

Floodplain Development Permit

Doddridge County, WV Floodplain Management

This permit gives approval for the development/ project listed that impacts the FEMA-designated floodplain and/or floodway of Doddridge County, WV, pursuant to the rules and regulations established by all applicable Federal, State and local laws and ordinances, including the Doddridge County Floodplain Ordinance. This permit must be posted at the site of work as to be clearly visible and must remain posted during entirety of development.

Permit: #22-609

Date Approved: March 7, 2022 Expires: March 7, 2023

Issued to: Antero Midstream POC: Daniel Bulian

Company Address: 535 White Oaks Blvd. Bridgeport, WV 26330

Project Address: Right Fork Arnolds Creek Road West Union, WV 26456

Firm: 54017C0120C Lat/Long: 39.253432N, -80.811234W

Purpose of Development: Pipeline

Issued by: George C. Eidel, CFM, OEM Director/Doddridge County FPM (or designee)

Date: March 7, 2022

COMPLETE THIS SECTION ON DELIVERY SENDER: COMPLETE THIS SECTION A. Signature ■ Complete items 1, 2, and 3. □ Agent Print your name and address on the reverse Addressee so that we can return the card to you. Date of Delivery Attach this card to the back of the mailpiece, or on the front if space permits. D. Is delivery address different from item 1? 1. Article Addressed to: .. If YES, enter delivery address below: **Z**)No Gregory & Kristine L. Bonnell 2298 Arnolds Creek Road West Union, WV 26456 ☐ Priority Mail Express® Service Type ☐ Registered Mail™ ☐ Adult Signature Registered Mail Restricted Delivery Resturn Receipt for Merchandise Signature Confirmation™ Signature Confirmation ☐ Adult Signature Restricted Delivery ☐ Certified Mail® ☐ Certified Mail Restricted Delivery 9590 9402 4868 9032 9570 32 ☐ Collect on Delivery Collect on Delivery Restricted Delivery 2. Article Number (Transfer from service label) ☐ Insured Mail☐ Insured Mail Restricted Delivery Restricted Delivery (over \$500) Domestic Return Receipt PS Form 3811, July 2015 PSN 7530-02-000-9053 SENDER: COMPLETE THIS SECTION COMPLETE THIS SECTION ON DELIVERY A. Signature ■ Complete items 1, 2, and 3. Print your name and address on the reverse ☐ Agent so that we can return the card to you. ☐ Addressee B. Received by (Printed Name) Attach this card to the back of the mailpiece, C. Date of Delivery or on the front if space permits. 1. Article Addressed to: D. Is delivery address different from item 1? ☐ Yes If YES, enter delivery address below: Karlen Sue Browning 1899 Goose Creek Road Waynesboro, VA 22980 3. Service Type ☐ Priority Mail Express® ☐ Adult Signature □ Registered Mail[™] ☐ Adult Signature Restricted Delivery ☐ Certified Mail® ☐ Certified Mail Restricted Delivery Registered Mail Restricted Delivery 9590 9402 4868 9032 9570 25 ☐ Return Receipt for Merchandise ☐ Signature Confirmation™ ☐ Signature Confirmation ☐ Collect on Delivery ☐ Collect on Delivery Restricted Delivery ☐ Insured Mail 2. Article Number (Transfer from service label) ☐ Insured Mail Restricted Delivery (over \$500) Restricted Delivery PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

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SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
Complete items 1, 2, and 3.	
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so that we can return the card to you	X del Agent
Attach this card to the back of the mailpiece, or on the front if space permits.	B. Received by Printed Name C. Date of Delivery
Article Addressed to:	TENAU CO
	D. Is delivery address different from item 1? Yes If YES, enter delivery address below: No
-Angola D. Brott	No
Angela D. Pratt 702 N. Oak Street	FEB 1 4 2022
Anmoore, WV 26323	
Annioore, vvv 20323	
	200
	3. Service Type □ Adult Signature □ Profity M :il Express® □ Registers = 1 Profit Profit
9590 9402 4868 9032 9570 49	☐ Adult Signature Restricted Delivery ☐ Certified Mail® ☐ Registered Mail Restricted Delivery ☐ Delivery
	☐ Collect on Delivery ☐ Return Receipt for
2. Article Number (Transfer from service label)	☐ Collect on Delivery Restricted Delivery ☐ Signature Confirmation IM
	☐ Insured Mail ☐ Insured Mail ☐ Signature Confirmation (over \$500) ☐ Insured Mail Restricted Delivery (over \$500)
PS Form 3811, July 2015 PSN 7530-02-000-9053	Domestic Return Receipt
SENDER: COMPLETE THIS SECTION Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. Article Addressed to: Gerald C. & Juanita L. Turner 58 Turner Drive West Unic VV 26456	A. Signature Agent Addressee Addressee Addressee B. Received by (Printed Name) C. Date of Delivery C. D
9590 9402 4868 9032 9570 56 2. Article Number (<i>Transfer from service label</i>)	3. Service Type ☐ Adult Signature ☐ Adult Signature Restricted Delivery ☐ Certified Mail Restricted Delivery ☐ Collect on Delivery ☐ Collect on Delivery Restricted Delivery ☐ Insured Mail Restricted Delivery ☐ Insured Mail Restricted Delivery ☐ Insured Mail Restricted Delivery ☐ Restricted Delivery ☐ Restricted Delivery
PS Form 3811, July 2015 PSN 7530-02-000-9053	(over \$500)
1	Domestic Return Réceipt

FLOODPLAIN PERMIT #22-609

Antero Resources, Right Fork Arnolds Creek Road, Pipeline, 39.253432, -80.811234

TASK	COMPLETE (DATE)	NOTES
CHECK RECEIVED	2/9/2022	
US ARMY CORP.		
ENGINEERS (USACE)		
US FISH & WILDLIFE		
SERVICES (USFWS)		
WV DEPT. NATURAL		
RESOURCES (WVDNR)		
WV DEPT. ENVIROMENTAL		
PROTECTION (WVDEP)		
STATE HISTORIC &		
PRESERVATION OFFICE		
(SHPO)		
OFFICE of LAND & STREAM		
(OLS)		
WVDOH		
Elevation Certificate		
DATE OF COMMISSION		
READING	2/15/2022	
DATE AVAILABLE TO BE		
GRANTED	3/7/2022	
PERMIT GRANTED		
COMPLETE		

701 9	5590	0000	5315	9002	
7019	2280	0000	5315	9019	
 7019	2280	0000	5315	9026	
 701	3 2280	0000	5315	9033	





Doddridge County Floodplain Permits

(Week of February 14, 2022)

Please take notice that on the (9th) of (February), 2022, (Antero Resources) filed an application for a Floodplain Permit (#22-609) to develop land located at or about (Arnolds Creek Road, Right Fork); Coordinates: 39.253432, -80.811234. The Application is on file with the Floodplain Manager of the County and may be inspected or copied during regular business hours in accordance to WV Code Chapter 29B Freedom of Information, Article 1 Public Records and county policy and procedures. Any interested persons who desire to comment shall present the same in writing by (March 7 2022) (20 calendar days after the announcement at the regularly scheduled Doddridge County Commission Meeting) delivered to the Floodplain Manager of the County at 105 Court Street, Suite #3, West Union,

WV 26456-This project is for a new Oxford 98 pipeline project

GEORGÉ C. EIDEL, CFM

Doddridge County Floodplain Manager



ATTACHMENT A FLOODPLAIN APPLICATION



Permit# 22-60	9
Project PIDETING	0
Project PIDE///	Name:
	, , ,

Permittees Name: ANTEN Resource

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Doddridge County, WV

Floodplain Development Permit Application

This document is to be used for projects that impact/potentially impact the FEMA---designated floodplain and/or floodway of Doddridge County, WV pursuant to the rules and regulations established by all applicable Federal, State and local laws and ordinances, including the Doddridge County Floodplain Ordinance.

SECTION 1: GENERAL PROVISIONS (APPLICANT TO READ AND SIGN)

- 1. No work may start until a permit is issued.
- 2. The permit may be revoked if any false statements are made herein.
- 3. If revoked, all work must cease until permit is re-issued.
- 4. The permit will expire if no work is commenced within six months of issuance.
- 5. Applicant is hereby informed that other permits may be required to fulfill local, state, and federal requirements.
- 6. Applicant hereby gives consent to the Floodplain Administrator/Manager or his/her representative to make inspections to verify compliance.
- 7. I THE APPLICANT CERTIFY THAT ALL STATEMENTS HEREIN AND IN ATTACHMENTS TO THIS APPLICATION ARE, TO THE BEST OF MY KNOWLEDGE, TRUE AND ACCURATE.

APPLICANT'S SIGNATURE	Daniel Bulian
DATE_	02.08.2022

Applicant Information:

 ${\it Please provide all pertinent data}.$

ApplicantInformation							
Responsible Company Name: Antero M	Midstream						
Corporate Mailing Address: 1615 Wyn	ikoop Street						
City: Denver	City: Denver State: CO Zip: 80202						
Corporate Point of Contact (POC): N/A							
Corporate POC Title: N/A							
Corporate POC Primary Phone: N/A							
Corporate POC Primary Email: N/A							
Corporate FEIN: N/A	Corporate D	UNS: N/A					
Corporate Website: www.anteroresou	ırces.com						
Local Mailing Address: 535 White Oak	s Blvd						
City: Bridgeport	State: WV	Zip: 26330					
Local Project Manager (PM): Daniel B	ulian						
Local PM Primary Phone: (304) 842-4	093						
Local PM Secondary Phone: N/A	-						
Local PM Primary Email: dbulian@an	teroresources.com						
Person Filing Application: Daniel Buli	an						
Applicant Title: Environmental Specia	alist III						
Applicant Primary Phone: (304) 842-	4093						
Applicant Secondary Phone: N/A							
Applicant Primary Email: dbulian@anteroresources.com							

Project Narrative:

Describe in detail the proposed development including project name/title, type of development, estimated start and completion timeline, and its potential impact on the floodplain. Use additional copies of this page as needed.

Project Narrative:
Antero Midstream is proposing to construct approximately 1.6 miles of one 16-inch diameter subsurface low pressure (LP) gas pipeline and approximately 0.4 miles of one 18-inch diameter surface water pipeline known as the Oxford 98 Pipeline (Pipeline) in Doddridge County, West Virginia (WV). The eastern terminus of the proposed Pipeline is located at 39.252893, -80.800225 and the western terminus is located at 39.254594, -80.822589.
The proposed Pipeline will result in a limit of disturbance of approximately 18.9 acres, of which 0.80 acres (4.2%) is located within the limits of the Right Fork Arnold Creek regulated floodplain. The West Virginia Flood Tool Map is included in Attachment C and depicts the approximate ocation where work associated with the proposed Pipeline will encroach upon the floodplain. Construction activities within the regulated floodplain will be temporary and consist of but are not limited to: installation of a 16-inch diameter subsurface LP gas pipeline and timber mats at 2 wetland crossings (KLF-WETLAND04 and KLF-WETLAND06) and the installation of a 16-inch diameter subsurface LP gas pipeline, temporary structure (dam and flume or equivalent) crossing materials, and jersey barrier/pier installations for timber mat crossing of equipment at 1 stream crossing (KLF-STREAM05 [Right Fork Arnold Creek]). In addition, rock construction entrances will be installed on both sides of CR-11 (Arnolds Creek Road. The proposed Pipeline design plans are included as Attachment D.
The ground surface will be returned to approximate original contours following construction, which should not adversely affect the regulated floodplain in Doddridge County. A No-Rise Certification has been prepared and is included as Attachment E, which indicates that the proposed construction activities will not affect the base flood elevation.
The proposed Pipeline permitting and coordination table along with permit approvals received to date are included in Attachment F. Outstanding permit approvals will be submitted to the Doddridge County Floodplain Manager upon receipt.

Proposed Development:

Please check all elements of the proposed project that apply.

DESCRIPTION OF WORK (CHECK ALL APPLICABLE BOXES)

A. STRUCTURAL DEVELOPMENT

<u>ACTIVITY</u>						STRUCTURAL TYPE		
[]	New Struct	ure			[]	Residential ((1 – 4 Family)	
[]	Addition				[]	Residential	(more than 4 Family)	
[]	Alteration				[]	Non-resider	itial (floodproofing)	
[]	Relocation				[]	Combined Use (res. & com.)		
[]	Demolition				[]	Replacemen	nt	
[]	Manufactu	ired/Mol	bil Home					
В.	OTHER DE	VELOPL	MENT ACTI	VITIES:				
[]	Fill	[]	Mining	[]	Drilling	g [x]	Pipelining	
[]	Grading							
[x]	Excavation	(except	for STRUCTUR	AL DEVE	LOPMENT	Γ checked ab	ove)	
[]	Watercour	se Altera	ition (including	g dredgin	g and cha	annel modific	ation)	
[]	Drainage In	nprovem	nents (includin	g culvert	work)			
[]	Road, Stree	et, or Brid	dge Construct	ion				
[]	Subdivision	ı (includi	ng new expan	sion)				
[]	Individual \	Nater or	Sewer System	า				
[]	Other (plea	ise speci	fy)					
						,		

Development Site/Property Information:

Please provide physical description of the site/property, along with pertinent ownership (surface and mineral rights) data as applicable. Attach appropriate maps from the WV Flood Tool showing location of proposed development. Use additional copies of this page if development spans multiple property boundaries. Designate each property by number (i.e. Property 1 of 1, Property 2 of 7, etc.)

Property Designation:	1of_1_				
Site/Property, Informatio	n: ,*******	1		1 /	access and a second
Legal Description: Oxford	l 98 Pipel	line			
Physical Address/911 Ad	dress: Ar	nolds Creek l	Rd, West Union, V	WV 2645	6 (Route 11)
Decimal Latitude/Longitu	ude: 39.2	53176, -80.81	1096		
DMS Latitude/Longitude:					
District: 8 (West Union)	N	Лар: 19		Parcel:	8
Land Book Description: N	I/A				
					
Deed Book Reference: N/	A				
Tax Map Reference: N/A			·		<u> </u>
Existing Buildings/Use of	f Propert	v: Farm			
DANSKING DUNGMENT OF THE		<u></u>			
Floodplain Location Data	''1			er or desi	
Community:	Numb	oer: 	Panel:		Suffix:
Location (Lat/Long):			Approximate	Elevation	:
			Estimated BFI	E:	
Is the development in the	e floodwa	ay?	Is the develop	ment in t	he floodplain?
□ _{Yes} □ _{No}			Yes	O _{No}	Zone:
Notes:					

Property Owner Data:

Please provide data on current site/property landowner(s), both surface and mineral rights (as applicable). Use additional copies of this page as needed. Designate each page in relation to each property listed above.

Property Designation:1_ of _1		
D. A. O D. A.		
Property Owner Data:	NED CEDALD C & IIIANITA	
Name of Primary Owner (PO): TUR	NER GERALD C & JUANITA I	u
PO Address: 58 Turner Dr		
City: West Union	State: WV	Zip: 26456
PO Primary Phone: N/A		
PO Secondary Phone: N/A		
PO Primary Email: N/A		
	•	
Surface Rights Owner Data:		
Name of Primary Owner (PO):		
PO Address: N/A		
City: N/A	State: N/A	Zip: N/A
PO Primary Phone: N/A		
PO Secondary Phone: N/A		
PO Primary Email: N/A		
	44	
Mineral Rights Owner Data: (As Ap	plicable)	
Name of Primary Owner (PO):		
PO Address: N/A		
City: N/A	State: N/A	Zip: N/A
PO Primary Phone: N/A		
PO Secondary Phone: N/A		
PO Primary Email: N/A		

Contractor Data:

Please provide all pertinent data for contractors and sub---contractors that may be participating in this project. Use additional copies of this page as needed. Designate each page in relation to each property listed above.

Property Designation:1 of1		
	and the second s	and the second s
Contractor/Sub-•-Contractor (C/SC) Information:	· .	
C/SC Company Name: One contractor to be sele (#WV049594), Alex Paris Contracting (#WV00) (#WV050096).	cted from the fo 1172), Integrity	llowing: ACE Pipeline Kokosing Pipeline Services LLC
C/SC Company Name: See Above		
C/SC WV License Number: See Above		
C/SC FEIN: TBD	C/SC DUNS: T	BD
Local C/SC Point of Contact (POC): TBD		
Local C/SC POC Title: TBD		
C/SC Mailing Address: TBD		
City: TBD	State: TBD	Zip-•-Code: TBD
Local C/SC Office Phone: TBD		
Local C/SC POC Phone: TBD		
Local C/SC POC E-•-Mail: TBD		
Engineer Firm Information:		
Engineer Firm Name: The Thrasher Group, Inc		

Engineer Firm Information:		
Engineer Firm Name: The Thrasher Gro	oup, Inc.	
Engineer WV License Number: 23629		
Engineer Firm FEIN: N/A	Engineer Fir	m DUNS: N/A
Engineer Firm Primary Point of Contact	t (POC): James Howes	
Engineer Firm Primary POC Title: Surve	ey Project Manager	
Engineer Firm Mailing Address: 600 W	hite Oaks Blvd	
City: Bridgeport	State: WV	Zip-•-Code: 26330
Engineer Firm Office Phone: 304-205-8	802	
Engineer Firm Primary POC Phone: 304	1-288-7888	
Engineer Firm Primary POC E-•-Mail: jho	wes@thethrashergrou	p.com

Adjacent and/or Affected Landowners Data

Please provide data for all adjacent and/or affected surface owners (both up and down stream) whose property may be impacted by proposed development as demonstrated by a floodplain study or survey. Use additional copies of this page as needed.

Adjacent Property Owner Data: Upst	ream	
Name of Primary Owner (PO): See T	able of Adjacent Property	Owners (Attachment B)
Physical Address: N/A		
City: N/A	State: N/A	Zip: N/A
PO Primary Phone: N/A		
PO Secondary Phone: N/A		
PO Primary Email: N/A		
Adjacent Property Owner Data: Ups	tream	
Name of Primary Owner (PO):		
Physical Address:		
City:	State:	Zip:
PO Primary Phone:		•
PO Secondary Phone:		
PO Primary Email:		
Adjacent Property Owner Data: Dow	nstream	
Name of Primary Owner (PO):		
Physical Address: N/A		
City: N/A	State: N/A	Zip: N/A
PO Primary Phone: N/A	·•	
PO Secondary Phone: N/A		
PO Primary Email: N/A		
Adjacent Property Owner Data: Dov	vnstream	
Name of Primary Owner (PO):		
Physical Address:		
City:	State:	Zip:
PO Primary Phone:	•	
PO Secondary Phone:	-	-
PO Primary Email:		

Site Plan

A Site Plan is an accurate and detailed map of the proposed development for this project. It shows the size, shape, location and special features of the project property, and the size and location of any development planned to the property, especially as that development will impact the floodplain and/or floodway. Site plans show what currently exists on the project property, and any changes or improvements you are proposing to make. A certified and licensed engineering firm should complete site plans.

