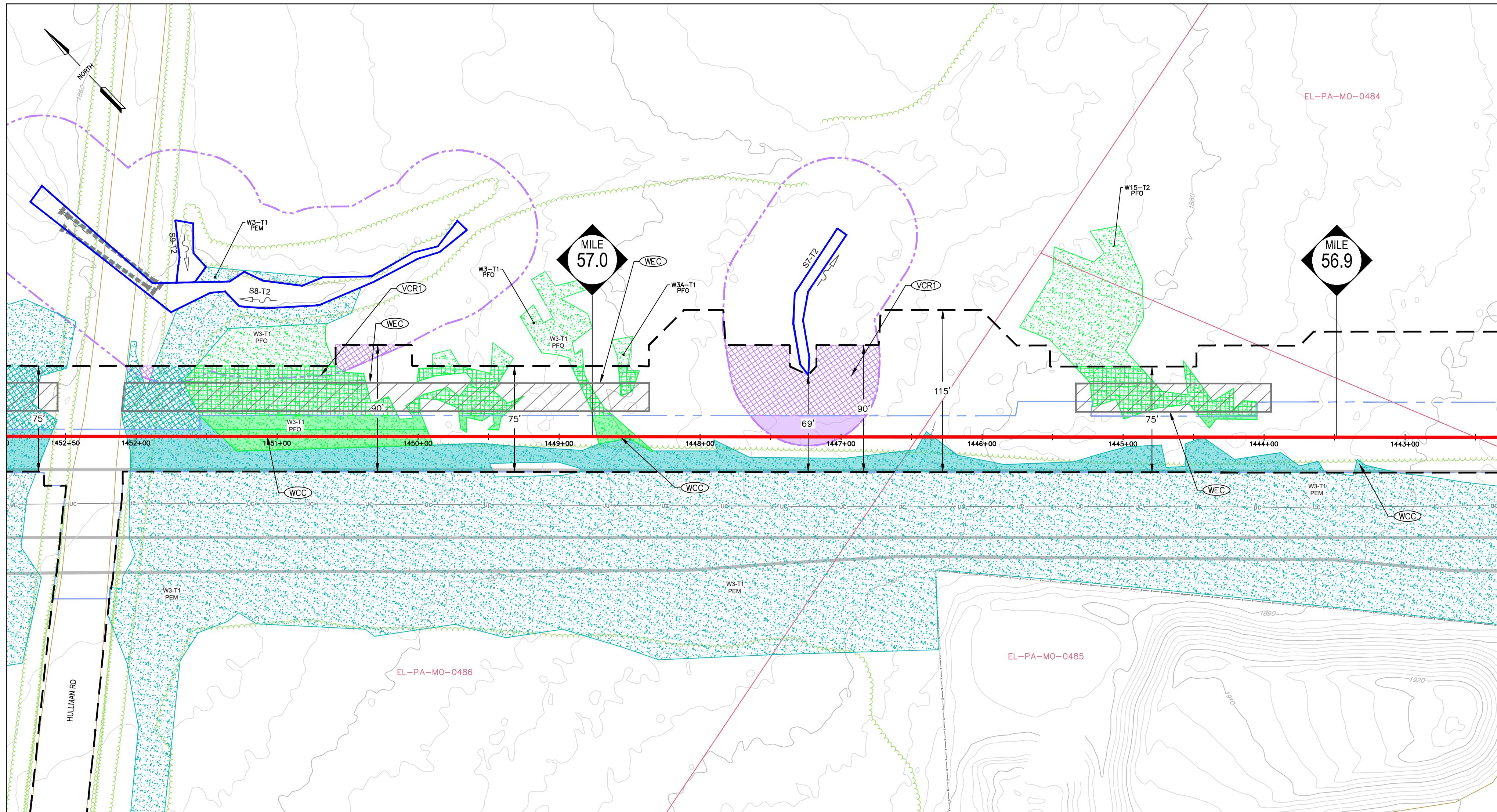
REVISIONS

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN
2	07/08/22	BH	REVISED TO PADEP JUNE 2022 TECHNICAL DEFICIENCY LETTER	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC

REGIONAL ENERGY ACCESS EXPANSION PROJECT - EFFORT LOOP
WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
CROSSING EL-12
MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 17 OF 20
WO: 1222637	RID: 108		



