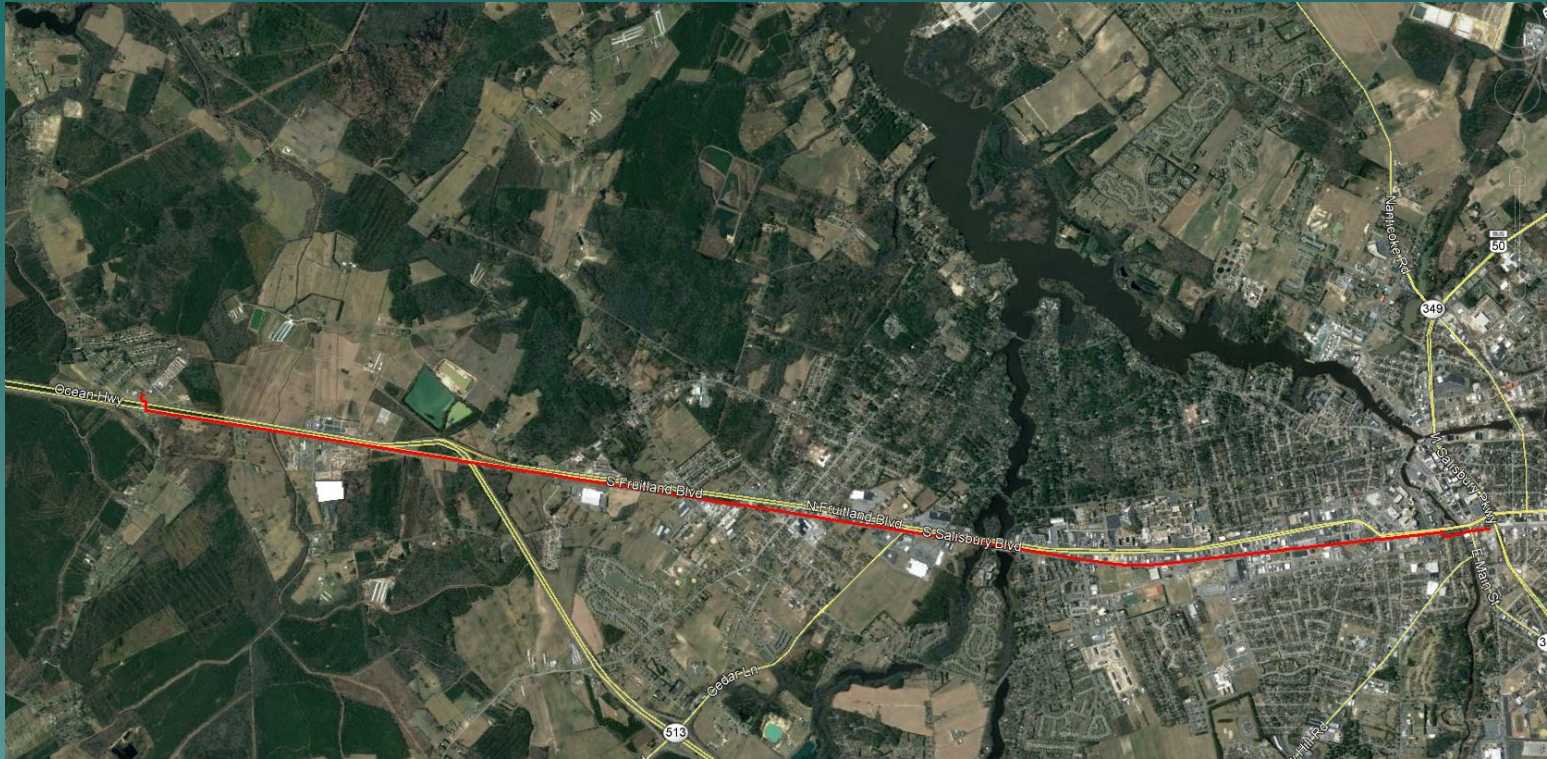
