VORYS

52 East Gay Street
P.O. Box 1008
Columbus, Ohio 43216-1008

614.464.6400 | vorys.com

Founded 1909

Michael J. Settineri
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July 26, 2024

VIA ELECTRONIC FILING

Ms. Tanowa Troupe, Secretary
Ohio Power Siting Board
180 E. Broad Street, 11th Floor
Columbus, OH 43215

Re: North Coast Gas Transmission LLC 425 Nexus Interconnect Pipeline Project - Construction Notice and Request for Expedited Treatment
OPSB No. 24-0638-GA-BNR

Dear Secretary Troupe:

On behalf of North Coast Gas Transmission LLC ("North Coast"), attached please find North Coast's Construction Notice for its 425 Nexus Interconnect Pipeline Project, which is the subject of Case No. 24-0638-GA-BNR. Also attached is the required notarized statement of Mr. Lee Lochtefeld, the President of North Coast. In addition, North Coast provides the following information in accordance with O.A.C. 4906-2-04(A)(3):

Name and address of the applicant:

North Coast Gas Transmission LLC
175 S. Third Street, #400
Columbus, OH 43215

Name and location of the proposed facility:

425 Nexus Interconnect Pipeline Project
Lorain County, Ohio

Name and address of the applicant's authorized representative:

Michael J. Settineri
Joshua R. Eckert
Vorys, Sater, Seymour and Pease LLP
52 E. Gay Street
Columbus, OH 43215

Changes from Pre-Application Notification Letter:

None

Notarized statement:

See the Officer's Affidavit of Lee Lochtefeld provided with filing.

As set forth in the attached and the previously filed pre-application notification letter, North Coast respectfully requests expedited treatment of this Construction Notice and an automatic approval date twenty-one days from the date of this filing.

Please do not hesitate to contact either myself or Mr. Lochtefeld should you have any questions regarding the proposed project or North Coast's submission.

Very truly yours,

/s/ Michael J. Settineri

Michael J. Settineri

MJS/jre

cc: Michael Williams, Executive Director, Ohio Power Siting Board, via hand delivery

BEFORE THE OHIO POWER SITING BOARD

In the Matter of the Construction Notice for North Coast Gas Transmission LLC's 425 Nexus Interconnect Pipeline Project	)))	**Case No. 24-0638-GA-BNR**

OFFICER'S AFFIDAVIT

STATE OF OHIO)
COUNTY OF FRANKLIN) SS:

Now comes Lee Lochtefeld, President of North Coast Gas Transmission LLC, having first been duly sworn, declares and states as follows:

1. I am an officer of North Coast Gas Transmission LLC and am authorized to make this affidavit on its behalf.

2. I have reviewed the Construction Notice in the above-referenced proceeding.

3. To the best of my knowledge, information, and belief, the information and statements contained in the above-referenced Construction Notice are true and correct.

4. To the best of my knowledge, information, and belief, the above-referenced Construction Notice is complete.

Lee Lochtefeld
President
North Coast Gas Transmission LLC

Sworn to before me and subscribed in my presence this 23 day of July 2024. This is a jurat. An oath or affirmation was administered to the signer with regard to the notarial act.

PAIGE MURPHY-BARROW, NOTARY PUBLIC STATE OF OHIO

Notary Public
Commission Expires: FEBRUARY 28, 2026

CONSTRUCTION NOTICE

AND REQUEST FOR EXPEDITED TREATMENT

For

425 Nexus Interconnect Pipeline Project

Lorain County

Ohio Power Siting Board

Case No. 24-0638-GA-BNR

Submitted By:

North Coast Gas Transmission LLC

July 2024

BEFORE THE OHIO POWER SITING BOARD
CONSTRUCTION NOTICE

Table of Contents

LIST OF TABLES

LIST OF ATTACHMENTS

GLOSSARY

Construction Notice Requirements for Accelerated Certificate Application

4906-6-05 ACCELERATED APPLICATION REQUIREMENTS

4906-6-05(B)(1): Name, Reference Number, Brief Project Description, and Qualification for Construction Notice

North Coast Gas Transmission LLC ("NCGT") is applying for a Construction Notice for a new pipeline project located in Lorain County, Ohio. The name of the project is the 425 Nexus Interconnect Pipeline Project (the "Project"). In accordance with O.A.C. 4906-6-03(B), NCGT requests expedited processing of this construction notice and an automatic approval date twenty-one (21) days from the date of filing.

NCGT is planning to construct a 12-inch steel natural gas pipeline southeast of the City of Oberlin in Lorain County, OH to be owned and operated by NCGT. The Project corridor is approximately 1,730 feet long spanning from an interconnect with the Nexus Gas Transmission pipeline (the "Nexus Pipeline") to an interconnect with the NCGT 425 Pipeline. The Project corridor roughly parallels Hallauer Road and an existing natural gas pipeline. The pipeline will transport natural gas from the Nexus Pipeline to NCGT's 425 Pipeline, in order to increase capacity to downstream markets. A Project location map is included as Attachment A. The pipeline will be installed by open cut construction methods.

The proposed pipeline Project falls under the jurisdiction of the Ohio Power Siting Board as a Construction Notification ("CN"); it meets the criteria listed in Appendix B [1(a)] of the O.A.C. 4906-1-01 because it is the construction of a gas pipeline or pipeline segment not greater than one-mile in length. The pipeline will be wholly owned and operated by NCGT, and the primary purpose of the facility is to provide increased gas capacity for existing customers.

As detailed below, an environmental study was completed within a 100-foot wide corridor centered upon the proposed alignment and receiving station to determine the potential impacts to wetlands, streams, and vegetated communities.

4906-6-05(B)(2): Statement of Need for the Proposed Facility

Due to growing demands on the 425 Pipeline, NCGT seeks to provide its customers with the opportunity to receive gas into NCGT's system from a new interconnect with the Nexus Pipeline. NCGT would then transport gas from the Nexus Pipeline to NCGT's existing 425 Pipeline. The Nexus Pipeline provides competitive rates to NCGT's existing and future customers, higher pipeline pressures for more efficient pipeline hydraulics, and is more closely situated to areas of growth allowing for increased pressure and delivery capabilities compared to past supply points. These new demands – not feasible under the 425 Pipeline's current supply configuration – also make the pipeline economically viable.

Construction of the Project is also necessary for NCGT to satisfy certain of its requirements under the Public Utilities Commission of Ohio ("PUCO") approved transportation service agreement between NCGT and The East Ohio Gas Company d/b/a Enbridge Gas Ohio. As the PUCO is aware, execution of that transportation service agreement made it economically feasible for NCGT to renew its lease for the 425 Pipeline, allowing for the voluntary withdrawal of its abandonment application that had been filed because of the then-impending lease expiration.

4906-6-05(B)(3): Location of the Project

The Project corridor is approximately 1,730 feet long spanning from an interconnect with the Nexus Pipeline to an interconnect with the NCGT 425 Pipeline. The Project corridor more or less parallels Hallauer Road and an existing natural gas pipeline in Lorain County.

Below are coordinates for the central portion of the Project.

Begin Coordinates	N 41° 16’ 15.10” / W 82° 11’ 43.86”
End Coordinates	N 41° 16’ 27.87” / W 82° 11’ 32.31”

In addition, a Project location map is included as **Attachment A**.

4906-6-05(B)(4): Alternatives Considered

Given the location and proximity of the two pipelines – the Nexus Pipeline and the NCGT 425 Pipeline – there was only one practical route for the interconnecting pipeline. The route parallels Hallauer Road and an existing foreign gas pipeline. This was purposefully designed to keep landowner impacts to a minimum. Options regarding placement of the above ground facilities were considered, but ultimately NCGT chose to locate the interconnect facility between two existing natural gas facilities – the Nexus-EDL facility to the north and an Enbridge Gas Ohio facility to the south. This placement grouped the natural gas facilities in one location on the landowner’s property and isolated impacts to less desirable farming grounds.

4906-6-05(B)(5): Description of Public Information Program

NCGT has communicated over the last year directly with the affected property owners notifying them of the Project and has met with the property owners and/or their representatives to discuss the Project parameters and to reach agreements on easement terms. A list of all property owners is included as **Attachment B.** NCGT will ensure that the pre-

construction letter required by O.A.C. 4906-6-11(C) is sent to the affected property owners at least seven (7) days prior to work on the affected property.

4906-6-05(B)(6): Anticipated construction schedule, in-service date

Construction activities are expected to commence in mid to late-September 2024. NCGT intends to place the line in service in February 2025.

4906-6-05(B)(7): Project Area Map and Directions

A map of the Project area is included as **Attachment C**. This map contains an overview of the Project at a scale of 1:24,000 and depicts the centerline of the pipeline, roads, highways, and municipalities.

4906-6-05(B)(8): Property Owner List

There are two (2) parcels associated with this Project. As mentioned above, a property owner list is included as **Attachment B**. NCGT has reached agreement on the terms of easements with the property owners and is in the process of finalizing the necessary easements and/or land rights for both parcels associated with this Project.

4906-6-05(B)(9)(a): Operating Characteristics, Required Structures, and Right-of-Way and/or Land Requirements

- ***Pipeline MAOP:*** The maximum allowable operating pressure will be 1,440 psig.
- ***Pipe Material***: The proposed pipeline will be 12-inch nominal diameter, fusion bonded-epoxy coated (FBE), WT Grade X52 steel pipe with 0.375-inch wall thickness.
- ***Structures:*** A meter and regulation station will be constructed on the southwest end of the Project and a pig launcher site will be constructed on the northeast end of the Project.

- ***Right-of-Way (ROW) and/or Land Requirement:*** The proposed Project will require new easements. NCGT has finalized easement terms with the property owners and is currently working with the property owners to draft and execute final easement agreements.

4906-6-05(B)(9)(b): Electric and Magnetic Fields

This section is not applicable to the Project because the Project does not include the installation of electric facilities.

4906-6-05(B)(9)(c): Estimated Capital Costs

The estimated capital cost for NCGT with respect to the Project, which includes the construction of a new measuring and regulating station and NCGT's other obligations under its interconnect agreement with NEXUS Gas Transmission, LLC, is $9 million.

4906-6-05(B)(10)(a): Land Use

The Project is located in Lorain County, southeast of the City of Oberlin. The Project is located entirely in Pittsfield Township. Land use associated with this area consists of agricultural development. Population density per square mile has been provided in Table 1 below.

TABLE 1: POPULATION ESTIMATE, 2020 U.S. CENSUS DATA

Location	Population Density per Square Mile
Lorain County	638
Pittsfield Township	Not reported

4906-6-05(B)(10)(b): Agricultural Land

The Project is located completely within an agricultural area. Approximately 2.64 acres of land will be temporarily impacted during Project construction. Approximately 1.98

acres of land will be permanently impacted as a result of the Project. These permanent impacts are due to the construction of the associated M&R station and pig launching station. The Lorain County Auditor has confirmed the Project area does not include parcels classified as agricultural district land.

4906-6-05(B)(10)(c): Archeological and Cultural Resources

Utilities Technologies International ("UTI") reviewed the Project corridor for the potential for archeological and cultural resources. The majority of the Project corridor was previously disturbed by pipeline work completed by others.

On July 1, 2024, UTI sent a Request for Section 106 Review package via an on-line portal to the Ohio Historic Preservation Office (OHPO) – Office of Resource Protection and Review. In response, OHPO provided a map of the Project corridor and surrounding area to NCGT, which shows only limited archaeological inventory within a one-mile buffer area around the Project corridor and no historic inventory. Per the OHPO map, there are no archaeological or historic inventories within the Project corridor. Correspondence with the OHPO is included as **Attachment E** and the OHPO provided map is included as **Attachment E2**.

4906-6-05(B)(10)(d): List of Governmental Agencies Which Have Requirements to be met by the Project

Local, state and federal agencies with requirements anticipated for the Project are outlined in Table 2, along with references to applicable documentation provided as attachments to this CN. NCGT anticipates submitting an NOI to the Ohio Environmental Protection Agency (OEPA) for a General Permit Authorization to Discharge Hydrostatic Test Water (OEPA permit number OHH000003). NCGT will provide a copy of the permits to Staff upon receipt.

TABLE 2: LOCAL, STATE AND FEDERAL AGENCIES WITH REQUIREMENTS TO BE MET BY THE PROJECT

Name of Agency	Document to be Submitted	Attachment
Ohio History Preservation Office	- Section 106 Request	E and E2
US Fish and Wildlife Service	- IPaC Species List & No-effect Determination	F
Ohio Department of Natural Resources	- Natural Heritage Data Request	G
Ohio Environmental Protection Agency	- NOI – General Permit Authorization to Discharge Hydrostatic Test Water (OHH000003)	N/A

4906-6-05(B)(10)(e): Federal and State Designated Species

The Project was entered and analyzed through the IPaC on-line portal maintained by the United States Fish and Wildlife Service (USFWS) on July 1, 2024. A Project specific species list and a self-determination of no effect was generated by the system. This documentation has been provided as **Attachment F**.

An Environmental Review Request was made to the Ohio Department of Natural Resources (ODNR) on July 1, 2024. As of the submittal of this CN, no response was received. A copy of the ODNR's response confirming receipt of this request is provided as **Attachment G.** The response from ODNR will be filed upon receipt.

It should be noted that suitable habitat for State or Federal listed species was not observed within the Project corridor or on adjacent properties. As such, listed species and/or associated habitat will not be impacted as a result of the Project.

4906-6-05(B)(10)(f): Areas of Ecological Concern

UTI completed an environmental survey within the proposed Project area in March 2024. The survey included a wetland delineation and threatened and endangered species survey. The focus of the endangered species survey was to identify potential Indiana and Northern Long-Eared Bat habitat. An Environmental Survey Map showing the findings is provided as **Attachment H.**

Surface water features including wetlands, streams, or ponds were not identified with the Project area.

The federally and state listed endangered Indiana Bat Northern Long-Eared Bat is found in wooded areas under loose tree bark on dead or dying trees during the summer months. During the winter months, the bats hibernate during in caves and occasionally abandoned mines. These bats also forage in or along edges of forested areas. UTI's survey looked for potential roost trees (PRTs) in the Project corridor but none were found to exist.

In an effort to control indirect impacts to surface waters outside the Project boundaries, NCGT has prepared a storm water pollution prevention plan (SWPPP) in conjunction with the construction plans. The SWPPP follows the recommendations and guidelines established by the OEPA and the ODNR *Rainwater and Land Development Manual*. A copy of limited construction plans, including the relevant SWPPP mapping, is included as **Attachment D**.

4906-6-05(B)(10)(g): Any Known Unusual Conditions Resulting in Significant Environmental, Social, Health, or Safety Impacts

There is no known additional information associated with any unusual conditions resulting in significant environmental, social, health, or safety impacts associated with the Project.

4906-6-07 SERVICE AND PUBLIC DISTRIBUTION OF ACCELERATED CERTIFICATE APPLICATIONS

4906-6-07(a)(1): Service of Accelerated Application Upon Officials

Simultaneously with the filing of this accelerated application with the Board, NCGT is serving via electronic mail a copy of the CN application to the following public officials:

TABLE 3: LORAIN COUNTY AND PITTSFIELD TOWNSHIP PUBLIC OFFICIALS LIST

Lorain Planning Board (Community Development) Rob Duncan, Director 226 Middle Ave. - 5th Floor Elyria, OH 44035 rduncan@loraincounty.us	Lorain County Commissioners Jeff Riddell, President David Moore, Vice President Michelle Hung, Member 226 Middle Ave. - 4th Floor Elyria, OH 44035 jriddell@loraincounty.us
Lorain County Soil &Water Conservation Will Schlechter, Chairman 42110 Russia Rd. Elyria, OH 44035 conservation@loraincounty.us	Pittsfield Township Trustees Mark McConnell Walter E. Bredel Forrest Mohrman 16940 OH-58 Oberlin, OH 44074 mkwm@zoominternet.net waltbredel@gmail.com forrestmohrman@gmail.com

4906-6-07(a)(2): Service of Accelerated Application Upon Main Public Libraries of Each Political Subdivision

A copy of this accelerated application is being sent to the Lorain County Public Library located at 351 W. Sixth Street, Lorain, Ohio 44052.

4906-6-07(a)(3): NCGT's Website

A copy of the accelerated application is located on NCGT's web page at www.northcoastgastransmission.com/regulatory. Further interested persons may contact

NCGT's main office at (614) 505-7210 or operations@somersetgas.com to obtain either an electronic copy or a paper copy of this accelerated application.

4906-6-07(B): Proof of Compliance

Within seven (7) days of the filing of this accelerated application, NCGT will cause proof of compliance with Rule 4906-6-07 to be filed with the Board.

REQUEST FOR EXPEDITED REVIEW

Pursuant to O.A.C. 4906-6-04, NCGT respectfully requests expedited review of this Construction Notice, which will support a September start date for commencement of Project construction. For any questions, please contact the below.

Respectfully submitted,

/s/ Michael J. Settineri

Michael J. Settineri (0073369), Counsel of Record
Joshua R. Eckert (0095715)
Vorys, Sater, Seymour and Pease LLP
52 E. Gay Street
Columbus, OH 43215
Tel: 614-464-5462
mjsettineri@vorys.com
jreckert@vorys.com
(Willing to accept service via email)

Counsel for North Coast Gas Transmission LLC

ATTACHMENT A

FACILITY LOCATION MAP

DATA SOURCES:
1. AERIAL IMAGERY: OGRIP, DATED 2017

CITY OF OBERLIN

E HAMILTON ST

PARSONS RD

WEST RD

PROJECT AREA

U.S. HWY 20

KIPTON NICKLE PLATE RD

N ASHLAND OBERLIN RD

HALLAUER RD

LOCATION MAP
NO SCALE

GRAPHIC SCALE
2,000' 1,000' 0 2,000'
1 inch = 2,000 ft.

LEGEND
PROJECT AREA

UTILITY TECHNOLOGIES INTERNATIONAL
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NORTH COAST GAS TRANSMISSION
425-NEXUS INTERCONNECT
LORAIN COUNTY, OH
PROJECT LOCATION MAP

IFA
(ISSUED FOR APPROVAL)

DESIGN	DRAFT	CHECK
	KDG	STP

UTI PROJECT #: 23-312
DATE: 7/5/2024
SCALE: HORIZONTAL: 1" = 2,000'
VERTICAL:
DRAWING #:
SHEET #: 1/1

P:\Client\NCGT\23312_425 Nexus Interconnect\DWG\05-Permits\23312_NCGT_425-Nexus Interconnect_Environmental Figures.dwg Layout: Facility Location by kgnapenhof on 07/05/2024 @ 02:40:13 pm – © Utility Technologies International

ATTACHMENT B

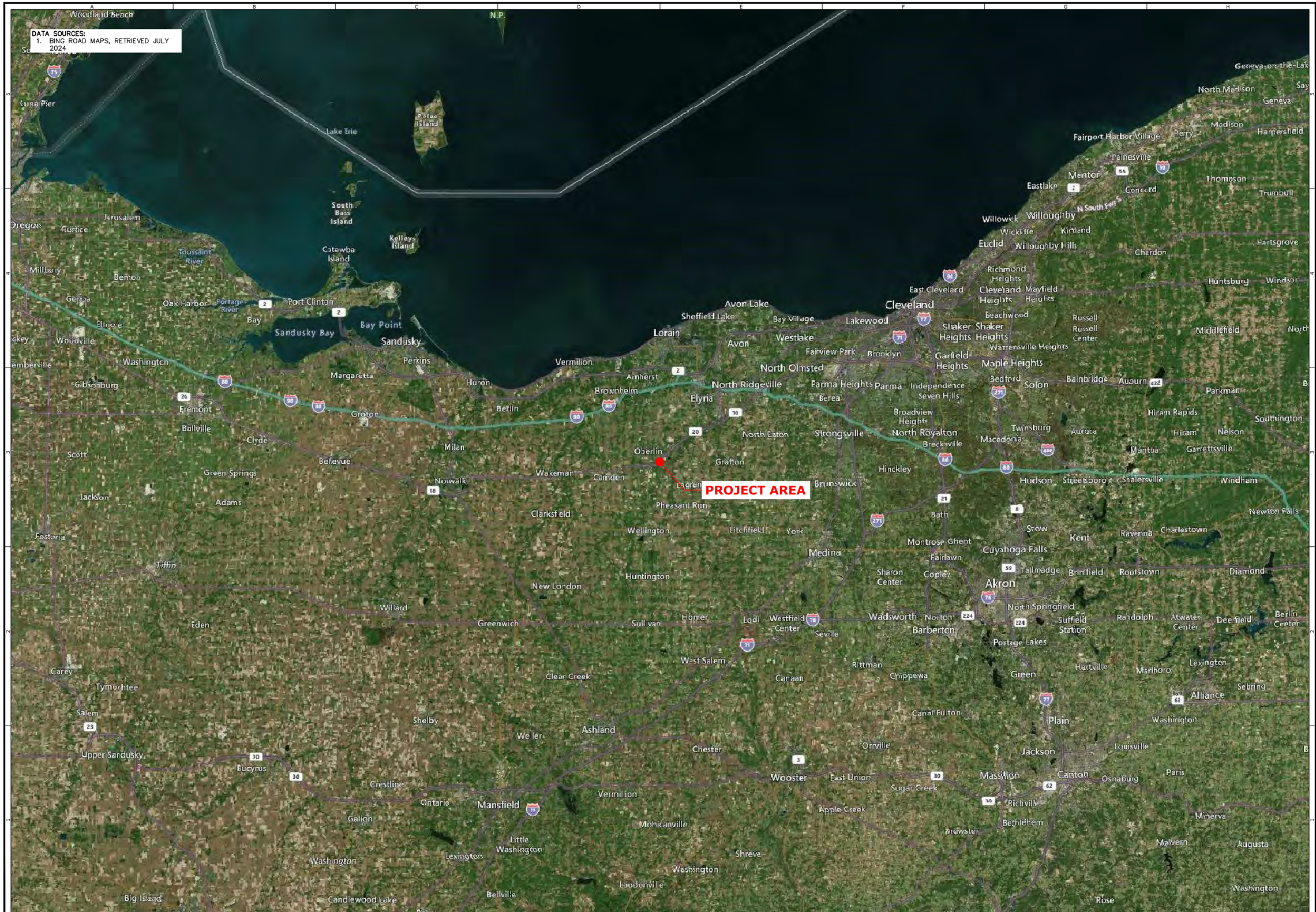
PROPERTY OWNER LIST

Owner Name	Owner Address	Parcel Number
Joseph J. Jr. & Martha Zalka	Hallauer Rd, Oberlin, OH 44074	1400003000014
Martha Louise Zalka	14583 Hallauer Rd, Oberlin, OH 44074	1400003000013

ATTACHMENT C

1:24,000 PROJECT AREA MAP

DATA SOURCES:
1. BING ROAD MAPS, RETRIEVED JULY 2024



GRAPHIC SCALE
24,000' 12,000' 0 24,000'
1 inch = 24,000 ft.

LEGEND

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NORTH COAST GAS TRANSMISSION

425-NEXUS INTERCONNECT

LORAIN COUNTY, OH

1:24,000 PROJECT LOCATION MAP

IFA
(ISSUED FOR APPROVAL)

DESIGN	DRAFT	CHECK
	KDG	STP

UTI PROJECT #: 23-312
DATE: 7/5/2024
SCALE:
HORIZONTAL: 1" = 24,000'
VERTICAL:
DRAWING #:
SHEET #: 1/1

P:\Client\NCGT\23312_425 Nexus Interconnect\DWG\05-Permits\23312_NCGT_425-Nexus Interconnect_Environmental Figures.dwg Layout:OPSB by:kgrupenhof on 07/05/2024 @ 02:33:19 pm ~ © Utility Technologies International

ATTACHMENT D

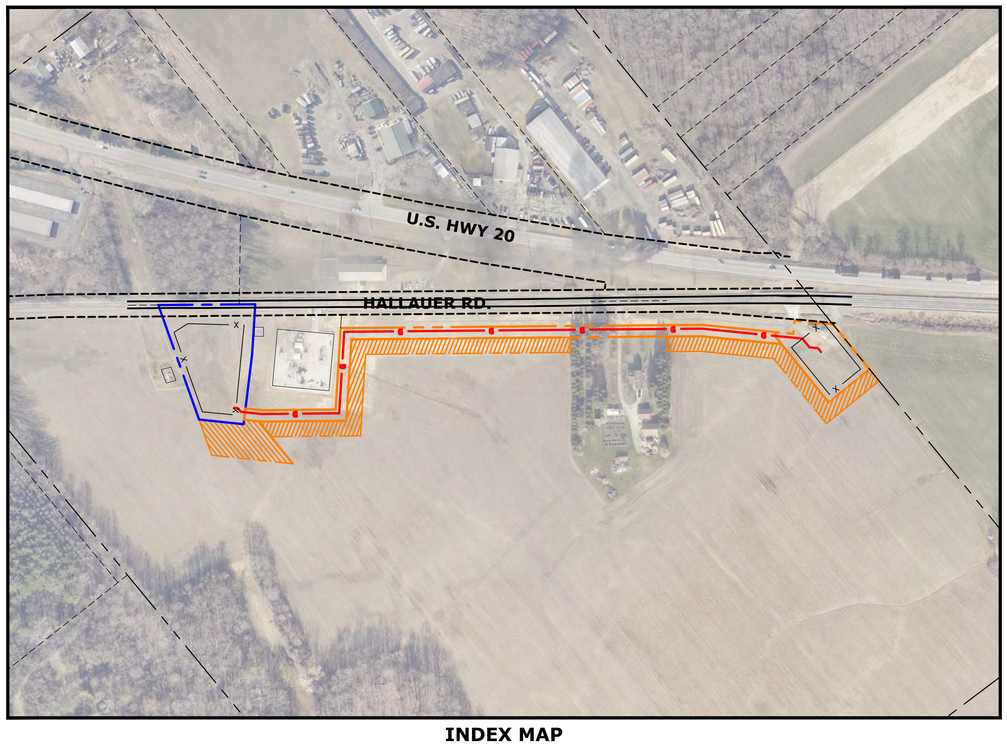
CONSTRUCTION PLANS AND SWPPP

STORMWATER POLLUTION PREVENTION PLAN FOR

NORTH COAST GAS TRANSMISSION
425-NEXUS INTERCONNECT

LORAIN COUNTY, OH

LOCATION MAP
NO SCALE



INDEX MAP
SCALE: 1" = 200'

SHEET INDEX

CERTIFICATION STATEMENT & SIGNATURE

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHEMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRCTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE.

SIGNED: _____

DATE: _____

OHIO Utilities Protection SERVICE
811 or 1-800-362-2764 Call Before You Dig

GRAPHIC SCALE
200' 100' 0 200'
1 inch = 200 ft.