A SITE PLAN MUST CONTAIN THE FOLLOWING INFORMATION:

- 1. Legal description of the parcel, north arrow and scale
- 2. All property lines and their dimensions
- 3. Names of adjacent roads, location of driveways
- 4. Location of sloughs, tributaries, streams, rivers, wetlands, ponds, and lakes, with setbacks indicated, and including FEMA floodplain data based on most updated FIRM
- 5. Location, size, shape of all buildings, existing and proposed, with elevation of lowest floor indicated.
- 6. Location and dimensions of existing or proposed on---site sewage systems.
- 7. Location of all propane tanks, fuel tanks or other liquid storage tanks whether above ground or below ground level.
- 8. Location and dimensions of any proposed pipeline placement(s) into floodplain/floodway.
- 9. Location and dimensions of any roadway development into floodplain/floodway. (Includes initial development access roads)
- 10. Location and dimensions of any bridge and/or culvert development into floodplain/floodway.
- 11. Location and dimensions of any storage yard or facility into the floodplain/floodway.
- 12. Location of any existing utilities and/or proposed utility placement and/or displacement.
- 13. Location, dimensions and depth of any existing or proposed fill on site.
- 14. A survey showing the **existing ground elevations** of at least location on the building site. **ELEVATION NOTE**: All vertical datum will reference either NGVD 29 or NAVD 88. Assumed datum will not be acceptable unless the property is located in an area where vertical datum has not been published. For those areas where vertical datum has not been established, a site plan with contours, elevations using assumed datum, high water marks and existing water levels of sloughs, rivers, lakes or streams and proposed lowest floor elevation.

Applicant

Please read print name, sign and date below:

- I certify that I am authorized to submit this application for the primary project developer.
- I certify that the information included in this application is to the best of my knowledge true and complete.
- I certify that all required Federal, State, and local permits required by law and/or ordinance for the above described development of this project have will be properly attained, are current and valid, and must be presented prior to a Doddridge County Floodplain Permit being issued.
- I understand that if in the course of the development project additional permits become required that were not needed during the initial proposal, the primary developer must notify the Doddridge County Floodplain Manager within 48 hours of such need, and that a "Stop Work" order may be issued for all project work directly impacting the floodplain or floodway, until such time the required additional permits are acquired.
- I understand that once the floodplain permit is submitted, the application will be entered into
 official public record at the next regularly scheduled Doddridge County Commission meeting
 after the date of submittal.
- I understand that from the date of submittal of the fully completed permit application, the
 Doddridge County Floodplain Manager has ninety (90) days to make a determination to either
 grant or deny said permit application. During this approval period, the Doddridge County
 Floodplain Manager may, at his or her discretion, conduct a review and/or additional study of
 provided documentation by means of an independent engineering firm. All costs associated with
 said review and/or study must be reimbursed to the County before issuance of approved permit.
- I understand that during the approval period, the Doddridge County Floodplain Manager of
 designee may at his or her discretion conduct site visits and document conditions of proposed
 development pursuant to the permit application.
- I understand that once the Floodplain Permit is granted, the permit will be entered into official
 public record. Appeals to the permit may be made no later than twenty (20) days after said
 issuance. If a valid appeal is submitted, as determined by the Doddridge County Floodplain
 Manager, a "Stop Work" order will be issued for all project development directly involving the
 floodplain or floodway. A public hearing by the Doddridge County Appeals Board will be
 scheduled no less than ten (10) days after the next regularly scheduled Doddridge County
 Commission meeting.
- I understand that all decisions of the Doddridge County Appeals Board shall be final.
- I understand issuance of a Floodplain Permit authorizes me to proceed with construction as proposed.
- In signing this application, the primary developer hereby grants the Doddridge County Floodplain Manager or designee the right to enter onto the above---described location to inspect the development work proposed, in progress, and/or completed.
- I understand that if I do not follow exactly the site---plan submitted and approved by this permit
 that a "Stop Work" order may be issued by the Doddridge County Floodplain Manager and that
 I must stop all construction immediately until discrepancies of actual work vs. proposed work is
 resolved.

Applicant Signature:	Daniel Bulian	Date: _	02.08.2022
Applicant Printed Name:	Daniel Bulian		



ATTACHMENT B TABLE OF ADJACENT PROPERTY OWNERS

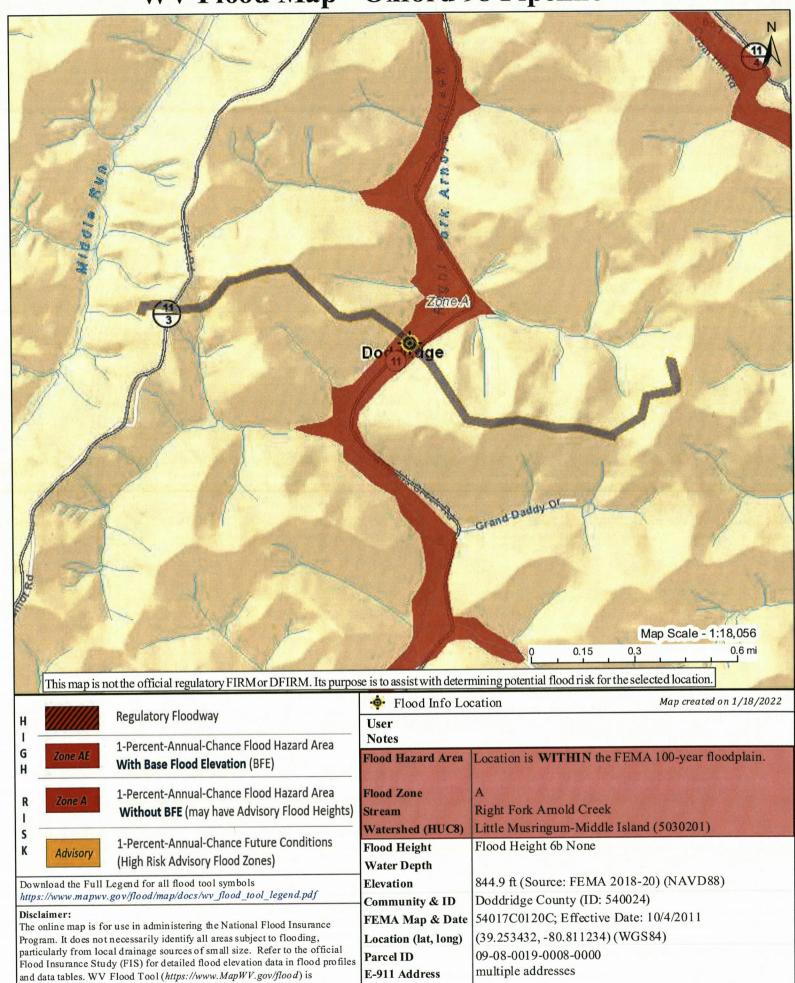
Table of Adjacent Property Owners

PROPERTY OWNER PARCEL ID NUMBER		E-911 ADDRESS	PROPERTY OWNER ADDRESS	IN FLOODPLAIN
TURNER GERALD C & JUANITA L (SURV)	09-07-0013-0042-0000	2772 ELLIOT RD, WEST UNION, WV, 26456 2326 ARNOLDS CREEK RD, WEST UNION, WV, 26456 58 TURNER DR, WEST UNION, WV 26456 42 TURNER DR, WEST UNION, WV, 26456	58 TURNER DR, WEST UNION, WV 26456	Yes
PRATT ANGELA D	09-08-0019-0015-0000	1394 PUNKIN CENTER RD, WEST UNION, WV, 26456	702 N OAK ST, ANMOORE, WV 26323	Yes (Downstream)
TURNER GERALD C & JUANITA L (SURV)	09-08-0019-0008-0001	2260 ARNOLDS CREEK RD, WEST UNION, WV, 26456	58 TURNER DR, WEST UNION, WV 26456	Yes (Upstream)
BONNELL GREGORY & KRISTINE L (SURV)	09-08-0019-0008-0002	2298 ARNOLDS CREEK RD, WEST UNION, WV, 26456	2298 ARNOLDS CREEK RD, WEST UNION, WV 26456	Yes (Upstream)
BROWNING KARLEN SUE	09-08-0019-0014-0000	NO E-911 ADDRESS FOUND AT THIS PARCEL	1899 GOOSE CREEK RD, WAYNESBORO, VA 22980	Yes (Upstream)



ATTACHMENT C WV FLOOD TOOL MAP

WV Flood Map - Oxford 98 Pipeline

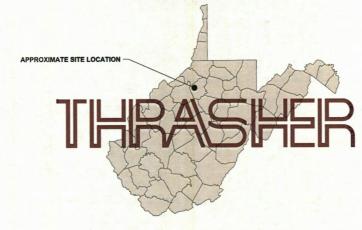


supported by FEMA, WV NFIP Office, and WV GIS Technical Center.



ATTACHMENT D SITE PLANS

DODDRIDGE COUNTY, WEST VIRGINIA JANUARY 2022





PHONE: (303) 357-7310 | FAX: (303) 357-7315

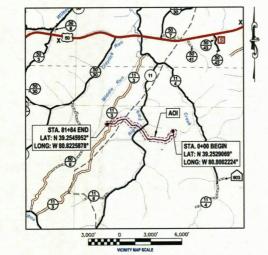
ALIGNMENT SHEETS PREPARED BY

BRIDGEPORT, WV OFFICE

PLAN REPRODUCTION WARNING

THESE PLANS THAT IS NOT PLOTTED IN FULL COLOR SHALL NOT BE CONSIDERED ADEQUATE FOR CONSTRUCTION PURPOSES.

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EXISTING INFORMATION SOURCES

BASE CONTOUR DATA PROVIDED BY OTHERS

SUPPLEMENTAL SPOT ELEVATIONS AND ALIGNMENT PROVIDED BY:

THE THRASHER GROUP 600 WHITE OAKS BLVD., P.O. BOX 940 BRIDGEPORT, WV 26330

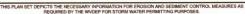
HORIZONTAL - NAD 83 WEST VIRGINIA STATE PLANE, NORTH ZONE, US SURVEY FOOT VERTICAL - NAVD 88 (GEOID12B), US SURVEY FOOT

ROAD DESIGNATIONS OBTAINED FROM WV-DOH

1-800-245-4848 TICKET # 1829235265



CONTRACTOR SHALL NOTIFY THE ONE-CALL SYSTEM OF THE INTENDED EXCAVATION OR DEMOLITION NOT LESS THAM FORTY-EIGHT (48) HOURS, EXCLUDING SATURDAYS, SUNDAYS AND LEGAL FEDERAL OR STATE HOLIDAYS, NOR MORE THAM TEN (19) WORK DAYS PRICE TO THE BEGINNING OF SUCH WORK.



THE PIPELINE MATERIALS, ASSOCIATED APPURTENANCES, MATERIAL STRENGTHS, MADE CALCULATIONS, PIPELINE ROUTING, ETC. DEPICTED ON THESE DRAWINGS ARE AS PROVIDED TO THE THRASHER GROUP, INC. BY OTHERS, THRASHER WILL NOT ACCEPT ANY LIBBILITY FOR THE APPROPRIATENESS, OR DESIGN, OR SAID MATERIAL DEPICTED IN THESE FAME.

THE AQUATIC RESOURCES DEPICTED ON THESE DRAWINGS ARE AS PROVIDED TO THE THRASHER GROUP, INC BY OTHERS. THRASHER WILL NOT ACCEPT ANY LIBBILITY FOR THE ACCURACY, OR COMPLETENESS, OF THE AQUATIC RESOURCES DEPICTED ON THESE PLANS.



R. ASHBEE SYKES, WV P.E. # 23629

ISSUED FOR PERMITS

DATE: 1/24/2022 BY: RY

WVDOH GENERAL NOTES

ALL CONSTRUCTION ON THE DIVISION OF HIGHWAYS RIGHT OF WAY WILL CONFORM TO THE FOLLOWING:

FOLLOWING:

THE FOLLOWING NOTES APPLY TO ALL PLAN SHEETS:

1. ALL METER SETTINGS ACROSS PAVED ROADS SHALL BE BORED OR MOLED, UNLESS OPEN CUT
HAS BEEN APPROVED BY W.V.D.O.H. AND SPECIFICALLY INDICATED ON PLANS.

2. NOTIFICATION OF PROPOSED EXCAVATION, DEMOLITION OR ANY OTHER EARTH DISTURBING
ACTIVITIES ARE REQUIRED TO BE PLACED TO MISS UTILITY OF WEST WRIGHIA (1-800-245-4848) NOT LESS THAN FORTY EIGHT (48) BUSINESS HOURS BEFORE ANY SUCH

WORK IS TO BEGIN. BEDDING SHALL BE PLACED ON ASPHALT SURFACE TO PROTECT THE PAVEMENT WHEN RENCHER OR TRACKED VEHICLE IS USED.

4. THE WEST VIRGINIA DIVISION OF HIGHWAYS PUBLICATIONS "STANDARD SPECIFICATIONS ROADS 4. HE WEST VIRGINIA DIVISION OF INDIVISIONS OF UTILITIES ON HIGHWAY RIGHT OF WAY LATEST PART OF THE SPECIFICATIONS AND WILL BE ADHERED TO BY THE CONTRACTOR.

5. ALL DAMAGE TO ROAD SUFFACE SHALL BE REPAIRED ACCORDING TO THE WEST VIRGINIA DIVISION OF HIGHWAYS STANDARD SPECIFICATIONS AND DETAILS.

6. ALL DESIGNING DUMP ROCK OR RIP RAP UTILITIES DIVISIONED BY THE UTILITY LINE CONTRACTOR.

SALL BE RESTORED WITH THE SAME SIZE, GRADE AND QUALITY OF ROCK AFTER THE UTILITY LINE SHALL BE RESTORED WITH THE SAME SIZE, GRADE AND QUALITY OF ROCK AFTER THE UTILITY LINE HAS BEEN INSTALLED. NEW DUMP ROCK (RIP RAP) IS TO BE PLACED IN ALL LOCATIONS WHERE THE DITCH LINE GRADE IS GREATER THAN 5% AND THERE IS NO ESSTING RIP RAP. TRAFFIC CONTROL. SHALL CONFORM TO THE W.V.D.O.H. PUBLICATION "TRAFFIC CONTROL FOR

TRAFFIC CONTROL SHALL COMPONENT OF THE WYLDON-PUBLICATION TRAFFIC CONTROL TON STREET AND INCHMAY CONSTRUCTION AND MAINTENANCE "OPERATION LATEST EDITION. ALL BACKFILL MATERIAL AND COMPACTION REQUIREMENT SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS IN THE ACCOMMODATION OF UTILITIES ON HIGHWAY PROJECTS AND SUBJECT TO D.O.H. APPROVAL EVIDENCE OF PROFER COMPACTION BY TESTING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE TESTING SHALL BE ONE (1) PER DAY OR EVERY 500 LINEAL FEET OR AS DETERMINED BY THE DISTRICT MANAGER (ENGINEER) OR HIS AUTHORIZED REPRESENTATIVE.

9. UTILITY LINES SHALL BE PLACED EITHER AROUND, UNDER OR OVER DRAINAGE CULVERTS AS SHOWN ON PLANS.

10. AGGREGATE SHOULDER STONE IS TO BE PLACED ON THE SHOULDER AT A THICKNESS EQUAL

TO 6" OR ITS ORIGINAL THICKNESS WHICHEVER IS GREATER. PAVED SHOULDERS WILL BE PAVED.

11. MAGNETIC MARKING TAPE SHALL BE INSTALLED AT A DEPTH OF 12" TO 18" BELOW THE

SURFACE AND DIRECTLY ABOVE ALL LINES OR PIPE.

12. REPAIR TO DRIVEWAYS ON W.V.D.O.H. RIGHT OF WAYS SHALL CONFORM TO THE APPROPRIATE W.V.D.O.H. TYPICAL REPAIR DETAIL.

W.V.D.O.H. TYPICAL REPAIR DETAIL

3. CEANUP MIL BE ACCOMPLISHED DAILY, RIGHT OF WAYS SHALL CONFORM TO THE

APPROPRIATE W.V.D.O.H. REPAIR. ALL CULVERTS AND DRAINAGE DITCHES SHALL BE OPEN AND

MAINTAINED DURING CONSTRUCTION. SHOULDERS WILL BE RESTORED AND STABILIZED WITH

STONE DAILY WITH APPROPRIATE STONE AT THE DISCRETION OF W.V.D.O.H.

14. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED WITHIN SEVEN DAYS OF COMPLETION OF BACK FILL OPERATION.

15. NO EXCESS EXCAVATION MATERIAL SHALL BE WASTED ON W.V.D.O.H. RIGHT OF WAYS WITHOUT THE AGREEMENT OF THE W.V.D.O.H.

16. THE W.V.D.O.H. RESERVES THE RIGHT TO RELOCATE WATERLINES, FIRE HYDRANTS, AND VALVES

AS DEEMED NECESSARY.

17. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING UTILITY COMPANIES, PRIOR TO CONSTRUCTION TO OBTAIN UTILY LOCATIONS AND PERFORMING EXPLORATORY WORK TO DETERMINE SUBSURFACE MATERIALS AND STRUCTURES THAT MAY AFFECT ITS WORK

PRIOR TO THE START OF ANY WORK WITHIN STATE HIGHWAY RIGHT-OF-WAY, THE CONTRACTOR SHALL GIVE THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION 48 HOURS

19. THE CONTRACTOR IS RESPONSIBLE FOR ANY OFFSITE DISPOSAL REQUIRED. DISPOSAL SHALL BE TO AN ACCEPTABLE LEGAL SITE. CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL AT DISPOSAL SITES.

20. ALL ELEVATION GRADES AND DISTANCES SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR AT THE SITE PRIOR TO CONSTRUCTION.

21. ALL CONSTRUCTION SHALL MAINTAIN 5' FROM EDGE OF PAVEMENT OR BOTTOM OF DITCH UNLESS NO OTHER PRACTICAL MEANS OF CONSTRUCTION EXISTS.