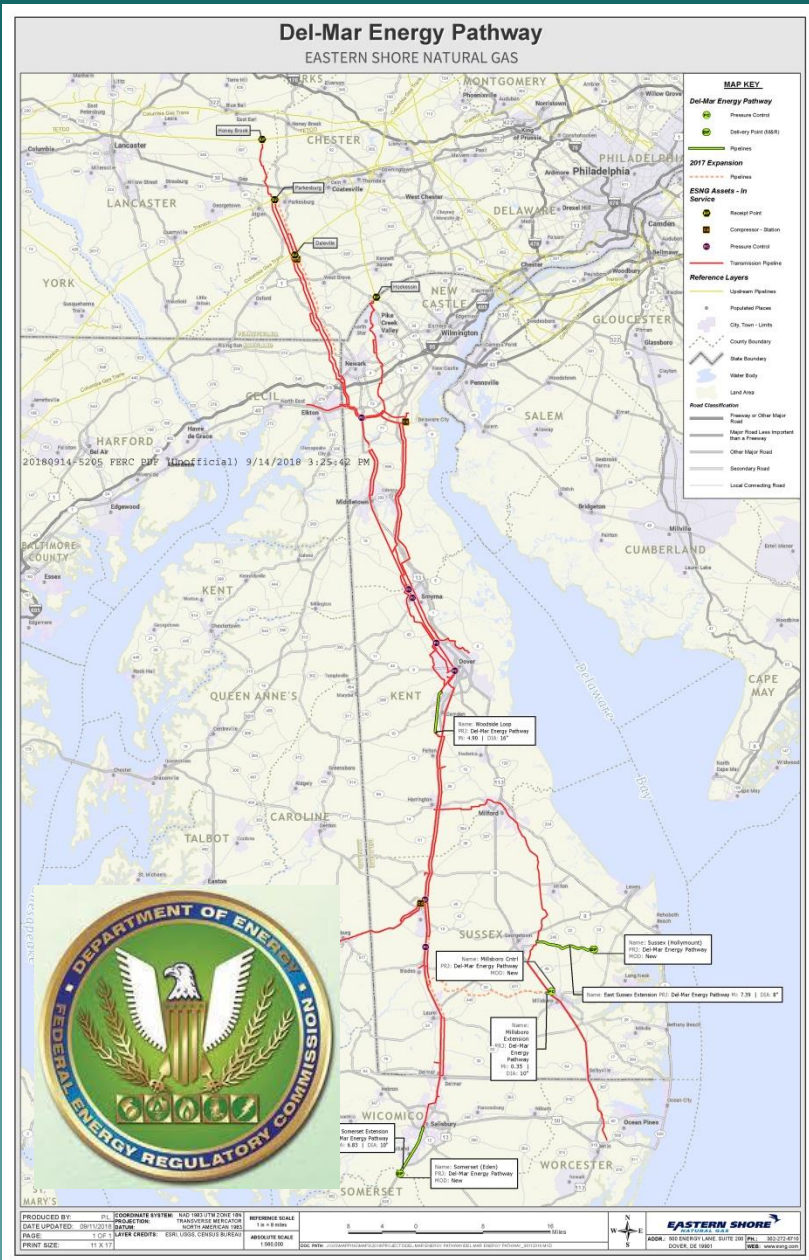