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-13	S7-T2	FLOODWAY	-	Intermittent	PERM	0.0278
	S7-T2	FLOODWAY	-	Intermittent	TEMP	0.1087
	S8-T2	FLOODWAY	-	Ephemeral	TEMP	0.0133
	W15-T2	WETLAND	PFO	-	TEMP	0.0542
	W15-T2	WETLAND	PFO	-	PERM-PFO/PSS	0.0031
	W3-T1	WETLAND	PFO	-	TEMP	0.0046
	W3-T1	WETLAND	PFO	-	TEMP	0.1430
	W3-T1	WETLAND	PEM	-	PERM	0.3016
	W3-T1	WETLAND	PFO	-	PERM	0.0546
	W3-T1	WETLAND	PEM	-	TEMP	0.0476
W3-T1	WETLAND	PFO	-	PERM-PFO/PSS	0.0381	

TABLE NOTES:

- UNIQUE IDENTIFIER FOR THE SINGLE AND COMPLETE CROSSING
- UNIQUE NAME FOR IMPACTED RESOURCE
- TYPE OF IMPACTED RESOURCE (STREAM/WETLAND/FLOODWAY)
- COWARDIN CLASSIFICATION OF IMPACTED WETLAND, APPLIES TO WETLANDS ONLY
- FLOW REGIME OF THE IMPACTED STREAM APPLIES TO STREAMS ONLY
- IMPACT TYPE IS EITHER PERMANENT OR TEMPORARY
- THE AREA OF THE RESOURCE IMPACTED, IN ACRES. FOR AREAS WHERE THE WETLANDS AND FLOODWAY OVERLAP, FLOODWAY IMPACTS ARE INCLUDED WITHIN THE WETLAND IMPACT AREA (I.E. WETLAND AND FLOODWAY IMPACTS WERE NOT COUNTED IN DUPLICATE)

TEMPORARY IMPACTS

PIPELINE IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS MEASURED OUTSIDE THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONTOURS. PSS AND PFO WETLANDS WILL BE REVEGETATED TO THEIR PRE-EXISTING COVER TYPE.

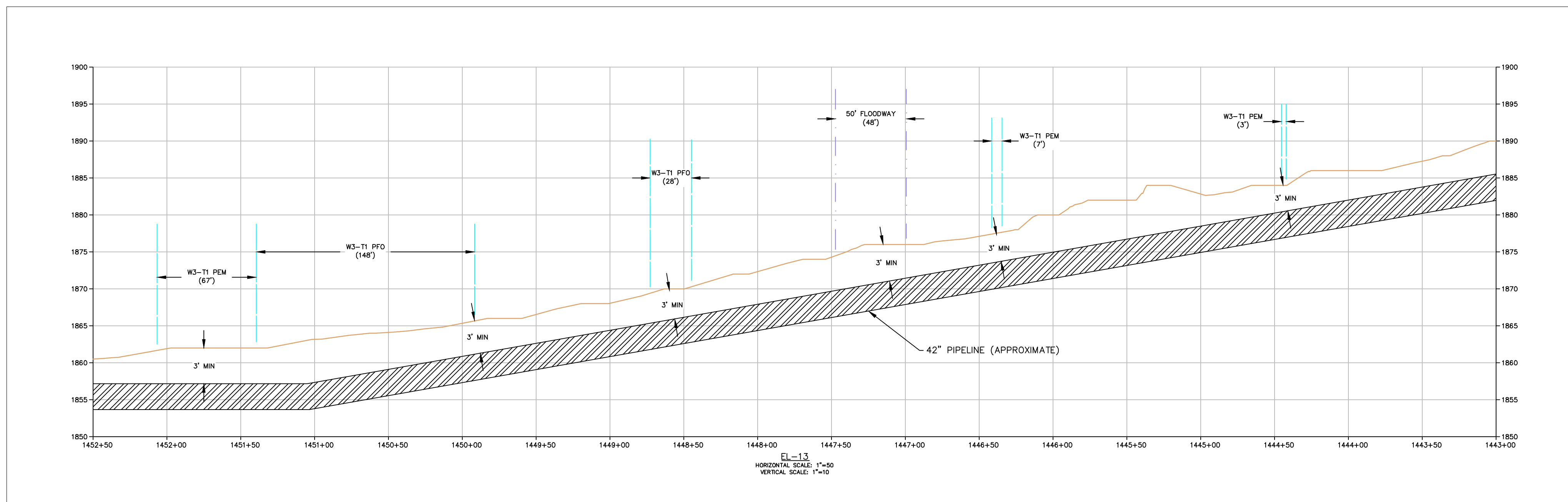
ACCESS ROAD IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE ON THE ACCESS ROADS. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONDITION.