22. PERFORM ACCEPTABLE REPAIR OF ANY AND ALL SUB-BASE FAILURES THAT ARE CAUSED BY THE CONTRACTOR'S OPERATION ON A DAILY BASIS.

THE CONTRACTOR'S OPERATION OF A DAILT BASIS.

23. PERFORM TOTAL REPAIR AND/OR REPLACEMENT OF ANY DAMAGED ASPHALT SURFACE AS DETERMINED BY THE W.V.D.O.H REPRESENTATIVE.

24. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL MAKE A COMPLETE VIDEO SHOWING THE ROAD SURFACE OF ALL ROADS TO BE UTILIZED AND PRESENT IT TO THE UTILITY.

SUPERVISOR W.V.D.O.H.

SUPERVISOR W.V.D.O.H.

25. REMOVE DITCH-LINE OBSTACLES AND/OR RECONSTRUCTION OF THE DITCH-LINE.

26. IN THE CASE OF MANHOLES OR VALVES IF AT ALL POSSIBLE SHALL BE PLACED OUTSIDE THE ROADWAY, SHOULDER, OR DITCH LINE IF PLACED IN THE SHOULDER THERE IS TO BE A MINIBUM OF 6 INCHES OF COVER IN THE DITCH LINE THERE IS TO BE 12 INCHES OF COVER BETWEEN THE MANHOLE AND THE INCHET OF THE DITCH.

27. ANY MANHOLES OR VALVES OR VALVE BOXES PLACED IN THE ROADWAY WILL BE ON THE

27. ANT MANIFICIAL SON VALVE DAY VALVE DUST FILES WITH ROADWAY.

28. ANY ROADS REQUIRING AN H.L.B.C. OVERLAY, FULL WIDTH OR PARTIAL, SHALL HAVE SHOULDER STONE FROM AN APPROVED SOURCE FLACED AS PER D.G.H. SPECIFICATIONS.

29. THE DEPARTMENT OF HIGHWAYS REQUIRES THERE BE NO WORK WITHIN THE DEPARTMENT'S RIGHT-OF-WAY DURING SNOW AND ICE REMOVAL. THERE WAY BE EXCEPTIONS FOR EMERGENCY AND CASE BY CASE STUATIONS WITH NOTIFICATION TO THE DEPARTMENT.

UTILITY AGENCIES SERVING AREA

MISS UTILITY 1-800-245-4848 TICKET # 1829235265

WEST VIRGINIA DIVISION OF HIGHWAYS

WVDOH DIST #4 P.O. BOX 4220 CLARKSBURG, WV 26301-4220 (304) 842-1500

(304) 842-1564 FAX
MIKE RONCONE - UTILITY SUPERVISOR - CROSSINGS
TARA CARDER - PERMIT SUPERVISOR - TEMP. ACCESSES

POWER MON POWER 1-800-686-0022

TELEPHONE VERIZON TELECOMMUNICATIONS 1-800-275-2355

RESPONSE TEAMS:

NATIONAL RESPONSE CENTER FOR REPORTING CHEMICAL OR OIL SPILLS

> STATE EMERGENCY SPILL NOTIFICATION

EMERGENCY AMBULANCE, FIRE, LAW **ENFORCEMENT**

GAS LINE CROSSINGS					
STATION	LAT	LONG	DESCRIPTION	PLAN SHEET	
5+93	39.251754	-80.800707	EX. GREYLOCK 2" GAS LINE	1	
13+75	39.250479	-80.802583	EX. GREYLOCK 2" GAS LINE	1	
14+24	39.250384	-80.802703	EX. ANTERO WHITE OAK LATERAL 20" STEEL GAS LINE	1	
19+79	39.250629	-80.804569	EX. EQT GAS LINE	2	
67+54	39.255663	-80.818247	EX. EQT GAS LINE	4	
69+43	39.255541	-80.818879	EX. GREYLOCK GAS LINE	4	
76+64	39.254634	-80.820945	EX. ANTERO WHITE OAK LATERAL 20" STEEL GAS LINE	4	
76+85	39.254634	-80.821015	EX. ANTERO BEE LEWIS WELL CONNECT STEEL GAS LINE	4	
77.45	20 254679	-80 821224	EX. DOMINION GAS LINE	4	

STATION	TATION LAT LONG DESCRIPTION				
14+08	39.250419	-80.802672	EX. ANTERO BEE LEWIS TO ADRIAN WATER LINE	1	
76+33	39.254639	-80.820835	EX. ANTERO WATER LINE	4	
76+43	39.254637	-80.820872	EX. ANTERO WATER LINE	4	
76+53	39.254637	-80.820907	EX. ANTERO WATER LINE	4	

DRAWING INDEX

DESCRIPTION

01	COVER	COVER SHEET
02	GNOTS	GENERAL NOTES SHEET
03	SPECS	GENERAL CONSTRUCTION SPECS SHEET
04	INDEX	INDEX SHEETS
05-08	PLAN1-PLAN4	PROPOSED ALIGNMENT PLAN AND PROFILE SHEETS
09	HSP1	HYDROSTATIC PROFILE SHEET
10-12	S&WC1-S&WC3	STREAM & WETLAND CROSSING SHEETS
13-23	ESCP1-ESCP11	ESCP DETAIL SHEETS

GENERAL NOTES

EXISTING UTILITIES SHOWN ON PLANS WHERE EVIDENCE HAS BEEN FOUND OR PROVIDED BY LOCAL UTILITIES. EXACT DEPTH AND LOCATION OF UTILITY LINES NOT KNOWN. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CROSSING BY CONTACTING MISS UTILITY AT 1-800-245-4848 AND LOCAL UTILITY COMPANIES AS

CONTACTING MISS UTILITY AT 1-800-245-4848 AND LOCAL UTILITY COMPANIES AS UNITED AND/ORN ONT USERO IN THIS SHEET. CONTRACTOR TO LOCATE WATER AND UTILITY SERVICES BEFORE BORING AND JACKING.

IN THE EVENT AN ERROR WITH THE PLANS SEEMS APPARENT, THE NATTER MUST BE TAKEN UP WITH THE ENGINEER FOR REVIEW BEFORE PROCEEDING WITH CONSTRUCTION.

ALL PERMITS MUST BE SECULEDE PRIOR TO CONSTRUCTION.

THE CONTRACTOR SHALL COORDINATE ALL STREAM CROSSING INSTALLATIONS
PROPOSED SO NOT TO DELAY THE CONSTRUCTION PROCESS. STREAM CROSSINGS ARE
TO BE CONSTRUCTED USING AN OPEN CUT CROSSING METHOD UNLESS OTHERWISE SEPCICIED ON THE PI BANS SPECIFIED ON THE PLANS.

SPECIFIED ON THE PLANS.
ALL PROPOSED PERMANENT FILL TO BE FILLED WITH STONE, NATURAL ROCK, OR A ALL PROPOSED PERMANENT FILL TO BE INSTALLED TO MAINTAIN STREAM FLOW.
ALL WOOD ROAD CROSSINGS TO BE CONSTRUCTED USING AN OPEN CUT CROSSING METHOD UNLESS OTHERWISE SPECIFIED ON THE PLANS. WYOOD TO BE NOTIFIED AT LEAST 48 HOURS PRIOR TO ANY WORK WITHIN WYOOM R/W.
ALL CONSTRUCTION TO BE DONE IN THE PROPOSED PIPELINE LIMITS OF DISTURBANCE ASS SHOWN.

AS SHOWN.

AS SHUWN.

A ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE STANDARDS AND SPECIFICATIONS PROVIDED IN A SEPARATE BOUND VOLUME.

9. CONTRACTOR SHALL FIELD VERIFY EXISTING PIPE TYPES AND O.D. PRIOR TO

 PROPERTY LINES SHOWN ON PLANS WERE OBTAINED FROM PARTIAL FIELD SURVEY AND RESEARCHED INFORMATION TAKEN FROM VARIOUS RECORDS ON FILE IN THE LOCAL COUNTY COURTHOUSE. TO OBTAIN A MORE ACCURATE BOUNDARY LINE LOCATION, A FULL PROPERTY SURVEY IS RECOMMENDED.

EROSION & SEDIMENT CONTROL NOTES

ALL EROSION AND SEDIMENT MEASURES TO BE IN ACCORDANCE WITH WEST VIRGINIA ONLINE BMP MANUAL FOR STANDARD GUIDELINES AND SPECIFICATIONS AVAILABLE AT:

HTTPS: //APPS.DEP.WV.GOV/DWWM/STORNWATER/BMP/INDEX.HTML EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN SHOWN ON PLANS AND DETAILED IN SPECIFICATIONS.

3. EXPOSED SOILS SHALL BE STABILIZED BY APPLICATION OF EFFECTIVE BMPs THAT PROTECT THE SOIL FROM THE EROSIVE FORCES OF RAINDROPS, FLOWING WATER, AND

4 CLEARING AND GRUBBING IS TO OCCUR IN THE NOTED LIMITS OF DISTURBANCE

(L.O.D.) ONLY.
ALL GRADED AREAS THAT ARE AT FINAL GRADE MUST BE SEEDED AND MULCHED WITHIN 7 DAYS AND AREAS THAT WILL NOT BE WORKED AGAIN FOR 21 DAYS OR MORE MUST BE SEEDED AND MULCHED WITHIN 7 DAYS. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE SEVENTH DAY AFTER CONSTRUCTION ACTIVITY STABLISTORY OR PERMANENTLY CEASES IS PRECLUDED BY SHOW COVER, STABILIZATION MEASURES SHALLY MEETING AS SOME SHOWN OF THE SITE WITHIN STABILIZATION OF THE SITE WITHIN 21 DAYS FROM WHEN ACTIVITIES CEASED, (E.G., THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY HALTED IS LESS THAN 21 DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH DAY AFTER CONSTRUCTION ACTIVITIES HAVE TEMPORARILY

AREAS WHERE THE SEED HAS FAILED TO GERMINATE ADEQUATELY (UNIFORM AREAS WHERE HE SEED HAS FAILED TO GROWING TO ACCOUNT A OCCUPANT ON THE PREVIOUS AND A CONTROL OF THE PREVIOUS AND ALL CHAPTER OF THE SEEDING AND MULCHING MUST BE RE-SEEDED IMMEDIATELY, OR AS SOON AS WEATHER CONTIONS ALLOW TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BUPPS SHALL BE MAINTAINED AND REPARED TO ASSURE CONTINUED PERFORMANCE OF

THEIR INTENDED FUNCTION. MAINTENANCE AND ACCORDANCE WITH BMPs. REPAIR SHALL BE CONDUCTED IN

EROSION AND SEDIMENT CONTROLS BMPs SHALL BE INSPECTED AT LEAST ONCE

EROSION AND SEDIMENT CONTROLS BUPE SHALL BE INSPECTED AT LEAST ONCE. EVERYS SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES PER 24 HOUR PERIOD. ANY NECESSARY OR REQUIRED REPAIRS SHOULD BE MADE IMMEDITALLY, ANTERO HAS ONLINE ACCESS TO SEVERAL RAIN GAUGE LOCATIONS IN THE GENERAL AREA OF EACH WORK LOCATION. THIS DATA WILL BE MONITORED AND USED BY INSPECTION PERSONNEL. USE OF ONLINE WEATHER TRACKING TOOLS MAY BE UTILIZED. RAINFALL DATA WILL BE RECORDED ON

CONSTRUCTION SEQUENCE OF EVENTS CALL MISS UTILITY (1–800–245–4848)
INSTALLATION OF ENGSION AND SEMENT CONTROL MEASURES.
CONSTRUCTION OF PIPELINE WITH RESTORATIONS.
TESTING OF PIPELINE AND APPURTENANCES.
WORK CLOSE—OUT, PUNCH LIST, CLEAN UP, REPAIRS, FINAL SEEDING

LEGEND / ABBREVIATIONS

= EXISTING PIPELINE VENT

= EXISTING GAS WELL (AS NOTED)

- EXISTING GAS METER - FYISTING PIPELINE MARKER

= EXISTING GAS VALVE - EXISTING MONUMENT FOUND (AS NOTED)

- EXISTING UTILITY POLE = EXISTING GATE / FENCE POST

0 = EXISTING PIPELINE

= EXISTING WATER LINE - x --- = EXISTING FENCE

T - EXISTING TELEPHONE

a a EXISTING GUARDRAIL

= = = EXISTING UNPAVED ROAD

= EXISTING PAVED ROAD

EXISTING TREELINE

===== = PROPERTY LINE = DOH RIGHT-OF-WAY LINE

- = PROPOSED PERMANENT RIGHT-OF-WAY

PROPOSED CONSTRUCTION RIGHT-OF-WAY/

-LOO--- = COMPRESSOR/WELL PAD LIMITS-OF-DISTURBANCE

COMPRESSOR/WELL PAD LIMITS-OF-DISTUR

G PROPOSED ANTERO BASELINE

G PROPOSED ANTERO BUSINES

W PROPOSED ANTERO BUSINES WATER LINE

W PROPOSED ANTERO BUSINES WATER LINE

STISTING GROUND PROFILE

CONTOUR

CONTOUR

CONTOUR

= AREA-OF-INTEREST

= + - + = PROPOSED ACCESS ROAD DITCH = PROPOSED CULVERT

= DELINEATED CULVERT

DELINEATED STREAMS
 DELINEATED STREAMS (PROPOSED PERMANENT FILL)

- DELINEATED WETLANDS

= DELINEATED WETLANDS (PROPOSED PERMANENT FILL) = DELINEATED GROUNDWATER SEEP/SPRING

= ROLLED EROSION CONTROL PRODUCT (INDICATES AREAS WHERE SLOPE IS 3:1 OR GREATER)

- ADDITIONAL TEMPORARY WORKSPACE

= STONE CONSTRUCTION ENTRANCE

- TEMPORARY TIMBERMAT CROSSING

0

= PROPOSED ACCESS ROAD

MADP - PIPELINE MILE POST = PROPOSED RIGHT-OF-WAY DIVERSION (PROFILE)

- PROPOSED EARTH TRENCH BREAKER (PROFILE)

= PROPOSED TRENCH PLUG DRAIN (PROFILE)

43-3-4-31.1 = PARCEL IDENTIFICATION *LEGEND IS TYPICAL NOT ALL ITEMS IN LEGEND APPEAR IN DRAWING.

PROPOSED 100' CONSTRUCTION RIGHT-OF-WAY/ LIMITS-OF-DISTURBANCE

B.L. PROPOSED CORRIDOR

CONSTRUCTION R/W
LIMITS-OF-DISTURBANCE

Antero

8

OXFORD 98 PIPELINE GENERAL NOTES

PROPOSED 16" STEEL GAS LINE & 18" HDPE SURFACE WATER LIN DODDRIDGE COUNTY, WEST VIRGINIA

SHEET 02

SUMMARY OF MATERIALS (3D) **GENERAL INFORMATION** SUMMARY OF MATERIALS (3D) ALL DESIGN, STRENGTH OF PPELINE AND MADE CALCULATIONS ALONG WITH ROLLTING WERE PREPARED BY ANTERS AND PROVIDED TO THRASHER FOR RECURSION ON THE PLANS. THRASHER ASSUMES NO LIMITATE FOR THE CORRECTIONS OF THESE CALCULATIONS AND/OR RELITE PROVIDED BY

IFP ISSUED FOR PERMITTING

1/24/2022

AFE # A08641

REVISION 1 REVISED PER COMMENTS FROM KLEINFELDER, NATIONAL & THRASHES

1/24/22 JDJ

FIELD DELINEATION PERFORMED AND PROVIDED BY: KLEINFELDER, INC.

AND MULCHING FTC.

DATE BY

FORESTED ACREAGE WITHIN THE PERMITTED LIMITS-OF-DISTURBANCE = 2.43 ACE

THIS SHEET IS INTENDED TO BE PLOTTED ON ANSI D (22" X 34"). FOR REDUCTIONS, REFER TO GRAPHIC SCALE

REV. 2 SHT. NAME: 050-6935\0X98PL\GNOTS

THRASHER

GENERAL CONSTRUCTION SPECIFICATIONS

1. GRADING

IL IMAJUNIS

THE CONTACTOR SMALL GRADE AS NECESSARY TO MITIGATE THE NECESSITY OF ABRUPT OVER-BENDS OR SACH-BENDS. CONTRACTOR SMALL MINIMIZE THE GRADING WHERE PRACTICAL TO PREVENT UNINCESSARY DISSIPATIONS. CONTRACTOR SMALL MINIMIZE THE GRADING WHERE PRACTICAL TO TO TO GRIGINAL ELEVATIONS. CONTRACTOR SMALL AND MINIMIZE MORK REQUIRED TO RETURN TO THE RIGHT-OF-WAY TO TO STORIGHAL ELEVATIONS. AND SACH-BENDS. GRADE SUBSICION MATERIALS SHALL BE STOCK PLED SO IT CAN BE RETURNED TO ITS ORIGINAL DEPTH AND LOCATION AS OPPOSED TO SPREAD ALONG THE RIGHT-OF-WAY. THE CONTRACTOR SMALL GRADE, GOT OTHERWISE REDUVE AND DESPECTABLY AND DEBTHS FOUND TO BE IN THE WAY OF CONSTRUCTOR WITH PERMANENT RIGHT-OF-WAY UNITS. WHEN THE CONTRACTOR IS CUTTING GRADE ALONG OR ACROSS ESTRING PPEUMES, SPOIL OR MATS SHALL BE PLACED OVER THE EXISTING LINES PER THE REQUIREMENTS OF THE OPERATING COMPANY OF THE FOREIGN PIPELINE.

2. COMPANY FOREIGN LINE AND UTILITY CROSSINGS

CONTRACTOR SHALL CONTRU THE LOCATION OF ALL SLICH CROSSINGS AND NOTIFY THE OWNER PRIOR TO ANY DITCHING ACTIVITY IN THE WICHITY OF THE CROSSINGS. A MINIMUM CLEARANCE OF 12 is., OR AS REQUIRED BY THE OWNER/DEPERATOR, SHALL BE MANITAMED FROM THE FOREIGN CROSSING. THE CONTRACTOR SHALL MAKE ALL REQUIRED "ONE-CALL" NOTIFICATIONS, AND KEEP DOCUMENTATION OF NOTIFICATIONS. THE CONTRACTOR SHALL KEEP THE MANGINGS RETEXED AS RECESSARY DURING THE LUCKTH OF THE CONSTRUCTION ACTIVITIES. MAKING REESSARY FOR SHALL KEEP THE MAGNICUS STREAMS AS REQUIRED. COMPANY MILL LOCATE AND MARK LOCATIONS OF KNOWN COMPANY FALL TO AND THE DESTRUCTION ACTIVITIES.

