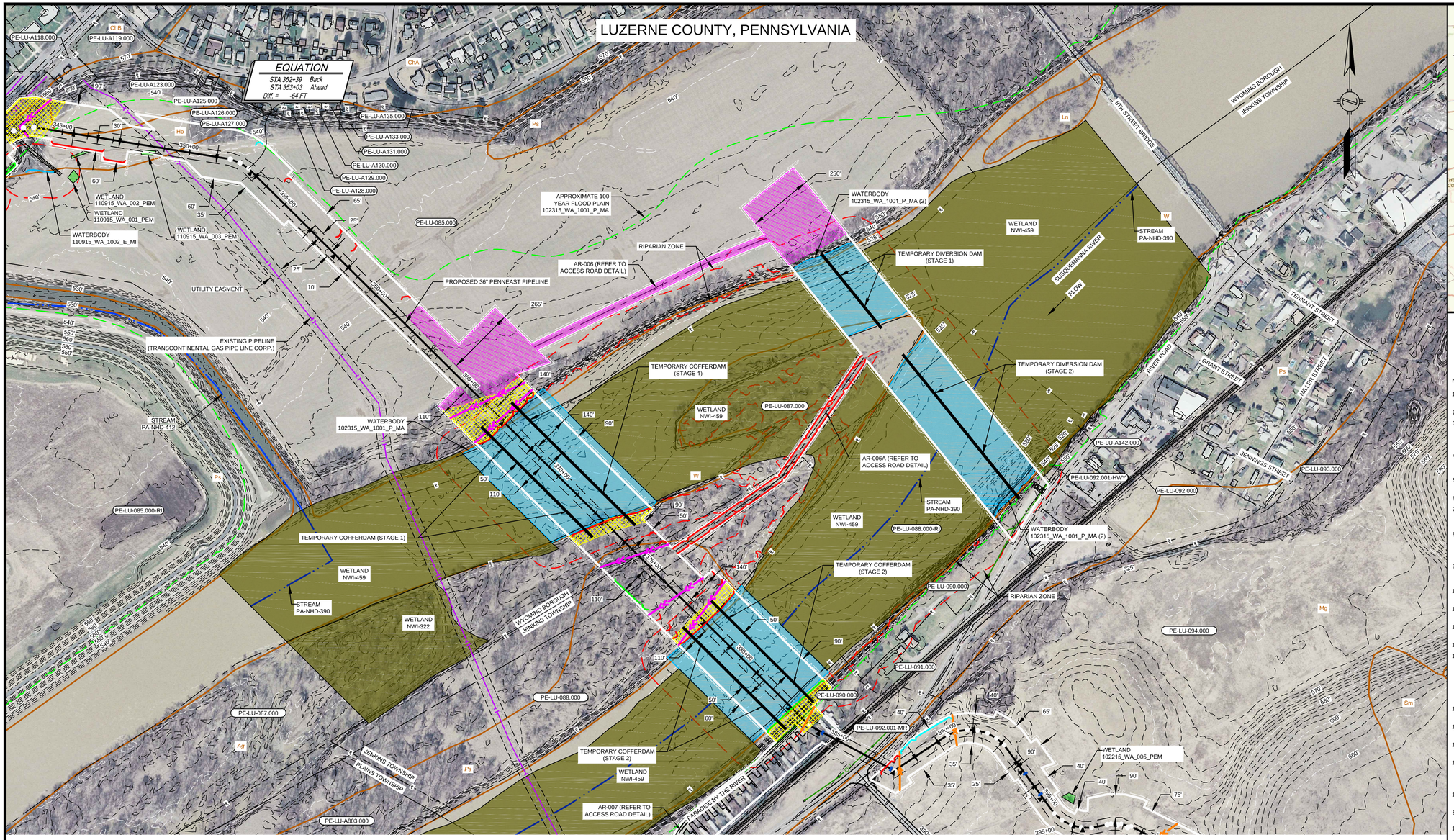
LUZERNE COUNTY, PENNSYLVANIA



SUSQUEHANNA RIVER CROSSING
PLAN VIEW

SCALE: 1" = 200'

LOCATION MAP
SCALE: 1" = 15 MILES

NOTES:

1. ALL DIMENSIONS AND ELEVATIONS ARE IN FEET UNLESS OTHERWISE SHOWN. ALL STATIONS ARE HORIZONTAL. ALL ELEVATIONS ARE NAVD88.
2. DRAWING SCALES ARE ONLY CORRECT WHEN PLOTTED AT FULL SIZE (24"X36").
3. THE CONTOURS AND IMAGERY SHOWN WERE PROVIDED BY PICTOMETRY, 2015. THE AERIAL PHOTOGRAPHY WAS OBTAINED IN MARCH 2015 AND IS NOT AN EXACT REPRESENTATION OF WATERS EDGE ANTICIPATED DURING CONSTRUCTION. ADDITIONAL CONTOURS AND IMAGERY SUPPLEMENTED FROM PASDA.
4. EXISTING FEATURE SURVEYED PERFORMED BY MOTT MACDONALD 2015 THRU 2019. ADDITIONAL FEATURES DIGITIZED FROM IMAGERY. ALL LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
5. PROPERTY LINES DEPICTED ON THIS PLAN ARE BASED ON GIS TAX MAP DATA AND RECTIFIED PROPERTY LINES AND ARE NOT THE RESULT OF A BOUNDARY SURVEY.
6. WATERBODY INFORMATION PROVIDED BY AECOM 2015 THRU 2019.
7. RIVERBED IN AREAS OF ISOLATED DRY CROSSING LOCATIONS SHALL BE GRADED TO CONFORM AS NEAR AS PRACTICABLE TO ORIGINAL PROFILES. BANKS SHALL BE GRADED TO ORIGINAL OR STABLE CONTOURS.
8. PROPOSED PIPELINE WILL BE INSTALLED WITH A MINIMUM COVER OF 5-FEET. MINIMUM COVER REFERS TO THE DISTANCE BETWEEN THE LOWEST POINT ON THE WATERCOURSE THALWEG TO TOP OF PIPE (T.O.P.), INCLUSIVE OF LAGGING, CONCRETE WEIGHT OVERCOATING, ARMOR STONE, GRAVEL BEDDING LAYER, ETC.
9. PROPOSED PIPELINE WILL BE INSTALLED WITH CONCRETE WEIGHT COATING AND/OR CONCRETE RIVER WEIGHTS/ARMOR PROTECTION TO ACHIEVE THE REQUIRED FOR BUOYANCY CONTROL MITIGATION.
10. NATIVE RIVERBED MATERIAL TO BE USED FOR TRENCH BACKFILL FOR THE UPPER MOST 1-FOOT OF TRENCH RESTORATION.
11. PROPOSED PIPELINE SHALL BE INSTALLED IN GRAVEL BEDDING LAYER WITH 1-FOOT OF OUTSIDE DIAMETER OF PIPE.
12. PROPOSED PIPELINE COVER SHALL INCLUDE ARMOR STONE OR MARINE MATTRESS EQUIVALENT INBETWEEN GRAVEL BEDDING LAYER AND NATIVE RIVERBED MATERIALS.
13. REFER TO DRAWINGS 000-03-09-001 THRU 000-03-09-008 FOR E&S BMP TYPICAL DETAILS.
14. DUE TO LENGTH OF TIME BETWEEN BATHYMETRY SURVEY FOR PERMITTING AND PROPOSED CONSTRUCTION TIMEFRAME, PENNEAST WILL PERFORM A SUPPLEMENTAL BATHYMETRY SURVEY ONE MONTH PRIOR TO PROPOSED CONSTRUCTION WINDOW. SUPPLEMENTAL BATHYMETRY SURVEY WILL BE USED TO CONFIRM PROPOSED PIPELINE TRENCH DEPTH AND ORIENTATION/LOCATION OF COFFERDAMS AND DIVERSION DAMS. MINIMUM COVER WILL REMAIN AT 5-FEET AND TEMPORARY COFFERDAMS AND DIVERSION DAMS SHALL REMAIN WITHIN THE PERMITTING WORKSPACE.
15. EXACT ORIENTATION AND LOCATION OF COFFERDAMS AND DIVERSION DAMS SUBJECT TO PRE-CONSTRUCTION CONFIRMATION AND REVIEW OF BATHYMETRY.
16. THE CROSSING SHALL BE CONSTRUCTED USING A DRY CROSSING METHOD CONSISTING OF TEMPORARY COFFERDAMS AND DIVERSION DAMS.
17. RIVER CROSSING SHALL TAKE PLACE DURING EXPECTED PERIODS OF LOW RIVER FLOW DURING THE MONTHS OF JULY TO SEPTEMBER.
18. COFFERDAMS AND DIVERSION DAMS SHALL BE REMOVED SHOULD SEVERE WEATHER EVENTS BE FORECASTED WHILE CONSTRUCTING THE CROSSING. RIVERBED SHALL BE STABILIZED PRIOR TO REMOVAL OF COFFERDAMS AND DIVERSION DAMS SHOULD UNOBSTRUCTED RIVER FLOW BE REQUIRED.
19. AN OVERVIEW OF THE CONSTRUCTION SEQUENCE FOR THE DRY CROSSING METHOD IS DESCRIBED BELOW:

STAGE 1 (NORTH CHANNEL):

1. ASSESS CURRENT WEATHER CONDITIONS, WEATHER FORECAST, AND FLOWS OF NORTH CHANNEL FOR CROSSING FEASIBILITY.
2. ACQUIRE SIGN-OFF FROM ENVIRONMENTAL INSPECTOR, CONTRACTOR, AND PENNEAST REPRESENTATIVE PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
3. CONSTRUCT STAGE 1 DIVERSION DAM AT THE UPSTREAM TIP OF MONOCANOCK ISLAND IN THE NORTHERN CHANNEL. THE DIVERSION DAM WILL REDUCE THE RIVER VELOCITY, BUT THE RIVER CHANNEL WILL REMAIN FLOODED BETWEEN THE DIVERSION DAM AND THE COFFERDAM.
4. CONSTRUCT STAGE 1 COFFERDAMS AT THE EDGE OF WORKSPACE.
5. EXCAVATE STAGE 1 TRENCH, INSTALL PIPELINE, AND BACKFILL.
6. RESTORE PRE-CONSTRUCTION CONTOURS TO THE EXTENT PRACTICABLE.
7. REMOVE STAGE 1 COFFERDAMS.
8. REMOVE STAGE 1 DIVERSION DAM.

STAGE 2 (SOUTH CHANNEL):

1. ASSESS CURRENT WEATHER CONDITIONS, WEATHER FORECAST, AND FLOWS OF SOUTH CHANNEL FOR CROSSING FEASIBILITY.
2. ACQUIRE SIGN-OFF FROM ENVIRONMENTAL INSPECTOR, CONTRACTOR, AND PENNEAST REPRESENTATIVE PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
3. CONSTRUCT STAGE 2 DIVERSION DAM AT THE UPSTREAM TIP OF MONOCANOCK ISLAND IN THE SOUTHERN CHANNEL.
4. CONSTRUCT STAGE 2 COFFERDAMS AT THE EDGE OF WORKSPACE.
5. EXCAVATE STAGE 2 TRENCH, INSTALL PIPELINE IN THE DRY, AND BACKFILL.
6. EXCAVATE THE TRENCH ON THE ISLAND, INSTALL PIPELINE, TIE-IN WELD ON THE ISLAND, AND BACKFILL.
7. RESTORE PRE-CONSTRUCTION CONTOURS TO THE EXTENT PRACTICABLE.
8. REMOVE STAGE 2 COFFERDAMS.
9. REMOVE STAGE 2 DIVERSION DAM.

COMMONWEALTH OF PENNSYLVANIA
PROFESSIONAL ENGINEER
MICHAEL A. WILCOX
10/25/19

SCALE: 1" = 200'
200 100 0 200

REFERENCE DRAWINGS	
DWG. NO.	TITLE
000-03-03-006	ACCESS ROAD DETAIL
000-03-01-014	ALIGNMENT SHEET
000-03-01-015	ALIGNMENT SHEET
000-03-09-001 - 008	TYPICAL E&S DETAILS
000-03-08-001/002	TYPICAL CONSTRUCTION ROW DETAILS

REVISIONS					
NO.	DESCRIPTION	DATE	DRAWN	CK	APPR
A	ISSUED FOR PADEP	10/2019	AJD (MM)	DOW (MM)	MAW (MM)

PROJECT ENGINEER STAMP

APPROVALS	
DRAWN BY	DATE
AJD (MM)	10/17/2019
CHECKED BY	DATE
DOW (MM)	10/17/2019
ENG. APPROVAL	DATE
MAW (MM)	10/17/2019
P.M. APPROVAL	DATE

811 Know what's below. Call before you dig.

CLIENT APPROVAL

DATE

PREPARED FOR

PennEast PIPELINE

PENNEAST PIPELINE PROJECT

SOIL EROSION AND SEDIMENT CONTROL PLAN
SUSQUEHANNA RIVER CROSSING OVERVIEW
TEMPORARY COFFERDAM
STAGES & LOCATION PLAN
LUZERNE COUNTY, PENNSYLVANIA

SCALE	DRAWING NO.	REVISION
AS SHOWN	000-03-06-001	A