PERMANENT IMPACTS

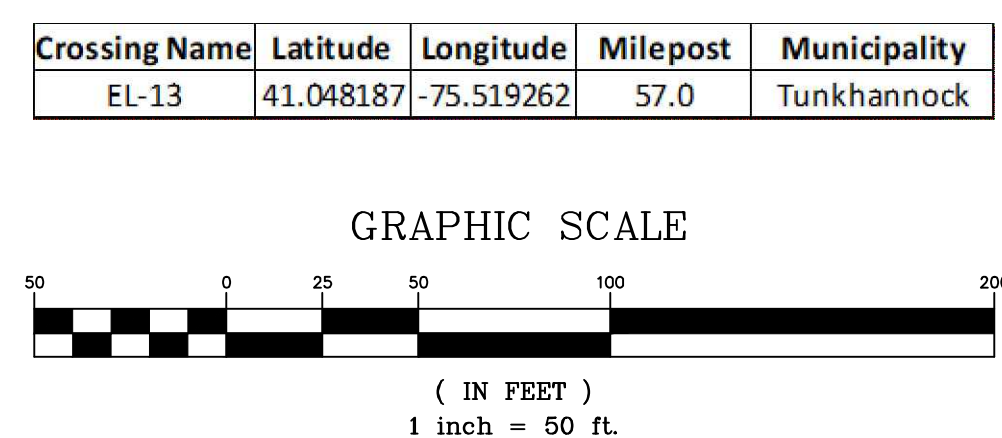
PIPELINE IMPACTS - PERMANENT IMPACTS INCLUDE THE AREA MEASURED WITHIN THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY (PROW), WHICH INCLUDES EXISTING AND PROPOSED ADDITIONAL PROW. THERE IS NO PERMANENT LOSS OF RESOURCES IN THE PROW AND THESE AREAS WILL BE RESTORED TO PRE-EXISTING CONTOURS. FOR PSS AND PFO WETLANDS WITHIN THE PROW, THE PERMANENT IMPACT VALUE REPRESENTS THE FUNCTIONAL CONVERSION AREA OF THESE RESOURCES.

GENERAL NOTES:

- STREAM CROSSING METHODS WILL BE COMPLETED VIA OPEN CUT CONSTRUCTION METHODS. EITHER DAM AND PUMP (DPX) OR FLUMED (FX) DRY-CROSSING METHOD WILL BE UTILIZED BASED ON FIELD CONDITIONS DURING TIME OF CONSTRUCTION. A BRIDGE EQUIPMENT CROSSING (BEC), BRIDGE EQUIPMENT CROSSING WITH CENTERED OR MULTIPLE SUPPORTS (BCC) OR CULVERT EQUIPMENT CROSSING (CEC) WILL BE INSTALLED AT ALL STREAM CROSSINGS.
- WETLAND CROSSING METHODS WILL COMPLETED VIA OPEN CUT CONSTRUCTION METHODS AS OUTLINED IN WETLAND CROSSING CONFIGURATION (WCC.1, WCC.2, WCC.3), BASED ON FIELD CONDITIONS DURING THE TIME OF CONSTRUCTION. WETLANDS WILL BE CROSSED FOR ACCESS UTILIZING TIMBER MATS AS OUTLINED IN THE WETLAND EQUIPMENT CROSSING (WEC) CONSTRUCTION DETAIL. WETLAND CROSSINGS COMPLETED VIA CONVENTIONAL BONE WILL BE SPECIFICALLY NOTED ON THE PLAN VIEW AND THE WBX CONSTRUCTION DETAIL.
- TYPICAL VEGETATED CHANNEL & VEGETATION RESTORATION (VCR) DETAILS 1 AND 2 ARE IDENTIFIED FOR WATERBODY RESTORATION. VCR-1 WILL BE UTILIZED AT WATERBODIES WITH EXISTING FORESTED RIPARIAN BUFFERS. VCR-2 WILL BE UTILIZED AT WATERBODIES WITH NON-FORESTED RIPARIAN BUFFER.
- ALL TYPICAL CONSTRUCTION DETAILS FOR PROPOSED CROSSING METHODS ARE LOCATED WITHIN THE EROSION AND SEDIMENTATION CONTROL PLAN AND NARRATIVE.
- THE PROPOSED PIPELINE WILL BE INSTALLED WITH 3-FOOT MINIMUM COVER THROUGH WETLANDS AND 4-FOOT MINIMUM COVER THROUGH STREAM CHANNELS.
- EXISTING CULVERTS ARE NOT PROPOSED FOR MODIFICATION AND ARE TO BE USED AS-IS.