# DEL-MAR ENERGY PATHWAY PROJECT- SOMERSET EXTENSION



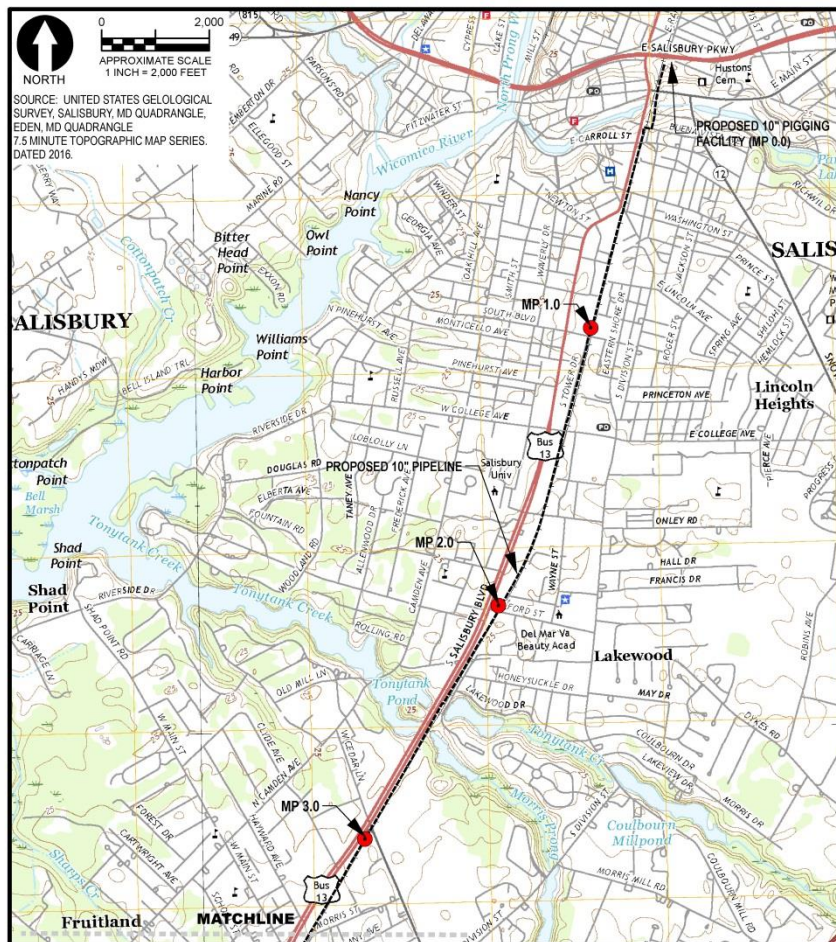
# DEL-MAR ENERGY PATHWAY PROJECT



- Eastern Shore Natural Gas is an interstate pipeline company regulated by the Federal Energy Regulatory Commission (FERC) and has been transporting natural gas to the Eastern Shore of Maryland for over 60 years
- A Certificate of Public Convenience and Necessity was granted by FERC in December 2019 (CP18-548-000)
- The Somerset Extension is a portion of the overall Del-Mar Energy Pathway Project, and is the only portion of the project located in Maryland



# SOMERSET EXTENSION



	<b>GEO-TECHNOLOGY ASSOCIATES, INC.</b> GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS 3445-A BOX HILL CORPORATE CENTER DRIVE ABINGDON, MARYLAND 21009 410-515-9446 FAX: 410-515-4895 WWW.GTAENG.COM		TOPOGRAPHIC MAP <b>DEL-MAR ENERGY PATHWAY          PROJECT-SOMERSET EXTENSION</b>	
	© GEO-TECHNOLOGY ASSOCIATES, INC.		WICOMICO AND SOMERSET COUNTIES, MARYLAND	
JOB NO. 31180489	SCALE: 1" = 2,000'	DATE: SEPTEMBER 10, 2018	DRAWN BY: RJM	REVIEW BY: TAS
			FIGURE: 1.2-2F	

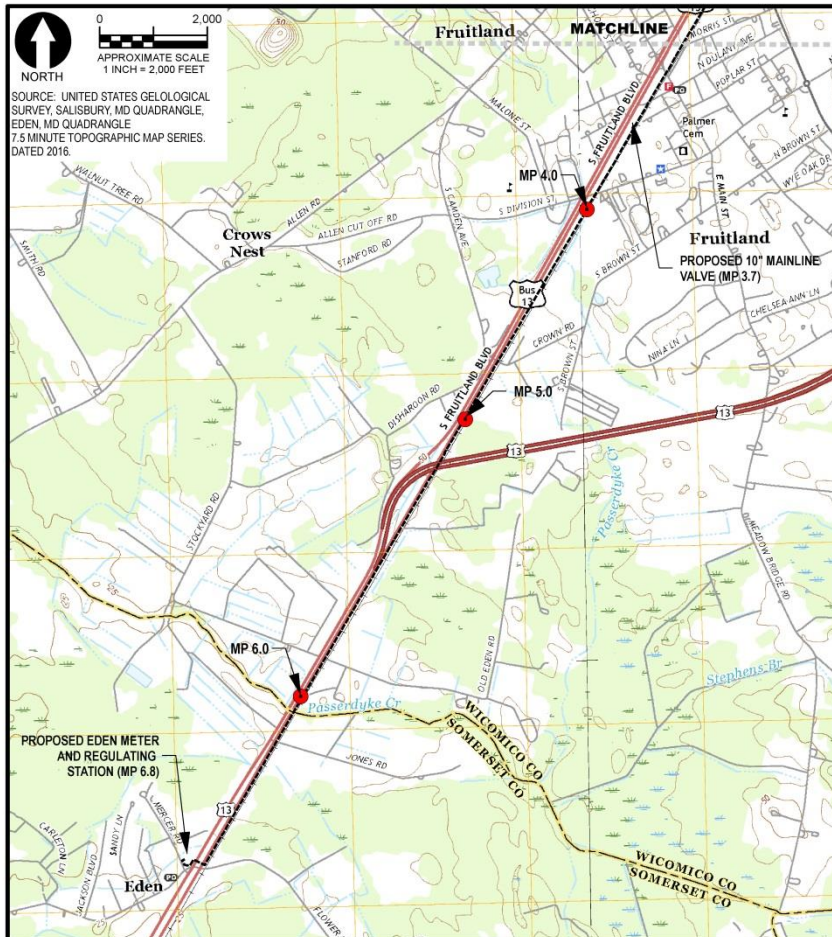
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- Location: Salisbury, Fruitland, and Eden areas of Wicomico and Somerset Counties
- Waterbody: South Prong Wicomico River, Tonytank Pond, Passerdyke Creek, and an unnamed tributary of the Wicomico River
- Applicant: Eastern Shore Natural Gas Company (ESNG)
- Engineer: Mott MacDonald
- Env. Consultant: Geo-Technology Associates, Inc. (GTA)
- Purpose: Extension of ESNG's existing pipeline system from Salisbury, MD to Eden, MD in order to meet market demand in Somerset County