IN AREAS WHERE UNDERGROUND FACILITIES, SUCH AS PIPELINES, ELECTRICAL LINES, FIBER OPTIC CABLES, ETC.
EXISTING, EXCAVATION BY MACHINE SHALL BE LIMITED TO NO CLOSER THAN 2 FEET (IN ANY DIRECTION) TO THE
FACILITY IN FACILITY SHALL THEN BE EXPOSED AND POSTIVELY LOCATED BY HAND EXCAVATION BY MACHINE IS
FACILITY IS EXPOSED, AND ONLY WHILE A COMPANY REPRESENTATIVE IS ON—SIT, EXCAVATION BY MACHINE IS PERMITTED TO WITHIN 1 FOOT (IN ANY DIRECTION) OF THE FACILITY. THE REMAINING EXCAVATION MUST BE HAND

3. DITCH SPECIFICATIONS

DITCH WIDTH AND DEPTH — UNLESS OTHERWISE STATED ON THE DRAWNGS OR RIGHT—OF—WAY LINE UST, THE DITCH SHALL BE A MININUM OF 12 IN. MODER THAN THE PIPE BERNE LAID FOR PIPE DIAMETERS LESS THAN 12 IN. AND A MININUM OF 18 IN. MODER FOR PIPE DIAMETERS 12. AND GREATER AND OF SIGHT DEPTH THAT THE PIPE SHALL HAVE 48 IN. MINIMUM COVER IN SOIL AND 36 IN. IN CONSULDATED ROOM, MEASURED FROM DEPTH OF THE PIPE SHALL HAVE 48 IN. MINIMUM COVER IN SOIL AND 36 IN. IN CONSULDATED ROOM, MEASURED FROM DEPTH OF THE PIPE SHALL HAVE 48 IN. MINIMUM COVER IN SOIL AND 36 IN. IN CONSULDATED ROOM, MEASURED FROM DEPTH OF THE PIPE SHALL PROPERTY OF THE PIPE SHALL PROP

CONSCUDATED_ROCK — CONSCUDATED ROCK IS DEFINED AS ROCK LAYERS WHERE THE UPPERMOST SURFACE EXISTS AT A HIGHER ELEVATION THAN THE ELEVATION THE TOP OF THE PIPE. THIS CONDITION PROVIDES PROTECTION AGAINST DAMAGE FROM EXTERNAL FORCES AND AUSTRIES COVER.

<u>QITCH_GRADING</u> — THE BOTTOM OF THE DITCH SHALL BE CUT TO A UNIFORM GRADE SO THAT THE FULL WIDTH OF THE DITCH SHALL BE AVAILABLE FOR PROVIDING SLACK IN THE LINE WHEN LAID.

REND_EXCAVATIONS - AT OVER-BENDS AND SIDE-BENDS, THE CONTRACTOR SHALL EXCAVATE THE DITCH TO ALLOW PROPER CLEARANCE BETWEEN THE INSIDE BEND OF THE PIPE AND THE BOTTOM OR SIDE OF THE DITCH TO MAINTAIN THE MINIOUN COVER.

ROCK - IN ALL CASES WHERE ROCK, OR ANY BOULDER LARGER THAN THO IN. IN DIALETTER IS CHOCKNITED IN THE BOTTON OF THE DITCH, THEN THE ROCK OF SHALL BE EVENLY PAUCED WITH SOIL SAND OR OTHER PAUDING WATERIAL IN ORDER TO PROVED THE ROCK OR BOULDER'S FROM COMMON WITO CONTACT WITH THE PIPE

4. SPOIL BANK

THE STOIL BANK FROM THE DITCHING OPERATIONS SHALL NOT BE PLACED ON ANY LOOSE DEBRIS OR FOREIGN MATTER WHICH MIGHT BECOME MIXED DURNO PADDING AND BACKFILLING OPERATIONS. THE CONTRACTOR SHALL PROMIDE AND MAINTAIN GAPS OR OPENINGS IN THE SPOIL BANK ACCOSS CULTIVATED FIELDS, SO THAT EXCESSIVE RAINS DO NOT CAUSE WATER TO BACK UP AND FLOOD CULTIVATED SECTIONS, EXTRIBUTE CAME SHALL BEE DECREASED TO KEEP ALL BRIGHD DITCHES OPEN AND USEFUL.

5. TEMPORARY BRIDGES

WHEN THE DITCH IS EXCAVATED THROUGH LANDS WHERE UVESTOCK/MIDDIFE IS CONFINED OR THROUGH AGRICULTURAL FIELDS WHERE THE COMPANY DETERMINES IT IS DESIRABLE FOR THE LANDOWNER OR TENANT TO HAVE A PASSAGEMAY ACROSS THE DITCH. THE CONTRACTOR SHALL PLUE THE DITCH OR PROVIDE SAFE, TEMPORARY BRIDGES FOR CROSSING THE DITCH AND LEAVE AN OPENING IN THE SPOIL BANK.

6. EXCAVATING NEAR IN-SERVICE PIPELINES

WHEN DITIONNE PARALLEL TO AN EXISTING PIPELINE IN THE SAME RIGHTS—OF—WAY, NEAR THE EXISTING LINE AND DEEPER THAN THE EXISTING LINE CARE SHOULD BE TAKEN TO LEAVE SUPPICION TO STEAMES AND SUPPORT TO ENSURES AND LINE DOES NOT SLOUGH OF FIN TO NEW EXCLANGEN. IF PARALLEL LINE IS A COUPLED HIGH PRESSURE LINE, IT IS NOT PERMITTED TO EXPOSE MODE FINA ONE COURTING AT A TIME. IN ALL INSTANCES, THE WORK SHOULD BE PLANNED SUCH THAT THE EXCHANDON IS OPEN A BINDRUM AMOUNT OF THE

7. HAULING AND STRINGING

THE CONTRACTOR SHALL HALL AND STRING PIPE, CASING AND OTHER MATERIALS TO THE RIGHT-OF- WAY OR WORK AREA. THE CONTRACTOR SHALL PROVIDE ALL RECESSARY TRUCKS AND EQUIPMENT FOR THE HALLING AND SPOTTING OF ALL MATERIALS. THE CONTRACTOR SHALL FURNISH SHOULD AND PLACE PIPE ON SKIDS ON THE RIGHT-OF-MAY IN A MANNER WHICH KEEPS BOTH ENDS FREE OF DIRT AND DEBRIS.

8. BENDING

DELD BENDING.— WHERE IT IS NECESSARY TO BEND PIPE, ONLY COLD BENDS SHALL BE EMPLOYED. THE BENDS SHALL BE FREE FROM BLOCKING, FLATEBING, CRACKS OR OTHER EMBENCE OF NECHARICAL DAMAGE AND ALL BENDS SHALL NOT HAVE A DIFFERENCE BETWEEN THE MAXIMUM AND INNIVIOUS INSAFERS IN EXCESS OF 2.5 % OF THE MOMINAL DIAMETER. ALL BENDS SHALL MEET THE CRITERIA SET FORTH IN DOT PART 192.

8. BENDING (CONTD)

SLACK AND LONGITUDINAL WELDS — ALL OVER-BENDS, SACS AND SIDE-BENDS SHALL BE MADE TO PROVIDE AN ADEQUATE AMOUNT OF SLACK IN THE PIPELINE. ON PIPE HAMING A LONGITUDINAL WELD, THE LONGITUDINAL WELD, THE LONGITUDINAL WELD, THE LONGITUDINAL WELD MUST BE LOCATED AS NEAR AS PRACTICABLE TO THE NEUTRAL ASS OF THE BEND.

BENDING MACHINE — EACH BEND SHALL BE MADE USING A COMPANY APPROVED BENDING MACHINE HAVING A FULL ORCLE BENDING SHOE WITH A NEOPRENE OR UBETHANE LINING TO PRODUCE A SMOOTH, SYMMETRICAL BENDI, UNLESS SPECIFIED OFFIRMS BY THE COMPANY. ON PIPE CONTAINING A LONGTUDINAL WED, THE CONGTUDINAL SEAM MUST BE AS NEAR AS PRACTICAL TO NEUTRAL ANS OF THE BEND UNLESS THE BEND IS MADE WITH AN INTERNAL BENDING MAMPRIED OF THE PIPE IS 12 I.O. OR LESS IN OUTSIDE DIMETER OR HAS A DIAMETER—TO—WALL THICKNESS PATIO LESS THAN 70. IF THE PIPE IS INTERNALLY COATED, THE BEARING SURFACES OF THE MANDRIED SHALL BE CONSTRUCTED TO ANDOL PERMANENTLY MARKING OR DAMAGING THE INTERNALLY COATED, THE SEARING STREAM COATING, NO APPRECIABLE STRETCHING OR THINNING OF THE PIPE WALL THICKNESS SHALL BE

BENDING LIMITATION — DEFLECTION SHALL BE LIMITED TO A MAXIMUM OF ONE AND CINE—HALF DEGREES PER PIPE DAMETER MEASURED LONGTUDINALLY ALONG THE PIPE. A COMPANY ACCEPTED METHOD OF MEASUREMENT SHALL BE USED BY THE CONTRACTOR WHEN MARKING THE PIPE IN PREPARATION FOR MAXING FIELD BENDS. BENDING SHALL NOT BE ALLONED IN A CIRCUMFERENTIAL WELD AND NOT CLOSER THAN 8 ft. TO

9. SWABBING AND CLOSING OPEN ENDS

SWABBING — EACH PIPE JOINT SHALL BE SWABBED AS NECESSARY TO REMOVE ALL DIRT AND FORECH MATTER FROM THE INSIDE OF THE PIPE BEFORE THE JOINTS AREA ALJONED AND WELDED. THE SWABBING OPERATION SHALL MOT BE CARRIED ON MORE THAN FOUR JOINTS AHEAD OF THE FIRING LINE MELDERS OR AND WELDING OPERATIONS.

CLOSING OF PIPE ENDS. — WHERE THE LINE IS WELDED IN LONG SECTIONS BY THE FIRING LINE METHOD, THE ENDS OF THE LONG SECTIONS SHALL BE CLOSED AND KEPT CLOSED IN AN AUMINER APPROVED BY THE COMPANY UNITL THE LONG SECTIONS ARE FINALLY JOINED. DURING THE LAYING OPERATIONS, CLOSE ATTENTION SHALL BE GIVEN TO OPEN EXIDS TO ENSURE A COMPLETELY OPEN AND CLEAN LINE FREE OF ANY GESTRUCTIONS. ALL RESSONABLE PRECAUTIONS SHALL BE TAKEN TO PREVENT WATER FROM ENTERNIO THE LINE.

PREVENTION OF FOREIGN MATTER IN THE PIPELINE — THE OPEN END OF THE LINE SHALL BE SECURELY CLOSED AT THE END OF EACH DAY'S WORK TO PREVENT ENTERANCE OF SMALL ANNIALS OR THE INTRODUCTION OF FOREIGN MATTER OF MAY NATURE AND SMALL NOT BE RECOPENED LIMITL WORK IS RESURED. ANY OBSTRUCTIONS ROMAINING IN THE LINE ATTER THE COMPLETION THEREOF SHALL BE REJOYCED.

10. POSITIONING OF LONGITUDINAL SEAM

IN INSTANCES WHERE PIPE OTHER THAN SEAMLESS IS FURNISHED BY THE COMPANY, THE LONGTUDINAL SEAMS OF SLICH PIPE SHALL BE STAGGERED BY NOT MORE PHAN 45: LONGTUDINAL WELD SEAMS SHALL HAVE A MINIMUM FOUR-INCH GROUNDERSHALL BY NOT SEATHER SHOPED, THE LONGTUDINAL SEAMS ON ADJACENT PIPE SHALL BE STAGGERED, PLACING ONE APPROXIMATELY IN THE 10 OCCOOR POSITION AND THE OTHER APPROXIMATELY IN THE 20 OCCOOR POSITION.

11. LOWERING-IN PIPE

OVER-BENDS SIDE-BENDS AND SAC-BENDS — ALL OVER-BENDS SHALL BE MADE AND INSTALLED TO CLEAR THE MIGH POINT OF THE BOTTOM OF THE DITCH BY AT LEAST 12 IN. AT THE POINT OF BEND. AT SIDE-BENDS, THE PIPE SHALL BE BENT AND LOWERED TO LAY AGAINST THE OUTSIDE WALL AT THE BOTTOM OF THE DITCH. ALL SAG- BENDS SHALL CONTINUOUSLY LE ON FIRM GROUND AT THE BOTTOM OF THE DITCH.

PIPE SUNGS AND CRADIES — THE CONTRACTOR SHALL PROVIDE PADDED SUNGS FOR HANDLING COATED AND WRAPPED PIPE. THE USE OF BELTING REINFORCED WITH WIRE CARLE SHALL NOT BE PERSITTED. ANY METHOD OF LOWERING-IN WHICH PREVENTS DAMAGE TO THE COATING SHALL BE ACCEPTABLE; HOWEVER, HE USE OF

CONTINUE OF DITCH. PRIOR TO LOWERING-IN THE CONTRACTOR SHALL PROVIDE, TO THE SATISFACTION OF THE COMPANY, A DITCH WHICH IS FREE FROM EXCESS DEBRIS, LARGE ROOGS AND ROOTS, MELLIONS OR OTHER SILCH OBJECTS WHICH CAUSE DAMAGE TO THE PIPE AND ITS PROTECTIVE COATING DURING LOWERING-IN DEPERATIONS. THE CONTRACTOR SHALL PUMP WATER FROM THE DITCH, BELL HOLES OR OTHER TIE-IN EXCAVATIONS PRIOR TO LOWERING-IN.

BOOK DITCH ANDING - IN AL CASES WIFEE BOOKS 2 In. AND LARGER ARE ENCOUNTERED IN THE BOTTOM OF THE DITCH AND NO ADDITIONAL PIPE COATING FORTECTION IS PROMODE. THE CONTRACTOR SHALL PROVIDE PADDING MATERIAL PLACED EVENLY AND CONTINUOUSLY TO A MINIMUM DEPTH OF 8 In. ALONG THE BOTTOM OF THE DITCH AS APPROVED BY THE COMPANY.

REPORTS — THE CONTRACTOR SHALL CONSTRUCT THE PIPELINE TO LIE ON THE BOTTOM OF THE PIPE TRENCI.
ALL BEINDS SHALL BE MADE TO RIT THE PIPE DITCH. WHERE PIPE CANNOT BE DIRECTLY SUPPORTED BY THE
OTTOM OF THE TEROCH, SUPPORTS SHALL BE PROVIDED BY SANDBARG OR OTHER COMPANY APPROVAD
MATERIALS. SANDBAGS SHALL BE PLACED AT POINTS TO PROVIDE STRESS—FIRE SUPPORT FOR THE PIPELINE
SUBSCILLENT TO BACCHILLINE, SPADINE INTERVALS FOR SANDBARD SUPPORTS SHALL BE 15 T. OR LESS AS
REQUIRED BY THE COMPANY. SUPPORTS COMPRISED OF MATERIALS OTHER THAN SANDBAGS SHALL BE
CONSTRUCTED IN STRECT ACCORDANCE WITH THE MANUFACTURES' INSTRUCTIONS AND AT SPACIAL RITHER
HO GREATER THAN THE APPROPRIATE MAXIMUM INTERVAL RECOMMENDED BY THE MANUFACTURER. SUPPORT
SHALL BE PLACED AT POINTS TO PROVIDE STRESS—FIRE INSTALLATION SUBSCULDIT TO BACCHILL THE
CONTRACTOR SHALL NOT USE ANY SUPPORT METHOD WITHOUT THE PRIOR APPROVAL OF THE COMPANY AND
MATERIAL PROVIDED BY CALLING ANY SUPPORT METHOD WITHOUT PROVIDED BY INSTLATION DIRECTIONS FOR NOTING THE COMPANY WITH THE MANUFACTURER'S RECOMMENDED INSTALLATION DIRECTIONS FOR

IIE-INS - SECTIONS OF THE PIPELINE EXCAVATED FOR TIE-INS SHALL BE SUPPORTED WITH SANDBAGS OR OTHER APPROVED MATERIALS AT INTERVALS INDICATED ABOVE, SUPPORTS SHALL BE PLACED INMEDIATELY AFTER INAL. ITE-IN TO PROVIDE A STRESS-FREE INSTALLATION SUSPECIENT TO THE BACKFLUND OPERATION.

12. BACKFILLING

ATTER LOWERING—IN HAS BEEN COMPLETED, BUT BEFORE BACKFILLING, THE DITCH SHALL BE PUMPED DRY IN UPLAND AREAS AND THE UNE SHALL BE INSPECTED TO ENSURE THAT NO SOIDS, BRUSH, STUDYES, RIEES, BOULDERS OR DEBRIS ARE IN THE DITCH. SO SUCH MATERIALS OR DEBRISH ARE TO BE BACKFILLED INTO THE DITCH. AFTER THE PIPE HAS BEEN INSPECTED AND APPROVED BY THE COMPANY, AFTER ALL DAMAGE TO THE PROTECTIVE COATING HAS BEEN PREPARED AND AFTER THE COATING ON THE PER SHALD SUFFICIANT TIME TO CHIE, THEN THE CONTRACTOR SHALL BACKFILL BY TO THE DITCH THE CONTRACTOR SHALL BACKFILL BY TO THE TOTAL SHALL BE PLACED IN TIME TO THE DITCH THE CONTRACTOR SHALL BACKFILL STANDARD WATERIAL SHALL BE PLACED IN TIME TO THE DITCH THE CONTRACTOR SHALL BE BACKFILLED AS CLOSE AS POSSIBLE TO ITS ORIGINAL LOCATION.

ROCK, TWO INCHES IN DIAMETER AND LARGER, OR LINE MATERIALS SHALL NOT BE BACKFILLED DIRECTLY ONTO THE PIPE. WHERE SUCH MATERIALS ARE ENCOUNTERED, THE CONTRACTOR SHALL HAUL, IF NECESSARY, SUFFICIENT EARTH OR SAND TO BE BACKFILLED AROUND AND OWER THE PIPE TO FORM A PROTECTIVE PADDING OR CUSHON TO A MINIMAN OF EIGHT INCHES OR, AS OTHERMSE SPECIFIED IN THE SCOPE OF WORK, IN BEPTH BETWEEN THE PIPE AND ANY GRAVEL OR SHALL BROCKEN ROCK TO BE BACKFILLED LARGE ROCK OR BOULDERS IN EXCESS OF 24 in. IN DIAMETER, WIDTH OR LENGTH, SHALL NOT BE BACKFILLED INTO THE DITCH. SUCH ROCK SHALL BE DISPOSED OF PROPEDITY.