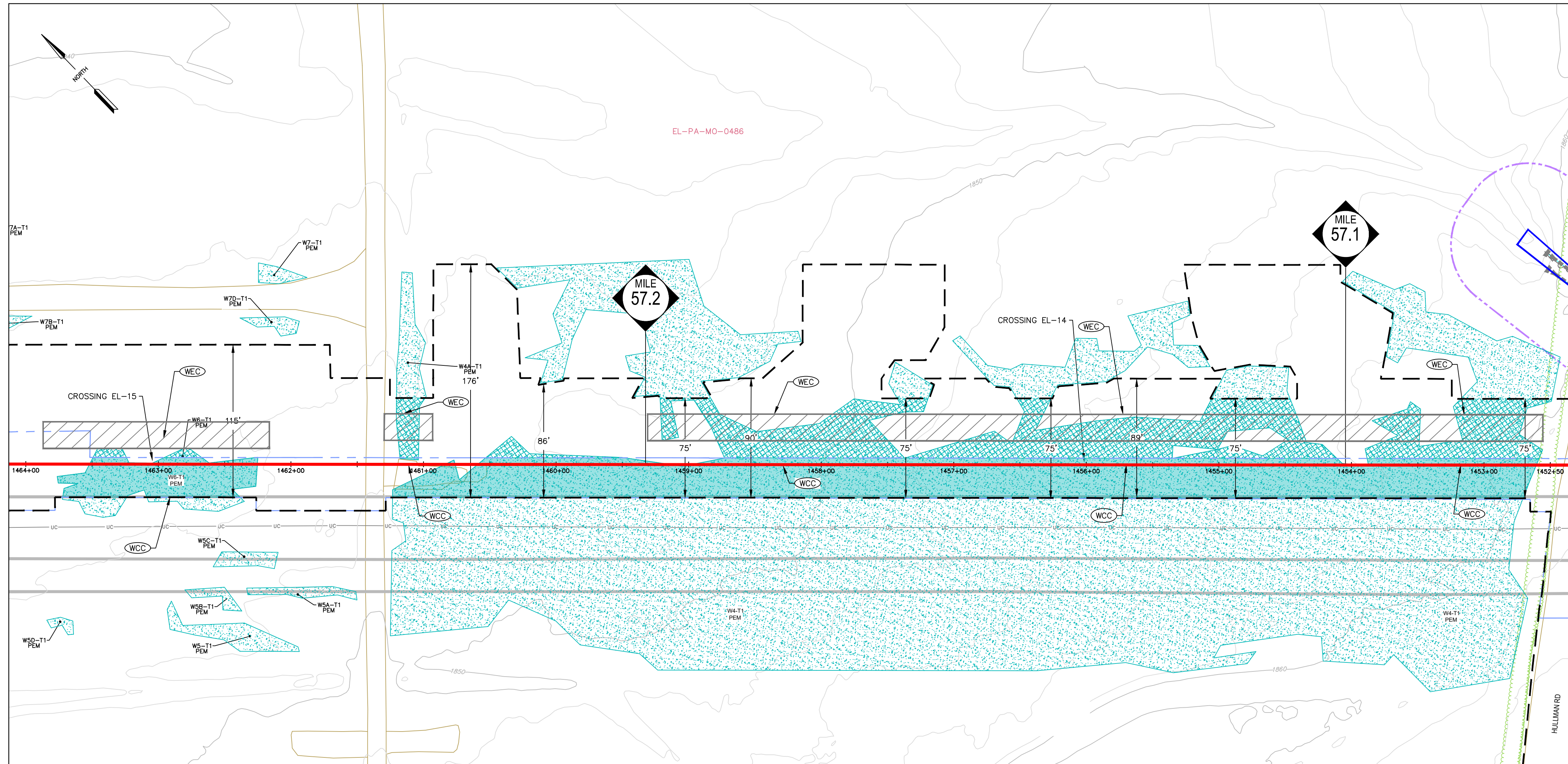


LEGEND	
	PROPOSED LIMITS OF DISTURBANCE (LOD)
	EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD
	PROPOSED 42" PIPELINE
	EXISTING PIPELINES
	EXISTING EDGE OF ROADWAY
	PARCEL BOUNDARY
	EXISTING CONTOUR (10' C.L.)
	EXISTING CONTOUR (2' C.L.)
	CULVERT
	TREELINE / SHRUB LINE
	EXISTING FENCE
	EXISTING ELECTRIC LINE/POLE
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING GAS LINE
	EXISTING WATER LINE
	EXISTING SANITARY LINE
	EXISTING STORM SEWER
	EXISTING TELEPHONE LINE
	EXISTING FIBER OPTIC LINE
	EXISTING UNDERGROUND CABLE LINE
	EXISTING FENCE
	TIMBERMAT
	EXISTING STRUCTURE
	EMERGENT WETLAND (PEM)
	PROPOSED PEM PERMANENT IMPACTS
	PROPOSED PEM TEMPORARY IMPACTS
	SCRUB SHRUB WETLAND (PSS)
	PROPOSED PSS PERMANENT IMPACTS
	PROPOSED PSS TEMPORARY IMPACTS
	FORESTED WETLAND (PFO)
	PROPOSED PFO PERMANENT IMPACTS
	PROPOSED PFO TEMPORARY IMPACTS
	OPEN WATER WETLAND (PWO)
	PROPOSED PWO TEMPORARY IMPACTS
	STREAM CHANNEL
	PROPOSED PERMANENT STREAM CHANNEL IMPACT
	PROPOSED TEMPORARY STREAM CHANNEL IMPACT
	FLOODWAY
	PROPOSED PERMANENT FLOODWAY IMPACT
	PROPOSED TEMPORARY FLOODWAY IMPACT
	FEMA FLOODPLAIN



REVISIONS					
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK. APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW RN
2	07/08/22	BH	REVISED TO PADEP JUNE 2022 TECHNICAL DEFICIENCY LETTER	1222637	DW RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC				