CHANGE ORDER SCHEDULE

#	DESCRIPTION OF CHANGE	SHEET NO.	APPROVALS BY	DATE

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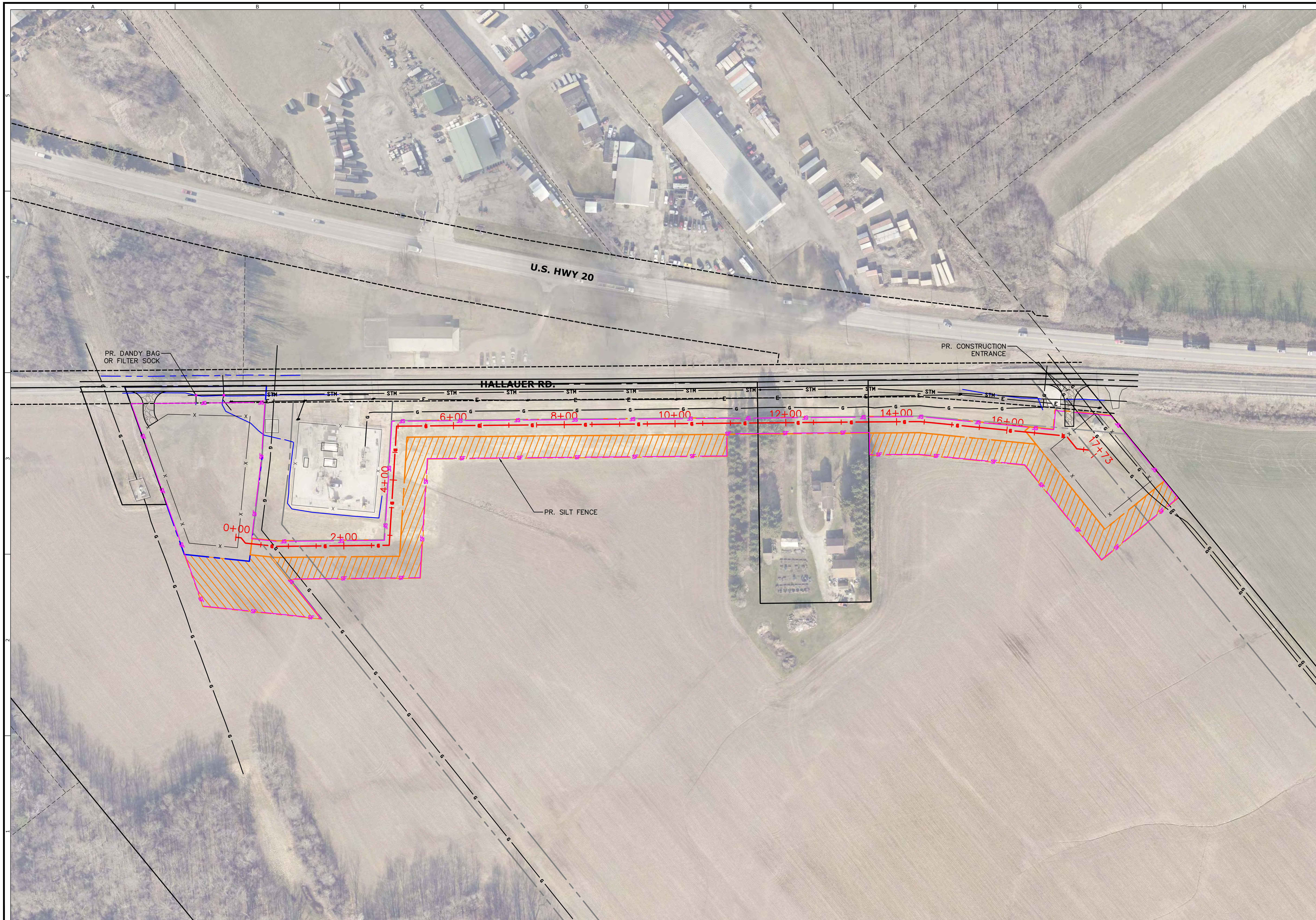
NORTH COAST GAS TRANSMISSION
425-NEXUS INTERCONNECT
LORAIN COUNTY, OH
STORMWATER POLLUTION PREVENTION PLAN

IFA
(ISSUED FOR APPROVAL)

DESIGN	DRAFT	CHECK
STP	KDG	STP

UTI PROJECT #: 23-312
DATE: 7/5/2024
SCALE:
HORIZONTAL: 1" = 200'
VERTICAL:
DRAWING #: P-001
SHEET #: 1/13



GRAPHIC SCALE

80' 40' 0 80'

1 inch = 80 ft.

CHANGE ORDER SCHEDULE

#	DESCRIPTION OF CHANGE	SHEET NO.	APPROVALS BY	APPROVALS DATE

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NORTH COAST GAS TRANSMISSION

425-NEXUS INTERCONNECT

LORAIN COUNTY, OH

STORMWATER POLLUTION PREVENTION PLAN

IFA

(ISSUED FOR APPROVAL)

DESIGN	DRAFT	CHECK
STP	KDG	STP

UTI PROJECT #: 23-312

DATE: 7/5/2024

SCALE:
HORIZONTAL: 1" = 80'
VERTICAL:

DRAWING #: P-001

SHEET #: 2/13

PROJECT DESCRIPTION:

THIS EROSION AND SEDIMENT CONTROL PLAN IS FOR THE 425–NEXUS INTERCONNECT PROJECT.

THE PIPELINE IS SITED WITHIN LORAIN COUNTY, OHIO. THE PROJECT WILL UTILIZE NEW EASEMENTS.

UPON COMPLETION OF THE PROJECT THE PIPELINE CORRIDOR WILL BE RETURNED TO ITS PRE–CONSTRUCTION CONTOURS AND MAY THEN BE UTILIZED FOR PREVIOUSLY INTENDED PURPOSES. THE FACILITIES WILL BE GRADED TO RE–ESTABLISH PRE–CONSTRUCTION DRAINAGE AS CLOSELY AS POSSIBLE.

SITE DATA:

OWNER:	NORTH COAST GAS TRANSMISSION
DEVELOPMENT TYPE:	INTERCONNECT FACILITY & PIPELINE LATERAL
SITE ACREAGE:	~5.03 ACRES
DISTURBED ACREAGE:	~5.03 ACRES
SITE DRAINS TO:	UNNAMED TRIBUTARIES
AVERAGE SLOPES:	EXISTING: 0–6% PROPOSED: 0–6%
CRITICAL AREAS:	NONE
OEPA GENERAL PERMIT NUMBER:	EXEMPT

PROJECT CONTACT INFORMATION:

PROJECT MANAGER:	KYLE GRUPENHOF, UTI
CHIEF INSPECTOR:	TBD
ENVIRON. INSPECTOR:	SEAN PEFFER, UTI
PROJECT ENGINEER:	JESSE DODDS, UTI

GENERAL_EROSION_& SEDIMENT CONTROL METHODS/PROCEDURES:

QUALIFIED PERSONNEL ARE TO CONDUCT SITE INSPECTIONS ENSURING PROPER FUNCTIONALITY OF THE EROSION AND SEDIMENTATION (E&S) CONTROLS. ALL E&S ARE TO BE INSPECTED ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A ½ INCH STORM EVENT OR GREATER. RECORDS OF THESE INSPECTIONS SHALL BE MAINTAINED FOR A PERIOD OF 3 YEARS FOLLOWING PERMANENT STABILIZATION ALONG THE PROJECT LENGTH.

IT IS THE CONTRACTORS RESPONSIBILITY TO MAINTAIN THE E&S CONTROL FEATURES ON THIS PROJECT. ANY SEDIMENT OR DEBRIS THAT HAS REDUCED THE EFFICIENCY OF A CONTROL SHALL BE REMOVED IMMEDIATELY. SHOULD A STRUCTURE OR FEATURE BECOME DAMAGED, THE CONTRACTOR SHALL REPAIR OR REPLACE IT AT NO COST TO THE OWNER. ALL STORM WATER CONTROLS SHALL BE MAINTAINED IN A FUNCTIONAL CONDITION UNTIL ALL UPSLOPE AREAS THEY CONTROL ARE PERMANENTLY RESTABILIZED.

E&S CONTROL BEST MANAGEMENT PRACTICES (BMP) SHALL BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE ANY SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THE BMP. IN ALL CASES, THE SMALLEST PRACTICAL AREA OF STABLE LAND SURFACE WILL BE DISTURBED.

AT NO TIME WILL SEDIMENT OR SEDIMENT–LADEN RUNOFF BE ALLOWED TO LEAVE THE SITE AND ENTER WATERS OF THE STATE WITHOUT FIRST PASSING THROUGH A SEDIMENT FILTERING DEVICE. SHOULD SITE CONDITIONS, CONSTRUCTION PROCEDURES, ETC. ALTER THE APPROVED PLAN TO THE POINT WHERE SEDIMENT AND SEDIMENT–LADEN RUNOFF IS NOT BEING CONTROLLED AND FILTERED BEFORE IT LEAVES THE SITE, ADDITIONAL BMP ARE TO BE IMPLEMENTED.

ANY TRAPPED SEDIMENT OR DEBRIS REMOVED DURING CLEANING OR REMOVAL OF A BMP SHALL BE PLACED IN AREAS NOT SUBJECT TO EROSION AND PERMANENTLY STABILIZED. MAINTENANCE OF REPAIRS OF STORMWATER CONTROLS MUST BE COMPLETED WITHIN 3 DAYS OF THE DATE OF THE INSPECTION THAT REVEALED THE DEFICIENCY.

WORK ON THE PIPELINE MAY OCCUR OVER THE ENTIRE PROJECT AREA SIMULTANEOUSLY. MEASURES SHALL BE IMPLEMENTED AS NECESSARY TO CONTINUE THE INTEGRITY OF THE STORMWATER POLLUTION PREVENTION PLAN (SWP3).

EARTH DISTURBANCE ACTIVITIES, INCLUDING MOVEMENT OF CONSTRUCTION VEHICLES, SHALL BE AVOIDED/MINIMIZED BELOW THE LOCATION OF THE PERIMETER BMP. SHOULD EARTH DISTURBANCE OCCUR BELOW THE PERIMETER BMP, PERMANENT STABILIZATION SHALL BE IMMEDIATELY APPLIED TO THOSE DISTURBED AREAS.

WASTE AND EXCESS MATERIALS SHALL BE STOCKPILED OR DISPOSED OF IN A LAWFUL MANNER ON SITE OR AT AN APPROVED FACILITY.

TOPSOIL AND SPOIL STOCKPILES SHALL BE SEEDED AND MULCHED WITHIN 7 DAYS IF THEY ARE TO REMAIN FOR MORE THAN 14 DAYS. STOCKPILES ARE TO BE PLACED IN A LOCATION WHERE THEY WILL NOT INTERFERE WITH CONSTRUCTION ACTIVITIES AND ARE NOT TO BE LOCATED WITHIN THE FLOW PATH OF A NATURAL OR CONSTRUCTED WATERWAY. STOCKPILE AREAS ARE TO HAVE SIDE SLOPES OF 2H:1V OR FLATTER.

PERMANENT STABILIZATION IS REQUIRED AS SOON AS A DISTURBED AREA IS BROUGHT TO GRADE OR FINAL EARTHMOVING HAS BEEN COMPLETED. WHERE IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA IMMEDIATELY AFTER THE FINAL EARTHMOVING HAS BEEN COMPLETED OR WHERE THE ACTIVITY CEASES FOR MORE THAN 7 DAYS, TEMPORARY STABILIZATION MEASURES SHALL BE IMPLEMENTED PROMPTLY.

ANY BMP REQUIRED OR NECESSARY TO PROTECT AREAS FROM EROSION DURING THE STABILIZATION PERIOD SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION OF THE CONTRIBUTING DRAINAGE AREA IS COMPLETED. UPON COMPLETION OF PERMANENT STABILIZATION, ALL UNNECESSARY OR UNUSABLE BMP SHALL BE REMOVED, THE DISTURBED AREAS CREATED BY THIS ACTIVITY SHALL BE BROUGHT TO FINAL GRADE AND THE SOILS SHALL BE IMMEDIATELY STABILIZED.

ADDITIONAL BMP SHALL BE REQUIRED AS DIRECTED BY JURISDICTIONAL AGENCIES, THE ENGINEER, AND/OR THE OWNER. INEFFECTIVE STORMWATER CONTROLS OR CONTROL MEASURES NOT INSTALLED PER THE SWPPP MUST BE REPLACED OR INSTALLED BEFORE THE NEXT RAINFALL BUT IN NO CASE LATER THAN 10 DAYS FROM THE DATE OF THE INSPECTION THAT REVEALED THE DEFICIENCY.

MAINTENANCE OF TEMPORARY E&S MEASURES/BMP

GENERAL

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUOUS MAINTENANCE OF ALL BMP AND DEVICES FOR THE DURATION OF THE PROJECT AND UNTIL WHICH TIME THE AREA IS STABILIZED WITH A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR UNTIL AGRICULTURAL LANDS HAVE BEEN RETURNED TO THEIR PRE–CONSTRUCTION AGRICULTURAL USE.
2. THE CONTRACTOR SHALL INSPECT ALL DEVICES WEEKLY (MINIMUM) AND AFTER EVERY RAINFALL EVENT AND PERFORM MAINTENANCE AS REQUIRED. ANY DEVICE FOUND TO BE CLOGGED, DAMAGED, HALF–FULL OF SILT OR NOT FULLY OPERATIONAL SHALL BE CLEANED OF ALL DEBRIS. THE SOLID WASTE DISPOSAL IS THE RESPONSIBILITY OF THE CONTRACTOR. DEPOSITED SEDIMENT SHALL BE REMOVED AND SPREAD ACCORDINGLY OR USED AS FILL MATERIAL ON THE PROJECT SITE.
3. UNLESS OTHERWISE NOTED STANDARDS AND SPECIFICATION ESTABLISHED IN THE LATEST EDITION OF THE OHIO DEPARTMENT OF NATURAL RESOURCES, DIVISION OF SOIL & WATER CONSERVATION, MANUAL ENTITLED "RAINWATER & LAND DEVELOPMENT: OHIO'S STANDARDS FOR STORMWATER MANAGEMENT AND DEVELOPMENT AND URBAN STREAM PROTECTION" SHALL GOVERN THE STORMWATER POLLUTION PREVENTION AND EROSION AND SEDIMENT CONTROL INSTALLATION, INSPECTION, AND MAINTENANCE FOR THIS PROJECT.
4. IT MAY BECOME NECESSARY TO REMOVE PORTIONS OF TEMPORARY BMP DURING CONSTRUCTION TO FACILITATE THE GRADING OPERATIONS IN CERTAIN AREAS. THESE CONTROLS SHALL BE REPLACED UPON GRADING OR DURING ANY INCLEMENT WEATHER.

VEGETATION

1. IF A SLOPE FAILURE OCCURS (AFTER THE SEEDING AND SOIL SUPPLEMENT WORK ON A SLOPE HAS BEEN SATISFACTORILY COMPLETED) THE CONTRACTOR IS TO REDRESS THE SLOPE AND REAPPLY SOIL SUPPLEMENT AND RESEED AS SPECIFIED FOR THE ORIGINAL TREATMENT.
2. INSPECT ANY RESTORED AREAS WITHIN THE PROJECT LIMITS WEEKLY AND AFTER EACH RAINFALL EVENT TO DETERMINE IF RILL AND GULLIES HAVE BEEN FORMED AND FOR EXISTENCE OF BARE PATCHES. AREAS OF INADEQUATE VEGETATION SHALL BE RESEEDED AND MULCHED. AREAS WHERE RILLS AND GULLIES HAVE FORMED SHALL BE FILLED, SEEDED AND MULCHED.

ROCK CONSTRUCTION ENTRANCE

1. INSPECT ROCK CONSTRUCTION ENTRANCE INSTALLATION WEEKLY AND AFTER EVERY PRECIPITATION EVENT.
2. THE STRUCTURE THICKNESS SHALL BE MAINTAINED TO THE SPECIFIED DIMENSION BY ADDING ROCK.
3. AT THE END OF EACH CONSTRUCTION DAY, SEDIMENT DEPOSITED ON PUBLIC ROADWAYS SHALL BE IMMEDIATELY REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING OF THE ROADWAY WITH WATER SHALL NOT BE PERMITTED.

COMPOST FILTER SOCK

1. INSPECT FILTER SOCK AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL EVENT. MAKE ALL REQUIRED REPAIRS IMMEDIATELY.
2. ACCUMULATED SEDIMENTS SHALL BE REMOVED AS REQUIRED TO KEEP THE SOCK FUNCTIONAL. IN ALL CASES REMOVE DEPOSITS WHERE ACCUMULATIONS REACH ½ THE ABOVE–GROUND HEIGHT OF THE SOCK.
3. THE REMOVED SEDIMENT SHALL BE USED FOR ONSITE GRADING AND IMMEDIATELY STABILIZED WITH SEED AND ANCHORED MULCH.
4. ADHERE TO MANUFACTURER'S RECOMMENDATIONS FOR REPLACING FILTER SOCK DUE TO WEATHERING
5. ANY SOCK SECTION THAT HAS COLLAPSED OR EXPERIENCED A FAILURE DUE TO CONCENTRATED SURFACE FLOW SHALL BE IMMEDIATELY REPLACED WITH A NEW SECTION OF FILTER SOCK OF THE SAME DIAMETER FOR THE LENGTH OF THE COLLAPSED AREA.
6. AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, REMOVE ALL SOCK MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE DISTURBED AREA TO GRADE AND STABILIZE.

ROCK FILTER OUTLET

1. INSPECT ROCK FILTER OUTLETS AND SILT FENCE FOR DAMAGE ONCE A WEEK AND AFTER EACH RAINFALL EVENT.
2. ROCK FILTER OUTLETS SHALL BE CLEANED OR REPLACED WHEN CLOGGED WITH SEDIMENTS. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET. STONE MATERIALS SHALL BE WASHED COMPLETELY FREE OF ALL FOREIGN MATERIALS OR NEW ROCK SHALL BE USED TO REBUILD THE FILTER. IF STONES ARE WASHED, ENSURE THAT SEDIMENT–LADEN RUNOFF FROM THE WASHED MATERIAL DOES NOT LEAVE THE SITE.
3. SEDIMENT ACCUMULATIONS REMOVED FROM BEHIND THE FILTERS SHALL BE USED ON SITE FOR GRADING OR DISPOSED OF AT AN APPROVED FACILITY. IMMEDIATELY STABILIZE MATERIAL WITH SEED AND ANCHORED MULCH.
4. ADD STONE TO THE FILTERS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION. REPAIR ALL DAMAGE TO ROCK FILTER OUTLETS AND SILT FENCE IMMEDIATELY.
5. AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, REMOVE ALL FENCING MATERIALS, AGGREGATE AND UNSTABLE SEDIMENT DEPOSITS, BRING THE DISTURBED AREA TO GRADE AND ESTABLISH PERMANENT VEGETATIVE COVER.

MULCH – STRAW

1. MULCH SHALL BE APPLIED OVER SEEDED AREAS NO LATER THAN 48 HOURS AFTER SEEDING.
2. SPREAD MULCH UNIFORMLY, IN A CONTINUOUS BLANKET, AT A MINIMUM RATE OF 4,000 LBS PER ACRE.
3. MULCH MAY BE SPREAD BY HAND OR WITH AN ACCEPTABLE MECHANICAL BLOWER.
4. MULCH SHALL BE ANCHORED BY USE OF CRIMPING, NETTING, ASPHALTIC OR A NON–ASPHALTIC EMULSION MULCH BINDER IMMEDIATELY FOLLOWING MULCH SPREADING.
5. LIQUID MULCH BINDERS SHALL NOT BE USED WITHIN 100 FEET OF A WATERBODY.
6. MULCH SHALL BE APPLIED AT A RATE OF 6,000 LBS PER ACRE WITHIN 100 FEET OF A WATERBODY.
7. MULCH SHALL NOT BE APPLIED ON WETLANDS.

STEEP SLOPE STABILIZATION

1. EROSION CONTROL MATTING SHALL BE USED ON ALL PERMANENT SLOPES 3H:1V AND STEEPER AND ON ALL DISTURBED STREAM BANKS.
2. ALL SLOPES ARE TO BE INSPECTED AFTER EACH RAINFALL EVENT. ERODED AREAS ARE TO HAVE THE SOIL/TOPSOIL REPLACED, THE SEED RESOWN, AND THE EROSION CONTROL MATTING IS TO BE REPLACED AND ANCHORED.

PERMANENT CONTROL MEASURES

1. PERMANENT SEEDING SHALL BE SELECTED AND APPLIED TO THE REQUIRED AREAS USING THE DATA TABLE IN THESE DETAILS.
2. USE PURE LIVE SEED WITHIN 12 MONTHS OF TESTING.
3. IF TALL FESCUE IS USED, PLANT ENDOPHYTE–FREE CERTIFIED SEED.

MAINTENANCE/RESPONSIBILITIES

1. CONTRACTOR SHALL IMPLEMENT THE E&S PLAN IN ACCORDANCE WITH THE DRAWINGS AND PROJECT NARRATIVE.
2. ALL BMP'S SHALL BE INSPECTED AFTER EACH RAINFALL EVENT. ANY REPAIRS SHALL BE CONDUCTED WITHIN 3 DAYS OF THE INSPECTION.
3. BMP'S THAT ARE INADEQUATE, FAIL TO PERFORM, OR WHEN A MORE APPROPRIATE BMP IS REQUIRED, THE SWP3 SHALL BE AMENDED AND THE NEW BMP INSTALLED WITHIN 10 DAYS OF THE INSPECTION.
4. AT NO TIME WILL SEDIMENT OR SEDIMENT–LADEN RUNOFF BE ALLOWED TO LEAVE THE SITE AND ENTER WATERS OF THE STATE WITHOUT FIRST PASSING THROUGH A SEDIMENT FILTERING DEVICE. IF BMP'S FAIL TO PERFORM AS EXPECTED, ALTERNATIVE BMP'S OR MODIFICATIONS TO THOSE BMP'S WILL BE REQUIRED.
5. ALL PERMANENTLY SEEDED AREAS THAT BECOME ERODED SHALL HAVE THE TOPSOIL REPLACED, THE EROSION CONTROL MATTING REPLACED (IF APPLICABLE), THE GRASS RESOWN AND MULCH REAPPLIED AND ANCHORED.
6. A COPY OF THE APPROVED E&S SHALL BE KEPT AVAILABLE FOR INSPECTION ON THE CONSTRUCTION SITE AT ALL TIMES THROUGHOUT THE TERM OF THE PROJECT.
7. THE INTENT OF THIS PLAN/NARRATIVE IS TO INDICATE GENERAL MEANS OF COMPLIANCE WITH THE REQUIREMENTS OF THE RULES AND REGULATIONS OF FEDERAL WATER POLLUTION CONTROL ACT (33 U.S.C. SECTION 1251 ET. SEQ) AND THE OHIO WATER POLLUTION CONTROL ACT (ORC CHAPTER 6111). IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT THESE METHODS, PLUS ADDITIONAL METHODS, AS MAY BE NECESSARY BECAUSE OF CONDITIONS CREATED BY LOCALIZED SITE CONDITIONS AND/OR CONSTRUCTION PROCEDURES IN ORDER TO ASSURE COMPLIANCE WITH APPLICABLE LAW. IT WILL FURTHER BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL BMP'S SO THAT THEY PERFORM AS REQUIRED BY APPLICABLE LAW.
8. FINES AND RELATED COSTS RESULTING FROM THE CONTRACTOR'S FAILURE TO PROVIDE ADEQUATE PROTECTION AGAINST SOIL EROSION AND FOR ANY VIOLATIONS OF STATE AND/OR FEDERAL RULES AND REGULATIONS PROMULGATED THEREUNDER SHALL BE BORNE BY THE CONTRACTOR.

RECYCLING AND DISPOSAL METHODS

1. REMOVE WASTE MATERIAL INCLUDING TRASH AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF THE SITE TO AN APPROVED DUMP SITE. SEPARATE RECYCLABLE MATERIALS PRODUCED DURING SITE CLEARING FROM OTHER NON–RECYCLABLE MATERIALS, STORE OR STOCKPILE WITHOUT INTERMIXING WITH OTHER MATERIALS AND TRANSPORT THEM TO RECYCLING FACILITIES. MATERIAL TO BE REMOVED SHALL BE REMOVED DAILY AND SHALL NOT BE ALLOWED TO ACCUMULATE AT THE SITE.
2. NO CONSTRUCTION RELATED WASTE MATERIALS ARE TO BE BURIED ON SITE.
3. OPEN BURNING IS PROHIBITED.

PROHIBITED DISCHARGES

1. WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE CONTROL.
2. WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS, AND OTHER CONSTRUCTION MATERIALS.
3. FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION MAINTENANCE.
4. SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.

TEMPORARY VEGETATIVE COVER

1. TEMPORARY SEEDING SHALL BE SELECTED AND APPLIED TO REQUIRED AREAS USING THE TEMPORARY STABILIZATION DATA TABLE IN THESE DETAILS.
2. 2. WHERE VEGETATIVE STABILIZATION TECHNIQUES MAY CAUSE STRUCTURAL INSTABILITY OR ARE OTHERWISE UNOBTAINABLE, ALTERNATIVE STABILIZATION TECHNIQUES MUST BE EMPLOYED.

TEMPORARY STABILIZATION

AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY DISTURBED AREAS WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND NOT AT FINAL GRADE	WITHIN TWO DAYS OF THE MOST RECENT DISTURBANCE IF THE AREA WILL REMAIN IDLE FOR MORE THAN 14 DAYS
FOR ALL CONSTRUCTION ACTIVITIES, ANY DISTURBED AREAS THAT WILL BE DORMANT FOR MORE THAN 14 DAYS BUT LESS THAN ONE YEAR, AND NOT WITHIN 50 FEET OF A SURFACE WATER OF THE STATE	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA.
DISTURBED AREAS THAT WILL BE IDLE OVER WINTER	PRIOR TO THE ONSET OF WINTER

CHANGE ORDER SCHEDULE

#	DESCRIPTION OF CHANGE	SHEET NO.	APPROVALS BY	APPROVALS DATE

UTILITY TECHNOLOGIES INTERNATIONAL
TOTAL CAPABILITIES IN THE PIPELINE INDUSTRY
Proudly 100% Employee Owned + Operated
614.482.8080 | www.uti-corp.com

NORTH COAST GAS TRANSMISSION
425-NEXUS INTERCONNECT
LORAIN COUNTY, OH
STORMWATER POLLUTION PREVENTION PLAN

IFA
(ISSUED FOR APPROVAL)

DESIGN	DRAFT	CHECK
STP	KDG	STP

UTI PROJECT #: 23-312
DATE: 7/5/2024
SCALE: HORIZONTAL: VERTICAL:
DRAWING #: P-001
SHEET #: 3/13

CONSTRUCTION PRACTICES

ACCESS ROADS

ALL ACCESS TO THE CONSTRUCTION ROW WILL BE LIMITED TO APPROVED ACCESS POINTS FROM PUBLIC ROADWAYS.