13, TRENCH BREAKER

- THE CONTRACTOR SHALL INSTALL EROSION BREAKERS IN THE DITCH OVER, UNDER AND AROUND THE PIPE TO PROVIDE FULL PROTECTION AGAINST BROCKFILL WASHING AT VARIOUS POINTS ALONG THE PIPELINE. BREAKER INSTALLATIONS AND SPACING SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS AS WELL AS COMPANY, LOCAL STATE, AND FEDERAL REGUIREMENTS.
- BREAKER MATERIALS SHALL INCLUDE, BUT ARE NOT BE LIMITED TO, DECOMPOSABLE BACS, SAND AND ANY OTHER MATERIALS REQUIRED TO FACILITATE THE PROPER PLACEMENT OF THE BREAKER MATERIAL IN THE
- DITCH.

 BREAKER INSTALLATIONS MAY BE COMPRISED OF EITHER A MULTIFLE SANDBAG CONFIGURATION OR BY OTHER APPROVED METHODS. ALL BREAKER INSTALLATIONS SHALL MEET WITH THE APPROVAL OF THE COMPANY.

 BREAKER SIZE IS DEPENDENT ON THE EXITAL AND CONDITION OF THE DITCH IN OPPTH, MOTH, SLOPE AND GRADE. AT A MINIMUM, BREAKERS SHALL EXTEND THE MOTH AND DEPTH OF THE DITCH.

 BREAKERS, SIZE SHALL BE SPACED ALMON THE UITCH IN ACCORDINATE WITH THE COMPANY'S ENVIRONMENTAL.

14. DIRT PADDING

THE CONTRACTOR SHALL INSTALL ROCK—FREE DIRT PADDING IN AREAS DESIGNATED BY THE COMPANY. TOPSOL SHALL NOT BE USED FOR PADDING THE DITCH. DIRT PADDING SHALL BE INSTALLED IN THE BOTTOM OF THE DITCH TO A MINIMUM DEPTH OF 8 IN. PRIOR TO LOMERING—IN THE PREFILIE, IT OTHER ACCEPTABLE SUPPORT FOR PROTECTING THE BOTTOM OF THE PIPE IS NOT UTILIZED. A MINIMUM OF 8 II. OF DIRT PADDING SHALL SUPPORT INSTALLED AS COVER ON TOP OF THE LIKE AS PROTECTION PROOF TO SAKE USING A PADDING MACHINE MET AND ASSESSED DIRECTLY FROM THE SPOL OF THE SAKE AS ASSESSED THE SAKE USING A PADDING MACHINE WITH A SAKE OF THE SAKE AS ASSESSED THE SAKE OF THE SAKE AS ASSESSED.

15, CLEAN-UP

THE CONTRACTOR SHALL KEEP THE RIGHT-OF-WAY CLEAR OF LITTER, SOLDS, DEPECTIVE MATERIALS, AND ALL OTHER CONSTRUCTION DEBYES IMMEDIATELY BEDIND ITS OPERATIONS, TO THE SAIRS-ACTION OF THE COMPANY, UPON COMPIETION OF THE MACOFFLL THE CONTRACTOR WILL CLEAN THE RIGHT-OF-WAY IN A NEAT AND ACCEPTABLE CONDITION, SURFLUS MATERIALS SHALL BE ASSEMBLED AND DELIVERED BY CONTRACTOR TO A LOCATION DESONATED BY HE COMPANY, FINCES SHALL BE RECONSTRUCTED TO THE ORIGINAL LINE AND CATES INSTALLED AS INDICATED BY THE COMPANY, THE CONTRACTOR SHALL FURNISH GATES, FENCING AND POSTS.

THE RIGHT-OF-WAY SHALL BE DISKED, LIMED, SEEDED AND FERTILIZED DURING THE CLEAN-UP OFFRATION. THE CONTRACTOR SHALL FURNISH THE LIME, SEED AND FERTILIZENS, SEEDING, FERTILIZENG AND MUCHENG MUST BE DONE WITHIN 6 DAYS OF FINAL CLEAN UP OR IN ACCORDANCE WITH COMPANY ENVIRONMENTAL REQUIRED.

PIPELINE MARKERS SHALL BE INSTALLED AT POINTS DESIGNATED BY THE COMPANY DURING CLEAN-UP OPERATIONS. THE COMPANY SHALL FURNISH LINE AND AERIAL MARKERS.

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IFP

1/24/2022

SUMMARY OF MATERIALS (3D) SUMMARY OF MATERIALS (3D) OTY DESCRIPTION REVISION 1 REVISED PER COMMENTS FROM KLENFELDER, NATIONAL & 1/19/22 .0 1/21/22 101 2 REVISED PER COMMENTS FROM ANTERIO DATE BY DESCRIPTION DESCRIPTION

GENERAL INFORMATION

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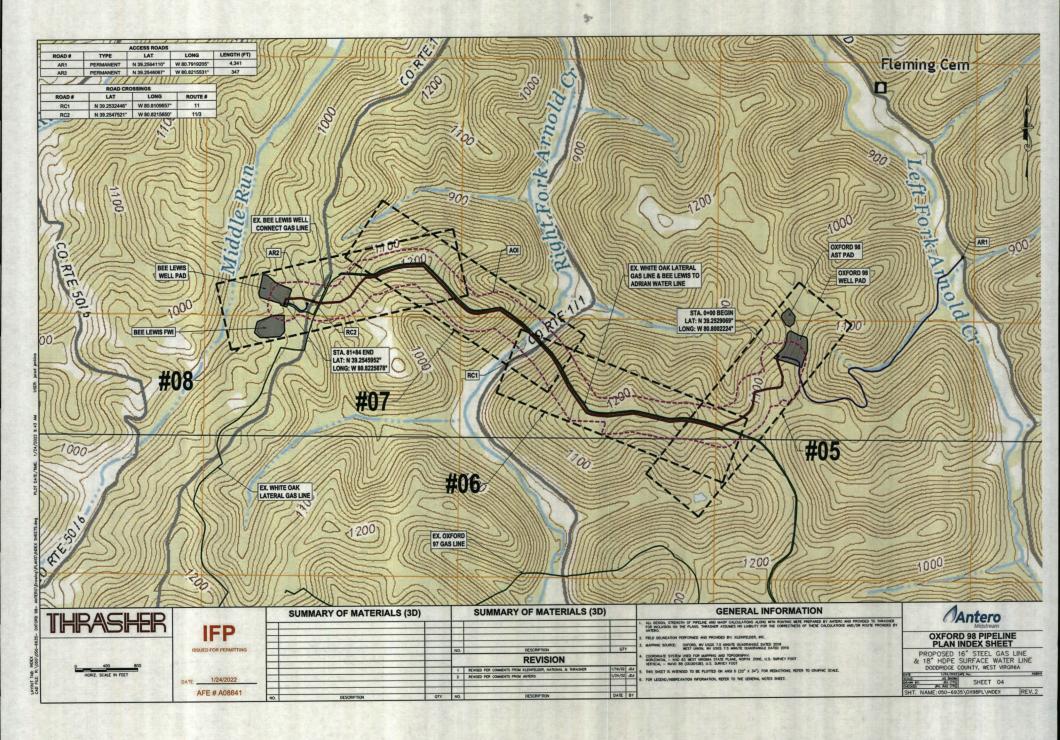
OXFORD 98 PIPELINE GENERAL CONSTRUCTION SPECS

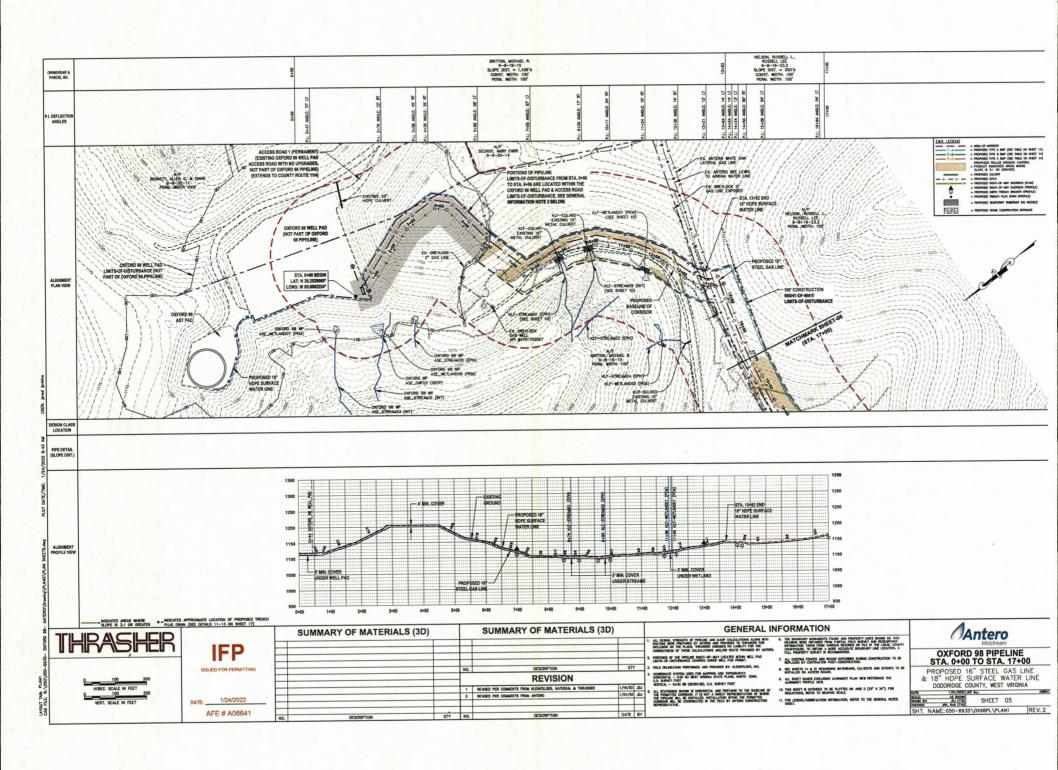
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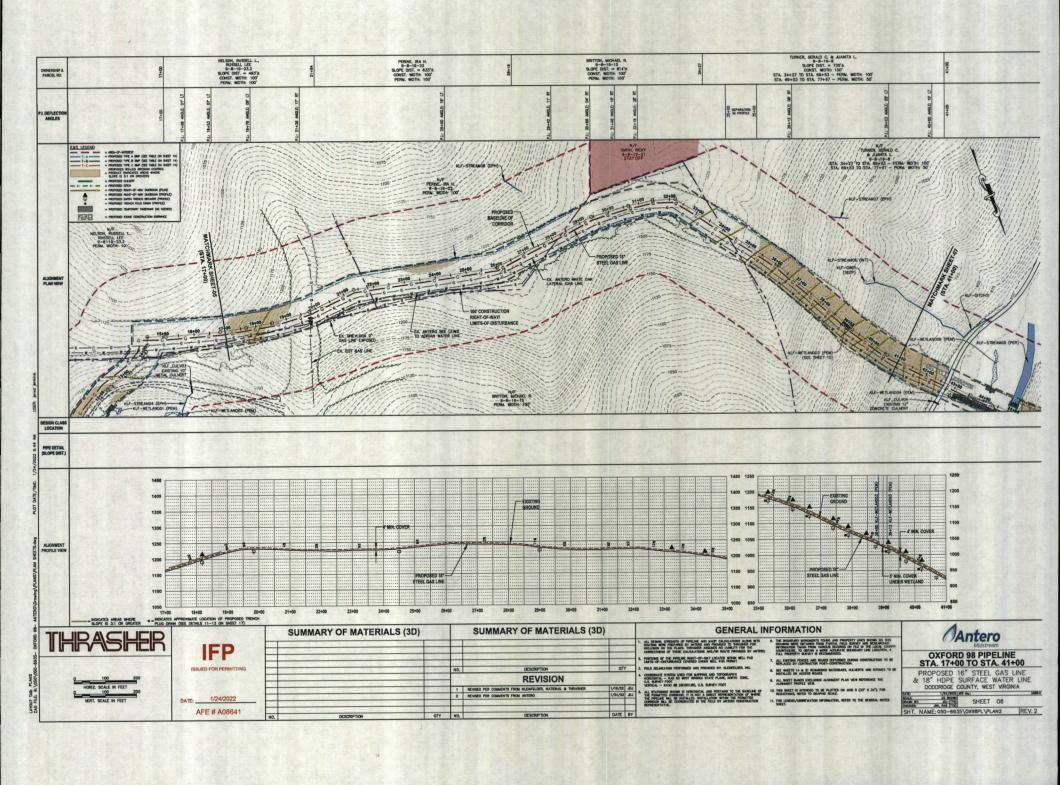
PROPOSED 16" STEEL GAS LINE

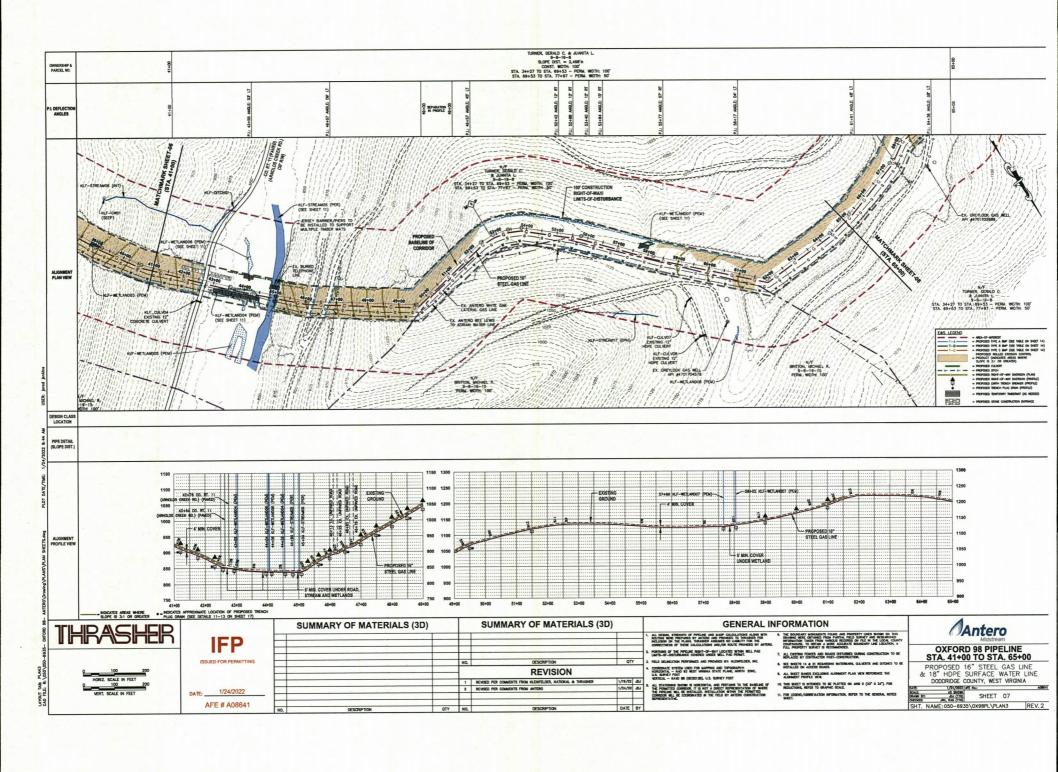
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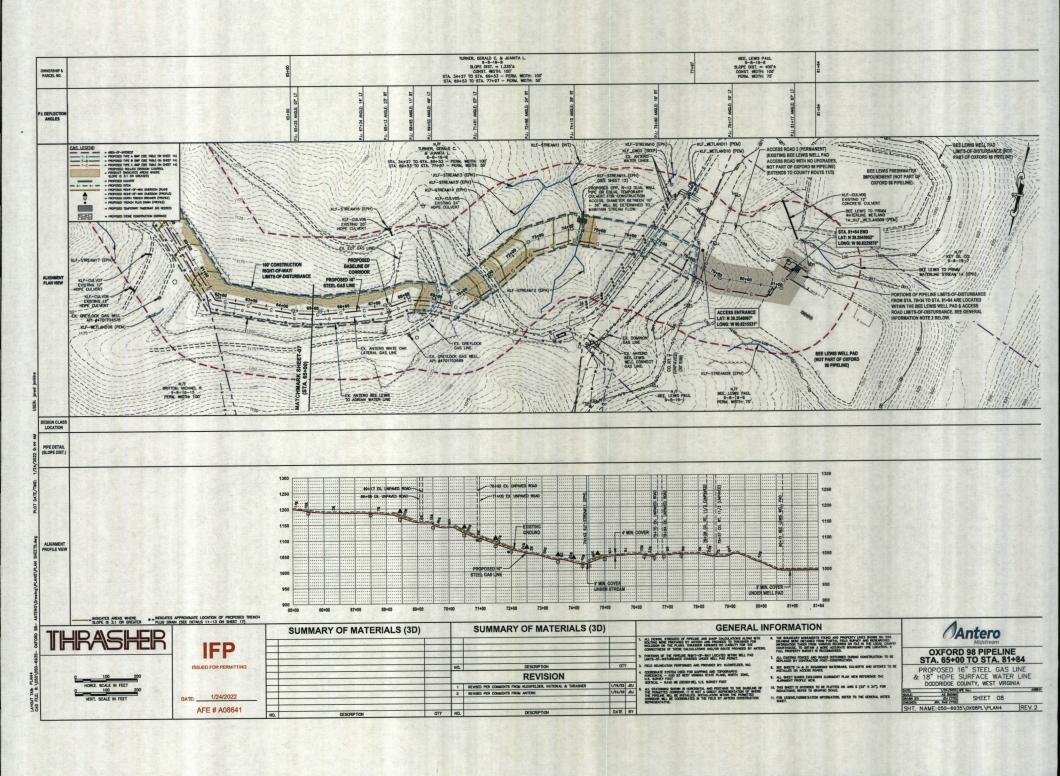
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HYDROSTATIC PROFILE	Station	Elevation (ft msl)
Start Point	0+00	1,115
Low Point	44+98	838
High Point	26+20	1,245
End Point	81+84	998
Differential		407 ft.
Static Head Pressure @ 953' Elevation	176 PSI	
Overall Slope Legnth (3D)	8,455 ft.	