# SOMERSET EXTENSION

- Approximately 6.8 miles of 10-inch diameter mainline pipeline extension
- The route will be approximately 91% within existing rights-of-way



	<b>GEO-TECHNOLOGY ASSOCIATES, INC.</b> GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS 3445-A BOX HILL CORPORATE CENTER DRIVE ABINGDON, MARYLAND 21009 410-515-9446 FAX: 410-515-4895 WWW.GTAENG.COM	TOPOGRAPHIC MAP <b>DEL-MAR ENERGY PATHWAY                  PROJECT-SOMERSET EXTENSION</b>	
	© GEO-TECHNOLOGY ASSOCIATES, INC.	WICOMICO AND SOMERSET COUNTIES, MARYLAND	
JOB NO. 31180489	SCALE: 1" = 2,000'	DATE: SEPTEMBER 10, 2018	DRAWN BY: RJM    REVIEW BY: TAS    FIGURE: 1.2-2G

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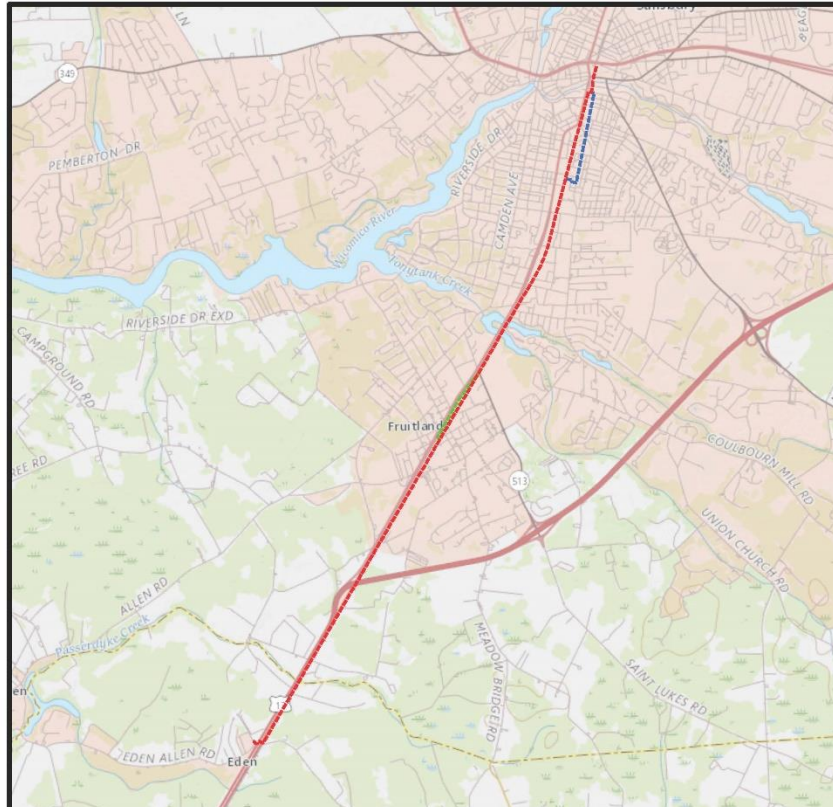
# SOMERSET EXTENSION

## Alternative Routes

- ◆ Three proposed routes were evaluated
- ◆ The proposed route is the preferred alternative
- ◆ The proposed route is largely within existing road and railroad rights-of-way
  - Minimizes impacts to wetlands, waterways, and undisturbed areas
  - The proposed route is shorter than either alternative route, and would also result in less road crossings and impacts to residential and commercial buildings than either alternative



# SOMERSET EXTENSION Alternative Routes

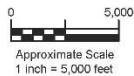


SOURCE: UNITED STATES GEOLOGICAL SURVEY, THE NATIONAL MAP.