1. ACCESS TO THE ROW DURING CONSTRUCTION AND RESTORATION ACTIVITIES IS PERMITTED ONLY BY THE ACCESS POINTS IDENTIFIED ON THE SWP3.
2. CONTRACTOR SHALL MAINTAIN SAFE CONDITIONS AT ALL ROAD CROSSINGS AND ACCESS POINTS DURING CONSTRUCTION AND RESTORATION. ADDITIONAL REQUIREMENTS PER LOCAL AND STATE PERMITS MAY BE NECESSARY. ALL ACCESS ROADS WILL BE MAINTAINED DURING CONSTRUCTION BY GRADING AND THE ADDITION OF GRAVEL OR STONE WHEN NECESSARY.
3. CONTRACTOR WILL IMPLEMENT ALL APPROPRIATE EROSION AND SEDIMENTATION CONTROL MEASURES FOR CONSTRUCTION/IMPROVEMENT OF ACCESS ROADS.
4. CONTRACTOR SHALL ENSURE THAT ALL PAVED ROAD SURFACES UTILIZED DURING CONSTRUCTION ARE KEPT FREE OF MUD AND DEBRIS TO THE EXTENT PRACTICAL.
5. ALL ACCESS ROADS ACROSS A WATERBODY MUST USE APPROVED CROSSING TECHNIQUE.
6. THE ONLY ACCESS ROADS, UNLESS OTHERWISE PERMITTED, THAT CAN BE USED IN WETLANDS OTHER THAN THE CONSTRUCTION ROW ARE THOSE EXISTING ROADS REQUIRING NO MODIFICATION AND NO IMPACT ON THE WETLAND.
7. LIMIT CONSTRUCTION EQUIPMENT OPERATING IN WETLAND AREAS TO THAT NEEDED TO CLEAR THE ROW, DIG THE TRENCH, FABRICATE AND INSTALL THE PIPELINE, BACKFILL THE TRENCH, AND RESTORE THE ROW. ALL OTHER CONSTRUCTION EQUIPMENT SHALL USE ACCESS ROADS LOCATED IN UPLAND AREAS TO MAXIMUM EXTENT PRACTICAL. WHERE ACCESS ROADS IN UPLAND AREAS DO NOT PROVIDE REASONABLE ACCESS, LIMIT ALL OTHER CONSTRUCTION EQUIPMENT TO ONE PASS THROUGH THE WETLAND USING THE ROW, WHENEVER PRACTICAL.
8. FOR ACCESS THROUGH A WETLAND, USE APPROVED CROSSING TECHNIQUE.

CONSTRUCTION ENTRANCE

A CONSTRUCTION ENTRANCE IS A STABILIZED PAD OF STONE UNDERLAIN WITH A GEOTEXTILE FABRIC LOCATED AT POINTS OF INGRESS/EGRESS. THE PRACTICE IS USED TO REDUCE THE AMOUNT OF MUD TRACKED OFF-SITE WITH CONSTRUCTION TRAFFIC.

A CONSTRUCTION ENTRANCE IS APPLICABLE WHERE:

- CONSTRUCTION TRAFFIC LEAVES ACTIVE CONSTRUCTION AREAS AND ENTERS PUBLIC ROADWAYS OR AREAS UNCHECKED BY EFFECTIVE SEDIMENT CONTROLS
- AREAS WHERE FREQUENT VEHICLE AND EQUIPMENT ACCESS IS EXPECTED AND LIKELY TO CONTRIBUTE SEDIMENT TO RUNOFF, SUCH AS AT THE ENTRANCE TO INDIVIDUAL BUILDING LOTS.

1. IF A CONSTRUCTION ENTRANCE IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF MUD FROM WHEELS OR THERE IS AN ESPECIALLY SENSITIVE TRAFFIC SITUATION ON ADJACENT ROADS, WHEEL WASH AREAS MAY BE NECESSARY. THIS REQUIRES AN EXTENDED WIDTH PAD TO AVOID CONFLICTS WITH TRAFFIC, A SUPPLY OF WASH WATER AND SUFFICIENT DRAINAGE TO ASSURE RUNOFF IS CAPTURED IN A SEDIMENT POND OR TRAP.
2. PROPER INSTALLATION OF A CONSTRUCTION ENTRANCE REQUIRES A GEOTEXTILE AND PROPER DRAINAGE TO INSURE CONSTRUCTION SITE RUNOFF DOES NOT LEAVE THE SITE. THE USE OF GEOTEXTILE UNDER THE STONE HELPS TO PREVENT POTHOLES FROM DEVELOPING AND WILL SAVE THE AMOUNT OF STONE NEEDED DURING THE LIFE OF THE PRACTICE. PROPER DRAINAGE MAY INCLUDE CULVERTS TO DIRECT WATER UNDER THE ROADWAY OR WATER BARS TO DIRECT MUDDY WATER OFF THE ROADWAY TOWARD SEDIMENT TRAPS OR PONDS.
3. THE AREA OF THE ENTRANCE MUST BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. THE GEOTEXTILE WILL THEN BE PLACED THE FULL WIDTH AND LENGTH OF THE ENTRANCE.
4. STONE SHALL BE PLACED TO A DEPTH OF AT LEAST SIX (6) INCHES. ROADS SUBJECT TO HEAVY DUTY LOADS SHOULD BE INCREASED TO A MINIMUM OF TEN (10) INCHES. SURFACE WATER SHALL BE CONVEYED UNDER THE ENTRANCE, THROUGH CULVERTS, OR DIVERTED VIA WATER BARS OR MOUNTABLE BERMS (MINIMUM 5:1 SLOPES) SO AS TO CONVEY SEDIMENT LADEN RUNOFF TO SEDIMENT CONTROL PRACTICES OR TO ALLOW CLEAN WATER TO PASS BY THE ENTRANCE.
5. THE STABILIZED CONSTRUCTION ENTRANCE SHALL MEET THE SPECIFICATIONS INCLUDED IN THE DETAIL ON THESE PLANS.
6. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANING OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED ONTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.

PIPE AND CONTRACTOR LAYDOWN AREAS

PIPE AND CONTRACTOR LAYDOWN AREAS ARE REQUIRED FOR STORING AND STAGING EQUIPMENT, PIPE, FUEL, OIL, PIPE FABRICATION, AND OTHER CONSTRUCTION RELATED MATERIALS. THE CONTRACTOR SHALL PERFORM THE FOLLOWING MEASURES AT PIPE AND CONTRACTOR LAYDOWN AREAS.

1. STRIP AND SEGREGATE TOPSOIL
2. INSTALL BMP AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR, OUTLINED IN THIS PLAN, OR IDENTIFIED ON THE CONSTRUCTION DRAWINGS, AND MAINTAIN THEM THROUGHOUT CONSTRUCTION AND RESTORATION ACTIVITIES.
3. IMPLEMENT AND COMPLY WITH THE SWP3
4. RESTORE AND REVEGETATE ALL DISTURBED AREAS IN ACCORDANCE WITH THE MEASURES OUTLINED IN THIS PLAN AND AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.

OFF-ROW DISTURBANCE

ALL CONSTRUCTION ACTIVITIES ARE RESTRICTED TO WITHIN THE LIMITS IDENTIFIED ON THE CONSTRUCTION DRAWINGS. HOWEVER, IN THE EVENT THAT OFF-ROW DISTURBANCE OCCURS, THE FOLLOWING MEASURES WILL BE IMPLEMENTED:

1. THE ENVIRONMENTAL INSPECTOR WILL IMMEDIATELY REPORT THE OCCURRENCE TO THE PROJECT ENGINEER AND ROW AGENT.
2. THE PROJECT ENGINEER WILL NOTIFY COMPANY.
3. THE CONDITIONS THAT CAUSED THE DISTURBANCE WILL BE EVALUATED BY THE PROJECT ENGINEER AND ENVIRONMENTAL INSPECTOR, AND THEY WILL DETERMINE WHETHER WORK AT THE LOCATION CAN PROCEED UNDER THOSE CONDITIONS; AND
4. IF DEEMED NECESSARY BY THE PROJECT ENGINEER AND ENVIRONMENTAL INSPECTOR, ONE OR MORE OF THE FOLLOWING CORRECTIVE ACTIONS WILL BE TAKEN:
   a. IMMEDIATE RESTORATION OF THE ORIGINAL CONTOURS
   b. SEEDING AND MULCHING THE DISTURBED AREA
   c. INSTALLATION OF BMP

CLEARING

CLEARING OPERATIONS WILL INCLUDE THE REMOVAL OF VEGETATION WITHIN THE CONSTRUCTION ROW. VARIOUS CLEARING METHODS WILL BE EMPLOYED DEPENDING ON TREE SIZE, CONTOUR OF THE LAND, AND THE ABILITY OF THE GROUND TO SUPPORT CLEARING EQUIPMENT. VEGETATIVE CLEARING WILL EITHER BE ACCOMPLISHED BY HAND OR BY CUTTING EQUIPMENT. THE FOLLOWING PROCEDURES WILL BE STANDARD PRACTICE DURING CLEARING:

1. PRIOR TO BEGINNING THE REMOVAL OF VEGETATION, THE LIMITS OF CLEARING WILL BE ESTABLISHED AND IDENTIFIED IN ACCORDANCE WITH CONSTRUCTION DRAWINGS.
2. ALL CONSTRUCTION ACTIVITIES AND GROUND DISTURBANCE WILL BE CONFINED TO WITHIN THE ROW SHOWN ON THE CONSTRUCTION DRAWINGS.
3. CLEARLY MARK AND PROTECT TREES TO BE SAVED AS PER LANDOWNER REQUESTS OR AS OTHERWISE REQUIRED.
4. ALL WOOD PRODUCTS (SAWLOGS, PULPWOOD OR CORDWOOD) WILL BE REMOVED AND PROPERLY DISPOSED OF FROM THE PROJECT AREA.
5. BRUSH AND LIMBS MAY BE DISPOSED OF IN ONE OR MORE OF THE FOLLOWING WAYS:
   a. CHIPPED AND GIVEN AWAY, OR THINLY SPREAD (LESS THAN 2 INCHES THICK OVER THE CONSTRUCTION WORK AREA, EXCEPT IN AGRICULTURAL LANDS OR WITHIN 50 FEET OF STREAMS, FLOODPLAINS, OR WETLANDS. CHIPPING WILL BE LIMITED TO THOSE AREAS WHERE AGREED TO WITH THE LANDOWNER.
   b. HAULED OFF-SITE. OFF-SITE DISPOSAL IN OTHER THAN COMMERCIALLY OPERATED DISPOSAL LOCATIONS IS SUBJECT TO COMPLIANCE WITH ALL APPLICABLE SURVEY, LANDOWNER APPROVAL AND MITIGATION REQUIREMENTS.
6. EXITING SURFACE DRAINAGE PATTERNS WILL NOT BE ALTERED BY THE PLACEMENT OF TIMBER OR BRUSH PILES AT THE EDGE OF THE CONSTRUCTION ROW.
7. CLEARING CONDITIONS FOR ALL WETLAND AND STREAM CROSSINGS.
   a. THE ENVIRONMENTAL INSPECTOR IS REQUIRED TO BE ON SITE DURING THESE ACTIVITIES.
   b. GRUBBING ACTIVITIES ARE LIMITED ON THE STREAM AND WETLAND CROSSINGS TO THE AREA DIRECTLY OVER THE TRENCHLINE.
   c. NO GRUBBING IS PERMITTED WITHIN THE RIPARIAN ZONE OF THE STREAMS CROSSED USING BORING METHODS.

INSTALLING TEMPORARY SEDIMENT BARRIERS

SEDIMENT BARRIERS, WHICH ARE TEMPORARY EROSION CONTROLS (BMP) INTENDED TO MINIMIZE THE FLOW OF SEDIMENT AND TO PREVENT THE DEPOSITION OF SEDIMENTS INTO SENSITIVE RESOURCES, SHALL BE INSTALLED FOLLOWING VEGETATIVE CLEARING OPERATIONS. THEY MAY BE CONSTRUCTED OF MATERIALS SUCH AS SILT FENCE, COMPACTED EARTH (E.G. DRIVABLE BERMS ACROSS TRAFFIC LANES, WATERBARS), OR AN EQUIVALENT MATERIAL AS IDENTIFIED BY THE ENVIRONMENTAL INSPECTOR. THE CONTRACTOR IS RESPONSIBLE FOR THEIR REMOVAL AND DISPOSAL.

1. INSTALL TEMPORARY BMP AT THE BASE OF SLOPES ADJACENT TO ROAD CROSSINGS AND AT WATERBODY AND WETLAND CROSSINGS.
2. INSPECT TEMPORARY BMP DAILY IN AREAS OF ACTIVE CONSTRUCTION TO ENSURE PROPER FUNCTIONING AND MAINTENANCE. IN OTHER AREAS, BMP WILL BE INSPECTED AND MAINTAINED ON A WEEKLY BASIS THROUGHOUT CONSTRUCTION, AND WITHIN 24 HOURS FOLLOWING STORM EVENTS.
3. MAINTAIN ALL TEMPORARY BMP IN PLACE UNTIL PERMANENT REVEGETATION MEASURES ARE SUCCESSFUL OR THE UPLAND AREAS ADJACENT TO WETLANDS, WATERBODIES, OR ROADS ARE STABILIZED.
4. REMOVE TEMPORARY BMP FROM AN AREA WHEN REPLACED BY PERMANENT EROSION CONTROL MEASURES OR WHEN THE AREA HAS BEEN SUCCESSFULLY RESTORED.

GRADING

THE CONSTRUCTION ROW WILL BE GRADED AS NEEDED TO PROVIDE A LEVEL WORKSPACE FOR SAFE OPERATION OF HEAVY EQUIPMENT USED IN PIPELINE CONSTRUCTION. THE FOLLOWING PROCEDURES WILL BE STANDARD PRACTICE DURING GRADING:

TOPSOIL SEGREGATION

METHODS WILL BE USED IN ALL AREAS.

1. PREVENT THE MIXING OF TOPSOIL WITH SUBSOIL BY STRIPPING TOPSOIL FROM EITHER THE FULL WORK AREA OR FROM THE TRENCH LINE AND SUBSOIL STORAGE AREA.
2. WHERE TOPSOIL SEGREGATION IS REQUIRED, MAINTAIN SEPARATION OF SALVAGED TOPSOIL AND SUBSOIL THROUGHOUT ALL CONSTRUCTION ACTIVITIES.
3. NEVER USE TOPSOIL FOR PADDING, BACK FILL OR TRENCH PLUGS.

TREE STUMP REMOVAL AND DISPOSAL

1. REMOVE TREE STUMPS IN UPLAND AREAS ALONG THE ENTIRE WIDTH OF THE PERMANENT ROW TO ALLOW ADEQUATE CLEARANCE FOR THE SAFE OPERATION OF VEHICLES AND EQUIPMENT. STUMPS WITHIN THE TEMPORARY ROW WILL BE REMOVED OR GROUND TO A SUITABLE HEIGHT THAT WILL ALLOW THE SAFE PASSAGE OF EQUIPMENT, AS STIPULATED BY THE CHIEF INSPECTOR.
2. TREE STUMP REMOVAL FOR ALL WETLAND AND STREAM CROSSINGS:
   a. THE ENVIRONMENTAL INSPECTOR IS REQUIRED TO BE ON SITE DURING THESE ACTIVITIES.
   b. GRUBBING ACTIVITIES ARE LIMITED ON THE STREAM AND WETLAND CROSSINGS TO THE AREA DIRECTLY OVER THE TRENCHLINE.
   c. NO GRUBBING IS PERMITTED WITHIN THE RIPARIAN ZONE OF THE STREAMS CROSSED USING BORING METHODS.
3. DISPOSE OF STUMPS BY ONE OF THE FOLLOWING METHODS AND IN ACCORDANCE WITH REGULATORY REQUIREMENTS:
   a. BURNED, WHERE PERMITTED BY LAW. NECESSARY BURNING PERMITS SHALL BE OBTAINED PRIOR TO ACTIVITY.
   b. CHIPPED, THINLY SPREAD (LESS THAN 2 INCHES THICK OVER THE CONSTRUCTION WORK AREA, EXCEPT IN AGRICULTURAL LANDS OR WITHIN 50 FEET OF STREAMS, FLOODPLAINS, OR WETLANDS. CHIPPING WILL BE LIMITED TO THOSE AREAS WHERE AGREED TO WITH THE LANDOWNER.
   c. HAULED OFF-SITE. OFF-SITE DISPOSAL IN OTHER THAN COMMERCIALLY OPERATED DISPOSAL LOCATIONS IS SUBJECT TO COMPLIANCE WITH ALL APPLICABLE SURVEY, LANDOWNER APPROVAL AND MITIGATION REQUIREMENTS.

TRENCHING

IN GENERAL, A TRENCH WILL BE EXCAVATED TO A DEPTH THAT WILL PERMIT BURIAL OF THE PIPE WITH ADEQUATE COVER.

1. THE FOLLOWING PROCEDURES WILL BE STANDARD PRACTICE DURING DITCHING:
2. PLACE SPOIL AT LEAST 10 FEET UP GRADIENT FROM THE EDGE OF WATERBODIES. SPOIL WILL BE CONTAINED WITH BMP TO PREVENT SPOIL MATERIALS OR HEAVILY SILT-LADEN WATER FROM TRANSFERRING INTO WATERBODIES AND WETLANDS OR OFF THE ROW.

TEMPORARY TRENCH PLUGS

TEMPORARY TRENCH PLUGS ARE BARRIERS WITHIN THE DITCH THAT SEGMENT THE CONTINUOUS OPEN TRENCH. THEY TYPICALLY CONSIST OF COMPACTED SUBSOIL OR SANDBAGS (SOFT) PLACED ACROSS THE DITCH OR COMPOSED OF UNEXCAVATED PORTIONS OF THE DITCH (HARD). ALONG STEEP SLOPES, THEY SERVE TO REDUCE EROSION AND SEDIMENTATION IN THE TRENCH AND MINIMIZE DEWATERING PROBLEMS AT THE BASE OF SLOPES WHERE SENSITIVE ENVIRONMENTS SUCH AS WATERBODIES AND WETLANDS ARE FREQUENTLY LOCATED. IN ADDITION, THEY PROVIDE ACCESS ACROSS THE TRENCH FOR WILDLIFE.

1. DO NOT USE TOPSOIL FOR INSTALLING TEMPORARY SOFT TRENCH PLUGS.
2. TEMPORARY TRENCH PLUGS MAY BE USED IN CONJUNCTION WITH WATERBARS TO PREVENT WATER IN THE TRENCH FROM OVERFLOWING INTO SENSITIVE RESOURCE AREAS. ATTEMPT TO DIVERT TRENCH OVERFLOW TO A CONSTRUCTION ENERGY-DISSIPATING DEVICE.

TRENCH DEWATERING

TRENCH DEWATERING MAY BE PERIODICALLY REQUIRED ALONG PORTIONS OF THE PROPOSED PIPELINE PRIOR TO AND/OR SUBSEQUENT TO INSTALLATION OF THE PIPELINE TO REMOVE COLLECTED WATER FROM THE TRENCH.

1. TRENCH DEWATERING WILL BE CONDUCTED (ON OR OFF THE CONSTRUCTION ROW) IN SUCH A MANNER THAT DOES NOT CAUSE EROSION AND DOES NOT RESULT IN HEAVILY SILT-LADEN WATER FLOWING INTO ANY WATERBODY OR WETLAND.
2. THE INTAKES OF THE HOSES USED TO WITHDRAW THE WATER FROM THE TRENCH WILL BE ELEVATED AND SCREENED TO MINIMIZE PUMPING OF DEPOSITED SEDIMENTS.
3. WATER WILL BE PUMPED INTO A FILTER BAG OR THROUGH A STRUCTURE COMPOSED OF BMP PRIOR TO BEING DISCHARGED INTO AREAS WHERE ADEQUATE VEGETATION IS PRESENT ADJACENT TO THE CONSTRUCTION ROW. WHEN USING FILTER BAGS, SECURE THE DISCHARGE HOSE TO THE BAG WITH A CLAMP.
4. WHERE VEGETATION IS ABSENT IN THE VICINITY OF A WATERBODY/WETLAND AREA, ADDITIONAL BMP MAY BE NEEDED.
5. REMOVE DEWATERING STRUCTURES AS SOON AS POSSIBLE AFTER THE COMPLETION OF DEWATERING ACTIVITIES.

PIPE INSTALLATION

FOLLOWING TRENCH EXCAVATION, PIPE SECTIONS WILL BE DELIVERED TO THE CONSTRUCTION SITE AND INSTALLED PER COMPANY SPECIFICATIONS.

BACKFILLING

BACKFILLING CONSISTS OF COVERING THE PIPE WITH THE EARTH REMOVED FROM THE TRENCH OR WITH OTHER FILL MATERIAL HAULED TO THE SITE WHEN THE EXISTING TRENCH SPOIL IS NOT ADEQUATE FOR BACKFILL.

1. UNDER NO CIRCUMSTANCES SHALL TOPSOIL BE USED AS PADDING MATERIAL
2. ANY EXCESS MATERIAL WILL BE SPREAD WITHIN THE ROW IN UPLAND AREAS AND LAND CONTOURS WILL BE ROUGHED-IN TO MATCH ADJACENT TOPOGRAPHY.
3. COMPLETE FINAL GRADING WITHIN 10 CALENDAR DAYS, WEATHER AND SOIL CONDITIONS PERMITTING, OF BACKFILLING.

FINAL GRADING

1. THE CONSTRUCTION ROW SHALL BE GRADED TO RESTORE ITS PRE-CONSTRUCITON CONTOURS.
2. DURING FINAL GRADING, SOIL OVER THE TRENCH MAY BE MOUNDED TO ALLOW FOR FUTURE SETTLING.
3. ADDITIONAL FILL MAY BE ADDED IN AREAS THAT HAVE SETTLED BELOW GROUND LEVEL.
4. CONSERVED TOPSOIL SHALL BE RETURNED DURING FINAL GRADING.
5. EXCESS ROCK SHALL BE REMOVED FROM THE TOP 12 INCHES OF SOIL TO THE EXTENT PRACTICABLE. THE SIZE, DENSITY AND DISTRIBUTION OF ROCK ON THE CONSTRUCTION WORK AREA SHOULD BE SIMILAR TO ADJACENT AREAS NOT DISTURBED BY CONSTRUCTION.
6. DILIGENT EFFORTS SHALL BE MADE TO REMOVE ROCKS GREATER THAN 4 INCHES.
7. INSTALL FINAL EROSION CONTROL DEVICES.

HYDROSTATIC TESTING

ONCE THE PIPELINE IS COMPLETED AND BEFORE IT IS PLACED INTO SERVICE IT WILL BE HYDROSTATICALLY TESTED FOR STRUCTURAL INTEGRITY. HYDROSTATIC TESTING INVOLVES FILLING THE PIPELINE WITH CLEAN WATER AND MAINTAINING A TEST PRESSURE IN EXCESS OF NORMAL OPERATING PRESSURES FOR A SPECIFIED PERIOD OF TIME. THE TESTING PROCEDURE INVOLVES FILLING THE PIPELINE WITH TEST WATER, PERFORMING THE PRESSURE TEST, AND DISCHARGING THE TEST WATER.

1. DETAILS REGARDING THE HYDROSTATIC TESTING PROCEDURES AND NECESSARY PERMITTING HAVE NOT YET BEEN DETERMINED
2. TEST WATER MAY BE WITHDRAWN FROM STREAMS ON THE PROJECT SITE. PERMITS ARE REQUIRED ON PUMPS THAT HAVE THE CAPACITY TO WITHDRAWN 70GPM OR MORE.
3. TEST WATER MAY ALSO BE PURCHASED FROM LOCAL MUNICIPALITIES VIA WATER HYDRANT METER.
4. DISCHARGE WATER SHALL BE DISPOSED OF THROUGH AN APPROVED MUNICIPAL SANITARY SEWER.
5. DISCHARGE WATER IS PROHIBITED FROM BEING DISCHARGED DIRECTLY TO THE GROUND OR INTO ANY STORMWATER SYSTEM.
6. A HYDROSTATIC DISCHARGE PERMIT IS REQUIRED IF THE TEST WATER IS UNABLE TO BE DISCHARGED INTO A MUICIPAL SANITARY SEWER SYSTEM.
7. THE PROJECT ENGINEER AND/OR ENVIRONMENTAL INSPECTOR WILL COORDINATE ALL PERMITTING ACTIVITIES ASSOCIATED WITH THE DISCHARGE OF HYDROSTATIC TEST WATER.

PERMANENT EROSION CONTROL

PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES TO MINIMIZE POST-CONSTRUCTION EROSION ARE AS FOLLOWS:

1. IF FINAL CLEANUP AND SEEDING CANNOT BE COMPLETED AND IS DELAYED UNTIL THE NEXT RECOMMENDED GROWING SEASON, THE WINTER STABILIZATION MEASURES SHALL BE FOLLOWED.
2. GRADE THE ROW TO PER-CONSTRUCTION CONTOURS.
3. SPREAD SEGREGATED TOPSOIL BACK ACROSS THE GRADED ROW TO ITS ORIGINAL PROFILE.
4. A TRAVEL LANE MAY BE LEFT OPEN TEMPORARILY TO ALLOW ACCESS BY CONSTRUCTION TRAFFIC IF TEMPORARY BMP'S ARE INSTALLED, REGULARLY INSPECTED AND MAINTAINED. WHEN ACCESS IS NO LONGER REQUIRED, THE TRAVEL LANE MUST BE REMOVED AND THE ROW RESTORED.
5. REMOVE ALL CONSTRUCTION DEBRIS (USED FILTER BAGS, SKIDS, TRASH, ETC.) FROM THE ROW. GRADE OR TILL THE ROW TO LEAVE THE SOIL IN THE PROPER CONDITION FOR PLANTING OR AGRICULTURAL USE.

EROSION CONTROL FABRIC

1. INSTALL EROSION CONTROL FABRIC AT WATERBAR OUTLETS AND DRAINAGE SWALES AS NECESSARY OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
2. INSTALL EROSION CONTROL FABRIC OR MATTING ON SLOPES GREATER THAN 3:1. ANCHOR THE EROSION CONTROL FABRIC OR MATTING WITH STAPLES OR OTHER APPROPRIATE DEVICES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
3. INSTALL EROSION CONTROL FABRIC ON WATERBODY BANKS AT TIME OF FINAL BANK RE-CONTOURING.

PERMANENT STABILIZATION, REVEGETATION, AND SEEDING

SUCCESSFUL REVEGETATION OF SOILS DISTURBED BY PROJECT RELATED ACTIVITIES IS ESSENTIAL. SEEDING WILL BE CONDUCTED USING THE FOLLOWING REQUIREMENTS:

1. PERMANENT STABILIZATION AND SEEDING SHALL BE SELECTED AND APPLIED TO REQUIRED AREAS USING THE PERMANENT STABILIZATION DATA TABLE IN THESE DETAILS.
2. PREPARE SEEDBED IN DISTURBED AREAS TO A DEPTH OF 3 TO 4 INCHES TO PROVIDE A FIRM SEEDBED. WHEN HYDRO SEEDING, SCARIFY THE SEEDBED TO FACILITATE LODGING AND GERMINATION OF SEED.
3. SEED DISTURBED AREAS IN ACCORDANCE WITH THE SEED MIXES, RATES AND DATES SPECIFIED IN THIS PLAN.
4. PERFORM SEEDING OF PERMANENT VEGETATION WITHIN THE RECOMMENDED SEEDING DATES AS OUTLINED IN THIS PLAN. IF SEEDING CANNOT BE DONE WITHIN THOSE DATES, USE APPROPRIATE TEMPORARY EROSION CONTROL MEASURES DISCUSSED IN SECTION IV AND PERFORM SEEDING OF PERMANENT VEGETATION AT THE BEGINNING OF THE NEXT RECOMMENDED SEEDING SEASON. MULCH IN ACCORDANCE WITH SPECIFICATIONS IN THIS PLAN.
5. UNIFORMLY APPLY AND COVER SEED IN ACCORDANCE WITH PLAN.