IFP ISSUED FOR PERMITTING AFE # A08641

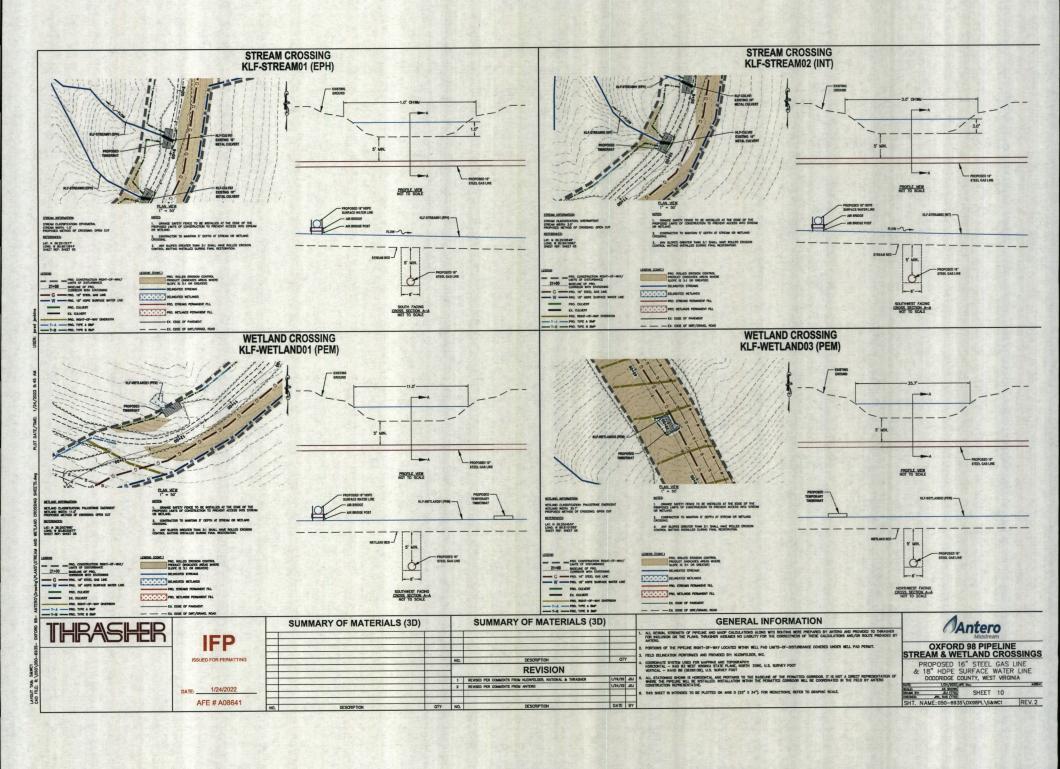
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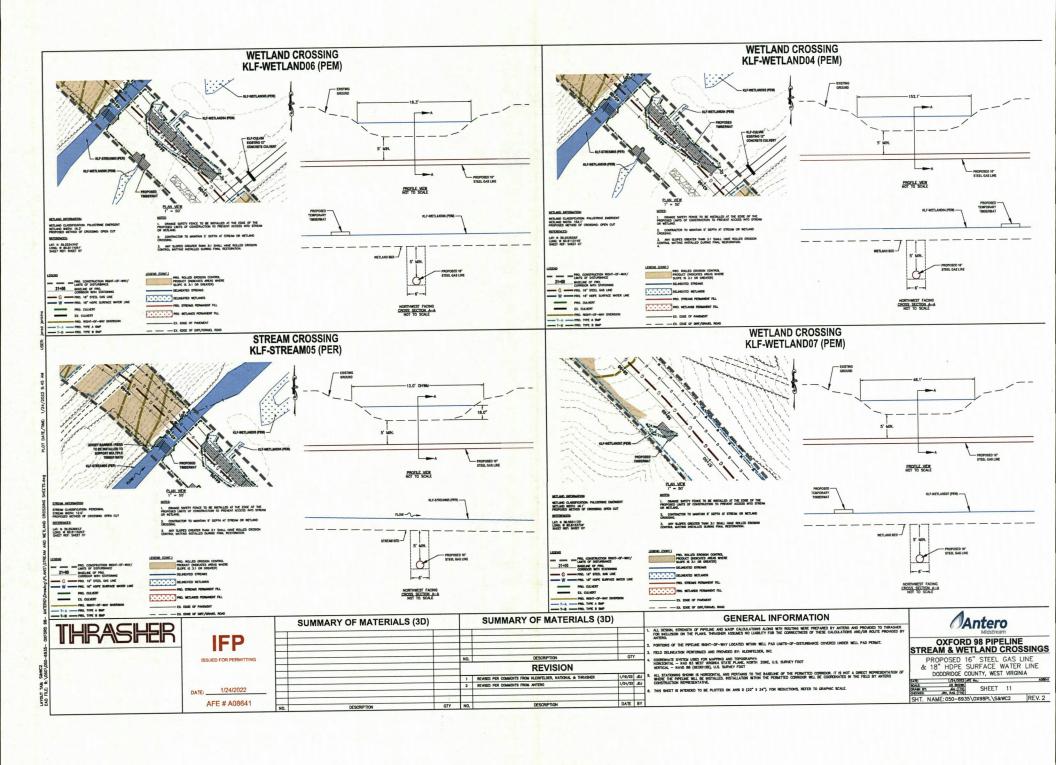
GENERAL INFORMATION

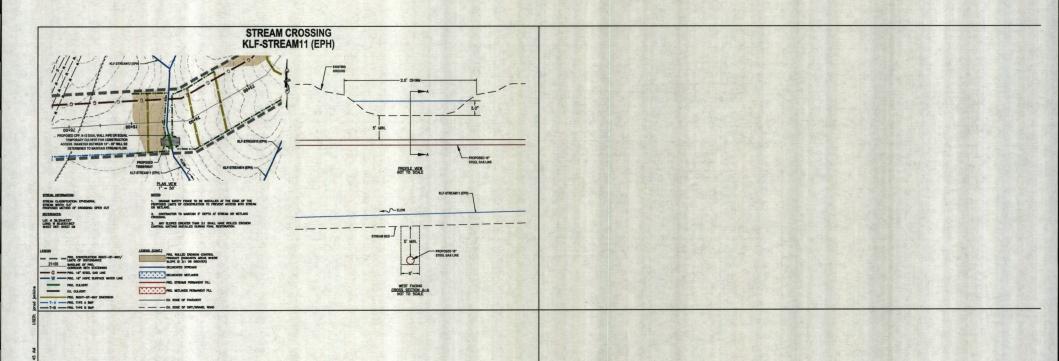
Antero

OXFORD 98 PIPELINE
HYDROSTATIC PROFILE
PROPOSED 16" STEEL GAS LINE
& 18" HOPE SURFACE WATER LINE
DODRIDGE COUNTY, WEST VRGINIA

| SAME | 1/34/2021 AF No.3 | SALE | 1/34/2021 AF







THRASHER

IFP ISSUED FOR PERMITTING DATE: 1/24/2022

AFE # A08641

	SUMMARY OF MATERIALS (3D)			SUMMARY OF MATERIALS (3)	D)		١
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GENERAL INFORMATION

COORDINATE SYSTEM USED FOR MAPPING AND TOPOGRAPHY: HORZONTAL -- NAD 83 WEST WARRAN STATE PLANE, NORTH ZONE, U.S. SURVEY FOOT WETICAL -- NAVO 88 (CODOI'28), U.S. SURVEY FOOT

ALL STATIONNO SHOWN IS HORIZONTAL AND PERTANS TO THE BASELINE OF THE PERMITTED CORRIDOR. IT IS NOT A DIRECT REPRESENTATION WHERE THE PRETAINE ILLE RESTALLED. INSTALLATION WHICH THE PERMITTED CORRIDOR WILL BE COORDINATED IN THE FIELD BY ANTERO CONSTRUCTION BENESISSATION.

THIS SHEET IS INTENDED TO BE PLOTTED ON ANSI D (22" x 34"). FOR REDUCTIONS, REFER TO GRAPHIC SCALE.

Antero

OXFORD 98 PIPELINE
STREAM & WETLAND CROSSINGS
PROPOSED 16" STEEL GAS LINE
& 18" HOPE SURFACE WATER LINE
DODDRIDGE COUNTY, WEST VIRGINIA

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OROGIN AN ANS (TIU)

SHIT. NAME-OFA CONTACT

SHIT. SHIT SHT. NAME: 050-6935\0x98PL\S&WC3

- ANTERO WILL OBTAIN AN ENGROAD-MENT PERMIT (FORM MA-129) FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
- ANY DISCREPANCES FOUND BY THE OMYRIGHT DIR RETWERP THE DIAMYRIGH AND SPECKFOLLING AND STEE CONDITIONS OF ANY PROPOSITIONES OF AMERICANS IN DIAMYRIGHT OF DISCREPANCES SHALL BE AMERICANS PROPOSITION TO THE WARREST IN THROWING THE AMERICAN SHALL BE DONE AT THE CONTINUED BY THE AMERICAN SHALL BE DONE AND THE DISCREPANCES, ACCORDINATION AMERICANS SHALL BE DONE AT THE CONTINUED BY THE CONTINUED BY THE DISCREPANCES.
- 3. WORK SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS, DETAILS AND TYPICALS ANY DEVIATIONS OR ADDITIONS MUST BE APPROVED BY ANTERO SPONSET MANAGEMENT OR DESCRIPTION PROJECT REPRESENTATIVE.
- THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL PURILL OR PRIVATE LITELITIES WHICH LIE IN OR ADJACENT TO THE CONSTRUCTION SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPARK AT HIS OR HER DISPONSE, OF ALL DISSING UTILITIES DAMAGED DURING CONSTRUCTION. FORTY-EXCHINATION OF THE PRIVATE HIS ORDER SHALL CLUSTED AND PERMANDIATION FOR CHAIN CONSTRUCTION.
- 5. ALL MATERIALS USED FOR FALL OR BACK FALL SHALL BE FREE OF WOOD, ROOTS, ROOKS, BOULDERS, ORGANIC MATERIAL, OR ANY OTHER HON-COMPACT
 SOIL THE MATERIALS USED FOR FALL OR BACK FALL SHALL BE FREE OF WOOD, ROOTS, ROOKS, BOULDERS, ORGANIC MATERIAL, OR ANY OTHER HON-COMPACT
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 SOIL THE MATERIALS USED FROM THE SHALL BE FREE OF WOOD, ROOTS, BOULDERS, ORGANIC MATERIALS OF ROOTS, BOULDERS, BOULDERS,
- 8. A PRE-CONSTRUCTION RCX-OFF MEETING SHALL BE HELD PRIOR TO THE START OF CONSTRUCTION
- If springs or seeps and/or an accumulation of ground water is deserved on a side cut or cut slope pipe trench, imaediately inform the on-site inspector for an evaluation and consideration of the installation of a drawage system.
- HYDROMALOH (BOMDED FISER MATRO) CAN BE UTILIZED AS A SUSSTITUTE TO EROSION CONTROL BLANKETS WITH APPROVAL FROM ANTERO, EXCEPT FOR ON
 RESTORED STEAM BANDS AND ROAD BANDS. HYDROMALOH (RICHOED FISER MATRO) SHALL ONLY BE A VALIO SUSSTITUTE FOR EXOSION CONTROL BLANCETS
 OF BRIDGING BOMBING SANDS.
- 10. HYDROSTATIC PRESSURE TEST WATER FROM ANTERO APPROVED SOURCES ONLY TO BE USED FOR HYDROTEST. NO DEWATERING IS PERMITTED WITHOUT PROPR ANTERO APPROVAL AND APPLICABLE PERMITS. MOTIFICATION REQUIRED TO ANTERO ENVIRONMENTAL PROPR TO HYDROTEST.

EROSION AND SEDIMENT CONTROL PLAN NARRATIVE/CONSTRUCTION SEQUENCES

THE EROSON WID SEDIMENT (EAS) CONTROL MEASURES FOR THE PRELINE CONSTITUTION ACTIVITIES CONSIST OF COMPOST FALTER SOOK, SAT FENCE, ROCH OF ANY (DOWN) DIVERSIONS, TREND RESPONSE FOUNDS, AND TEMPORTER MEASURES FEEDER AND MELLOHED OR ANY OTHER APPROVED BM ARMAS LOCATED WINNEY TOTAL MEASURES AND L'ALONG TIMEN, MEMBERSHORS AND SETTINE SET FERRE AND COMPOST FALTER SOOK WITHIN ADMINISTRATE OF THE CONSTITUTION CONTRACTOR ACCORDING TO THE PROVIDED PLANS TRANSMAN MELLOR MAN LOTER EXCENSIVE AND CONTRACTOR ACCORDING TO THE PROVIDED PLANS TRANSMAN MELLOR MAN LOTER EXCENSIVE AND SECONDARY OF THE MEMBERSHOR AND THE MEMBERSHOR AND SECONDARY OF THE MEMBERSHOR AND THE M

- 1. PRIOR TO BEGINGING LAND DISTURBING ACTIVITIES, CLEARLY MARK ALL CLEARING LIMITS, SENSITIVE AREAS, AND TREES THAT ARE TO BE PRESERVED WITHIN THE CONSTRUCTION AREA. THESE SHALL BE CLEARLY MARKED BOTH IN THE FELD AND ON THE PLANS, TO PREVENT DAMAGE AND OFFSITE MARKETS.
- INSTALL STORE CONSTRUCTION EXTRANCES AT ALL LOCATIONS WHERE ACCESS ROADS WILL BE ACCESSING A PUBLIC ROADWAY
- 3. INSTALL TEMPORARY EAS CONTROLS (SILT FENCE, ROW DIVERSIONS, ETC.) PROR TO ANY EARTH DISTURBING ACTIVITY, WHICH INCLIDES GRUSSING AND FINGAYATION TO FRISIRE TO THE MAZZIAID EXTENT PRACTICABLE. THAT MORAL EXCORD OR SEDICENTATION OCCURS
- AFTER ACCESS TO MOD AND THE PROPOSED UTILITY LET HAS BEEN PROPOSED. THE CODEFIN, ILEASMON AND GREBBING OF THE TIESTS AND REPORT ALONG THE CONTROL PROPERTY AND AND THE CONTROL PROPERTY ACCESS AND THE TIESTS AND THE
- MINOR GRADING WITHOUTHE ROW WILL BE CONDUCTED WHERE NECESSARY TO PROVIDE AN EVEN SURFACE FOR SAFE AND EFFICIENT OPERATION OF CONSTRUCTION EQUIPMENT, GRADING WILL BE THE MEMBAJA ANDUM RECESSARY AND BURN WILL BE INSTALLED PROMPTLY. TREE STUAPS, AND LARGE ROCKS AND BOLDERS WILL AND BE REMOYED ON SAFENY AT THIS TIME.
- EXCAVATE PREJUIC TRENCH. A MENINUM COVER AS SPECIFIED IN THE MIDSTREAM CONSTRUCTION SPECIFICATIONS SHALL BE PROVIDED ABOVE PRPLIME AT ALL WETLANDS, STREAMS MOD ROMANAYS.
- 6. THE PROPOSED CONSTRUCTION ROW WILL BE USED AS A WORK AREA FOR TRENCH EXCAVATION, EQUIPMENT MOVEMENT, AND THE STORAGE OF SOIL STOCKPLES, AS NEEDED, EQUIPMENT SOIL STOCKPLES, AND OTHER MATERIALS AREA TO RESMAN UPSLOPE OF BMPS DURING CONSTRUCTION ACTIVITIES.
- 9 SEGREGATION OF TOPSOL AND SUBSOL WILL BE PERFORMED WHERE TRENCH EXCAVATION TAKES PLACE IN AN AGRICULTURAL, WETLAND, OR RESIDENTIAL AREA. IT IS BEST MANAGEMENT PRACTICE TO SALVADE AND SEGREGATE TOPSOL WHERE APPLICABLE.
- TEMPORARY FAS CONTROLS FOR STREAM CROSSINGS SHALL BE DISTALLED AT LOCATIONS SHOWN ON THE EASOP AND ASSOCIATED DETAIL SHEETS
- 11. STREAM AND RIVER PIPELINE CROSSING CONSTRUCTION METHODS WILL BE INSTALLED AT LOCATIONS SHOWN ON THE ELS PLAN SHEETS AND AS SPECIFED ON THE DETAIL SHEETS WATERGODES WILL BE CROSSED WITH TEMPORARY REDDESS, SUCH AS TRIBER MAYS OR APPROVED COULD CROSSING, PROOR TO CROSSING TO CROSSING TO STREAMANK STATE AND ADDITIONAL TO THE CROSS TO STREAM SHEETS AND ADDITIONAL TO
- 12. WETLAND CROSSING WIDTHS FOR UTILITY CROSSINGS WILL BE REPT TO A MIGHAN AND WILL BE STABLEZED BY PLACING TIMBER MATS, REPRIAP, OR PRES-ARRICATED SYMMP MATS, AS SHOWN ON THE DETAL SHEETS, ALL MATERIALS USED TO STABLEZE ACCESS ROADS IN WETLAND ARRAS WILL BE REMOVED FROM THE WELLHAND LONG COMPLETION OF THE PERILE CONSTRUCTION. A BARRIER FORCE OF LARBOING DOLD BE USED TO SHOULD BE USED.
- 11 PREADS SECTION VILLE TRANSPORTISTS IN the WORK AREA AND SIZEUR A JOINT THE WORKING SECTION TO THE WORKING THE THE PREADS AND THE WORKING THE WORKIN
- 13. THE TREPORT WAS SE BRESTURETTY OF COTTACT DYNTH OF STREET CONVENTION DISTRICT. THE RECENT LIMITION. WHILE SELECTION TO CORRECTION OF THE RECENT AND THE RECENT AND THE RECENT OF THE RESTURE WAS RESTURED. THE RECENT OF THE RESTURED OF THE RECENT OF THE RESTURED OF THE RECENT O
- 16. EXPOSED AND UNIVORMED SOILS SHALL BE STABLIZED BY APPLICATION OF EFFECTIVE BUPY THAT PROTECT THE SOIL FROM EROSIVE FORCES OF RANDROPS, FLOWING WATER AND MIND.
- 17. ALL DESTROYS AND A THAT ME AT THAT CAUGE SETTED AN ALL CORD HITTER STOCK ON AND JUSTA THAT THAT LIGHT OF WORKED AND HOR TO ANY DESTROY OF THE ATTER AND ALL CORD HITTER SETTED AND