- PROPOSED PIPELINE (APPROXIMATELY 6.82 MILES)
- ALTERNATIVE 1 (APPROXIMATELY 6.95 MILES)
- ALTERNATIVE 2 (APPROXIMATELY 6.86 MILES)



NORTH



**M**  
**MOTT**  
**MACDONALD**

134 CAPITAL DRIVE SUITE D  
WEST SPRINGFIELD, MA 01089  
UNITED STATES OF AMERICA

**DEL-MAR ENERGY PATHWAY PROJECT**  
**FIGURE 10.1-1**  
**SOMERSET EXTENSION**  
**ALTERNATIVES MAP**  
WICOMICO AND SOMERSET COUNTIES, MARYLAND

JOB NO. 19227 SCALE: 1" = 5,000' DATE: SEPTEMBER 10, 2018 DRAWN BY: MAJ REVIEW BY: TAS PAGE: 1 OF 1



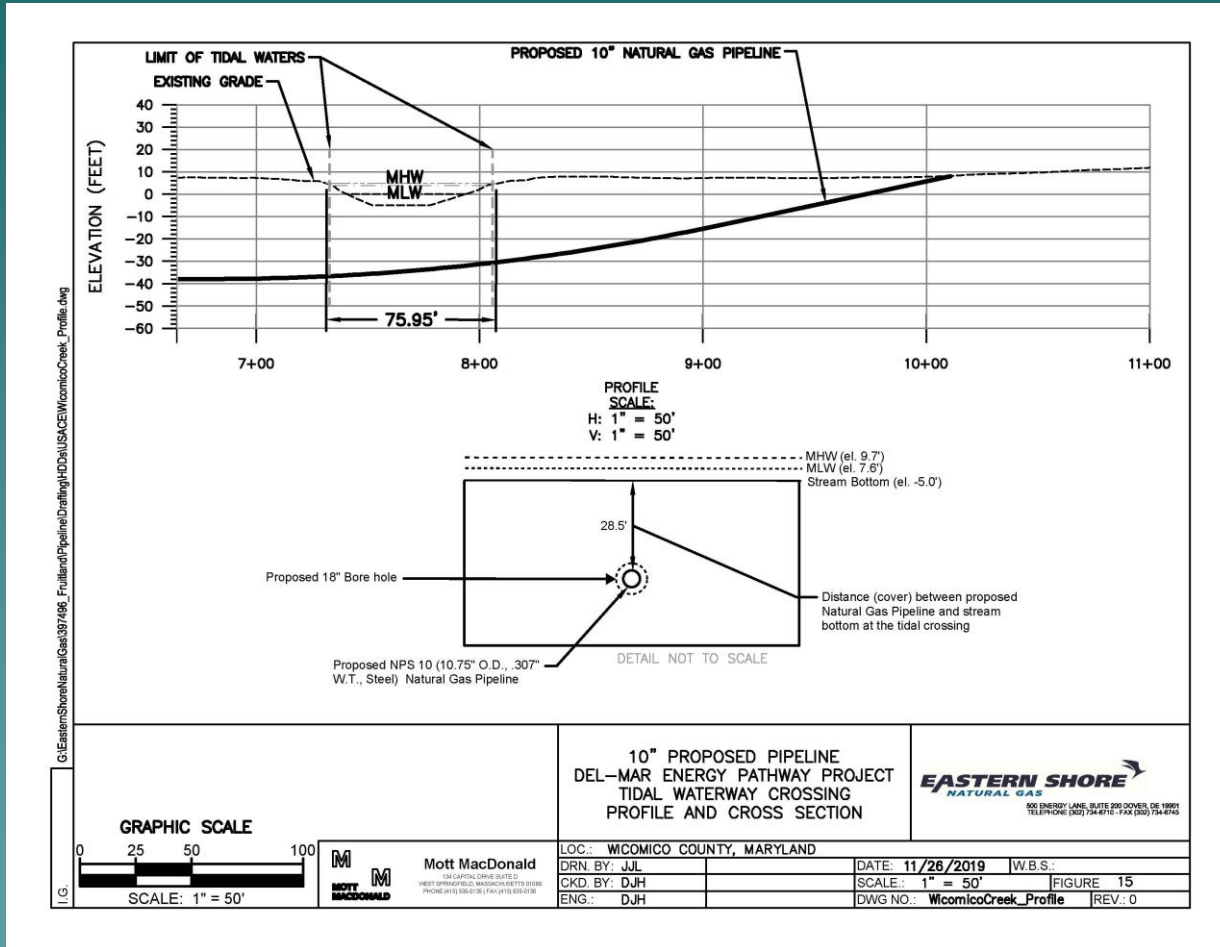
# SOMERSET EXTENSION

## Wetland and Waterway Impacts

- ◆ 1 tidal waterbody crossing, 3 nontidal waterbody crossings and 1 wetland crossing
  - The majority of wetland and waterbody crossings will utilize Horizontal Directional Drilling (HDD) in order to avoid direct impacts to wetlands and waterways
  - Due to overhead utility lines, the use of HDD is not feasible for one nontidal wetland crossing and one nontidal stream crossing, so open trench construction is proposed for those crossings
    - ◆ To minimize impacts, the limit of disturbance was reduced from the typical 100-foot width to an approximately 35-foot width within the wetland crossing