PERMANENT STABILIZATION

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREAS THAT WILL LIE DORMANT FOR ONE YEAR OR MORE	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE
ANY AREAS WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND AT FINAL GRADE	WITHIN TWO DAYS OF REACHING FINAL GRADE
ANY OTHER AREAS AT FINAL GRADE	WITHIN SEVEN DAYS OF REACHING FINAL GRADE WITHIN THAT AREA

CHANGE ORDER SCHEDULE

#	DESCRIPTION OF CHANGE	SHEET NO.	APPROVALS BY	DATE

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LORAIN COUNTY, OH

STORMWATER POLLUTION PREVENTION PLAN

IFA (ISSUED FOR APPROVAL)

DESIGN	DRAFT	CHECK
STP	KDG	STP

UTI PROJECT #: 23-312 DATE: 7/5/2024

SCALE: HORIZONTAL: VERTICAL:

DRAWING #: P-001

SHEET #: 4/13

MULCH

MULCH IS INTENDED TO STABILIZE THE SOIL SURFACE AND SHALL CONSIST OF WEED-FREE STRAW, WOOD FIBER HYDRO MULCH, EROSION CONTROL FABRIC, OR SOME FUNCTIONAL EQUIVALENT AS APPROVED BY THE ENVIRONMENTAL INSPECTOR AND CHIEF INSPECTOR. HAY SHALL NOT BE USED FOR MULCH.

WINTER STABILIZATION

IN THE EVENT THAT THE FINAL PHASES OF CONSTRUCTION OCCUR TOO LATE IN THE YEAR FOR CLEANUP ACTIVITIES TO ADEQUATELY PROCEED THE FOLLOWING PROCEDURES WILL BE IMPLEMENTED ALONG THE DISTURBED ROW AT THOSE LOCATIONS UNTIL FINAL RESTORATION MEASURES CAN BE COMPLETED.

a. INSTALL PERMANENT WATERBARS AT SPECIFIED INTERVALS ON ALL SLOPES, OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
b. INSTALL TEMPORARY SEDIMENT BARRIERS ADJACENT TO STREAM AND WETLAND CROSSINGS, AS WELL AS ANY OTHER CRITICAL AREAS.
c. SEED AND MULCH ROW AND SEED SEGREGATED TOP SOIL PILES.

SPECIAL CONSTRUCTION METHODS:

THE COMPANY WILL UTILIZE THE FOLLOWING SPECIALIZED CONSTRUCTION PROCEDURES FOR ROAD CROSSINGS ALONG THE PIPELINE PROJECT. THE PROJECT CONSTRUCTION DRAWINGS WILL INDICATE THE LOCATION WHERE SPECIALIZED CONSTRUCTION METHODS WILL BE USED.

ROAD CROSSINGS

UNPAVED PRIVATE AND PUBLIC ROADS SUPPORTING MINIMAL TRAFFIC VOLUMES ARE USUALLY CROSSED BY BORING OR BY MEANS OF AN OPEN CUT, IF THIS METHOD IS APPROVED BY THE OWNER OR APPROPRIATE ROAD MANAGEMENT AGENCY. AN OPEN CUT CROSSING MAY INVOLVE CLOSING THE ROAD TO ALL TRAFFIC AND CONSTRUCTING AND ADEQUATE DETOUR AROUND THE CROSSING AREA, OR EXCAVATING ONE-HALF OF THE ROAD AT A TIME ALLOWING THROUGH TRAFFIC TO BE MAINTAINED. THE TRENCH FOR AN OPEN CUT CROSSING IS EXCAVATED WITH A BACKHOE OR SIMILAR EQUIPMENT, ALL BACKFILL IS COMPACTED, AND THE ROAD RESURFACED. ALL STATE, NATIONAL, AND INTERSTATE HIGHWAYS AS WELL AS ALL RAILROADS MUST BE CROSSED BY BORING, UNLESS THE CROSSING PERMIT ALLOWS FOR AN OPEN CUT CROSSING.

WATERBODY CROSSING

THE FOLLOWING SECTION DESCRIBES THE CONSTRUCTION PROCEDURES AND MITIGATION MEASURES THAT WILL BE USED FOR PIPELINE INSTALLATIONS AT WATERBODIES. THE INTENT OF THESE PROCEDURES IS TO MINIMIZE THE EXTENT AND DURATION OF PROJECT RELATED DISTURBANCES WITHIN WATERBODIES.

TEMPORARY EQUIPMENT BRIDGE

A TEMPORARY EQUIPMENT BRIDGE IS A STRUCTURE THAT MAY BE INSTALLED ACROSS A WATERBODY TO PROVIDE A MEANS FOR CONSTRUCTION EQUIPMENT TO CROSS THE STREAM WHILE MINIMIZING IMPACTS TO THE CHANNEL BOTTOM OR BANKS

1. CONSTRUCT EQUIPMENT BRIDGES TO MAINTAIN UNRESTRICTED FLOW AND TO PREVENT SOIL FROM ENTERING THE WATERBODY.
2. EQUIPMENT BRIDGE SHALL BE INSTALLED ABOVE THE ORDINARY HIGH WATER MARK FOR THE STREAM. NO STRUCTURES OR DISTURBANCE SHALL BE ALLOWED OCCUR BELOW THIS MARK.
3. CONSTRUCT CROSSINGS AS CLOSE TO PERPENDICULAR TO THE AXIS OF THE WATERBODY CHANNEL.
4. MAINTAIN THE EQUIPMENT BRIDGE TO WITHSTAND THE HIGHEST FLOWS THAT WOULD OCCUR.
5. DO NOT USE SOIL TO CONSTRUCT OR STABILIZE EQUIPMENT BRIDGES.
6. MAINTAIN EQUIPMENT BRIDGES TO PREVENT SOIL FROM ENTERING THE WATERBODY.
7. INSTALL ROCK APPROACHES TO EQUIPMENT BRIDGES AS NEEDED AS PER DETAIL IN SWP3.
8. REMOVE EQUIPMENT BRIDGES (AND ROCK, IF APPLICABLE) AS SOON AS PRACTICAL AFTER PERMANENT SEEDING.

CLEARING AND GRADING

1. CONFINE CONSTRUCTION ACTIVITIES AND GROUND DISTURBANCE TO WITHIN THE ROW BOUNDARIES SHOWN ON THE CONSTRUCTION DRAWINGS.
2. RESTRICT EXTRA WORK AREAS (E.G. STAGING AREAS AND ADDITIONAL SPOIL STORAGE AREAS) TO THOSE SHOWN ONLY ON THE CONSTRUCTION DRAWINGS. ALL EXTRA WORK AREAS MUST BE LOCATED AT LEAST 50 FEET FROM THE WATER'S EDGE, EXCEPT WHERE THE ADJACENT UPLAND CONSISTS OF ACTIVELY CULTIVATED OR ROTATED CROPLAND OR OTHER DISTURBED LAND. IF SITE-SPECIFIC CONDITIONS DO NOT PERMIT A 50-FOOT SETBACK, THE COMPANY CAN RECEIVE WRITTEN APPROVAL FROM THE PERMITTING AGENCY TO LOCATE THESE EXTRA WORK AREA CLOSER THAN 50 FEET FROM THE WATER'S EDGE.
3. IF THE PIPELINE PARALLELS A WATERBODY, ATTEMPT TO MAINTAIN AT LEAST 15 FEET OF UNDISTURBED VEGETATION BETWEEN THE WATERBODY (AND ANY ADJACENT WETLAND) AND THE ROW EXCEPT AT THE CROSSING LOCATION.
4. CLEAR THE ROW ADJACENT TO ALL WATERBODIES UP TO THE HIGH WATER BANK (WHERE DISCERNIBLE).
5. IMMEDIATELY REMOVE ALL CUT TREES AND BRACHES THAT INADVERTENTLY FALL INTO A WATERBODY AND STOCKPILE IN AN UPLAND AREA ON ROW FOR DISPOSAL.
6. GRADE THE ROW ADJACENT TO WATERBODIES UP TO WITHIN 10 FEET OF THE HIGH WATER BANK, LEAVING AN UNGRUBBED VEGETATIVE STRIP INTACT.
7. CLEARING AND GRADING OPERATIONS MAY PROCEED THROUGH THE 10-FOOT VEGETATIVE STRIP ONLY ON THE WORKING SIDE OF THE ROW IN ORDER TO INSTALL THE EQUIPMENT BRIDGE AND TRAVEL LAND. USE TEMPORARY SEDIMENT BARRIERS TO PREVENT THE FLOW OF BANK SPOIL INTO THE WATERBODY.
8. MAINTAIN ADEQUATE FLOW RATES TO PROTECT AQUATIC LIFE AND PREVENT THE INTERRUPTION OF EXISTING DOWNSTREAM USES.
9. INSTALLING TEMPORARY EROSION AND SEDIMENT CONTROL
10. INSTALL SEDIMENT BARRIERS (BMP) IMMEDIATELY AFTER INITIAL DISTURBANCE OF THE WATERBODY OR ADJACENT UPLAND. BMP MUST BE PROPERLY MAINTAINED THROUGHOUT CONSTRUCTION AND REINSTALLED AS NECESSARY (E.G. BACKFILLING OF THE TRENCH), UNTIL REPLACEMENT BY PERMANENT BMP OR RESTORATION OF ADJACENT UPLAND AREAS IS COMPLETE.
11. INSTALL BMP ACROSS THE ENTIRE CONSTRUCTION OF THE ROW AT ALL WATERBODY CROSSINGS, WHERE NECESSARY TO PREVENT THE FLOW OF SEDIMENTS INTO THE WATERBODY. TEMPORARY OR REMOVABLE BMP SUCH AS WATERBARS MAY BE USED IN LIEU OF SEDIMENT BARRIERS IN FRONT OF EQUIPMENT BRIDGES OR TIMBER MATS ACROSS THE TRAVEL LANE. THESE TEMPORARY SEDIMENT BARRIERS CAN BE REMOVED DURING THE CONSTRUCTION DAY, BUT MUST BE REINSTALLED AFTER CONSTRUCTION HAS STOPPED FOR THE DAY AND/OR WHEN HEAVY PRECIPITATION IS IMMINENT.
12. INSTALL BMP AS NECESSARY ALONG THE EDGE OF THE CONSTRUCTION ROW TO CONTAIN SPOIL AND SEDIMENT WITHIN THE ROW WHERE WATERBODIES ARE ADJACENT OR PARALLEL TO THE CONSTRUCTION ROW.

BORE CROSSING

THIS CROSSING TECHNIQUE IS TYPICALLY USED TO CROSS WATER BODIES IN A TRENCHLESS MANNER. THIS METHOD INVOLVES DRILLING UNDER THE WATERBODY AND INSTALLING A PREFABRICATED CROSSING SECTION THROUGH THE BOREHOLE, THEREBY AVOIDING DISTURBANCE TO THE GROUND SURFACE AT THE APPROACHES TO THE CROSSING AND TO THE WATERBODY BED ITSELF.

1. THE BORE CROSSING SHALL BE INSTALLED AS FOLLOWS:
   A. INSTALL TEMPORARY ENTRY AND EXIT POINTS;
   B. INSTALL TEMPORARY PITS TO STORE DRILL MUD AND SOIL CUTTINGS;
   C. DRILL PILOT HOLE FROM ENTRY PIT TO THE EXIT PIT;
   D. ENLARGE PILOT HOLE BY DRAWING REAMER BACK THROUGH PILOT HOLE;
   E. PULL PREFABRICATED SECTION OF PIPE THROUGH HOLE;
   F. DISPOSE OF DRILLING MUD AND SOIL CUTTING IN AN APPROVED MANNER.
2. INADVERTENT RETURNS SHALL BE HANDLED IN ACCORDANCE WITH THE CONTINGENCY PLAN:
   A. GENERAL

   THIS PROTOCOL OUTLINES STEPS TO BE TAKEN WHEN RESPONDING TO INADVERTENT RETURNS THAT MAY OCCUR DURING BORE INSTALLATION OF NATURAL GAS PIPELINES.

   AFTER-THE-FACT PERMITS MAY BE REQUIRED FROM STATE AND FEDERAL AGENCIES DEPENDING ON THE LOCATION OF THE INCIDENT AND THE AMOUNT OF DRILLING MUD RELEASED INTO THE ENVIRONMENT.

   NOTE: THERE ARE CAVES AND SINKHOLES, ALSO KNOWN AS "KARST TERRAIN," IN SOME PARTS OF THE SERVICE TERRITORY. SPECIAL PLANNING MUST OCCUR BEFORE ANY BORE INSTALLATION NEAR KARST FEATURES TO MINIMIZE THE POTENTIAL FOR RELEASE OF DRILLING MUD INTO THESE AREAS.

   B. MATERIALS AND EQUIPMENT TO BE KEPT ON SITE OR READILY AVAILABLE CONTAINMENT MATERIALS SUCH AS STRAW BALES, SILT FENCE AND COIR FIBER LOGS SHALL BE KEPT ON SITE DURING BORING OPERATIONS. FOR LARGE PROJECTS, A VACUUM TRUCK MAY ALREADY BE AVAILABLE ON SITE. FOR SMALLER PROJECTS, EITHER OF THE EMERGENCY RESPONSE CONTRACTORS LISTED ON THE FOLLOWING PAGE MAY BE USED AS AN "ON CALL" VACUUM TRUCK RESOURCE WITHOUT ANY PROJECT-SPECIFIC PRIOR COORDINATION.

   C. IMMEDIATE RESPONSE ACTIONS UPON DISCOVERING AN INADVERTENT RETURN, TAKE SAFE ACTIONS TO:

a. STOP THE RELEASE. FOLLOWING INDUSTRY BEST PRACTICES, STOP THE BORING RIG OR REDUCE PRESSURE TO KEEP DRILLING MUD FROM REACHING THE SURFACE.
b. CONTAIN THE RELEASE. PLACE STRAW BALES, SILT FENCE, COIR FIBER LOGS OR OTHER STRUCTURAL SEDIMENT CONTROL MEASURES TO KEEP THE DRILLING MUD FROM LEAVING THE PROJECT SITE AND FROM ENTERING SURFACE WATERWAYS AND WETLANDS.
   - DETERMINE THE FLOW PATH THAT THE DRILLING MUD IS MOST LIKELY TO FOLLOW;
   - PLACE CONTAINMENT MATERIALS IN THE FLOW PATH OF THE DRILLING MUD;
   - MONITOR THE CONTAINMENT AREA TO ENSURE DRILLING MUD DOES NOT ESCAPE; AND
   - PLACE ADDITIONAL CONTAINMENT MATERIALS AS NEEDED TO STOP THE DRILLING MUD FROM SPREADING.
c. NOTIFY OTHERS. CALL THE PROJECT MANAGER. NOTIFY ENVIRONMENTAL INSPECTOR IMMEDIATELY UPON DISCOVERING AN INADVERTENT RETURN THAT HAS REACHED AN ENVIRONMENTALLY SENSITIVE AREA, INCLUDING BUT NOT LIMITED TO KARST SINKHOLES, RIVERS, LAKES, STREAMS, PONDS, CREEKS OR ROADSIDE DITCHES.
d. BEGIN CLEANUP. SEE FOLLOWING FOR MORE INFORMATION.

   D. CLEANING UP THE DRILLING MUD IN ENVIRONMENTALLY SENSITIVE AREAS, BEGIN REMOVING THE DRILLING MUD AS SOON AS IT HAS BEEN STOPPED AND CONTAINED. IF THE RELEASE IS ONGOING, REMOVAL MAY BEGIN BEFORE THE RELEASE IS STOPPED. DRILLING MUD CONTAINED IN UPLAND AREAS (NOT IN A KARST SINKHOLE, WETLAND, SURFACE WATER OR FLOODWAY) MAY BE LEFT IN PLACE TO DRY. ONCE DRY, REMOVE THE DRILLING MUD TO PRE-EXISTING GRADE AND USE THE DRIED MATERIAL AS BACKFILL IN THE PIPE TRENCH. FOR RELEASES TO ENVIRONMENTALLY SENSITIVE AREAS, THE FOLLOWING EMERGENCY RESPONSE AND CLEANUP CONTRACTORS MAY BE USED:

ENVIRONMENTAL EMERGENCY RESPONDERS

SUMMIT ENVIRONMENTAL SERVICES
(877) 421-1744

   E. CENTERPOINT SHALL MAKE ALL REQUIRED NOTIFICATIONS TO LOCAL, STATE OR FEDERAL ENVIRONMENTAL AGENCIES AND APPLY FOR ANY AFTER-THE-FACT PERMITS.

CHANGE ORDER SCHEDULE

#	DESCRIPTION OF CHANGE	SHEET NO.	APPROVALS BY	DATE

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425-NEXUS INTERCONNECT

LORAIN COUNTY, OH

STORMWATER POLLUTION PREVENTION PLAN

IFA
(ISSUED FOR APPROVAL)

DESIGN	DRAFT	CHECK
STP	KDG	STP

UTI PROJECT #: 23-312 | DATE: 7/5/2024

SCALE:
HORIZONTAL:
VERTICAL:

DRAWING #: P-001

SHEET #: 5/13

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DUST CONTROL

1. DUST CONTROL INVOLVES PREVENTING OR REDUCING DUST FORM EXPOSED SOILS OR OTHER SOURCES DURING LAND DISTURBING, DEMOLITION AND CONSTRUCTION ACTIVITIES TO REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY PRESENT HEALTH HAZARDS, TRAFFIC SAFETY PROBLEMS OR HARM ANIMAL OR PLANT LIFE. PLANNING FOR DUST CONTROL INVOLVES LIMITING THE AMOUNT OF SOIL DISTURBANCE AT ANY ONE TIME AS A KEY OBJECTIVE. THEREFORE, PHASED CLEARING AND GRADING OPERATIONS AND THE UTILIZATION OF OTHER STABILIZATION PRACTICES CAN SIGNIFICANTLY REDUCE DUST EMISSIONS. DUST SHALL BE CONTROLLED BY ANY OF THE FOLLOWING:
2. VEGETATIVE COVER – TIMELY APPLICATION OF TEMPORARY AND PERMANENT SEEDINGS MUST BE UTILIZED TO ACCOMPLISH THIS
3. MULCH – OFFERS A FAST, EFFECTIVE MEANS OF CONTROLLING DUST. MULCHING IS NOT RECOMMENDED FOR AREAS WITHIN HEAVY TRAFFIC PATHWAYS. BINDERS OR TACKIFIERS SHOULD BE USED TO TACK ORGANIC MULCHES.
4. ROUGH GRADED SOILS – LEAVING THE SOIL IN A TEMPORARY STATE OF ROUGH GRADE, WHERE CLODS RATHER THAN FLATTENED SOILS PREDOMINATE THE SURFACE, CAN REDUCE THE AMOUNT OF DUST GENERATED FROM AREAS DURING PERIODS OF HIGHER WINDS. THIS MUST BE BALANCED BY THE NEED TO REACH A STAGE WHERE THE SOIL CAN BE STABILIZED AND MAY BE ONLY NECESSARY WHEN HIGH WINDS ARE PREDICTED.
5. WATERING – THIS IS THE MOST COMMONLY USED DUST CONTROL PRACTICE. THE SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET BEFORE AND DURING GRADING AND IS REPEATED AS NEEDED. IT OFFERS FAST PROTECTION FOR HAUL ROADS AND OTHER HEAVY TRAFFIC ROUTES. WATERING SHOULD BE DONE AT A RATE THAT PREVENTS DUST BUT DOES NOT CAUSE SOIL EROSION. CHEMICAL STABILIZERS / WETTING AGENTS MANY PRODUCTS OF THIS TYPE ARE AVAILABLE AND ARE USUALLY MOST EFFECTIVE ON TYPICAL MINERAL SOILS, BUT MAY NOT BE ON PREDOMINANTLY ORGANIC SOILS SUCH AS MUCK. USERS ARE ADVISED TO PAY ATTENTION TO THE LIMITATIONS AND INSTRUCTIONS REGARDING EACH PRODUCT. THE FOLLOWING TABLE LISTS VARIOUS ADHESIVES AND PROVIDES CORRESPONDING INFORMATION ON MIXING APPLICATIONS:

DUST CONTROL ADHESIVES

ADHESIVE	WATER DILUTION (ADHESIVE:WATER)	NOZZLE TYPE	APPLICATION RATE (GAL/ACRE)
LATEX EMULSION	12.5:1	FINE	235
RESIN IN WATER	4:1	FINE	300
ACRYLIC EMULSION (NO TRAFFIC)	7:1	COARSE	450
ACRYLIC EMULSION (TRAFFIC)	3.5:1	COARSE	350

6. STONE – USED TO STABILIZE ROADS OR OTHER AREAS DURING CONSTRUCTION USING CRUSHED STONE OR COARSE GRAVEL.
7. CALCIUM CHLORIDE – THIS CHEMICAL MAY BE APPLIED BY MECHANICAL SPREADER AS LOOSE, DRY GRANULES OR FLAKES AT A RATE THAT KEEPS THE SURFACE MOIST BUT NOT SO HIGH AS TO CAUSE WATER POLLUTION OR PLANT DAMAGE.
8. STREET CLEANING – PAVED AREAS THAT HAVE ACCUMULATED SEDIMENT FROM CONSTRUCTION SITES SHOULD BE CLEANED DAILY, OR AS NEEDED, UTILIZING A STREET SWEEPER OR BUCKET–TYPE LOADER OR SCRAPER.

MAINTENANCE

MOST DUST CONTROL MEASURES, SUCH AS APPLICATIONS OF WATER OR ROAD TREATMENTS WILL REQUIRE MONITORING AND REPEAT APPLICATIONS AS NEEDED TO ACCOMPLISH GOOD CONTROL.

SPILL PREVENTION CONTROL

CITY OF OREGON FIRE DEPARTMENT: 419.698.7021

POST CONSTRUCTION ACTIVITIES / POST CONSTRUCTION MONITORING

ALL PROJECT CONDUCTED UNDER THIS PLAN SHALL MEET THE MONITORING REQUIREMENTS SET FORTH IN THIS SECTION. COMPANY PERSONNEL SHALL PERFORM THE FOLLOWING:

1. PLANT GROWTH ON THE ROW WILL BE INSPECTED REGULARLY AND MAINTAINED FOR THE LIFE OF THE FACILITY. FOLLOW–UP INSPECTIONS WILL OCCUR AFTER THE FIRST AND SECOND GROWING SEASON.
2. REVEGETATION EFFORTS WILL CONTINUE UNTIL REVEGETATION IS SUCCESSFUL.
3. PROBLEMS WITH DRAINAGE AND IRRIGATION SYSTEMS RESULTING FROM PIPELINE CONSTRUCTION IN ACTIVE AGRICULTURAL AREAS WILL BE MONITORED AND CORRECTED UNTIL RESTORATION IS SUCCESSFUL.
4. EROSION PROBLEMS ON THE FACILITY ROW AND ACCESS ROADS WILL BE REPORTED TO THE PROJECT ENGINEER. CORRECTIVE MEASURES WILL BE PERFORMED AS NEEDED. EROSION CONTROL DEVICES THAT ARE NO LONGER REQUIRED MUST BE REMOVED. REMOVAL OF THE EROSION CONTROL DEVICES WILL BE AT THE DISCRETION OF THE ENVIRONMENTAL INSPECTOR. SIMILARLY, ADDITIONAL EROSION CONTROL DEVICES WILL BE INSTALLED AS REQUIRED.
5. MAINTAIN ALL TEMPORARY SEDIMENT BARRIERS IN PLACE UNTIL PERMANENT REVEGETATION MEASURES ARE SUCCESSFUL OR THE UPLAND AREAS ADJACENT TO WETLANDS, WATERBODIES, OR ROADS ARE STABILIZED. REMOVE TEMPORARY SEDIMENT BARRIERS FROM AN AREA ONCE THAT AREA IS SUCCESSFULLY RESTORED.
6. EFFORTS TO CONTROL UNAUTHORIZED OFF–ROAD VEHICLE USE, IN COOPERATION WITH THE LANDOWNER, SHALL CONTINUE THROUGHOUT THE LIFE OF THE PROJECT. MAINTAIN SIGNS, GATES, AND VEHICLE TRAILS AS NECESSARY.

VEGETATION PRACTICES

PERMANENT STRUCTURAL PRACTICES / PERMANENT SEEDING

PLACE PERMANENT SEEDING ON ALL FINAL GRADED AREAS THAT ARE NOT TO RECEIVE OTHER PERVIOUS COVER (GRAVEL) AND AFTER THE INSTALLATION OF EROSION CONTROL BLANKETS HAVE BEEN PLACED.

SEED MIXTURES

FERTILIZING, SEEDING AND MULCHING WILL BE USED AS BOTH A TEMPORARY AND A FINAL EROSION AND SEDIMENTATION CONTROL MEASURE. GRASS MIXTURES ARE USED ACCORDING TO PERMANENT AND TEMPORARY COVER REQUIREMENTS. THE TEMPORARY SEED MIX SHALL BE USED IN ALL DISTURBED AREAS THAT WILL NOT BE REWORKED WITHIN 14 DAYS AND DURING PERIODS OF THE YEAR WHEN PERMANENT SEEDING CANNOT BE PLACED. PERMANENT SEED MIX SHALL BE APPLIED WITHIN 6 DAYS AFTER FINAL GRADING HAS BEEN ACCOMPLISHED. APPLY SLOPE SEEDING ON SLOPES GREATER THAN 3V:1H.

BEST MANAGEMENT PRACTICES FOR PIPELINES

WHEN POSSIBLE, BURY THE PIPELINE IN THE EDGE OF THE ACCESS ROAD AND STABILIZE THE BACKFILLED AREA WITH VEGETATION OR CRUSHED ROCK.

LIMIT CLEARING AND GRUBBING TO CUTTING EXISTING VEGETATION RATHER THAN BULL DOZING THE VEGETATION. LIMIT THE TRENCH WIDTH TO WHAT IS NECESSARY TO INSTALL THE PIPE.

THE TRENCH SHALL BE BACKFILLED AS SOON AS POSSIBLE AFTER THE PIPE HAS BEEN LOWERED IN.

WATERBARS OR OTHER APPROPRIATE CONTROLS ARE TO BE INSTALLED AFTER BACKFILL HAS BEEN PLACED. WATERBARS SHOULD BE SPACED APART BASED ON DETAIL.

IF A SUITABLE VEGETATIVE FILTER STRIP DOES NOT EXIST AT THE POINT OF DISCHARGE FOR ANY WATERBAR, A SEDIMENT BARRIER SHOULD BE PROVIDED.

BACKFILL MATERIAL SHOULD BE MOUNDED OVER THE EXCAVATED AREA TO ALLOW FOR SETTLING, AND SEEDED AND MULCHED.