DATE:

- 18. IN THE UNLIKELY EVENT THAT THERE ARE EXCESS EXCAVATED MATERIALS REMAINING AFTER THE TRENCH HAS BEEN INDUSELED, THE MATERIAL WILL BE DISPOSED OF WITHIN THE EXISTING ROWN IN AN UPLAND AREA MATERIAL WILL BE EPIREAD IN A THIN LAYER AND THED INTO EXISTING CONTIONES TO
- RESPECTION OF ALL ERODON AND SEDMENTATION CONTROLS WILL BE, AT A LYMINAUL PERFORMED ONCE EVERY SEVEN CALLEDIAN DIAYS AND WITHOW HOUSE AT THE STORM FOR DEATH OF A SHAPE THE HAND A SHAPE PERFORMED ONCE EVERY SEVEN CALLEDIAN DIAYS AND WITHOW HOUSE ESTABLISHED, THE REPORTING HIS HIS REQUESTED. THE REPORT RECORDS OF THE REPORT OF THE REPORT RECORDS OF THE REPORT OF THE REPORT RECORDS OF THE REPORT OF THE REPOR
- 20. NO SEDIMENT TRACKING ON THE PUBLIC ROADWAY IS ALLOWED. IN THE EVENT THAT SEDIMENT IS INADVERTENTLY TRACKED ONTO THE ROAD, THE ROAD SHALL BE CLEMED THOROUGHLY BY THE EVEN OF EACH DAY, SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR PICKUP
- 21. CONSTRUCTION ACCESS RESTORATION SHALL BE EQUAL OR BETTER THAN THE PRE-CONSTRUCTION CONDITION.
- 22. APPLICABLE STABLIZATION PRACTICES DICLUDE, BUT ARE NOT LIMITED TO, TELEFORARY AND PERSANNENT SEEDING, SODOHO, MULCHING, EROSION CONTROL FABRICS AND MATTING, THE EARLY APPLICATION OF GRAVEL BASE ON AREAS TO BE PAYED, AND DUST CONTROL.
- 21. SPI ECTEO SON STARS (FATION MEASURES SHALL BE APPROPRIATE FOR THE TIME OF YEAR SITE CONDITIONS, AND ESTIMATED DUS
- 22. ALL SLOTE SUP GRANDS DOT MAINTENANCE TILES, LANCONDERS INSTRUMENTS, ALRCH LEST TILDS. AND ANY CITES PORT DOSISTATIONS.
 ACTIVITIES IN LISE CONDESSIONS DAVIG & THE STRUMENT DAVIG HOS GRANDER HOME CHON PROCADOR OF UN GRANDE HOME CHON PROCESSIONS OF UN GRANDE HOME CHON PROCESSIONS OF UN STRUMENT HOME PROCESSIONS OF UNIVERSITY OF UNIVERSIT

PIPELINE BMPs INSTALLATION AND REMOVAL SEQUENCE

TEMPORARY AND PERMANENT BUPS WILL BE USED DURING CONSTRUCTION ACTIVITIES TO AVOID AND/OR MENNIZE ADVERSE ENVIRON CONSTRUCTION ACTIVITIES.

RESECTIONS OF ALL LES CONTROLS SHALL BE CONDUCTED, AT A KNOWN, ONCE EVERT SEVEN CALIFORN DAYS AND WITHIN 2H HOURS AFTER ANY STORM EVENT OFFICER THAN 6-HOLD HER TA-HOLD REPROD ALL RECESSANCE CARRIAGRESS AND REPROSECTION LES MAKE AS SOON AS POSSESSE AFTER THE EMPSECTION TO BOULD BE THE RESONNESSES OF THE CONTRICATION TO DESIGNE AND INTERPRETATION AND REPRODUCE AND AS CONTRICATIONS. ALL OF THE RESERVANCE AND AS CONTRICATIONS. AND ASSOCIATION TO THE CONTRICATION AND ASSOCIATION AS A CONTRICATION AND ASSOCIATION AND ASSOCIATION AS A CONTRICATION AND ASSOCIATION AS A CONTRICATION AND ASSOCIATION AS A CONTRICATION AS A CO

- TEMPORARY EROSION AND SECREMI CONTROL EMPL SHOULD BE REMOVED FOLLOWING CONFERRATION THAT TO PERCENT PERCENTAL VEGETATIVE CONFERGE B ESTABLISHED. TRAPPED SECREPIT SHALL BE REMOVED OR STABLIZED ON-SITE, DISTURBED SOC, RESULTING FROM REMOVAL OF BMPL OR VEGTATIONS BALL BE STABLISHED.
- WHENEVER INSPECTION AND/OR MONITORING REVEAUS THAT THE BINPS IDENTIFIED IN THE EASOP ARE INDECULATE, THE EASOP SHALL BE ADJUSTED TO MARKAGE EFFECTIVE/EASS, AS APPROPRIATE, BY A TIMELY MANNER.

THE FOLLOWING IS A CENTRAL BMP INSTALLATION SEQUENCE FOR PIPELINE CONSTRUCTION ACTIVITIES:

- 4. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED AT ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC WILL BE ACCESSING A PUBLIC ROAD DIRECTLY FROM A DISTURBED AREA
- TEMPORARY SEDIMENT BARRIERS, SUCH AS APPROPRIATELY SIZED SILT FENCE OR ENMANCED BIRN WILL BE PLACED DOWN SLOPE OF WORK AREAS AND AROUND BOIL STOOD/FILES, AS NEEDED.
- APPROPRIATELY SIZED FENDING WILL BE PLACED AROUND WETLANDS AND WATERBOOKS ADJACENT TO THE WORK AREA FROR TO ANY TREND GIVE ACTIVITIES.

- TEMPORARY STEEM AND METLAND CROSSINGS SHALL SE NOT ALLED A STOCKATED ON THE EAS PLAN BEETS AND AS FOR THE EAS DELIAN BEETS. FOR ALL OTHER BURNER, OR STORMANTED CONFINANCE THAN A REG FOR DETEMPED LOSS OF BURNER, DELIAND AS TEMPORARY CONFINANCE THAN A REG FOR DETEMPED LOSS OF BURNER, DELIAND A TEMPORARY CROSS SHALL SE ON THE PROPERTY OF THE OFFICE AND AN APPROVED COURS. BHALL SE OSTALLED, PROR TO CROSSING THE CONFINANCE STREET SHALL SHA
- ROW DIVERSIONS WILL BE INSTALLED IDMEDIATELY AFTER HITHAL DISTURBANCE OF THE SOIL IN ACCORDANCE WITH THE DETAILS AND SPACING SIZING REQUIREMENTS AS DURNETED IN THE INDIVISION-WAY DIVERSION QUITET (WATERBAR) DETAILS ROW DIVERSIONS WILL BE CONSTRUCTED OF SOIL TO REDUCE RUNDET Y RECORD AND DIVERTIMENT OFF OF THE PREFILIER ROW.
- 10. TRENCH DEWATERING, IF MEEDED, WILL BE CONDUCTED USING A PUMP AND HOSE, WATER WILL BE RELEASED INTO A FILTER BAG THAT WILL BE LOCATED IN A WELL-MEGETATED URLAND AVEA.
- 11. TRENCH BREAKERS WILL BE INSTALLED IN SLOPING AREAS GREATER THAN FIVE PERCENT AND ON SLOPES ADJACENT TO STREAMS, WETLANDS, AND ROADS CROSSINGS TO PREVENT SUBSIRIFACE EROSION, TRENCH BREAKERS WILL BE INSTALLED IN ACCORDANCE WITH THE BRACKING REQUIREMENTS.
- 12. THE WORK AREA WILL BE BACKFELED FOLLOWING PIPELINE INSTALLATION OR OTHER EXCLANATION WORK IN AREAS WHERE TOPSOL HAS BEEN SEGRECATED.
 THE SUBSOL WILL BE BEFLACED FREST, AND THEN THE TOPSOL WILL BE SPREAD OVER THE AREA FROM WHICH IT WAS REMOVED. DISTURBED AREAS WILL BE
 SESTIONED TO THE ORIGINAL TOPOGRAPHIC FORMULES.
- 13. ROW OMERSONS WILL BE INSTALLED AT EXPENSENT ACPOSS SLOTED AREAS OF CONSTITUCTION ROW TO REDUCE EROSION AND FLOW LEDGING PRINCES.
 FALTER PRINCIPLO OF COUNTAINT BY VERY OF PRINCES OF SET SAMES PERSON, ESCHOOL AND SESSION CONTROLS MAST SE INSTALLED AS COPPLIED ON THE LESS OF AN EAST AND ACCORDING TO CONTROLS FALST SE INSTALLED AS COPPLIED ON THE LESS OF AN EAST AND ACCORDING TO CONTROLS FALST SE INSTALLED AS COPPLIED ON
- M. INDICEDIATELY FOLLOWING BICKFILLING, ALL DISTURBED AREAS WILL BE GRADED IN PREPARATION FOR SEEDING AND MULCHING. THE CONSTRUCTION STEE
 SHOULD BE RETURN UPFO AS BOOM AS POSSER FAITH COMPLETION ESTABLISHMENT OF FINAL COVER MUST BE DITIATED AS SOON AS CONDITIONS ALLOW
- 15. TEMPORAPY SEDURITY MANDERS WILL BE MANY AMOUNTLY VICES FLOWING SECONE STRUCKERS WITH A LARGE DATE AND OF STRUCKERS OF THE ALL AND A STRUCKERS AND A STRUCK
- 17. ALL WASTE MATERIAL WILL SE TRANSPORTED OFF-SITE FOR RECYCLING ANDOR DESPOSAL, WHERE PLASTILE, CONSTRUCTION WASTE MATERIAL WILL BE RECYCLING OFF THE PROPERTY OF THE PROPER
- 18. TEMPORARY STOCKPILES NEED BUP'S SUCH AS SILT FENCE / BOCK OR ENHANCED BMP'S PLACED ADJACENT TO ROW.

MAINTENANCE SCHEDULE

AFTER CONSTRUCTION IS COMPLETED AND TON UNFFORM PERCINAL VEGETATION HAS BEEN ACHEVED, ALL BMP, WILL BE REMOVED AND ANY LAND DISTURBED BY REMOVAL WILL BE STABLED UNLESS OTHERWASE SPECIFED, ALL MANTENANCE MUST BE COMPLETED AS BOON AS CONDITIONS ALLOW AFTER AN INSPECTION DISTURBES THAT LAND RIMIT BURNOWING AS REPORT AND ASSESSED.

- INSPECTION OF ALL PROSON AND SEMENTATION CONTROLS WILL RE, AT A MEMBRIA PERFORMED ONCE EVENT SEVEN CALENDAR DATS AND WITHEN IN HOURS AFTER ANY STONE O'ENT GREATER THAN 0-SHOT HER THANDAR PERSON DUTIES. THE SEMENTATION PROSON PERSONAL TO PERSON THE SETTING CONTROLS AND THE SETTING T
- 2. STEWENT KINST BE REMOVED WHERE ACCIDING ATION REACHES ONE-HALF THE ARCVE CROLLED HEIGHT OF A BUP IALL TYPES
- 2 BURN AND THREET MARCH HAVE REPUBLISHED AND TORRED BURN ED BAREDIATES VICE DEBARET.

- 7. TEMPORARY EAS CONTROL EMPS SHOULD BE REMOVED FOLLOWING CONTRIVATION THAT TO PERCENT PERCHANAL VEGETATIVE COVERAGE IS ESTABLISHED.
 TRADECT STONE OF THAT IS OF DEPOYED OR STABLISHED TRADECTOR OF THE PERCENT PERCENT PERCENT OF THE PERCENT PERCENT

MATERIAL WASTE HANDLING AND RECYCLING

- 2. THE CONTRACTION WAL DISPOSE OF ALL SOME MATERIAL. THE SOME MATERIAL MUST BE REMOVED FROM THE STEE AND DISPOSED OF OR RECYCLED AT A SOME MATERIAL THROUGH THE STEE AND DISPOSED OF OR RECYCLED AT A SOME MATERIAL THROUGH TH
- 3 CONSTRUCTION WASTE MATCRAILS, INCLUDED BUT NOT LIMITED TO BEHTONTE, POLY PIPE SHAVINGS, AND BANDRACS, WILL BE RECYCLED OR WILL BE TAKEN TO THE REAREST APPROVID FACILITY FOR DESIGNAL, EXCESS SOIL MATERIAL, IF ANY, WILL BE SPREAD AND REVEGETATED WITHOUT THE ROW, OFF-SITE SPOIL AMONG ROBREN SITES MATER SO OPERATED LIGHER A CARMENT MORE AS THE PROVINCE OF THE SPOIL AMONG ROBREN SITES MATERIAL.

- 1 SEE DETAILS 20.31 FOR TEMPORARY SEEDING PERMANENT SEEDING AND MILLOUNG REQUIREMENTS.
- 2. EXPOSED AND LINWORKED SOLE SHALL BE STABILIZED BY APPLICATION OF EFFECTIVE BINPS THAT PROTECT THE SOL FROM EROSIVE FORCES OF RANDROPS, FLOWING WATER AND WIND.

PERMANENT SEEDINGMULCHING

3. ALL DETINEED MEET OF THAT OF THAT OR ALL THAT WILL HOT SE WORKED AGAIN FOR IT DAYS ON HOME MUST SE STEED AND MALOHED WITHOUT

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TEMPORARY SEDIMONULCHING

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A ALL ORTHRED AREAS THAT MET NOT FINAL GRADE OR AREAS THAT WILL HOT SE WORKED AGAIN FOR 31 DATS ON MORE THAT SE SEEDED MO MALO-BE

METCHLEDED IS SHOWN OFFIRE THAT SELECTION MEXICAGES SHALL SE STITUTED AS SOON AS CONSTITUTION ACTIVITY OF METCHLED AREAS THAT SELECTION ACTIVITY OF METCHLED ACCOUNTS AND METCHLED ACCOUNTS AND ASSOCIATION ACTIVITY OF METCHLED ACCOUNTS AND ASSOCIATION ACCOUNTS ASSOCIATION ACCOUNTS AND ASSOCIATION ACCOUNTS ASSOCIATED ACCOUNTS ASSOCIATION ACCOUNTS ASSOCIATION ACCOUNTS ASSOCIATION ACC

- 1. ALL POLLUTANTS, INCLUDING WASTE MATERIALS AND DEMOLTION DEBRIS, THAT OCCUR ON SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF DI A MANGER THAT DOES NOT CAUSE CONTAMINATION OF SURFACE WATER, WOODY DEBRIS MAY BE CHOPPED AND SPREAD ON SITE.
- COVER, CONTAINMENT, AND PROTECTION FROM VANDALISM SHALL BE PROVIDED FOR ALL CHEMICALS, LIQUID PRODUCTS, PETROLEUM PRODUCTS, AND NON-MERT WASTES PRESENT ON THE SITE.
- IMACTERIANCE AND REPART OF HEAVY EQUIPMENT AND VEHICLES MYQ VON DIC CHANGES, HYDRALLIC SYSTEM DRAIN DOWN, SQLYENT AND DE GREASHO CLEANING OFFENDERS, RUE, TANK DRAIN DOWN AND REMOVAL, AND DITCH ACTIVITIES WHOCH MAY RESILT IN DESCHARGE OR SPILLING OF POLLUTIANTS TO THE ORDINAD ON TO SUFFACE WHITE RANGER MATE OF CODUCTURE USING SHALL REVIEWED HEAVELES, SUCH AS DEPAY ON OTHER MATERIAL SHALL BE CLEANED DIABETHAT VEGLOWING AND RESOURCE OR SPILL ROUDENT, EMPROPERTY REPAIRS MAY BE PERFORDED ON-SITE USING TEMPORARY PLASTIC ALGODIEGATH AND E-RANGE, OR STEEL SHALL SHA
- APPLICATION OF AGRICULTURAL CHEMICALS INCLUDING FERTILIZETS AND RESTITIONS SHALL BE COMMUNITIO IN A MAINER AND AT APPLICATION RATES THAT YILL HOT RESILE THI LOSS OF CHEMICAL TO SURFACE WATER RUMOFF, MANUFACTURERS' RECOMMENDATIONS FOR APPLICATION RATES AND REDOCIDIZES. SHALL BE FOLLOWED
- 5 BMM SMALL BE USED TO PREVENT OR TREAT CONTAMINATION OF SURFACE WATER RUNOFF BY PH MODEYING SOURCES. THESE SOURCES INCLUDE BLAK
 CREMENT, CREMENT KUN DUST, R.Y. ASH, KINN COMPRETE WASHING AND CURRING WATERS, WASTE STREAMS GENERATED FROM CONCRETE GRINDING AND
 SANNING USPOSED ADORGICAL PROCRESSES, AND CONCRETE MAKENING AND MAKEN AND WATERS.
- 8. DEPOSE SON LACE OR DISCHARGE OF POLITIFIES THAT BAPACT SURFACE OR GROUNDWATER TO ANTERO PERS

THRASHER

IFP

1/24/2022 AFE # A08641

SUMMARY OF MATERIALS (3D) SUMMARY OF MATERIALS (3D) ary REVISION 1 REVISED PER COMMENTS FROM INJERFELDER, MATIONAL & THRASHER 1/21/22 £3 2 REVISED PER COMMENTS FROM MITTRO DESCRIPTION

GENERAL INFORMATION

ALL DESIGN, STEDICTH OF PPOLIFE AND MADE CALCULATIONS ALLOW WITH ROUTING WEST, PROFARCE BY ANTIDIO AND PROMODE TO THRASHER FOR SACLULATION ON THE PARKS. THRASHER ASSEMED NO LIABILITY FOR THE CORRECTIONS OF THESE CALCULATIONS AND/OR ROUTE PROVIDED BY

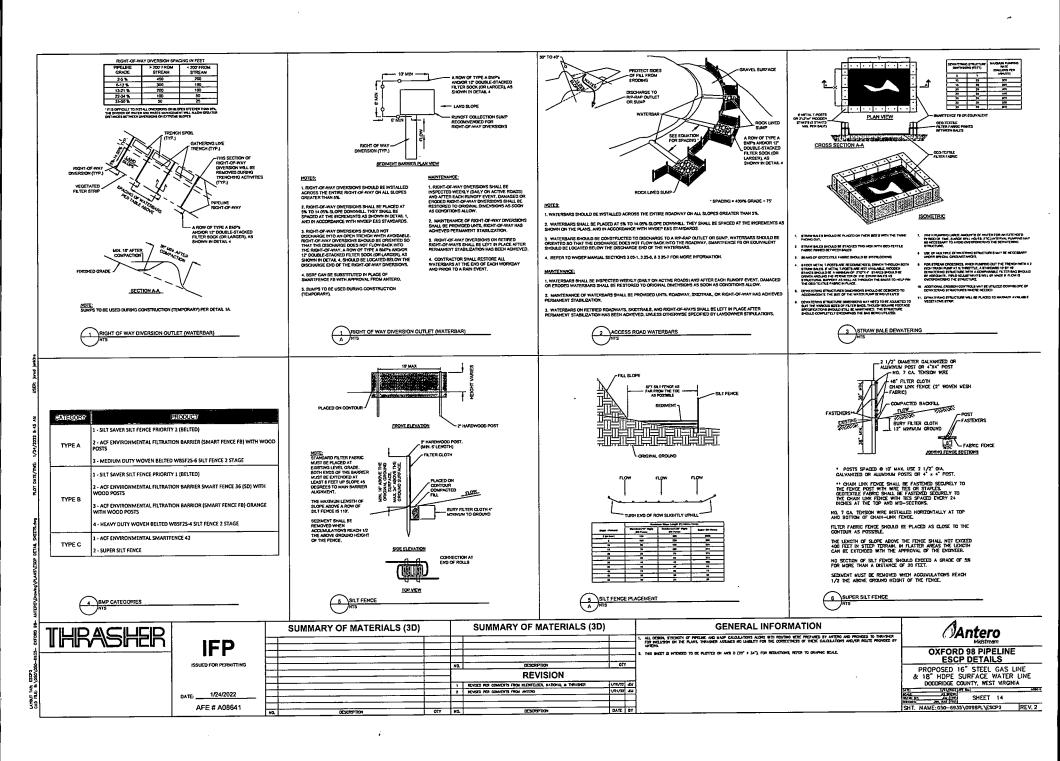
THE SHEET IS INTENDED TO BE PLOTTED ON ANS O (22" E 34"), FOR REDUCTIONS, NOTES TO GRAPHIC SCALE.