REGIONAL ENERGY ACCESS EXPANSION PROJECT - EFFORT LOOP				
WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS				
CROSSING EL-13				
MONROE COUNTY, PENNSYLVANIA				
DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'	
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:	
APPROVED BY: PW	DATE: 03/05/21			SHEET 18
WO: 1222637	RID: 108	DRAWING NUMBER: 26-1000-70-9-0		OF 20



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-14	W4A-T1	WETLAND	PEM	-	TEMP	0.0172
	W4-T1	WETLAND	PEM	-	PERM	0.0004
	W4-T1	WETLAND	PEM	-	PERM	0.5651
	W4-T1	WETLAND	PEM	-	TEMP	0.3852
EL-15	W6-T1	WETLAND	PEM	-	PERM	0.0870
	W6-T1	WETLAND	PEM	-	TEMP	0.0058

TABLE NOTES:

- UNIQUE IDENTIFIER FOR THE SINGLE AND COMPLETE CROSSING
- UNIQUE NAME FOR IMPACTED RESOURCE
- TYPE OF IMPACTED RESOURCE (STREAM/WETLAND/FLOODWAY)
- COWARDIN CLASSIFICATION OF IMPACTED WETLAND, APPLIES TO WETLANDS ONLY.
- FLOW REGIME OF THE IMPACTED STREAM APPLIES TO STREAMS ONLY.
- IMPACT TYPE IS EITHER PERMANENT OR TEMPORARY.
- THE AREA OF THE RESOURCE IMPACTED, IN ACRES. FOR AREAS WHERE THE WETLANDS AND FLOODWAY OVERLAP, FLOODWAY IMPACTS ARE INCLUDED WITHIN THE WETLAND IMPACT AREA (I.E. WETLAND AND FLOODWAY IMPACTS WERE NOT COUNTED IN DUPLICATE)

TEMPORARY IMPACTS

PIPELINE IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS MEASURED OUTSIDE THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONTOURS. PSS AND PFO WETLANDS WILL BE REVEGETATED TO THEIR PRE-EXISTING COVER TYPE.