THE EXCAVATED AREA MUST BE STABILIZED WITHIN 7 DAYS OF BEING BROUGHT TO FINAL GRADE.

STAGING AREA, ASSEMBLY AREAS, TEMPORARY EQUIPMENT AND NON–HAZARDOUS MATERIAL STORAGE AREAS SHOULD BE LOCATED OUTSIDE THE 100 YEAR FLOODWAY. HAZARDOUS OR POLLUTIVE MATERIAL STORAGE AREAS SHOULD BE LOCATED AT LEAST 100 FEET BACK FROM THE TOP OF A STREAM BANK OR WETLAND. *REFER TO FLOODPLAIN MAPS, SEVERAL AREAS LONG THE ROUTE ARE LOCATED WITHIN THE 100YR FLOODPLAIN. STOCKPILES AND EQUIPMENT ARE PROHIBITED FROM BEING LOCATED WITHIN THE REGULATED FLOODWAY CHANNEL (DRY CREEK). TEMPORARY BRIDGE STRUCTURE SHALL BE INSTALLED TO NOT IMPEDE THE FLOW OF WATER IN DRY CREEK OR SHALL BE REMOVED PRIOR TO LARGE RAIN EVENTS.

FILTER FABRIC FENCE BACKED WITH STRAW BALES ARE TO BE INSTALLED AT THE BOTTOM OF STEEP SLOPES BEFORE REACHING A STREAM.

TRENCH PLUGS MUST BE INSTALLED WHEN CROSSING A STREAM, WETLAND OR OTHER WATERBODY. TRENCH PLUG SHOULD BE PLACED ON BOTH SIDES OF THE CROSSING.

MISCELLANEOUS NOTES

1. A COPY OF THE APPROVED DRAWINGS SHALL BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES.
2. CONTACT OUPS AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES.
3. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE PROJECT ENGINEER PRIOR TO IMPLEMENTATION.
4. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMP SPECIFIED BY THE CONSTRUCTION SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS DOCUMENT.
5. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED BEFORE CLEARING AND GRUBBING OPERATION BEGIN.
6. STOCKPILE SLOPES MUST BE 2H:1V OR FLATTER.
7. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BMP TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE PROJECT ENGINEER.
8. ALL SANITARY WASTE WILL BE COLLECTED IN PORTABLE UNITS THAT WILL BE LOCATED AT LEAST 25 FEET FROM ANY STORM DRAINAGE DITCH, WATER CONVEYANCE SYSTEM, OR STORM DRAIN INLET SYSTEM AND EMPTIED REGULARLY BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR, AS REQUIRED BY LOCAL REGULATIONS.
9. ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
10. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL.
11. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS WHEN POSSIBLE.
12. UNTIL THE SITE IS STABILIZED, ALL E&S BMP MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL E&S BMP AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RESEEDING, RE–MULCHING AND RE–NETTING MUST BE PERFORMED IMMEDIATELY. IF E&S BMP FAIL TO PERFORM AS EXPECTED, REPLACE BMP, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
13. A LOG SHOWING DATES THAT E&S BMP WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
14. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
15. ALL SEDIMENT REMOVED FROM BMP SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
16. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
17. ALL FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
18. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
19. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
20. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
21. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
22. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. AGRICULTURAL LAND IS TO BE RETURNED TO ITS PRE–CONSTRUCTION AGRICULTURAL USE.
23. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON–GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
24. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON–VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
25. E&S BMP MUST REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE PROJECT ENGINEER.
26. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY E&S BMP MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMP. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMP MUST BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL CONVERSIONS SHOULD BE DONE ONLY DURING THE GERMINATING MONTHS.
27. ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES.
28. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.
29. IMMEDIATELY STOP WORK AND CONTACT THE PROJECT ENGINEER AND ENVIRONMENTAL INSPECTOR IN THE EVENT ANY ARCHEOLOGICAL REMAINS ARE DISCOVERED DURING CONSTRUCTION.
30. AN ENVIRONMENTAL INSPECTOR IS REQUIRED TO BE PRESENT DURING STREAM CROSSING ACTIVITIES TO ENSURE REQUREMENTS NEAR SENSITIVE ECOLOGICAL RESOURCES ARE MET.
31. ALL PERSONNEL WORKING ON THE PROJECT SITE ARE REQUIRED TO HAVE TRAINING ON THREATENED AND ENDANGERED SPECIES FOR THE PROJECT AREA.
32. DAMAGED FIELD TILE SYSTEMS SHALL BE PROMPTLY REPAIRED.
33. ALL TEMPORARY GRAVEL AND OTHER CONSTRUCTION STAGING ARES AND ACCESS ROAD MATERIALS SHALL BE REMOVED, AS WEATHER PERMITS, WHEN NO LONGER NEEDED FOR CONSTRUCTION.
34. GRAVEL AND OTHER CONSTRUCTION MATERIAL SHALL NOT BE DISPOSED OF BY SPREADING SUCH MATERIAL ON AGRICULTURAL LAND.
35. ALL CONSTRUCTION DEBRIS AND ALL CONTAMINATED SOIL SHALL BE PROMPTLY REMOVED AND PROPERLY DISPOSED OF IN ACCORDANCE WITH THE OHIO EPA REGULATIONS.

CHANGE ORDER SCHEDULE

#	DESCRIPTION OF CHANGE	SHEET NO.	APPROVALS BY	APPROVALS DATE

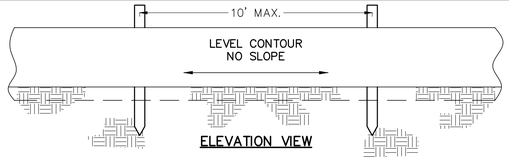
UTILITY TECHNOLOGIES INTERNATIONAL
TOTAL CAPABILITIES IN THE PIPELINE INDUSTRY
Proudly 100% Employee Owned + Operated
614.482.8080 | www.uti-corp.com

NORTH COAST GAS TRANSMISSION
425-NEXUS INTERCONNECT
LORAIN COUNTY, OH
STORMWATER POLLUTION PREVENTION PLAN

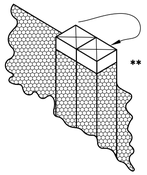
IFA
(ISSUED FOR APPROVAL)

DESIGN	DRAFT	CHECK
STP	KDG	STP

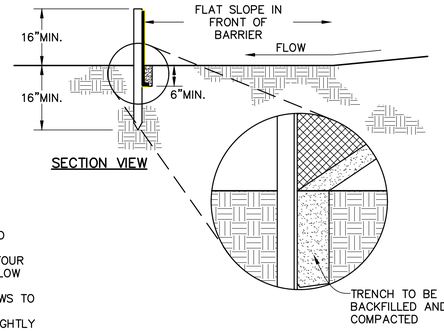
UTI PROJECT #: 23-312
DATE: 7/5/2024
SCALE: HORIZONTAL: VERTICAL:
DRAWING #: P-001
SHEET #: 6/13



ELEVATION VIEW



JOINING SECTIONS OF SILT FENCE



SECTION VIEW

SILT FENCE SPECIFICATIONS

1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS THAT MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
3. END OF THE SILT FENCES SHALL BE BROUGHT UPSLOPE SLIGHTLY SO THAT WATER PONDED BY THE SILT FENCE WILL BE PREVENTED FROM FLOWING AROUND THE ENDS.
4. SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
5. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FEET (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
6. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
7. THE SILT FENCE SHALL BE PLACED IN AN EXCAVATED OR SLICED TRENCH CUT A MINIMUM OF 6 INCHES DEEP. THE TRENCH SHALL BE MADE WITH A TRENCHER, CABLE LAYING MACHINE, SLICING MACHINE, OR OTHER SUITABLE DEVICE THAT WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
8. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE. A MINIMUM OF 8 INCHES OF GEOTEXTILE MUST BE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6–INCH DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED ON BOTH SIDES OF THE FABRIC.
9. SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST WITH A MINIMUM OF 6–IN. OVERLAP PRIOR TO DRIVING INTO THE GROUND, (SEE DETAILS).
10. MAINTENANCE–SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER THE FABRIC OR AROUND THE FENCE ENDS, OR IN ANY OTHER WAY ALLOWS A CONCENTRATED FLOW DISCHARGE, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.

SEDIMENT DEPOSITS SHALL BE ROUTINELY REMOVED WHEN THE DEPOSITS REACHES APPROXIMATELY ONE–HALF OF THE HEIGHT OF THE SILT FENCE.

SILT FENCES SHALL BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING A PROLONGED RAINFALL. THE LOCATION OF EXISTING SILT FENCE SHALL BE REVIEWED DAILY TO ENSURE ITS PROPER LOCATION AND EFFECTIVENESS. IF DAMAGED, THE SILT FENCE SHALL BE REPAIRED IMMEDIATELY.

CRITERIA FOR SILT FENCE MATERIALS

1. FENCE POST – THE LENGTH SHALL BE A MINIMUM OF 32 INCHES. WOOD POSTS WILL BE 2–BY–2–IN. NOMINAL DIMENSIONED HARDWOOD OF SOUND QUALITY. THEY SHALL BE FREE OF KNOTS, SPLITS AND OTHER VISIBLE IMPERFECTIONS, THAT WILL WEAKEN THE POSTS. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT. POSTS SHALL BE DRIVEN A MINIMUM OF 16 INCHES INTO THE GROUND, WHERE POSSIBLE. IF NOT POSSIBLE, THE POSTS SHALL BE ADEQUATELY SECURED TO PREVENT OVERTURNING OF THE FENCE DUE TO SEDIMENT/WATER LOADING.
2. SILT FENCE FABRIC–SEE CHART BELOW:

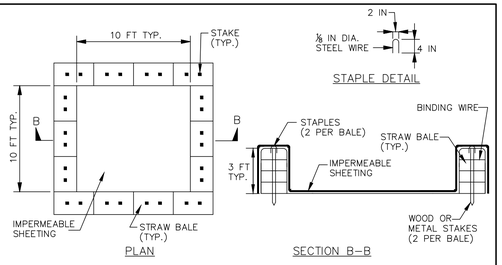
MIN. CRITERIA FOR SILT FENCE FABRIC (ODOT, 2002)		
FABRIC PROPERTIES	VALUES	TEST METHOD
MINIMUM TENSILE STRENGTH	120 LBS	ASTM D 4632
MAXIMUM ELONGATION @ 60 LBS	50%	ASTM D 4632
MINIMUM PUNCTURE STRENGTH	50 LBS	ASTM D 4833
MINIMUM TEAR STRENGTH	40 LBS	ASTM D 4533
APPARENT OPENING SIZE	≤ 0.84 mm	ASTM D 4751
MINIMUM PERMITTIVITY	1x10–2 SEC.–1	ASTM D 4491
UV EXPOSURE STRENGTH RETENTION	70%	ASTM G 4355

SILT FENCE BARRIER DETAIL

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET–VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

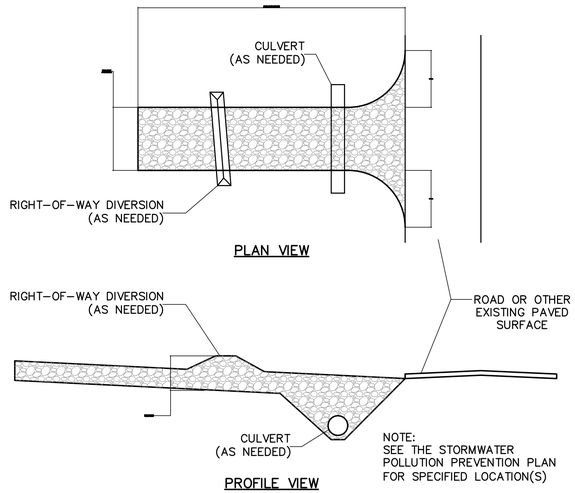


NOTE: CAN BE TWO STACKED BALES OR PARTIALLY EXCAVATED TO REACH 3 FT DEPTH

NOTES:
CONCRETE TRUCKS SHALL UTILIZE AREAS TO WASHOUT TRUCKS. ACCUMULATED CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY. CONCRETE TRUCKS ARE PROHIBITED FROM WASHING OUT DIRECTLY INTO A DRAINAGE CHANNEL, STORM DRAIN OR SURFACE WATER OF THE STATE. FIELD TILE AND OTHER SUBSURFACE DRAINAGE WITHIN TEN (10) FEET OF THE CONCRETE WASHOUT AREA SHALL BE CUT AND PLUGGED.

CONCRETE WASHOUT AREA

NOT TO SCALE



CONSTRUCTION ENTRANCE

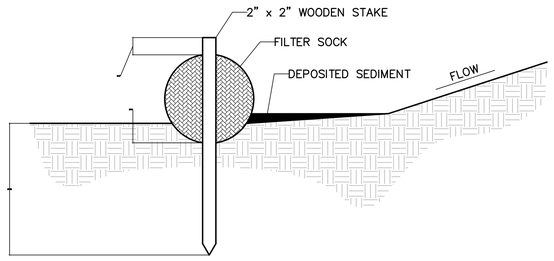
NOT TO SCALE

CONSTRUCTION ENTRANCE SPECIFICATIONS

1. STONE SIZE – ODOT # 2 (1.5–2.5 INCH) STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 70 FT. (EXCEPTION: APPLY 30 FT. MINIMUM TO SINGLE RESIDENCE LOTS).
3. THICKNESS – THE STONE LAYER SHALL BE AT LEAST SIX (6) INCHES THICK FOR LIGHT DUTY ENTRANCES OR AT LEAST TEN (10) INCHES FOR HEAVY DUTY USE.
4. WIDTH – THE ENTRANCE SHALL BE AT LEAST FOURTEEN (14) FEET WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. GEOTEXTILE – A GEOTEXTILE SHALL BE LAID OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL BE COMPOSED OF STRONG ROT–PROOF POLYMERIC FIBERS AND MEET THE FOLLOWING SPECIFICATIONS:

GEOTEXTILE SPECIFICATIONS FOR CONSTRUCTION ENTRANCE	
FABRIC PROPERTIES	VALUES
MINIMUM TENSILE STRENGTH	200 LBS
MINIMUM PUNCTURE STRENGTH	80 PSI
MINIMUM TEAR STRENGTH	50 LBS
MINIMUM BURST STRENGTH	320 PSI
MINIMUM ELONGATION	20%
EQUIVALENT OPENING SIZE	EOS < 0.6 mm
PERMITTIVITY	1x10–3 CM/SEC

6. TIMING – THE CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS SOON AS IS PRACTICABLE BEFORE MAJOR GRADING ACTIVITIES.
7. CULVERT – A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FROM FLOWING ACROSS THE ENTRANCE OR TO PREVENT RUNOFF FROM BEING DIRECTED OUT ONTO PAVED SURFACES. SIZE TO ACCOMMODATE DRAINAGE IN AREA AND RATED TO WITHSTAND THE HEAVIEST EQUIPMENT USING THE ENTRANCE. MINIMUM 12" DIAMETER PIPE.
8. WATER BAR – A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES.
9. MAINTENANCE – TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
10. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF–SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
11. REMOVAL – THE ENTRANCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY OR ENTRANCE.
12. CONSTRUCTION ENTRANCES ASSOCIATED WITH THIS PROJECT ARE TEMPORARY AND SHALL BE REMOVED NO LATER THAN THE END OF THE PROJECT.



FILTER SOCK SPECIFICATIONS

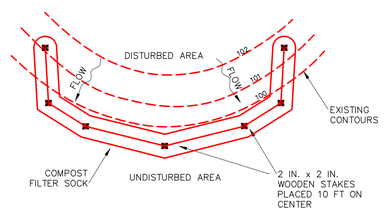
1. MATERIALS – COMPOST USED FOR FILTER SOCKS SHALL BE WEED, PATHOGEN AND INSECT FREE AND FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH. THEY SHALL BE DERIVED FROM A WELL–DECOMPOSED SOURCE OF ORGANIC MATTER AND CONSIST OF PARTICLES RANGING FROM 3/8" TO 2".
2. FILTER SOCKS SHALL BE 3 OR 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST PASSING THE ABOVE SPECIFICATIONS FOR COMPOST PRODUCTS.

INSTALLATION:

3. A SMALL TRENCH, 2"–3" IN DEPTH, SHALL BE EXCAVATED ON THE SLOPE CONTOUR AND PERPENDICULAR TO THE WATER FLOW. SOIL FROM THE EXCAVATION SHOULD BE PLACED DOWN–SLOPE NEXT TO THE TRENCH.
4. FILTER SOCKS SHALL BE PLACED IN THE TRENCH, ENSURING THAT NO GAPS EXIST BETWEEN THE SOIL AND THE BOTTOM OF THE FILTER SOCK. THE ENDS OF ADJACENT FILTER SOCKS SHALL BE TIGHTLY ABUTTED SO THAT NO OPENING EXISTS FOR WATER OR SEDIMENT TO PASS THROUGH. ALTERNATIVELY, FILTER SOCKS MAY BE LAPPED, 6" MINIMUM, TO PREVENT SEDIMENT PASSING THROUGH THE FIELD JOINT.
5. FILTER SOCKS WILL BE PLACED ON A LEVEL LINE ACROSS SLOPES, GENERALLY PARALLEL TO THE BASE OF THE SLOPE OR OTHER AFFECTED AREA. ON SLOPES APPROACHING 2:1, ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND AS NEEDED MID–SLOPE.
6. FILTER SOCKS INTENDED TO BE LEFT AS A PERMANENT FILTER OR PART OF THE NATURAL LANDSCAPE, SHALL BE SEEDED AT THE TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION.
7. FILTER SOCKS ARE NOT TO BE USED IN CONCENTRATED FLOW SITUATIONS OR IN RUNOFF CHANNELS.

MAINTENANCE:

8. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.
9. ROUTINELY INSPECT FILTER SOCKS AFTER EACH SIGNIFICANT RAIN, MAINTAINING FILTER SOCKS IN A FUNCTIONAL CONDITION AT ALL TIMES.
10. REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE FILTER SOCKS WHEN THEY REACH 1/3 OF THE EXPOSED HEIGHT OF THE PRACTICE.
11. WHERE THE FILTER SOCK DETERIORATES OR FAILS, IT SHALL BE REPAIRED OR REPLACED WITH A MORE EFFECTIVE ALTERNATIVE.
12. BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
13. REMOVAL – FILTER SOCKS WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED IN SUCH AS WAY AS TO FACILITATE AND NOT OBSTRUCT SEEDINGS.
14. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.



FILTER SOCK

NOT TO SCALE

CHANGE ORDER SCHEDULE

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STORMWATER POLLUTION PREVENTION PLAN

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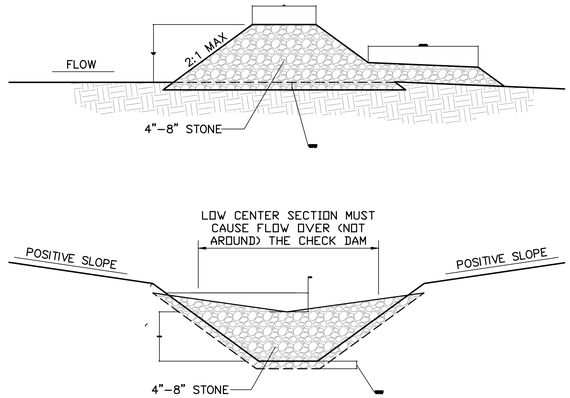
TEMPORARY SEEDING			
SEEDING DATES	SPECIES	SEEDING RATE	
		LBS/1000 S.F.	LBS/ACRE
MARCH 1 TO AUGUST 15	OATS	3.00	128
	TALL FESCUE	1.00	40
	ANNUAL RYEGRASS	1.00	40
	PERENNIAL RYEGRASS	1.00	40
	TALL FESCUE	1.00	40
	ANNUAL RYEGRASS	1.00	40
	ANNUAL RYEGRASS	1.25	55
	PERENNIAL RYEGRASS	3.25	142
	CREEPING RED FESCUE	0.40	17
	KENTUCKY BLUEGRASS	0.40	17
AUGUST 16 TO OCTOBER 31	RYE	3.00	112
	TALL FESCUE	1.00	40
	ANNUAL RYEGRASS	1.00	40
	WHEAT	3.00	120
	TALL FESCUE	1.00	40
	ANNUAL RYEGRASS	1.00	40
	PERENNIAL RYEGRASS	1.00	40
	TALL FESCUE	1.00	40
	ANNUAL RYEGRASS	1.00	40
	ANNUAL RYEGRASS	1.25	40
	PERENNIAL RYEGRASS	3.25	40
	CREEPING RED FESCUE	0.40	40
	KENTUCKY BLUEGRASS	0.40	
NOVEMBER 1 TO FEBRUARY 29	USE MULCH ONLY OR DORMANT SEEDING		
NOTE: OTHER APPROVED SPECIES MAY BE SUBSTITUTED.			

PERMANENT SEEDING			
SEED MIX	SEEDING RATE		
	LBS/ACRE	LBS/1000 S.F.	NOTES
GENERAL USE			
CREEPING RED FESCUE	20–40	0.50–1.00	FOR CLOSE MOWING & FOR WATERWAYS WITH VELOCITY < 2.0 FT/SEC
DOMESTIC RYEGRASS	10–20	0.25–0.50	
KENTUCKY BLUEGRASS	20–40	0.50–1.00	
TALL FESCUE	40–50	1.00–1.25	
TURF–TYPE (DWARF) FESCUE	90	2.25	
STEEP BANKS OR CUT SLOPES			
TALL FESCUE	40–50	1–1.25	
CROWN VETCH	10–20	0.25–0.50	DO NOT SEED LATER THAN AUGUST
TALL FESCUE	20–30	0.50–0.75	
FLAT PEA	20–25	0.50–0.75	DO NOT SEED LATER THAN AUGUST
TALL FESCUE	20–30	0.50–0.75	
ROAD DITCHES AND SWALES			
TALL FESCUE	40–50	1–1.25	
TURF–TYPE (DWARF) FESCUE	90	2.25	
TALL FESCUE	5	0.10	
LAWNS			
KENTUCKY BLUEGRASS	100–120	2.00	
PERENNIAL RYEGRASS		2.00	
KENTUCKY BLUEGRASS	100–120	2.00	FOR SHADED AREAS
CREEPING RED FESCUE		1.50	
UPLAND ROW AND WATERBODY CROSSINGS			
ORCHARD GRASS AND/OR TALL FESCUE	20		
BIRDSFOOT–TREFOIL (EMPIRE)	7		
ANNUAL RYE	10		
WETLANDS			
ANNUAL RYE	40		USE AS A TEMPORARY REVEGETATIVE MEASURE UNTIL INDIGENOUS PLANTS REESTABLISH COVER
NOTE: OTHER APPROVED SPECIES MAY BE SUBSTITUTED.			

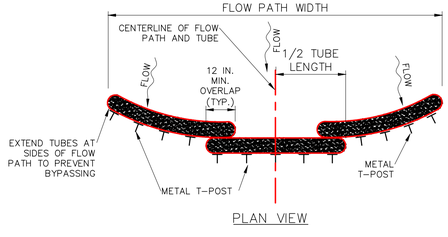


ROCK CHECK DAM

NOT TO SCALE

ROCK CHECK DAM SPECIFICATIONS

1. THE CHECK DAM SHALL BE CONSTRUCTED OF 4" TO 8" DIAMETER STONE, PLACED SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL. ODOT TYPE D STONE IS ACCEPTABLE, BUT SHOULD BE UNDERLAIN WITH A GRAVEL FILTER CONSISTING OF ODOT NO. 3 OR 4 STONE OR SUITABLE FILTER FABRIC.
2. MAXIMUM HEIGHT OF CHECK DAM SHALL NOT EXCEED THREE (3) FEET.
3. THE MIDPOINT OF THE ROCK CHECK DAM SHALL BE A MINIMUM OF 6 INCHES LOWER THAN THE SIDES IN ORDER TO DIRECT ACROSS THE CENTER AND AWAY FROM THE CHANNEL SIDES.
4. THE BASE OF THE CHECK DAM SHALL BE ENTRENCHED APPROXIMATELY SIX (6) INCHES.
5. SPACING OF CHECK DAMS SHALL BE IN A MANNER SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM.
6. A SPLASH APRON SHALL BE CONSTRUCTED WHERE CHECK DAMS ARE EXPECTED TO BE IN USE FOR AN EXTENDED PERIOD OF TIME, A STONE APRON SHALL BE CONSTRUCTED IMMEDIATELY DOWNSTREAM OF THE CHECK DAM TO PREVENT FLOWS FROM UNDERCUTTING THE STRUCTURE. THE APRON SHOULD BE SIX (6) INCHES THICK AND ITS LENGTH TWO TIMES THE HEIGHT OF THE DAM.
7. STONE PLACEMENT SHALL BE PERFORMED EITHER BY HAND OR MECHANICALLY AS LONG AS THE CENTER OF CHECK DAM IS LOWER THAN THE SIDES AND EXTENDS ACROSS ENTIRE CHANNEL.
8. SIDE SLOPES SHALL BE A MINIMUM OF 2:1.



PLAN VIEW

NOTES:

METAL T–POSTS SHALL BE INSTALLED AT THE CENTER AND AT EACH END OF THE TUBE. ADDITIONAL T–POSTS SHALL BE INSTALLED AS NEEDED TO MEET THE MAXIMUM 2–FOOT SPACING. SLIGHTLY ANGLE STAKES WITH TOP FACING TOWARDS DIRECTION OF FLOW.

SEDIMENT TUBES SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/3 THE HEIGHT OF THE TUBE AND DISPOSED AS DIRECTED ELSEWHERE IN THE E&S PLAN.

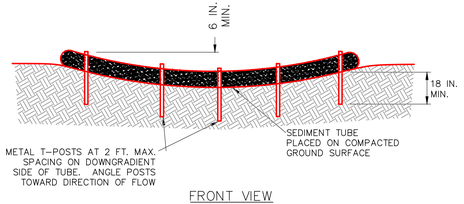
DAMAGED TUBES SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION. A SUPPLY OF TUBES SHALL BE KEPT ON SITE FOR THIS PURPOSE.

WEIGHTED SEDIMENT FILTER TUBE INSTALLATION
ACROSS A WIDE FLOW PATH

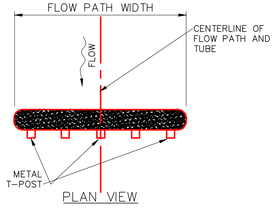
NOT TO SCALE

Maximum Slope Length Above Filter Sock and Recommended Diameter

Slope	Ratio (H:V)	8"	12"	18"	24"
0% - 2%	10% - 20%	125	250	300	350
10% - 20%	50:1 - 10:1	100	100	200	250
2% - 10%	10:1 - 5:1	75	75	150	200
20% - 33%	5:1 - 2:1	-	-	75	100
>50%	>2:1	-	-	50	75



FRONT VIEW



PLAN VIEW

NOTES:

THIS DETAIL APPLICABLE TO FLOW PATHS WITH WIDTHS LESS THAN OR EQUAL TO ONE TUBE LENGTH.