# SOMERSET EXTENSION HDD Crossing of South Prong Wicomico River

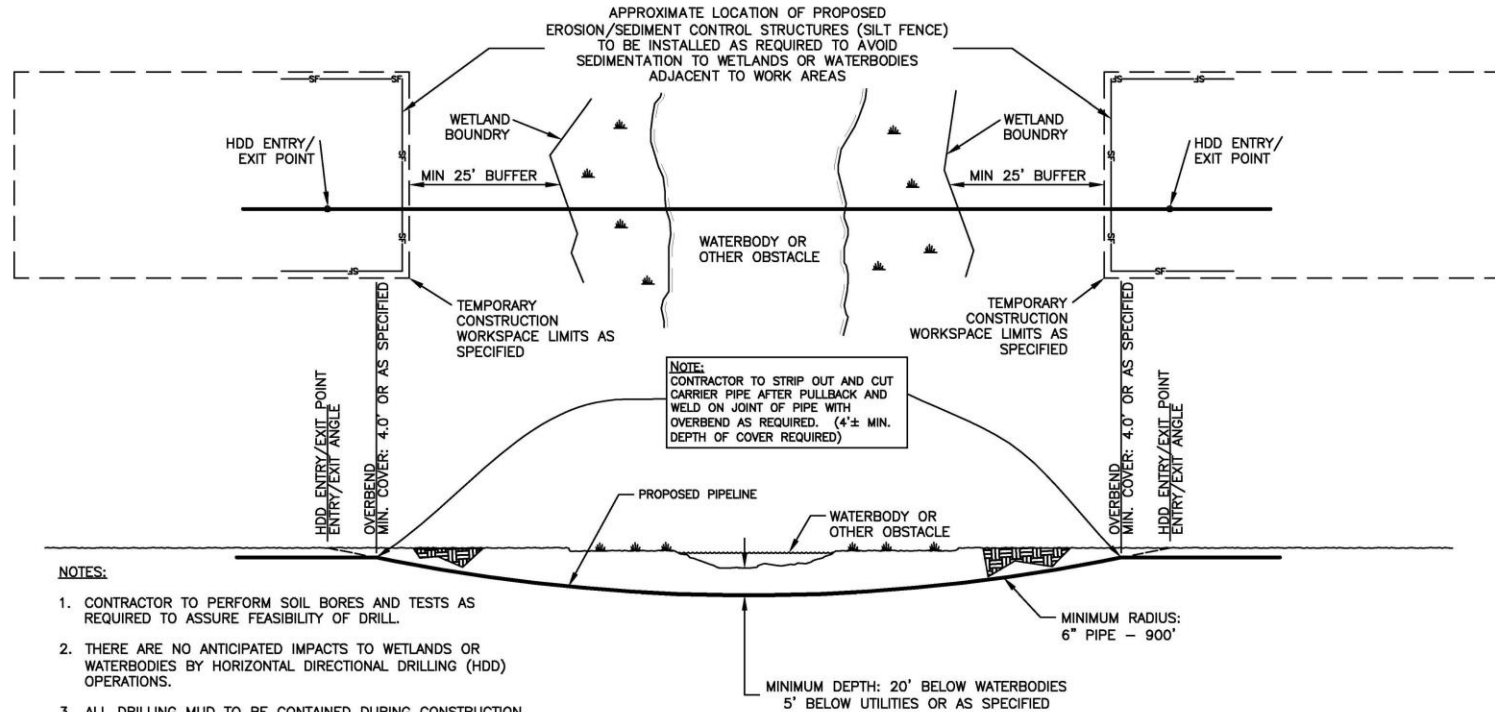




# SOMERSET EXTENSION

## Typical HDD Wetland/Waterbody Crossing

### TYPICAL HORIZONTAL DIRECTIONAL DRILL DETAIL



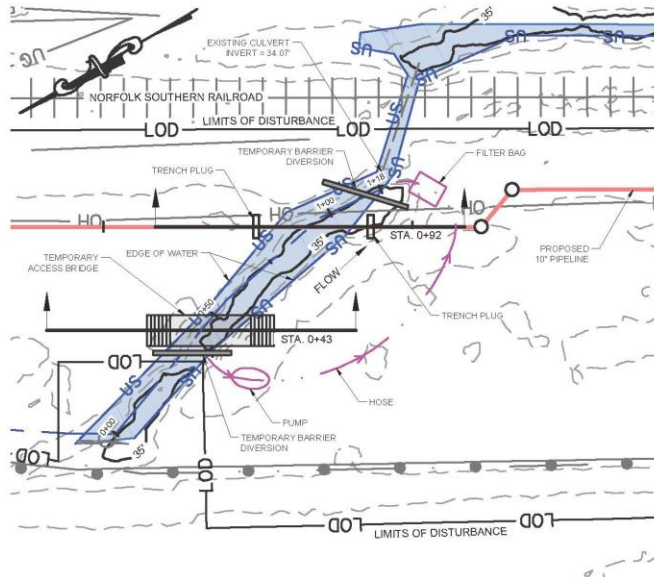
#### NOTES:

1. CONTRACTOR TO PERFORM SOIL BORES AND TESTS AS REQUIRED TO ASSURE FEASIBILITY OF DRILL.
2. THERE ARE NO ANTICIPATED IMPACTS TO WETLANDS OR WATERBODIES BY HORIZONTAL DIRECTIONAL DRILLING (HDD) OPERATIONS.
3. ALL DRILLING MUD TO BE CONTAINED DURING CONSTRUCTION WITH BERMS, MUD PITS, EROSION AND