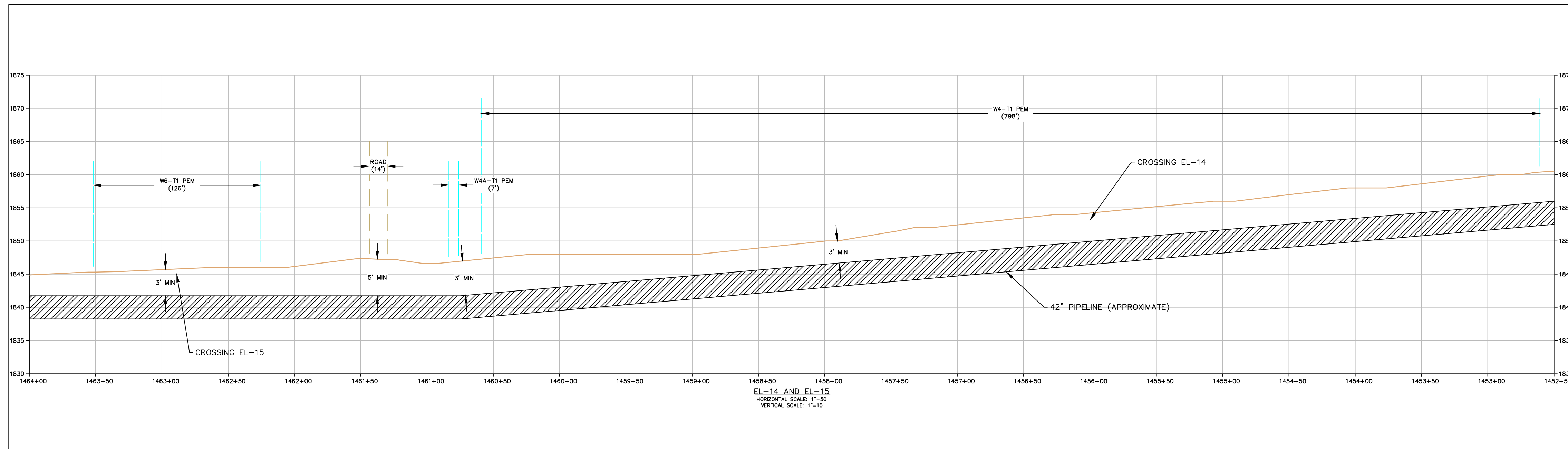
ACCESS ROAD IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE ON THE ACCESS ROADS. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONDITION.

PERMANENT IMPACTS

PIPELINE IMPACTS - PERMANENT IMPACTS INCLUDE THE AREA MEASURED WITHIN THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY (PROW), WHICH INCLUDES EXISTING AND PROPOSED ADDITIONAL PROW. THERE IS NO PERMANENT LOSS OF RESOURCES IN THE PROW AND THESE AREAS WILL BE RESTORED TO PRE-EXISTING CONTOURS. FOR PSS AND PFO WETLANDS WITHIN THE PROW, THE PERMANENT IMPACT VALUE REPRESENTS THE FUNCTIONAL CONVERSION AREA OF THESE RESOURCES.

GENERAL NOTES:

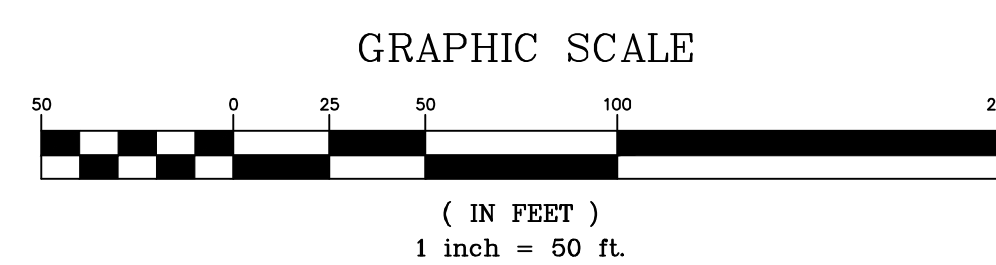
- STREAM CROSSING METHODS WILL BE COMPLETED VIA OPEN CUT CONSTRUCTION METHODS. EITHER DAM AND PUMP (DPX) OR FLUMED (FX) DRY-CROSSING METHOD WILL BE UTILIZED BASED ON FIELD CONDITIONS DURING TIME OF CONSTRUCTION. A BRIDGE EQUIPMENT CROSSING (BEC), BRIDGE EQUIPMENT CROSSING WITH CENTERED OR MULTIPLE SUPPORTS (BCC) OR CULVERT EQUIPMENT CROSSING (CEC) WILL BE INSTALLED AT ALL STREAM CROSSINGS.
- WETLAND CROSSING METHODS WILL COMPLETED VIA OPEN CUT CONSTRUCTION METHODS AS OUTLINED IN WETLAND CROSSING CONFIGURATION (WCC.1, WCC.2, WCC.3), BASED ON FIELD CONDITIONS DURING THE TIME OF CONSTRUCTION. WETLANDS WILL BE CROSSED FOR ACCESS UTILIZING TIMBER MATS AS OUTLINED IN THE WETLAND EQUIPMENT CROSSING (WEC) CONSTRUCTION DETAIL. WETLAND CROSSINGS COMPLETED VIA CONVENTIONAL BORE WILL BE SPECIFICALLY NOTED ON THE PLAN VIEW AND THE W&X CONSTRUCTION DETAIL.
- TYPICAL VEGETATED CHANNEL & VEGETATION RESTORATION (VCR) DETAILS 1 AND 2 ARE IDENTIFIED FOR WATERBODY RESTORATION. VCR-1 WILL BE UTILIZED AT WATERBODIES WITH EXISTING FORESTED RIPARIAN BUFFERS. VCR-2 WILL BE UTILIZED AT WATERBODIES WITH NON-FORESTED RIPARIAN BUFFER.
- ALL TYPICAL CONSTRUCTION DETAILS FOR PROPOSED CROSSING METHODS ARE LOCATED WITHIN THE EROSION AND SEDIMENTATION CONTROL PLAN AND NARRATIVE.
- THE PROPOSED PIPELINE WILL BE INSTALLED WITH 3-FEET MINIMUM COVER THROUGH WETLANDS AND 4-FEET MINIMUM COVER THROUGH STREAM CHANNELS.
- EXISTING CULVERTS ARE NOT PROPOSED FOR MODIFICATION AND ARE TO BE USED AS-IS.



EL-14 AND EL-15
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=10'

LEGEND	
	PROPOSED LIMITS OF DISTURBANCE (LOD)
	EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD
	PROPOSED 42" PIPELINE
	EXISTING PIPELINES
	EXISTING EDGE OF ROADWAY
	EXISTING CONTOUR (10' C.L.)
	EXISTING CONTOUR (2' C.L.)
	CULVERT
	TREELINE / SHRUB LINE
	EXISTING FENCE
	EXISTING ELECTRIC LINE/POLE
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING GAS LINE
	EXISTING WATER LINE
	EXISTING SANITARY LINE
	EXISTING STORM SEWER
	EXISTING TELEPHONE LINE
	EXISTING FIBER OPTIC LINE
	EXISTING UNDERGROUND CABLE LINE
	EXISTING FENCE
	EXISTING STRUCTURE
	WETLANDS
	EMERGENT WETLAND (PEM)
	PROPOSED PEM PERMANENT IMPACTS
	PROPOSED PEM TEMPORARY IMPACTS
	SCRUB SHRUB WETLAND (PSS)
	PROPOSED PSS PERMANENT IMPACTS
	PROPOSED PSS TEMPORARY IMPACTS
	FORESTED WETLAND (PFO)
	PROPOSED PFO PERMANENT IMPACTS
	PROPOSED PFO TEMPORARY IMPACTS
	OPEN WATER WETLAND (POW)
	PROPOSED POW TEMPORARY IMPACTS
	STREAMS
	STREAM CHANNEL
	PROPOSED PERMANENT STREAM CHANNEL IMPACT
	PROPOSED TEMPORARY STREAM CHANNEL IMPACT
	FLOODWAY
	PROPOSED PERMANENT FLOODWAY IMPACT
	PROPOSED TEMPORARY FLOODWAY IMPACT
	FEMA FLOODPLAIN

Crossing Name	Latitude	Longitude	Milepost	Municipality
EL-14	41.049796	-75.521358	57.2	Tunkhannock
EL-15	41.051076	-75.523026	57.3	Tunkhannock



REVISIONS

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN
2	07/08/22	BH	REVISED TO PADEP JUNE 2022 TECHNICAL DEFICIENCY LETTER	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
REGIONAL ENERGY ACCESS EXPANSION PROJECT - EFFORT LOOP
WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
CROSSING EL-14 AND EL-15
MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 19 OF 20
WO: 1222637	RID: 108		