METAL T–POSTS SHALL BE INSTALLED AT THE CENTER AND AT EACH END OF THE TUBE. ADDITIONAL T–POSTS SHALL BE INSTALLED AS NEEDED TO MEET THE MAXIMUM 2–FOOT SPACING.

SEDIMENT TUBES SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE TUBE AND DISPOSED AS DIRECTED ELSEWHERE IN THE E&S PLAN.

DAMAGED TUBES SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION. A SUPPLY OF TUBES SHALL BE KEPT ON SITE FOR THIS PURPOSE.

WEIGHTED SEDIMENT FILTER TUBE INSTALLATION
CONCENTRATED FLOW AREA

EROSION CONTROL FABRIC

NOT TO SCALE

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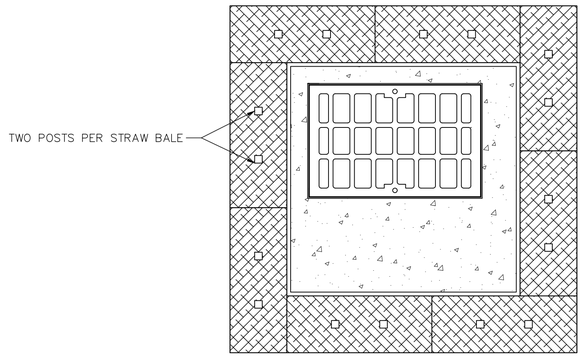
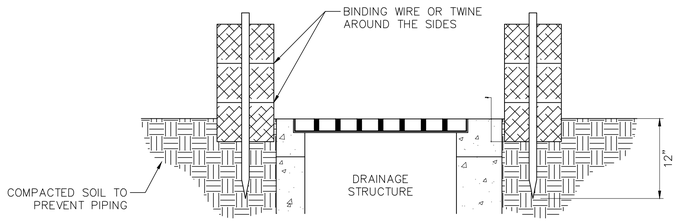


PLAN VIEW



ELEVATION VIEW

TEMPORARY STRAW BALE DRAINAGE PROTECTION

NOT TO SCALE

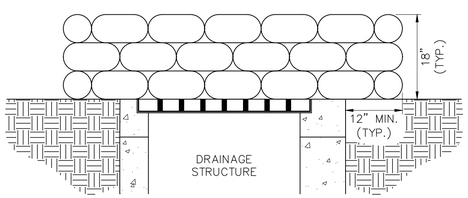
APPLICATION NOTES:

1. THE PRIMARY PURPOSE OF DRAINAGE STRUCTURE PROTECTION IS TO PREVENT SEDIMENT FROM ENTERING A DRAINAGE SYSTEM BY PONDING WATER WHICH ALLOWS SEDIMENT TO FALL OUT OF SUSPENSION.
2. THE TOP OF THE DRAINAGE PROTECTION SHALL BE SET AT THE MAXIMUM DESIRED WATER LEVEL BASED ON FIELD LOCATION AND CONDITIONS.

NOTES:

1. SPACE STRAW BALES EVENLY AROUND INLET. DRIVE POSTS A MINIMUM OF 12" INTO THE GROUND.
2. STRAW BALES SHALL BE EMBEDDED 4" AND BACKFILLED. BACKFILL SHALL BE COMPACTED TO PREVENT PIPING.
3. DRAINAGE PROTECTION SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS, AFTER EACH RAINFALL OF ½" OR MORE WITHIN A 24 HOUR PERIOD, OR DAILY DURING RAINFALL. MEASURES SHALL BE CLEANED AND REPAIRED AS REQUIRED.
4. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT, SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.
5. MAXIMUM DRAINAGE AREA FOR DRAINAGE PROTECTION IS ONE ACRE.

PLAN VIEW



ELEVATION VIEW

TEMPORARY GRAVEL BAG DRAINAGE PROTECTION

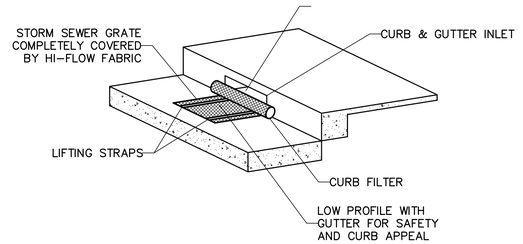
NOT TO SCALE

APPLICATION NOTES:

1. THE PRIMARY PURPOSE OF DRAINAGE STRUCTURE PROTECTION IS TO PREVENT SEDIMENT FROM ENTERING A DRAINAGE SYSTEM BY PONDING WATER WHICH ALLOWS SEDIMENT TO FALL OUT OF SUSPENSION.
2. GRAVEL BAGS ARE FILLED WITH CLEAN STONE RATHER THAN SAND TO PREVENT SEDIMENT FROM ENTERING A DRAINAGE SYSTEM IF BAGS ARE DAMAGED DURING USE.
3. THE TOP OF THE DRAINAGE PROTECTION SHALL BE SET AT THE MAXIMUM DESIRED WATER LEVEL BASED ON FIELD LOCATION AND CONDITIONS.

NOTES:

1. GRAVEL BAGS SHALL BE INDIVIDUALLY TIED, DOUBLE BAGGED AND INVERSELY INSERTED. GRAVEL BAGS SHALL LAP THE JOINTS BETWEEN THE BAGS IN THE LAYER BELOW. COST OF EXCAVATION FOR INSTALLATION SHALL BE INCLUDED IN THE PRICE BID FOR ITEM.
2. DRAINAGE PROTECTION SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS, AFTER EACH RAINFALL OF ½" OR MORE WITHIN A 24 HOUR PERIOD, OR DAILY DURING RAINFALL. MEASURES SHALL BE CLEANED AND REPAIRED AS REQUIRED.
3. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT, SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.
4. MAXIMUM DRAINAGE AREA FOR DRAINAGE PROTECTION IS ONE ACRE.



BEAVER DAM & DANDY BAG SPECIFICATIONS			
MECHANICAL PROPERTIES	VALUE	UNITS	TEST METHOD
GRAB TENSILE STRENGTH	365 x 200	LBS	ASTM D 4632
GRAB TENSILE ELONGATION	24 x 10	%	ASTM D 4632
PUNCTURE STRENGTH	100	LBS	ASTM D 4833
MULLEN BURST STRENGTH	450	PSI	ASTM D 3786
TRAPEZOID TEAR STRENGTH	115 x 75	LBS	ASTM D 4533
UV RESISTENCE	90	%	ASTM D 4355
APPARENT OPENING SIZE	40	U.S. STD. SIEVE	ASTM D 4751
FLOW RATE	145	GAL/MIN/SF	ASTM D 4491
PERMITTIVITY	2.1	SEC^-1	ASTM D 4491

INSTALLATION

1. WITH THE GRATE STANDING ON ITS END, PLACE THE EMPTY BEAVER DAM UNIT OVER THE GRATE.
2. IF USING OPTIONAL OIL ABSORBENTS, PLACE ABSORBENT PILLOW ON THE BOTTOM OF GRATE POUCH.
3. ATTACH ABSORBENT PILLOW TO LEATHER LOOP.
4. TUCK THE ENCLOSURE FLAP INSIDE TO COMPLETELY ENCLOSE THE GRATE.
5. HOLDING THE LIFTING STRAPS, PLACE THE GRATE INTO ITS FRAME, STREET SIDE EDGE FIRST, THEN LOWER BACK EDGE WITH DAM INTO PLACE. DO NOT RELY ON LIFTING STRAPS TO SUPPORT THE ENTIRE WEIGHT OF THE GRATE.
6. THE CYLINDRICAL TUBE SHOULD BE PARTIALLY BLOCKING THE CURB HOOD OPENING WHEN INSTALLED PROPERLY.

MAINTENANCE

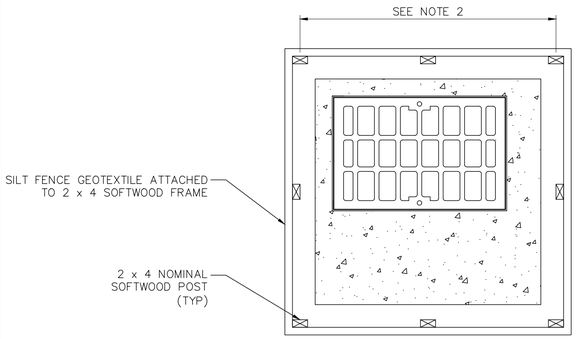
1. REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM THE SURFACE AND VICINITY OF THE UNIT AFTER EACH STORM EVENT.
2. REMOVE THE SEDIMENT THAT HAS ACCUMULATED WITHIN CONTAINMENT AREA OF THE BEAVER DAM AS NEEDED.
3. IF USING OPTIONAL OIL ABSORBENTS, REMOVE AND REPLACE ABSORBENT PILLOW WHEN NEAR SATURATION.

MATERIALS

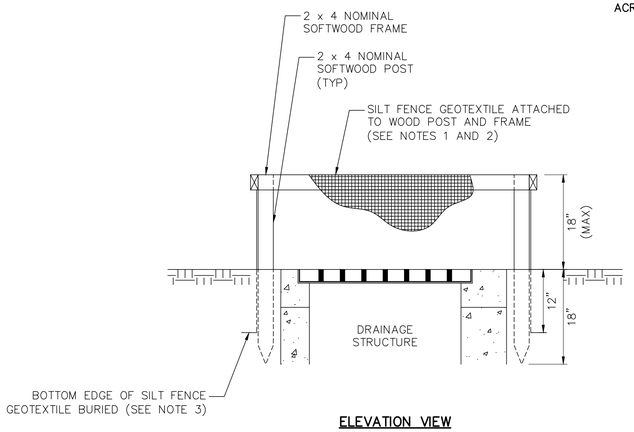
1. THE BEAVER DAM CURB AND GUTTER INLET PROTECTION UNIT SHALL BE A SEWN GEOTEXTILE FABRIC UNIT ENCLOSING A POROUS STRUCTURE (IN THE FORM OF A CYLINDRICAL TUBE PLACED IN FRONT OF AND EXTENDING BEYOND THE INLET OPENING ON BOTH SIDES) AND HAVE A GEOTEXTILE FABRIC ENVELOPE FITTED TO THE INDIVIDUAL GRATE(S) ON THE STREET SIDE OF THE SEWN UNIT (FOR GRATE(S) TO BE INSERTED AND BE COMPLETELY ENCLOSED).
2. THE BEAVER DAM SHALL HAVE LIFTING DEVICES TO ALLOW MANUAL INSPECTION OF THE STORM WATER SYSTEM.
3. THE BEAVER DAM UNIT SHALL UTILIZE AN ORANGE MONOFILAMENT FABRIC WITH THE CHARACTERISTICS GIVEN IN THE TABLE TO THE LEFT:

BEAVER DAM

NOT TO SCALE



PLAN VIEW



ELEVATION VIEW

TEMPORARY SILT FENCE DRAINAGE PROTECTION

NOT TO SCALE

APPLICATION NOTES:

1. THE PRIMARY PURPOSE OF DRAINAGE STRUCTURE PROTECTION IS TO PREVENT SEDIMENT FROM ENTERING A DRAINAGE SYSTEM BY PONDING WATER WHICH ALLOWS SEDIMENT TO FALL OUT OF SUSPENSION.
2. THE TOP OF THE DRAINAGE PROTECTION SHALL BE SET AT THE MAXIMUM DESIRED WATER LEVEL BASED ON FIELD LOCATION AND CONDITIONS.

NOTES:

1. APPROVED SILT FENCE GEOTEXTILES SHALL BE USED. SILT FENCE GEOTEXTILE SHALL BE A SINGLE CONTINUOUS PIECE TO ELIMINATE JOINTS. OVERLAP GEOTEXTILE TO ELIMINATE ANY OPENINGS.
2. SPACE SILT FENCE POSTS EVENLY AROUND INLET WITH A MAXIMUM SPACE OF 3'. DRIVE POSTS A MINIMUM OF 18" INTO THE GROUND. MORE MESH MAY BE REQUIRED BEHIND GEOTEXTILE TO PROVIDE SUPPORT.
3. SILT FENCE GEOTEXTILE SHALL BE EMBEDDED 12" AND BACKFILLED. GEOTEXTILE SHALL BE SECURELY FASTENED TO POSTS AND FRAME.
4. DRAINAGE PROTECTION SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS, AFTER EACH RAINFALL OF ½" OR MORE WITHIN A 24 HOUR PERIOD, OR DAILY DURING RAINFALL. MEASURES SHALL BE CLEANED AND REPAIRED AS REQUIRED.
5. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT, SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.
6. MAXIMUM DRAINAGE AREA FOR DRAINAGE PROTECTION IS ONE ACRE.

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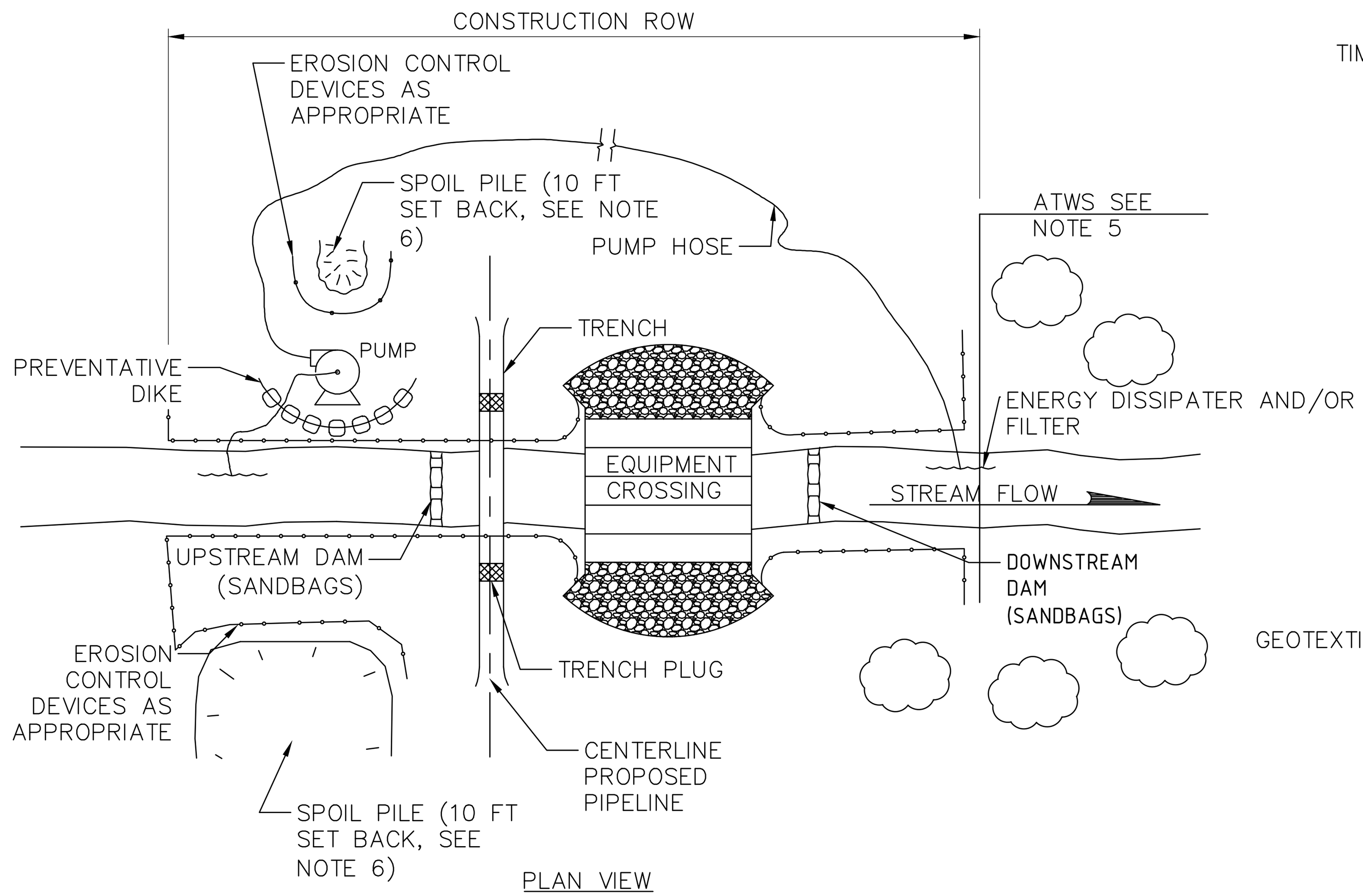
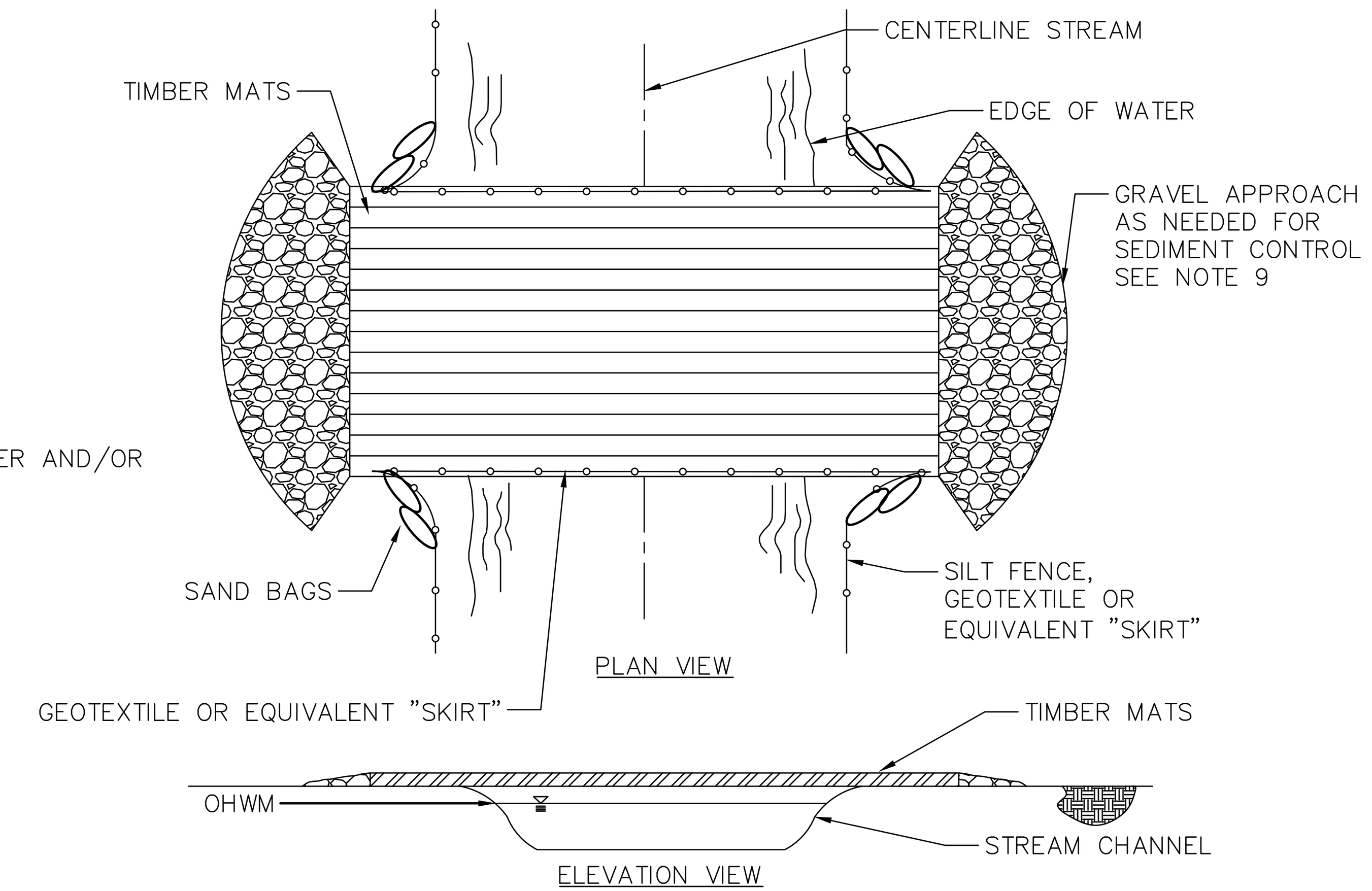


TYPICAL STREAM CROSSING

NOTES:

1. SET UP PUMP AND HOSE AS SHOWN, OR USE OTHER PRACTICAL ALTERNATIVES. PUMP SHOULD HAVE TWICE THE PUMPING CAPACITY OF ANTICIPATED FLOW
2. CONTRACTOR TO ENSURE A SUFFICIENT NUMBER OF ACTIVE AND BACKUP PUMPS TO MAINTAIN THE CAPACITY OF THE STREAM FLOW AT ALL TIMES DURING INSTALLATION.
3. ALL INTAKE HOSES WILL BE SCREENED
4. DISMANTLE DOWNSTREAM DAM, THEN UPSTREAM DAM. KEEP PUMP RUNNING TO MAINTAIN STREAM FLOW
5. THE REQUIRED SET BACK FOR ADDITIONAL WIDTH WORK SPACE IS 50 FEET FROM TOP OF BANK UNLESS APPROVED OTHERWISE BY THE APPROPRIATE AGENCIES
6. A 10 FEET VEGETATION BUFFER WILL BE MAINTAINED BETWEEN THE BANK AND THE WORK SITE
7. THE MINIMUM REQUIRED SETBACK FOR SPOIL PILE IS 10 FEET FROM THE TOP OF BANK
8. SAND BAGS, DRIVABLE BERMS OR OTHER APPROPRIATE EROSION CONTROL MAY BE USED INTERCHANGEABLY AT THE EDGE OF EQUIPMENT BRIDGE

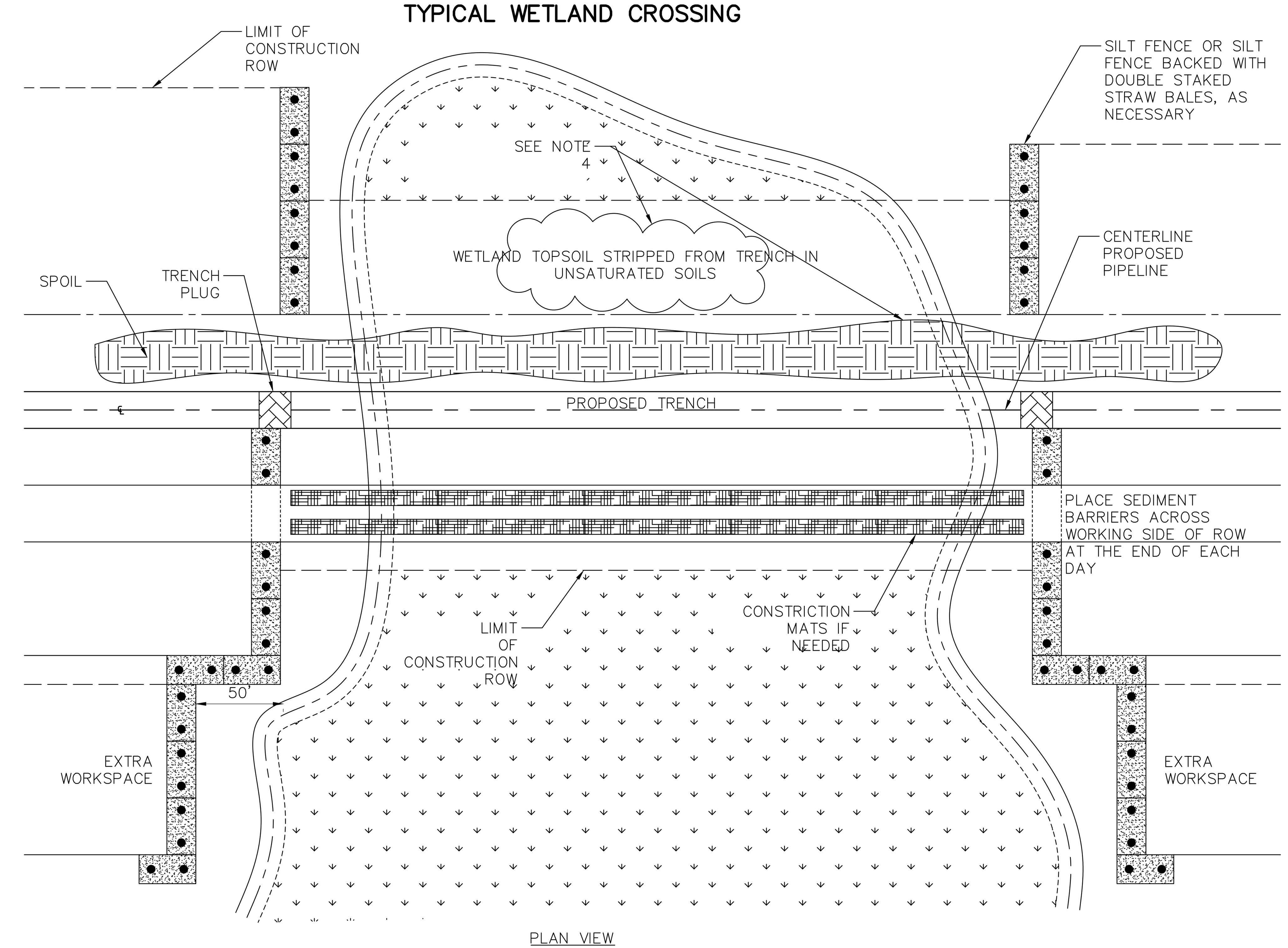


TYPICAL MAT BRIDGE

NOTES:

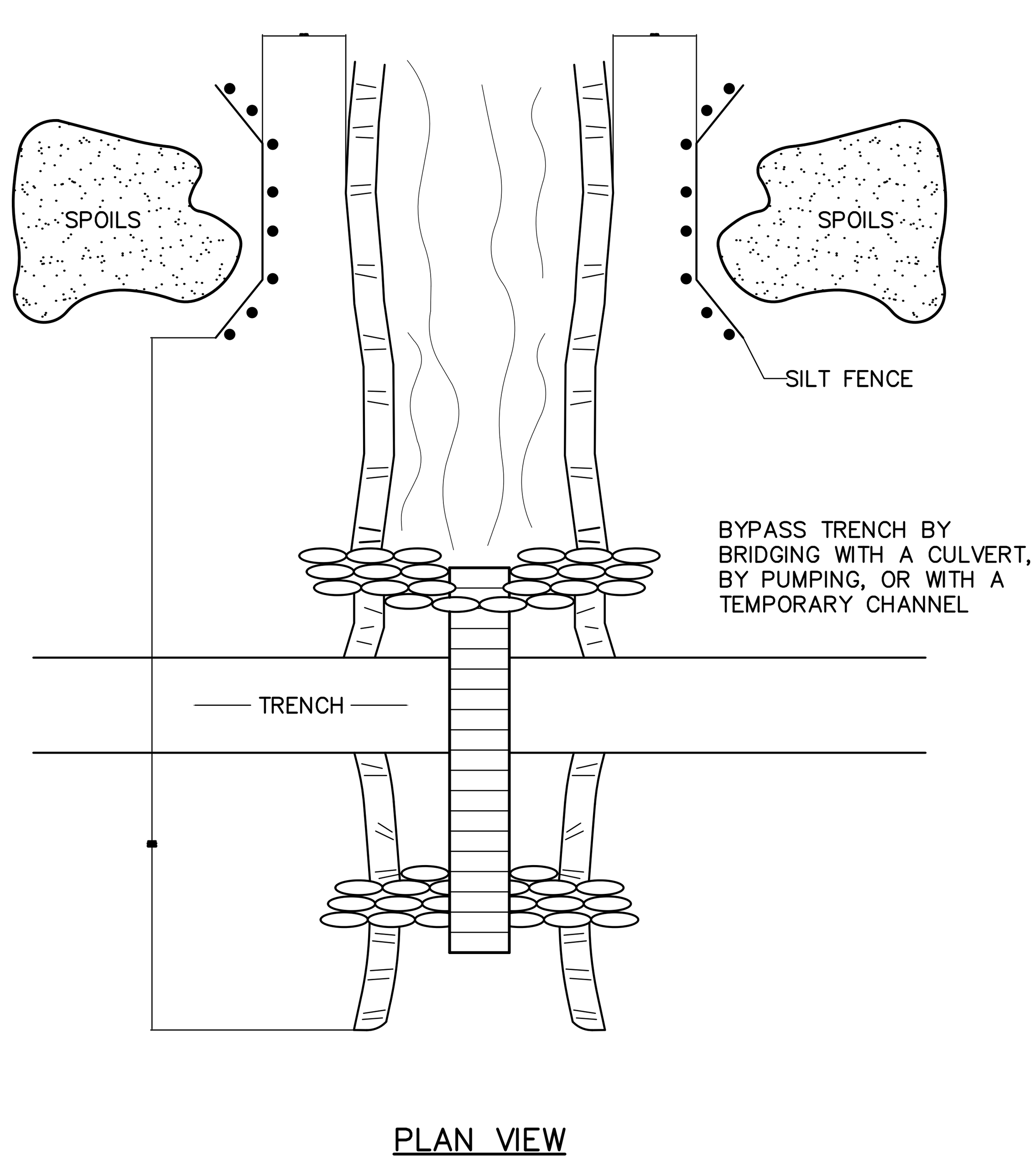
1. THIS TYPE OF BRIDGE IS GENERALLY USED FOR SMALL STREAM CROSSINGS LESS THAN 20 FEET IN WIDTH IN COMBINATION WITH A PROPER STREAM BANK CONFIGURATION
2. BRIDGE WILL BE TEMPORARILY REMOVED IF HIGH WATER RENDERS IT UNSAFE FOR CROSSING
3. BRIDGE TO REMAIN IN PLACE UNTIL THE COMPLETION OF FINAL RESTORATION
4. SILT FENCE, WEED FREE STRAW BALES, SAND BAGS, DRIVABLE BERMS OR OTHER APPROPRIATE EROSION CONTROL MAY BE USED INTERCHANGEABLY
5. A "SKIRT" FORMED OF SILT FENCE, GEOTEXTILE FABRIC OR EQUIVALENT SHALL BE PLACED ON THE SIDES AND BOTTOM OF THE BRIDGE TO TRAP SEDIMENT AS NECESSARY
6. INDIVIDUAL MATS SHALL BE ANCHORED AND BUTTED TIGHTLY TO MINIMIZE THE INTRODUCTION OF SEDIMENT TO THE WATERBODY
7. SILT LOGS OR APPROPRIATE BARRIER WILL BE PLACED AT THE EDGE
8. ABSOLUTELY NO DISTURBANCE TO OCCUR AT OR BELOW THE ORDINARY HIGH WATER MARK (OHWM) OR THE STREAM
9. GRAVEL APPROACHES SHALL BE PLACED ON GEOTEXTILE FABRIC TO ALLOW FOR COMPLETE REMOVAL OF GRAVEL FROM THE CROSSING SITE

TYPICAL WETLAND CROSSING



NOTES:

1. SEDIMENT BARRIERS MAY ALSO BE INSTALLED AT THE EDGE OF THE CONSTRUCTION ROW AS NECESSARY TO CONTROL SEDIMENT WITHIN WORK AREAS
2. EROSION CONTROLS TO BE DEPLOYED ALONG WETLAND BOUNDARY AS APPROPRIATE TO SITE SPECIFIC CONDITIONS
3. SEGREGATE TOP 12 INCHES OF TOPSOIL
4. SPOIL MAY BE PLACED ON TIMBER MATTING WITHIN WETLAND TO REDUCE IMPACTS, IF NECESSARY
5. SEDIMENT FILTER DEVICES SHALL BE USED IF NEEDED TO PREVENT THE FLOW OF SPOIL OFF THE CONSTRUCTION AREA
6. TRENCHLINE BARRIERS WILL BE CONSTRUCTED WHERE THE PIPELINE TRENCH MAY DRAIN TO WETLAND AND/OR THE TRENCH BOTTOM SEEDED AS NECESSARY TO MAINTAIN HYDROLOGY
7. THE CONSTRUCTION RIGHT-OF-WAY SHALL NOT EXCEED 50 FEET WITHIN THE WETLAND AREA
8. MULCH MAY NOT BE USED AS A TEMPORARY EROSION CONTROL MEASURE IN WETLANDS
9. GRADING ACTIVITIES WILL BE LIMITED TO DIRECTLY OVER THE TRENCHLINE
10. SEGREGATE WETLAND SOILS FROM UPLAND SOILS



STREAM UTILITY CROSSING SPECIFICATIONS

1. WHEN SITE CONDITIONS ALLOW, ONE OF THE FOLLOWING SHALL BE USED TO DIVERT STREAM FLOW OR KEEP THE FLOW AWAY FROM CONSTRUCTION ACTIVITY:
   - DRILL OR BORE THE UTILITY LINES UNDER THE STREAM CHANNEL.
   - CONSTRUCT A COFFERDAM OR BARRICADE OF SHEET PILINGS, SANDBAGS OR A TURBIDITY CURTAIN TO KEEP FLOW FROM MOVING THROUGH THE DISTURBED AREA. TURBIDITY CURTAINS SHALL BE A PRE-ASSEMBLED SYSTEM AND USED ONLY PARALLEL TO FLOW.
   - STAGE CONSTRUCTION BY CONFINING FIRST ONE-HALF OF THE CHANNEL UNTIL WORK THERE IS COMPLETED AND STABILIZED, THEN MOVE TO THE OTHER SIDE TO COMPLETE THE CROSSING.
   - ROUTE THE STREAM FLOW AROUND THE WORK AREA BY BRIDGING THE TRENCH WITH A RIGID CULVERT, PUMPING, OR CONSTRUCTING A TEMPORARY CHANNEL. TEMPORARY CHANNELS SHALL BE STABILIZED BY ROCK OR A GEOTEXTILE COMPLETELY LINING THE CHANNEL BOTTOM AND SIDE SLOPES.
2. CROSSING WIDTH – THE WIDTH OF CLEARING SHALL BE MINIMIZED THROUGH THE RIPARIAN AREA. THE LIMITS OF DISTURBANCE SHALL BE AS NARROW AS POSSIBLE INCLUDING NOT ONLY CONSTRUCTION OPERATIONS WITHIN THE CHANNEL ITSELF BUT ALSO CLEARING DONE THROUGH THE VEGETATION GROWING ON THE STREAMBANKS.
3. CLEARING SHALL BE DONE BY CUTTING NOT GRUBBING. THE ROOTS AND STUMPS SHALL BE LEFT IN PLACE TO HELP STABILIZE THE BANKS AND ACCELERATE REVEGETATION.
4. MATERIAL EXCAVATED FROM THE TRENCH SHALL BE PLACED AT LEAST TWENTY (20) FEET FROM THE STREAMBANKS.
5. TO THE EXTENT OTHER CONSTRAINTS ALLOW, STREAM SHALL BE CROSSED DURING PERIODS OF LOW FLOW.
6. DURATION OF CONSTRUCTION – THE TIME BETWEEN INITIAL DISTURBANCE OF THE STREAM AND FINAL STABILIZATION SHALL BE KEPT TO A MINIMUM. CONSTRUCTION SHALL NOT BEGIN ON THE CROSSING UNTIL THE UTILITY LINE IS IN PLACE TO WITHIN TEN (10) FEET OF THE STREAMBANK.
7. FILL PLACED WITHIN THE CHANNEL – THE ONLY FILL PERMITTED IN THE CHANNEL SHOULD BE CLEAN AGGREGATE, STONE OR ROCK. NO SOIL OR OTHER FINE ERODIBLE MATERIAL SHALL BE PLACED IN THE CHANNEL. THIS RESTRICTION INCLUDES ALL FILL FOR TEMPORARY CROSSINGS, DIVERSIONS, AND TRENCH BACKFILL WHEN PLACED IN FLOWING WATER. IF THE STREAM FLOW IS DIVERTED AWAY FROM CONSTRUCTION ACTIVITY THE MATERIAL ORIGINALLY EXCAVATED FROM THE TRENCH MAY BE USED TO BACKFILL THE TRENCH.
8. STREAMBANK RESTORATIONS – STREAMBANKS SHALL BE RESTORED TO THEIR ORIGINAL LINE AND GRADE AND STABILIZED WITH RIPRAP OR VEGETATIVE BANK STABILIZATION.
9. RUNOFF CONTROL ALONG THE RIGHT-OF-WAY – TO PREVENT SEDIMENT-LADEN RUNOFF FROM FLOWING TO THE STREAM, RUNOFF SHALL BE DIVERTED WITH A WATER BAR OR SWALES TO A SEDIMENT TRAPPING PRACTICE A MINIMUM OF FIFTY (50) FEET FROM THE STREAM.
10. SEDIMENT LADEN WATER FROM PUMPING OR DEWATERING SHALL NOT BE DISCHARGED DIRECTLY TO A STREAM. FLOW SHALL BE ROUTED THROUGH A SETTLING POND, DEWATERING SUMP OR A FLAT, WELL-VEGETATED AREA ADEQUATE FOR REMOVING SEDIMENT BEFORE THE PUMPED WATER REACHES THE STREAM.
11. DEWATERING OPERATIONS SHALL NOT CAUSE SIGNIFICANT REDUCTIONS IN STREAM TEMPERATURES. IF GROUNDWATER IS TO BE DISCHARGED IN HIGH VOLUMES DURING SUMMER MONTHS, IT SHALL FIRST BE ROUTED THROUGH A SETTLING POND OR OVERLAND THOUGH A FLAT WELL-VEGETATED AREA.
12. PERMITS – IN ADDITION TO THESE SPECIFICATIONS, STREAM CROSSINGS SHALL CONFORM TO THE RULES AND REGULATIONS OF THE U.S. ARMY CORPS OF ENGINEERS FOR IN-STREAM MODIFICATIONS (404 PERMITS) AND OHIO ENVIRONMENTAL PROTECTION AGENCY'S STATE WATER QUALITY CERTIFICATION (401 PERMITS).

STREAM UTILITY CROSSING

NOT TO SCALE

CHANGE ORDER SCHEDULE

#	DESCRIPTION OF CHANGE	SHEET NO.	APPROVALS BY	DATE

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NORTH COAST GAS TRANSMISSION

425-NEXUS INTERCONNECT

LORAIN COUNTY, OH

STORMWATER POLLUTION PREVENTION PLAN

IFA (ISSUED FOR APPROVAL)

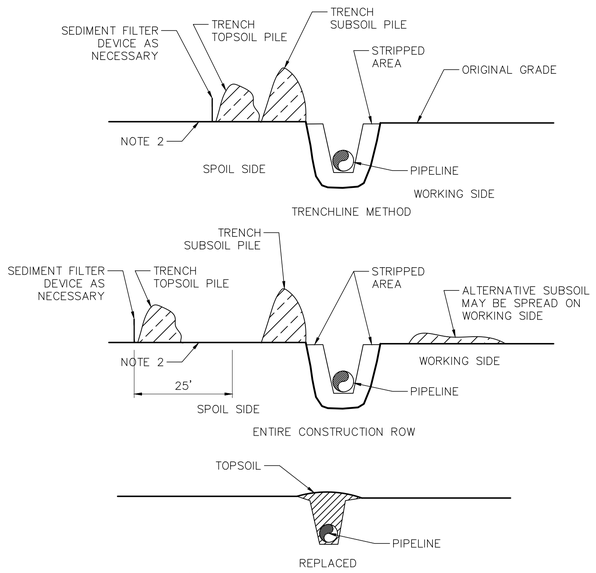
DESIGN	DRAFT	CHECK
STP	KDG	STP

UTI PROJECT #: 23-312 | DATE: 7/5/2024

SCALE: HORIZONTAL: VERTICAL:

DRAWING #: P-001

SHEET #: 10/13

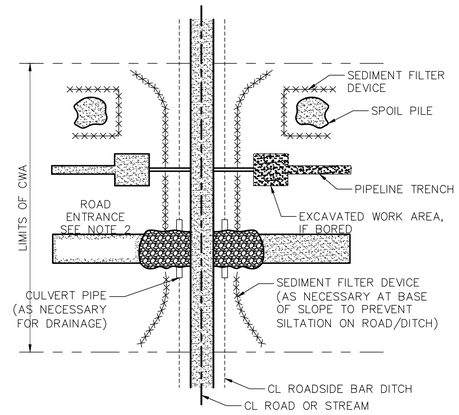


NOTES:
1. OTHER CONFIGURATIONS OF TOPSOIL AND SUBSOIL ARE ACCEPTABLE PROVIDED THEY ARE KEPT SEPARATE
2. UP TO 12 INCHES OF TOPSOIL REMOVED
3. WHEN POSSIBLE PLACE STOCKPILES ON THE UPSLOPE SIDE OF THE TRENCH
4. TOPSOIL AND SUBSOIL PILES WILL BE ADEQUATELY PROTECTED FROM EROSION AND SEDIMENTATION BY USE OF SEDIMENT FILTER DEVICES OR MULCH

NOT TO SCALE

TOPSOIL DETAIL

NOT TO SCALE

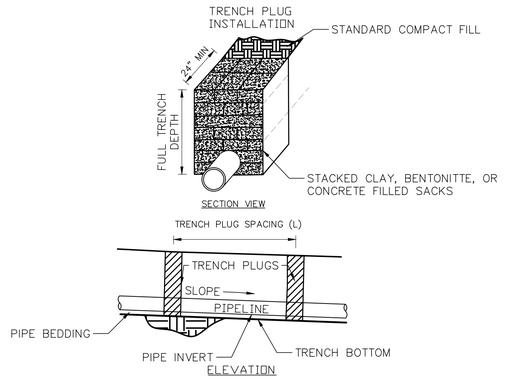


PLAN VIEW

NOTES:
1. REFER TO CONSTRUCTION ENTRANCE DETAIL
2. CULVERT PIPE TO BE SAME DIAMETER AS OTHERS IN AREA AND CAPABLE OF WITHSTANDING HEAVIEST CONSTRUCTION EQUIPMENT USING CROSSING

ROAD CROSSING & BORE DETAIL

NOT TO SCALE



REQUIRED MAXIMUM SPACING AND MATERIALS FOR TRENCH PLUGS		
TRENCH SLOPE (%)	SPACING L (FT)	PLUG MATERIAL
5–15	300	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
15–30	200	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
>30	100	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS

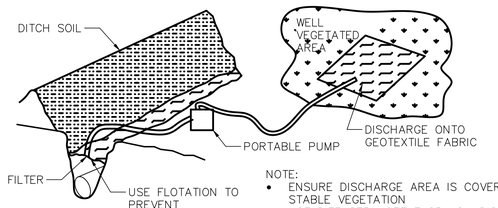
TOPSOIL MAY NOT BE USED TO FILL SACKS

IMPERVIOUS TRENCH PLUGS ARE REQUIRED FOR ALL STREAM, RIVER, WETLAND, OR OTHER WATERBODY CROSSINGS REGARDLESS OF TRENCH SLOPE

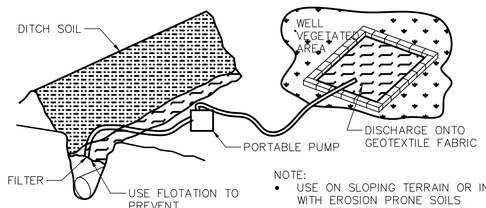
TRENCH PLUGS SHALL BE PLACED AT THE EDGE OF ALL WETLAND BOUNDARIES AND AT THE TOP OF EACH STREAM BANK WHEN CROSSED WITH OPEN TRENCH

TRENCH PLUG DETAIL

NOT TO SCALE



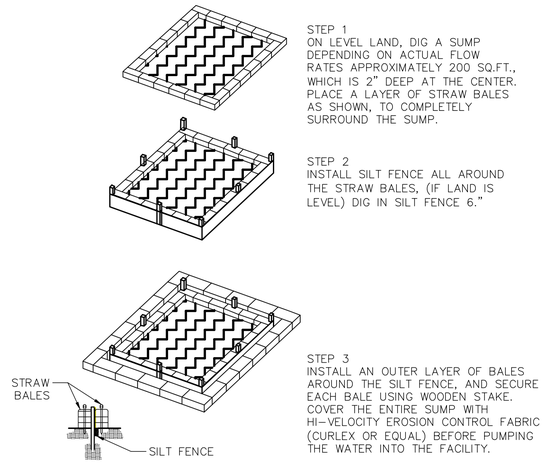
NOTE:
- ENSURE DISCHARGE AREA IS COVERED BY STABLE VEGETATION
- USE DIFFUSER NOZZLE OR LOW DISCHARGE RATE TO PREVENT SCOURING
- USE A FLOTATION DEVICE ON INTAKE; & MAINTAIN DISTANCE FROM SIDES & BOTTOM OF DITCH



NOTE:
- USE ON SLOPING TERRAIN OR IN AREA WITH EROSION PRONE SOILS
- USE DIFFUSER NOZZLE OR LOW DISCHARGE RATE TO PREVENT SCOURING
- ADDITIONAL STRAW BALES MAY BE USED TO INCREASE RETENTION & FILTERING
- USE A FLOTATION DEVICE ON INTAKE; & MAINTAIN DISTANCE FROM SIDES & BOTTOM OF DITCH

TRENCH DEWATERING DETAIL

NOT TO SCALE



NOTE: PUMP INTAKE HOSE MUST NOT BE ALLOWED TO REST ON THE TRENCH BOTTOM THROUGHOUT DEWATERING. PROVISIONS MUST BE MADE TO ELEVATE THE INLET HOSE TO AT LEASE ONE FOOT ABOVE THE TRENCH BOTTOM UNTIL BOTTOM DEWATERING IS NECESSARY.

EROSION CONTROL DURING PIPELINE DITCH, AND HYDROSTATIC TEST DEWATERING FOR LEVEL AREAS WITH SPARSE VEGETATION

TRENCH DEWATERING DETAIL

NOT TO SCALE

CHANGE ORDER SCHEDULE

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STORMWATER POLLUTION PREVENTION PLAN

IFA
(ISSUED FOR APPROVAL)

DESIGN	DRAFT	CHECK
STP	KDG	STP

UTI PROJECT #: 23-312
DATE: 7/5/2024
SCALE: HORIZONTAL: VERTICAL:
DRAWING #: P-001
SHEET #: 11/13

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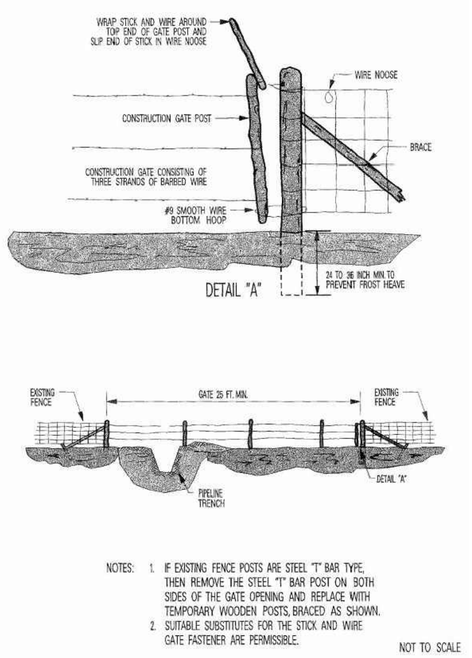
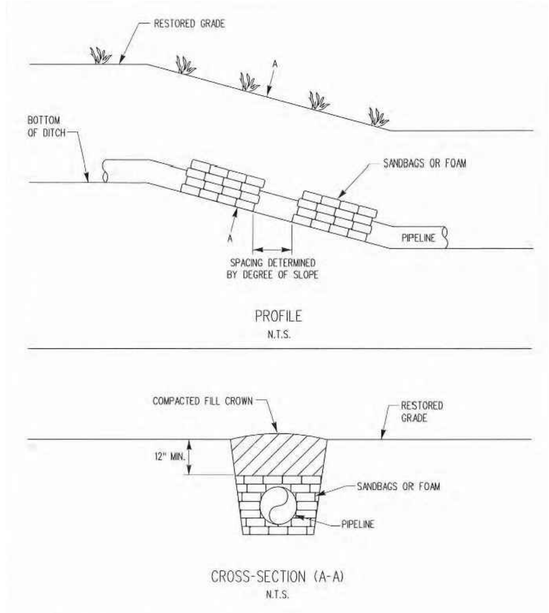


NOTES:
1. IF EXISTING FENCE POSTS ARE STEEL "T" BAR TYPE, THEN REMOVE THE STEEL "T" BAR POST ON BOTH SIDES OF THE GATE OPENING AND REPLACE WITH TEMPORARY WOODEN POSTS, BRACED AS SHOWN.
2. SUITABLE SUBSTITUTES FOR THE STICK AND WIRE GATE FASTENER ARE PERMISSIBLE.

NOT TO SCALE

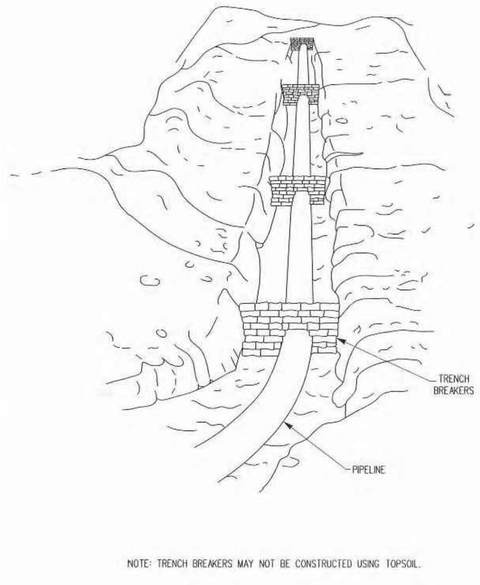
TEMPORARY CONSTRUCTION GATE



NOTE: PERMANENT DITCHLINE BREAKERS SHOULD NOT EXTEND TO WITHIN 12 INCHES OF THE SURFACE IN AGRICULTURAL LANDS.

PERMANENT TRENCH BREAKERS

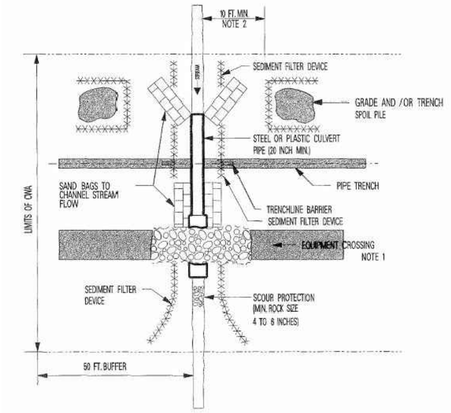
NOT TO SCALE



NOTE: TRENCH BREAKERS MAY NOT BE CONSTRUCTED USING TOPSOIL.

TRENCH BARRIERS & BREAKERS

NOT TO SCALE



NOTES:
1. EQUIPMENT CROSSINGS ARE TO BE PREPARED AS ILLUSTRATED IN FIGURES 22 & 23.
2. GRADE AND TRENCH SPOIL WILL BE STOCKPILED AT LEAST 10 FEET FROM THE WATER'S EDGE, TOPOGRAPHY PERMITTING.
3. INSTALL FLUME PIPE AFTER BLASTING, BUT BEFORE TRENCHING.
4. USE SAND BAG OR SAND BAG AND PLASTIC SHEETING DIVERSION STRUCTURE, OR EQUIVALENT.
5. PROPERLY ALIGN FLUME PIPE.
6. DO NOT REMOVE FLUME PIPE DURING TRENCHING, PIPELAYING, OR BACKFILLING ACTIVITIES.
7. REMOVE ALL FLUME PIPES AND DAMS THAT ARE NOT ALSO PART OF THE EQUIPMENT BRIDGE AFTER FINAL CLEANUP BUT BEFORE PERMANENT SEEDING.

NOT TO SCALE

TYPICAL STREAM CROSSING DRY–DITCH

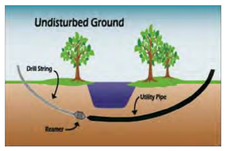
NOT TO SCALE

OhioEPA

FACT SHEET
Division of Surface Water
December 2013

Horizontal Directional Drilling for Utility Line Installation

Disposal of Horizontal Directional Drilling Wastes and Protection of Water Resources



Horizontal directional drilling (HDD) is a method of trenchless technology commonly used in the installation of various utility pipelines and conduits. It is a common way of getting utility lines from one point to another by directionally boring under obstacles or environmentally sensitive areas. HDD may be used, for example, in getting under rivers, roadways or hillsides where typical trenching technologies would not be cost effective, plausible or may be environmentally intrusive.

With the increase in natural gas pipelines installation throughout the state, there is increased HDD activity. And while HDD is less intrusive to the ground surface, there are some issues that need to be addressed to protect the environment and water resources associated with the activity. Drill cuttings and spent drilling fluids generated from HDD activity need to be properly managed. In addition, site operators need to take measures to prevent storm water erosion and runoff from entering a stream, waterbody or wetland.

Management Options for Drill Cuttings and Spent Drilling Fluids

Most directional boring machines use drilling fluids in the installation of underground pipes and conduits. Drilling fluid is generally a mixture of bentonite clay and water. Commercially produced drilling additives are sometimes mixed with the drilling fluid to improve the drilling performance. Drilling fluids are pumped into the receiving hole forcing drill cuttings back to the surface where they are either allowed to settle out in a pit or removed mechanically in a recovery system. Drill cuttings are primarily earthen material removed from the drilling/boring process. Spent drilling fluids and drilling additives are products that may not be as benign as the drill cuttings. Standard practice in the HDD industry is to recycle or recover as much of the drilling fluids as possible at the location. However, once the project is complete, disposal of these spent drilling fluids is also necessary.

Spent drilling fluids containing solely bentonite clay are considered "earthen material" and may be buried or land applied on-location within the right-of-way of the drilling operation or at a designated property. Drill cuttings resulting from HDD using solely bentonite clay and water are also considered "earthen material" and may be managed similarly. This fact sheet provides best management practices that can be employed to ensure burial and land application activities prevent runoff, transport of material to surface water, or contamination of ground water resources.