SEDIMENT CONTROLS DEEMED APPROPRIATE FOR THE SITE. ALL DRILLING MUD TO BE PROPERLY DISPOSED OF AT APPROVED FACILITIES.
4. CONSTRUCTION STAGING WORKSPACE FOR HDD CROSSING LIMITED TO CONSTRUCTION WORKSPACE SHOWN ON ALIGNMENT SHEETS.

# SOMERSET EXTENSION

## Open Trench Stream Crossing

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PLAN VIEW SCALE

GRAPHIC SCALE



SCALE: 1" = 50'

PROFILE AND CROSS-SECTION VIEW SCALES

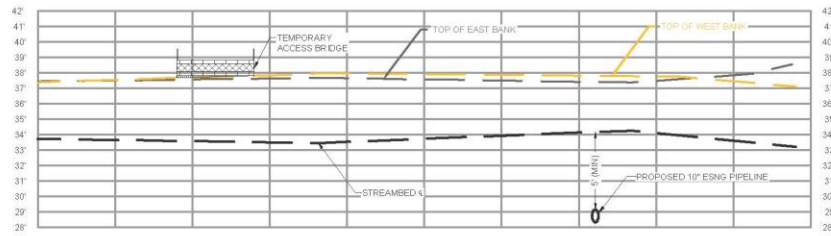
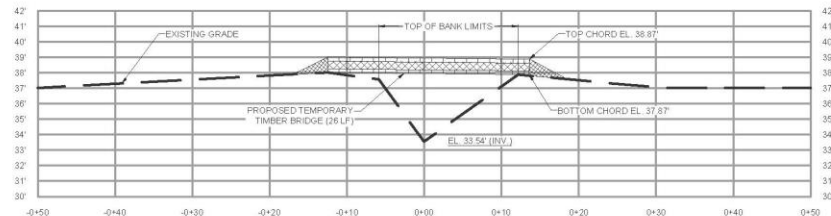
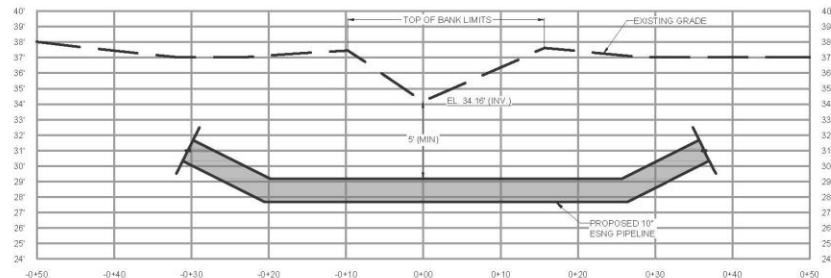
GRAPHIC SCALE - VERTICAL