Spent drilling fluids containing refined oil-based substances or other commercially produced additives are defined as an industrial waste and must be disposed at a licensed municipal solid waste landfill or other location authorized by Ohio EPA. Prior to landfill disposal, these spent drilling fluids may require solidification in order to pass the paint-filter test.

www.epa.ohio.gov • 50 W. Town St., Ste. 700 • P.O. Box 1049 • Columbus, OH 43216-1049 • (614) 644-3020 • (614) 644-2737 (fax)

OHIO EPA HDD UTILITY LINE INSTALLATION

NOT TO SCALE

Horizontal Directional Drilling for Utility Line Installation

Siting and Best Management Practices (BMPs) for Burial of "Earthen Material" On-location or at a Designated Property

If these best management practices and siting criteria below are followed for the burial location or any intermediate storage unit (for example, pond, settling basin, etc.), then there will be no permitting requirements through the Ohio EPA. Therefore, the Agency strongly recommends following ALL the BMPs identified below. Also note that if discharges from these operations are severe enough to violate water quality standards, Ohio EPA can then require that a permit be obtained to alleviate the impacts from those inadvertent discharges.

If the drilling project proposes to bury drill cuttings and/or spent drilling fluids defined as "earthen material" on-location or at a designated property, use the following best management practices and siting requirements.

- For an on-location burial option, the site should be fully contained within the right-of-way of the utility or transmission line being installed.
- The spent drilling fluids and drill cuttings should be buried in either an excavated pit or mixed with top soil removed from the utility right–of-way during utility line construction/installation purposes, if appropriate, at a ratio of one to one.
- The material should be buried in a manner to prevent ponding or transport of storm water through the material (for example, crested in the middle and a slope to edge of disposal area).
- The burial location should not be located in sensitive hydrogeological areas (for example, shallow ground water, shallow sand and gravel lenses or fractured bedrock, etc.).
- The burial location should be located at least 100 feet from any permanent surface water.
- The burial location should be located a minimum of 100 feet from any potable water supply well and 300 feet from any large supply public water supply well.
- The burial location should be managed and have best management practices applied similarly to any construction site regulated through the construction storm water program which includes seeding, stabilization, and the installation of sediment controls. The main goal of this action is to ensure that sediment laden water is not discharged to a water resource.
- For more information on best management practices guidance, go to:
  - ODNR's Best Management Practices for Oil and Gas Well Site Construction at: ***www.dnr.state.oh.us/Portals/11/oil/pdf/BMP_OIL_GAS_WELL_SITE_CONST.pdf***
  - ODNR's Rainwater and Land Development Manual at: ***www.dnr.state.oh.us/water/rainwater/default/tabid/9186/Default.aspx***

Siting and Best Management Practices for Land Application of "Earthen Material"

As with the burial of "earthen materials described above, the land application of "earthen materials" (drill cuttings or spent drilling fluids) may be appropriate if proper best management practices are followed to ensure proper protections of surface and/or ground waters. The following best management practices should be met for land application of these "earthen materials."

- The material should not be land applied during a precipitation event or when a significant rain event is forecast within 24 hours.
- The material should not be land applied in a fashion that would result in ponding on the surface of the ground.
- The material should not be land applied on property with a slope greater than fifteen percent.
- The material should not be land applied on frozen or snow covered ground.
- The material should not be land applied within 50 feet of any surface waters of the state (for example, river, stream, ditch, swale, pond, etc.).
- The land application area should not be located in sensitive hydrogeological areas (for example, shallow ground water, shallow sand and gravel lenses or fractured bedrock, etc.).
- The material should not be land applied within 100 feet of any private or public potable water source.

Additional Information or Resources

Ohio EPA does not envision management alternatives other than those specified above. If an alternative management option is contemplated, a permit issued by Ohio EPA may be necessary.

Contact

For more information, contact Mark Stump at ***mark.stump@epa.ohio.gov*** or (614) 644-2028.

OHIO EPA HDD UTILITY LINE INSTALLATION

NOT TO SCALE

CHANGE ORDER SCHEDULE

#	DESCRIPTION OF CHANGE	SHEET NO.	APPROVALS BY	APPROVALS DATE

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LORAIN COUNTY, OH
STORMWATER POLLUTION PREVENTION PLAN

IFA
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DESIGN	DRAFT	CHECK
STP	KDG	STP

UTI PROJECT #: 23-312
DATE: 7/5/2024
SCALE: HORIZONTAL: VERTICAL:
DRAWING #: P-001
SHEET #: 12/13

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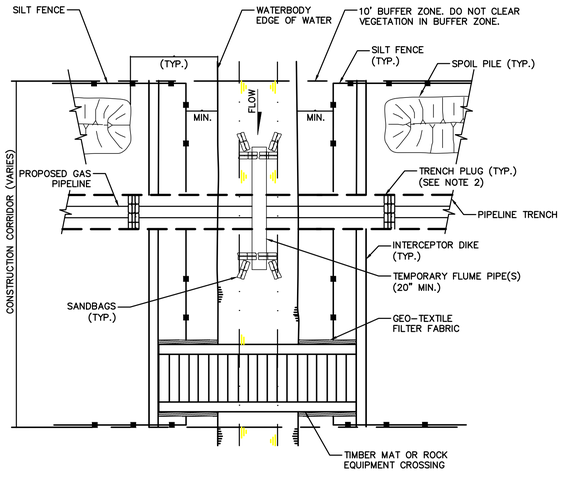
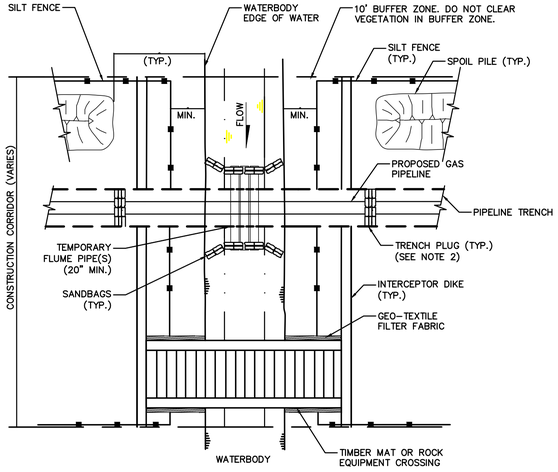


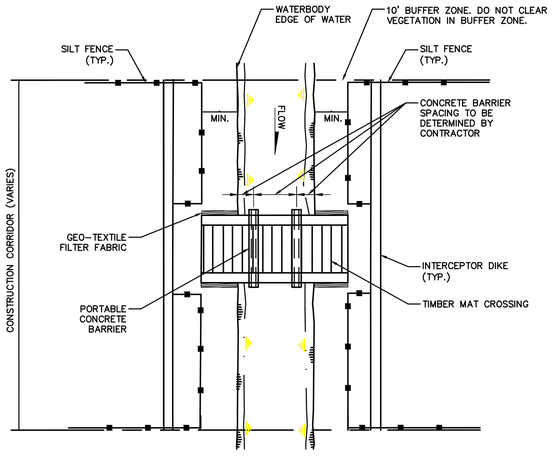
NOTES:

WATERBODY CROSSING
FLUMED CROSSING METHOD #1



NOTES:

WATERBODY CROSSING
FLUMED CROSSING METHOD #2



TIMBER MAT
STREAM CROSSING

CHANGE ORDER SCHEDULE

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DESIGN	DRAFT	CHECK
STP	KDG	STP

UTI PROJECT #:	DATE:
23-312	7/5/2024

SCALE:
HORIZONTAL:
VERTICAL:

DRAWING #: P-001

SHEET #: 13/13

ATTACHMENT E

OHIO HISTORIC PRESERVATION OFFICE CORRESPONDENCE

Sean Peffer

From: Kyle Smith <ksmith@ohiohistory.org>
Sent: Wednesday, July 3, 2024 3:53 PM
To: Sean Peffer
Subject: OSHPO Data Request Confirmation - 425 Nexus Interconnect Pipeline Project

Sean Peffer,

Your data request for **Project:** 425 Nexus Interconnect Pipeline Project has been received. Please allow up to five to seven business days for a response from OSHPO staff.

Data Requested: All Resources
Reason for Request: Applicant is planning to construct a 12-inch steel natural gas pipeline southeast of the City of Oberlin in Lorain County, OH. The project corridor is approximately 1,730 feet long spanning from an interconnect with the Nexus Pipeline to an interconnect with the NCGT 425 Pipeline. This request is in support of a Ohio Power Siting Board Construction Notification.
Search Radius: 1 mile

Kyle Smith | **GIS Manager, State Historic Preservation Office**
Ohio History Connection | 800 E. 17th Ave. Columbus, OH 43211
p. 614.298.2000 | ksmith@ohiohistory.org

ATTACHMENT E2

MAP FROM OHIO HISTORIC PRESERVATION OFFICE

Ohio State Historic Preservation Office GIS Data

- Approximate Project Area Boundary
- Search Area (1 mile buffer)
- National Register Listings
- SHPO Determinations of Eligibility
- Archaeological Inventory
- Archaeological Inventory (pending review)
- Historic Inventory
- OGS Cemeteries
- NR Boundaries
- OAI Boundaries
- OAI Boundaries (pending review)
- Previously Surveyed Areas

7022

LN0021

425 Nexus Interconnect Pipeline Project

LN0316

LN0019

LN0017

LN0048

LN0018

LN0022

LN0023

LN0047

Oberlin Reservoir

Pelton Heliport

Plum Creek

Wellington Creek

COLLEGE ST

KIMBERLY CIR

CLARK LN

HALE RD

ASHLAND-OBERLIN RD

SUMNER ST

GRAFTON ST

PARSONS RD

SMITH ST

E HAMILTON ST

OBERLIN RD

HALLAUER RD

RESERVE AVE

OBERLIN ELYRIA RD

CO HWY 52

TWP HWY 52

N ASHLAND-OBERLIN RD

CO RD 75

CO HWY 38

WEST RD

N

0 1 Miles

0 1 Kilometers

ATTACHMENT F

U.S. FISH AND WILDLIFE SERVICE IPaC INFORMATION

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, OH 43230-8355
Phone: (614) 416-8993 Fax: (614) 416-8994

In Reply Refer To: 07/03/2024 20:26:37 UTC
Project Code: 2024-0111827
Project Name: 425 Nexus Interconnnect Pipeline Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, OH 43230-8355
(614) 416-8993

PROJECT SUMMARY

Project Code: 2024-0111827
Project Name: 425 Nexus Interconnnect Pipeline Project
Project Type: Natural Gas Distribution
Project Description: The project will consist of the construction of a 12-inch steel natural gas pipeline southeast of the City of Oberlin in Lorain County, OH. The project corridor is approximately 1,730 feet long spanning from an interconnect with the Nexus Pipeline to an interconnect with the NCGT 425 Pipeline. The project corridor more or less parallels Hallauer Road and an existing natural gas pipeline. The pipeline will transport natural gas from the Nexus Pipeline to NCGT's 425 Pipeline, in order to increase capacity to downstream markets.

Construction on this project is anticipated to begin in September 2024 and be completed by November 2024.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.272617749999995,-82.19389645717722,14z

Counties: Lorain County, Ohio

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis*	Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/5949

Northern Long-eared Bat *Myotis septentrionalis*	Endangered

No critical habitat has been designated for this species.
This species only needs to be considered under the following conditions:

- This species only needs to be considered if the project includes wind turbine operations.

Species profile: https://ecos.fws.gov/ecp/species/9045

BIRDS

NAME	STATUS
Rufa Red Knot *Calidris canutus rufa*	Threatened

There is **proposed** critical habitat for this species.
Species profile: https://ecos.fws.gov/ecp/species/1864

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Candidate

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9743

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Sean Peffer
Address: 4700 Homer Ohio Lane
City: Groveport
State: OH
Zip: 43030
Email speffer@uti-corp.com
Phone: 6143812137

ATTACHMENT G

OHIO DEPARTMENT OF NATURAL RESOURCES
CORRESPONDENCE

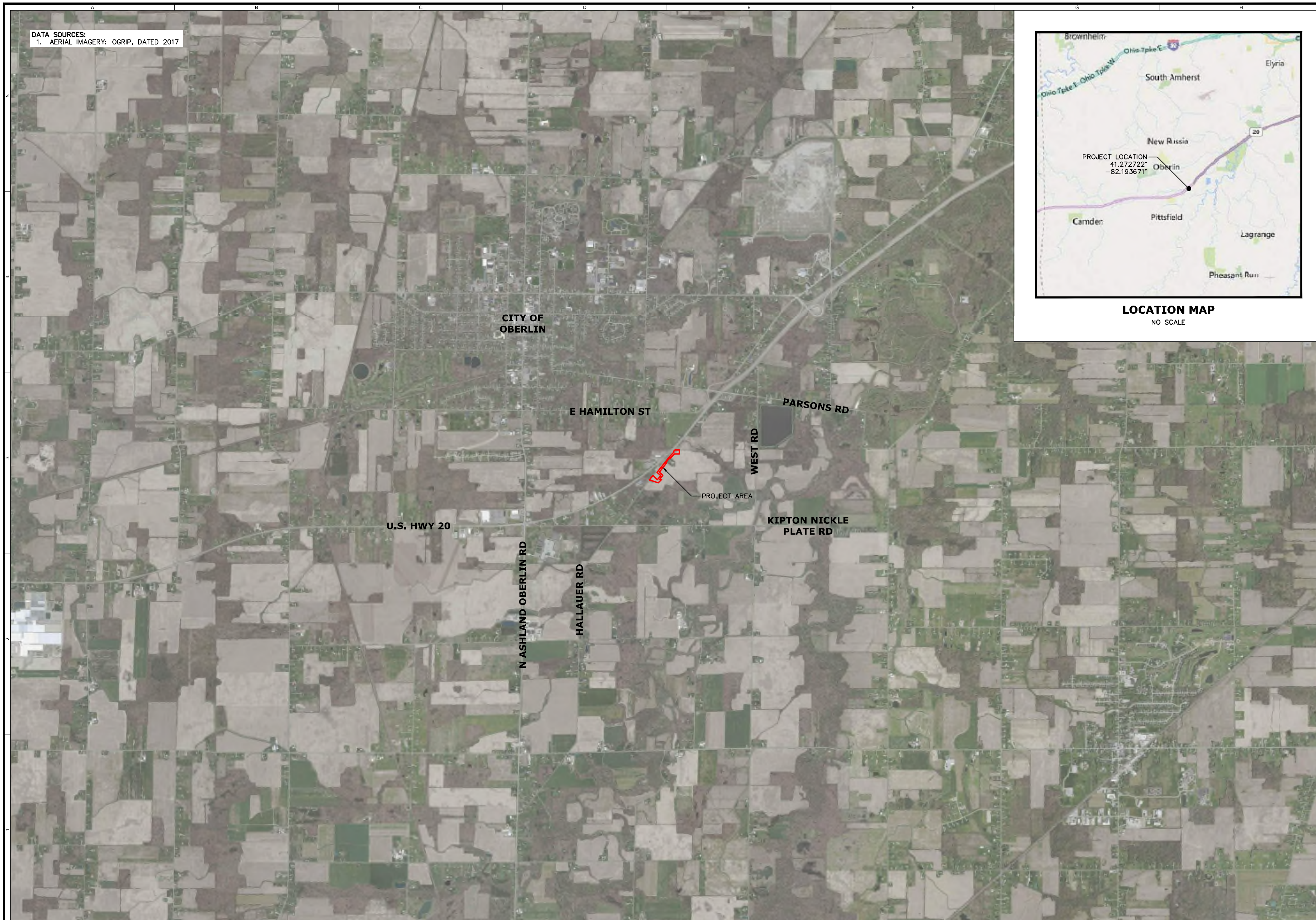
Sean Peffer

From: EnvironmentalReviewRequest@dnr.ohio.gov
Sent: Wednesday, July 3, 2024 6:27 PM
To: Sean Peffer
Subject: Confirmation Receipt for ODNR Environmental Review Request Submission

Thank you for contacting the Ohio Department of Natural Resources. This email is your receipt that we have received your message and/or project review request.
We aim to provide a completed Environmental Review comment letter within 45-60 calendar days, however, during periods of high volume or other extenuating circumstances, it may be longer. If you have any questions please contact Mike.Pettegrew@dnr.ohio.gov

ATTACHMENT H

ENVIRONMENTAL SURVEY MAP



GRAPHIC SCALE

2,000' 1,000' 0 2,000'

1 inch = 2,000 ft.

LEGEND

PROJECT AREA

UTILITY TECHNOLOGIES INTERNATIONAL

TOTAL CAPABILITIES IN THE PIPELINE INDUSTRY

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NORTH COAST GAS TRANSMISSION

425-NEXUS INTERCONNECT

LORAIN COUNTY, OH

FIGURE 1

PROJECT LOCATION MAP

IFA

(ISSUED FOR APPROVAL)

DESIGN	DRAFT	CHECK
	KDG	STP

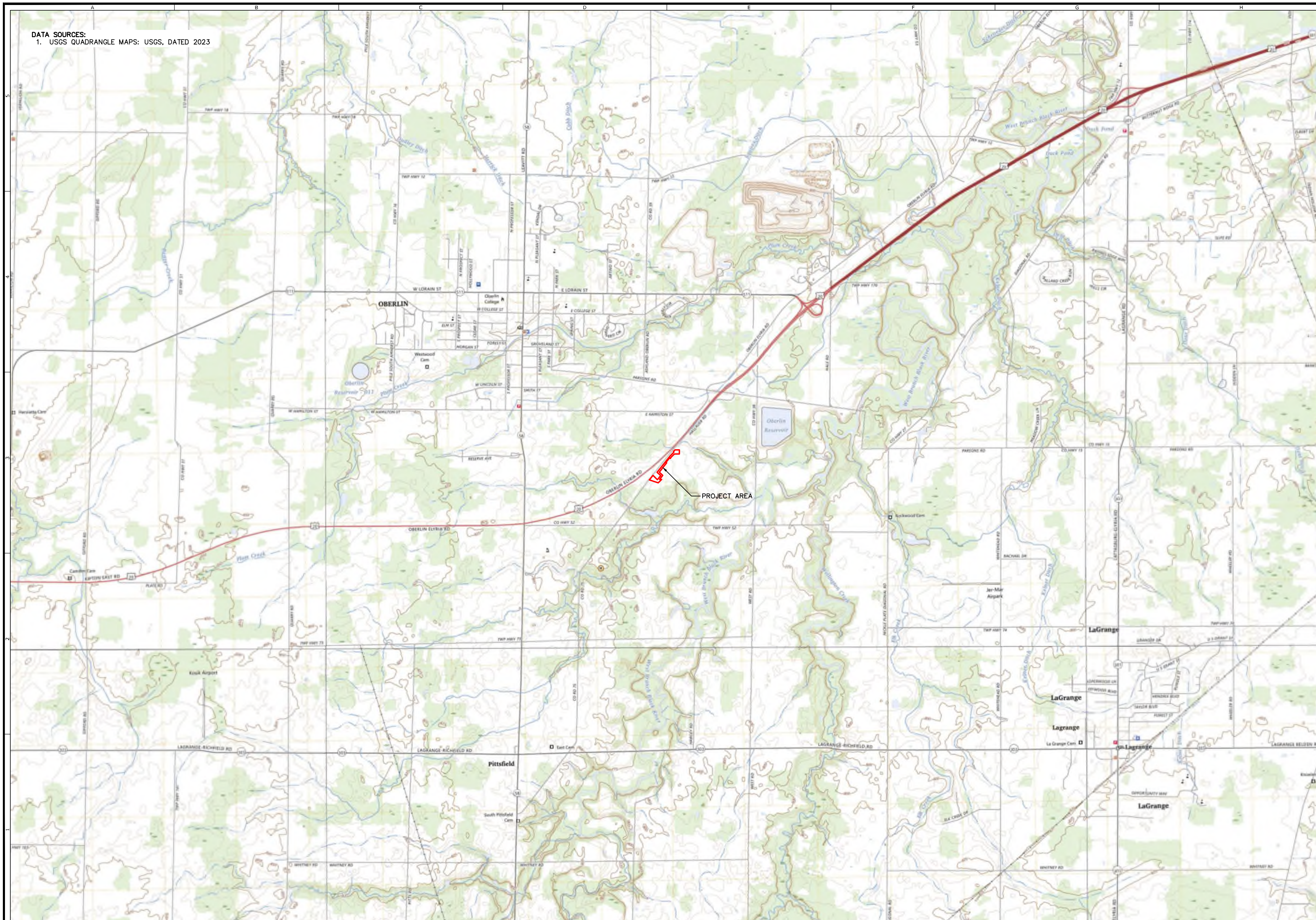
UTI PROJECT #: 23-312

DATE: 6/20/2024

SCALE:
HORIZONTAL: 1" = 2,000'
VERTICAL:

DRAWING #:

SHEET #: 1/3



GRAPHIC SCALE

2,000' 1,000' 0 2,000'

1 inch = 2,000 ft.

LEGEND

PROJECT AREA

UTILITY TECHNOLOGIES INTERNATIONAL

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NORTH COAST GAS TRANSMISSION

425-NEXUS INTERCONNECT

LORAIN COUNTY, OH

FIGURE 2
TOPOGRAPHIC MAP

IFA
(ISSUED FOR APPROVAL)

DESIGN	DRAFT	CHECK
	KDG	STP

UTI PROJECT #: 23-312 | DATE: 6/20/2024

SCALE:
HORIZONTAL: 1" = 2,000'
VERTICAL:

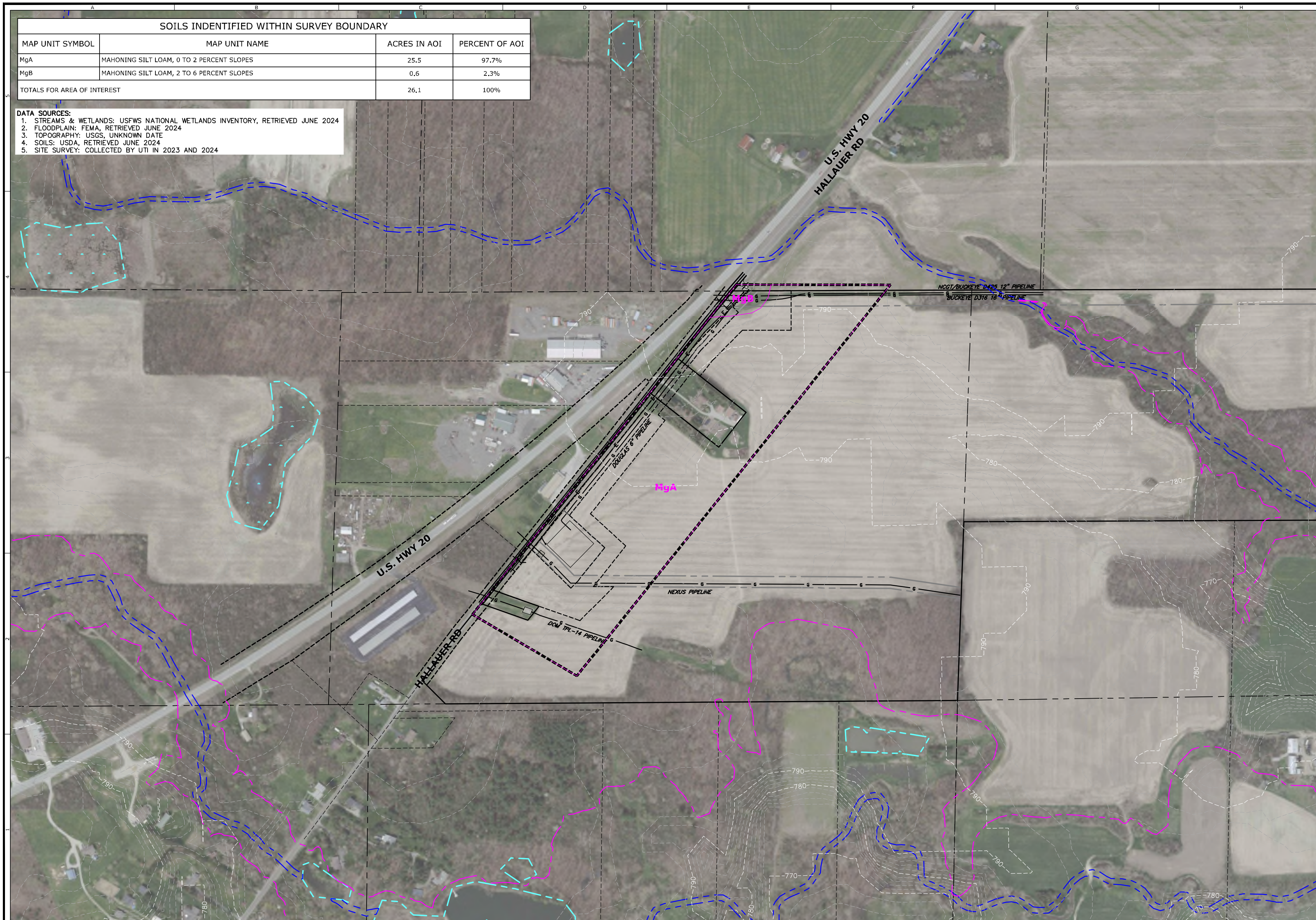
DRAWING #:

SHEET #: 2/3

SOILS INDENTIFIED WITHIN SURVEY BOUNDARY

MAP UNIT SYMBOL	MAP UNIT NAME	ACRES IN AOI	PERCENT OF AOI
MgA	MAHONING SILT LOAM, 0 TO 2 PERCENT SLOPES	25.5	97.7%
MgB	MAHONING SILT LOAM, 2 TO 6 PERCENT SLOPES	0.6	2.3%
TOTALS FOR AREA OF INTEREST		26.1	100%

DATA SOURCES:
1. STREAMS & WETLANDS: USFWS NATIONAL WETLANDS INVENTORY, RETRIEVED JUNE 2024
2. FLOODPLAIN: FEMA, RETRIEVED JUNE 2024
3. TOPOGRAPHY: USGS, UNKNOWN DATE
4. SOILS: USDA, RETRIEVED JUNE 2024
5. SITE SURVEY: COLLECTED BY UTI IN 2023 AND 2024



GRAPHIC SCALE
200' 100' 0 200'
1 inch = 200 ft.

LEGEND
- LIMITS OF DISTURBANCE
- AREA OF INTEREST
- STREAM
- FEMA 100 YR.
- SOIL BNDRS
- WATER BODY
- WETLAND
- BAT TREE AREA
- BAT TREE

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NORTH COAST GAS TRANSMISSION
425-NEXUS INTERCONNECT
LORAIN COUNTY, OH
FIGURE 3
ENVIRONMENTAL SURVEY MAP

IFA
(ISSUED FOR APPROVAL)

DESIGN	DRAFT	CHECK
	KDG	STP

UTI PROJECT #: 23-312
DATE: 6/20/2024
SCALE:
HORIZONTAL: 1" = 200'
VERTICAL:
DRAWING #:
SHEET #: 3/3

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

7/26/2024 10:33:26 AM

in

Case No(s). 24-0638-GA-BNR

Summary: Notice North Coast Gas Transmission LLC's Construction Notice and Request for Expedited Treatment for 425 Nexus Interconnect Pipeline Project electronically filed by Mr. Michael J. Settineri on behalf of North Coast Gas Transmission LLC.