GRAPHIC SCALE - HORIZONTAL



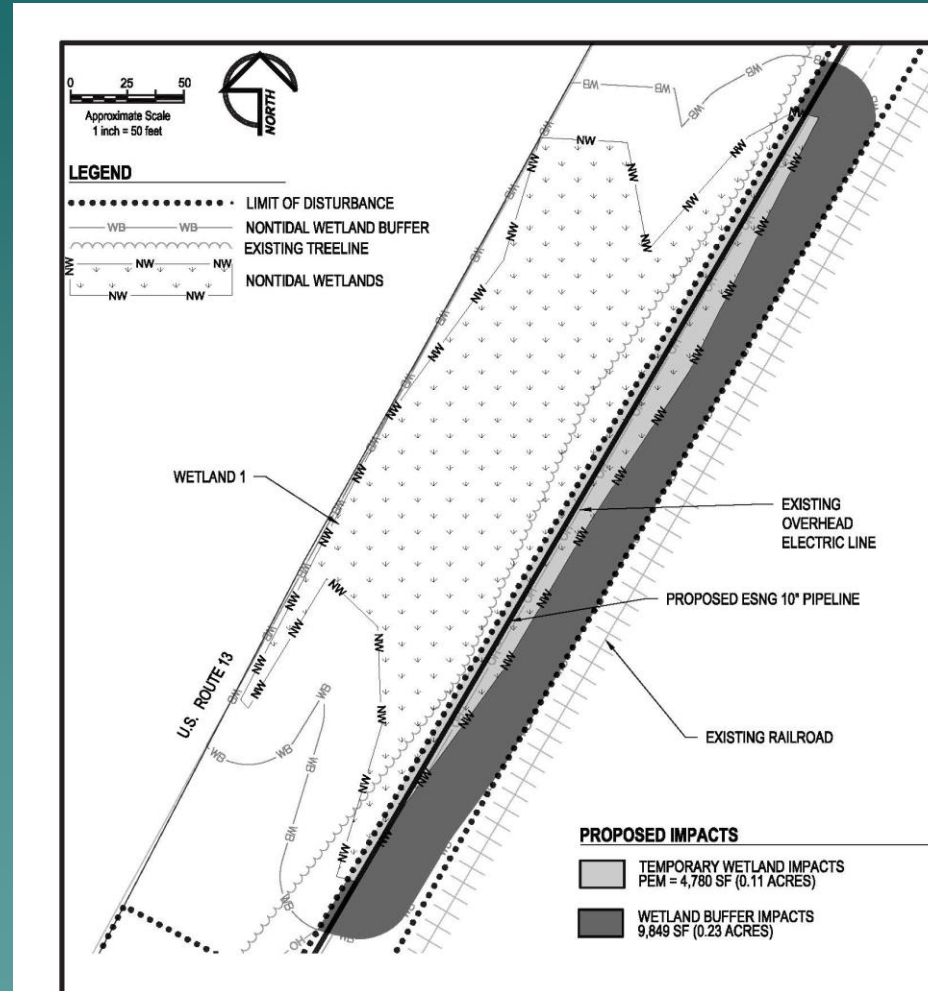
SCALE: 1" = 10'

SCALE: 1" = 20'



# SOMERSET EXTENSION

## Open Trench Wetland Crossing



# Thank you!



**M**

**M**

**MOTT**

**MACDONALD**