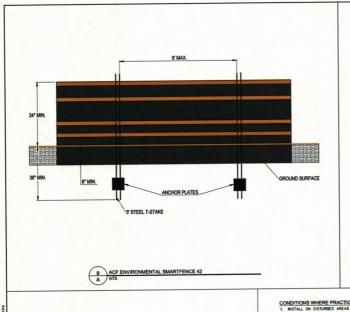
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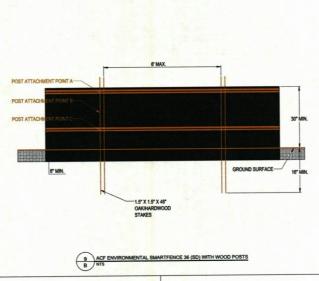
OXFORD 98 PIPELINE ESCP DETAILS

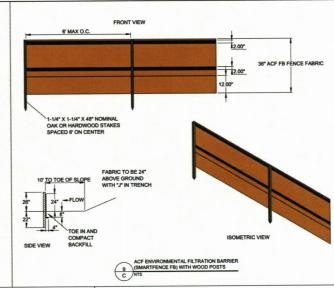
PROPOSED 16" STEEL GAS LINE . & 18" HOPE SURFACE WATER LINE DODDRIDGE COUNTY, WEST VIRGINIA

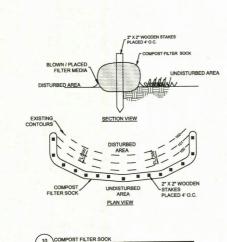
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- CONDITIONS WHERE PRACTICE APPLIES:

 1. INSTALL ON DISTURBED AREAS THAT REQUIRE IMMEDIATE EROSION PROTECTION.
- USE ON SLOPES REQUIRING STABILIZATION UNTIL PERMANENT VEGETATION CAN BE ESTABLISHED.
- CAN BE USED ALONG THE PERIMETER OF THE PIPELINE, AS A CHECK DAM IN UNLINED DITCHES AND AROUND TEMPORARY STOCKPILES
- EROSION CAN OCCUR BENEATH AND BETWEEN SOCK IF NOT PROPERLY ENTRENCHED, ALLOWING WATER TO PASS BELOW AND BETWEEN SOCKS, IT IS THEREFORE VERY IMPORTANT TO INSTALL SOCKS CORRECTLY.
- 6. ROLLS ARE A SHORT-TERM SOLUTION TO HELP ESTABLISH NATIVE VEGETATION
- 7. ROLLS STORE NOISTURE FOR VEGETATION PLANTED INNEDIATELY UPSLOPE.

- CONSTRUCTION SPECIFICATIONS:

 1. IT IS CRITICAL THAT SOCK IS INSTALLED PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO THE SLOPE CONTOUR.
- NARROW TRENCHES SHOULD BE DUG ACROSS THE SLOPE, ON CONTOUR, TO A DEPTH OF 3 TO 5 NOVIES ON CLAY SOLS AND SOLS WITH GRADUAL SLOPES, ON LOOSE SOLS, STEEP SLOPES, AND DUBIN HIGH RAINFALL EXPITS, THE TRENCHES SHOULD BE DUG TO A DEPTH OF 5 TO 7 NICHES, OR ½ TO 2/3 OF THE THICKNESS OF THE SOCK.
- 3. START CONSTRUCTION OF TRENOISS AND INSTALLING SOCK FROM THE BASE OF THE SLOPE AND WORK LIPHILL COUNTED MATERIAL SHOULD BE SPREAD (FORLY ALONG THE UPHILL COUNTING METERIALS OF 3 TO 30 FIFE APAPT DEPENDING ON THE STEPPERS OF THE SOU SOIL THE, AND RAWFALL THE STEEPER THE SLOPE THE CLOSER TOGETHER THE TRENOISES SHOULD BE CONTRIBUTED.
- INSTALL THE SOCK SNUGLY INTO THE TRENCHES AND ABUT TIGHTLY END TO END. DO NOT OVERLAP THE ENDS.
- INSTALL STAKES AT EACH END OF THE SOCK, AND AT A MINIMUM OF 4-FOOT CENTERS ALONG THE ENTIRE LENGTH OF THE SOCK.
- IF REQUIRED, INSTALL PILOT HOLES FOR THE STAKES USING A STRAIGHT BAR TO DRIVE HOLES THROUGH THE SOCK AND INTO THE SOIL.
- AT A MINIMUM, WOODEN STAKES SHOULD BE APPROXIMATELY 2 X 2 X 24 INCHES. WILLOW CUTTINGS OR 3/8—INCH REBAR CAN ALSO BE USED FOR STAKES.
- 8. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE SOCK, LEAVING 2 TO 3 INCHES OF THE STAKE PROTRUDING ABOVE THE SOCK.

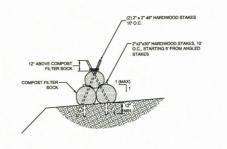


- MAINTENANCE:

 1. INSPECT SOCK AT LEAST ONCE A WEEK AND AFTER EACH RAIN EVENT GREATER THAN 0.5 INCH.
- 2. REPAIR OR REPLACE SPLIT, TORN, RAVELING, OR SLUMPING SOCK.
- REMOVE SEDIMENT ACCUMULATIONS WHEN EXCEEDING 1/2 THE HEIGHT BETWEEN THE TOP OF THE SOCK AND THE GROUND SURFACE.
- 4. REPAIR ANY RILLS OR GULLIES PROMPTLY.
- 5. RESEED OR REPLANT VEGETATION IF NECESSARY UNTIL THE SLOPE IS STABILIZED

	Musicum Slope Langth Above Sediment Control in Feet Inseters)*											
Supe Percent	S in (200 cpn) Sediment control	17 in (300 cm) Sediment control	15 in (450 cm) Sediment central	26 in (600mm) Sediment control	32 in (800mm) Sediment control							
	6.5 in (360 mm)***	55 in (240 use) ***	145 in (360 mm) **	19 in (400 em)**	25 in (650 man) **							
2 (or less)	800 (190)	750 (725)	1960-C004	1300 (400)	1950-500)							
3	400 (138)	500 (750)	550 (165)	850 (2004	750 (225)							
10	200 MG-	255 (75)	300 (50)	400 (120)	500 (198)							
15	149 (40)	170 (5%	790 ms	790 mcs 325 (100)								
20	100 (00)	125 (36)	140103	200 (80)	400 (120)							
25	80.08	199 (20)	110 (33)	200 (90)	275 (85)							
30	601166	75-020	10 (27)	136 (40)	200 (60)							
36	80 (18)	75 1239	60(24)	115 (35)	150 (45)							
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6	40 (12)	50 (15)	50 (76)	86 (24) 100 (30)								
50	401(2)	10 (15)	\$6.079	65 (26)	75 (23)							





10 TRIPLE STACK FILTER SOCK C NTS





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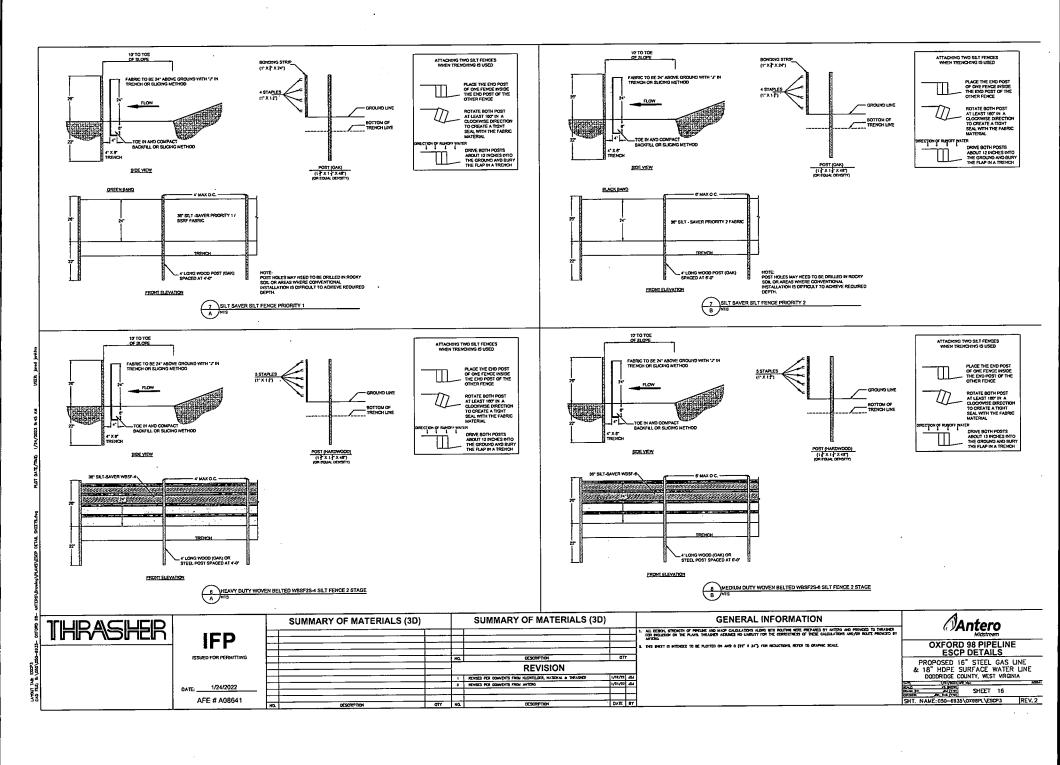
GENERAL INFORMATION ALL DESIGN, STENATH OF PIPELNE AND MADE CALCULATIONS ALONG WITH ROUTING WERE PREPARED BY AFTERO AND PROVIDED TO THEASHER FOR HOLUSION ON THE PLANS. THRASHER ASSUMES NO LIMBUTY FOR THE CORRECTNESS OF THESE CALCULATIONS AND/OR ROUTE PROVIDED BY ANTERIO.

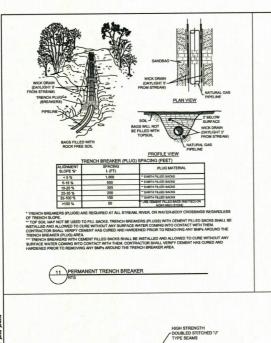
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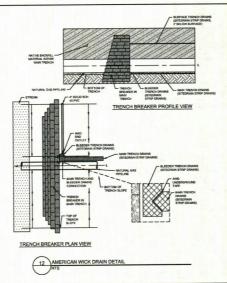
OXFORD 98 PIPELINE ESCP DETAILS

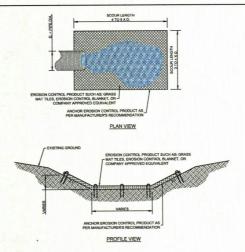
PROPOSED 16" STEEL GAS LINE & 18" HDPE SURFACE WATER LINE DODDRIDGE COUNTY, WEST VIRGINIA

1/34/2002 AFE No.:
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1) PREPARE SOIL BEFORE INSTALLING EROSION CONTROL PRODUCTS. INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.

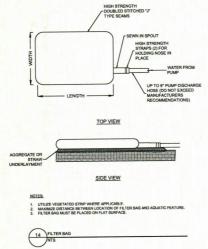
2) FOR CULVERT AND OUTFALL APPLICATIONS, SCOUR PROTECTION SHOULD EXTEND A MINIMUM WIDTH OF 3-4 TIMES THE PIPE DIAMETER AND A MINIMUM LENGTH OF 4-5 TIMES THE PIPE DIAMETER (SEE PLAN VIEW). WITH STEEPER CHANNEL GRADIENTS, THE LENGTH OF SCOUR PROTECTION MAY NEED TO BE

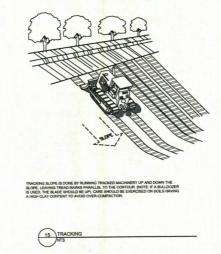
3) PLACE STAPLES/ANCHORS IN THE APPROPRIATE PATTERN. IN SOFT OR HIGHLY ERODIBLE SOILS, PERCUSSION EARTH ANCHORS MAY BE REQUIRED.

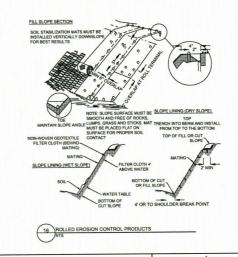
4) TRENCH PLUG DRAIN OUTFALL TO DISCHARGE FLUSH WITH FINAL GRADE ELEVATION OR NO MORE THAN 12" OF OVERHANG.

(SEE MANUFACTURERS RECOMMENDATIONS FOR ADDITIONAL INSTALLATION

13 TRENCH PLUG DRAIN OUTFALL EROSION PROTECTION DETAIL











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GENERAL INFORMATION

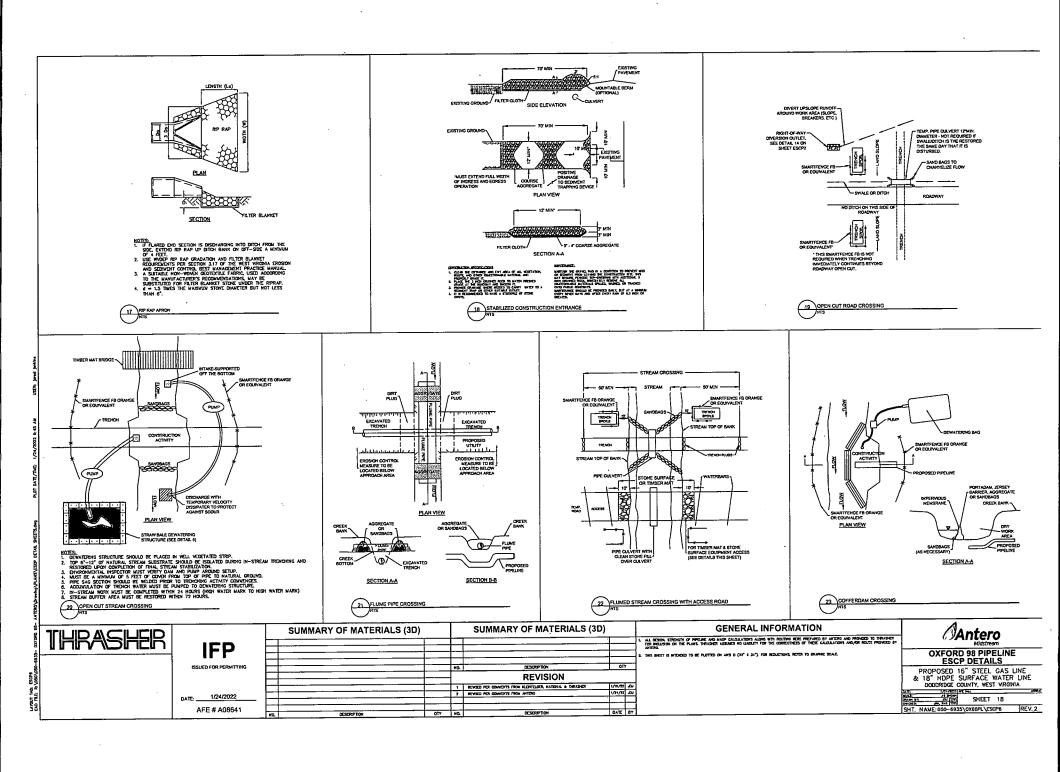
ALL DESIGN, STRONGTH OF PPELINE AND MADE CALCULATIONS ALONG WITH ROUTING NEED PREFAMED BY ANTERO AND PROVIDED TO THRASHER FOR INCLUSION ON THE PLANS, THRASHER ASSUMES NO LIABILITY FOR THE CORRECTNESS OF THESE CALCULATIONS AND/OR ROUTE PROVIDED BY ANTERO. THIS SHEET IS INTENDED TO BE PLOTTED ON ANSI D (22" X 34"). FOR REDUCTIONS, REFER TO GRAPHIC SCALE.

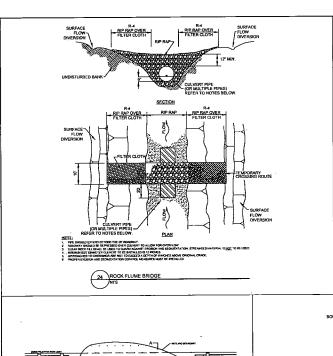
OXFORD 98 PIPELINE ESCP DETAILS

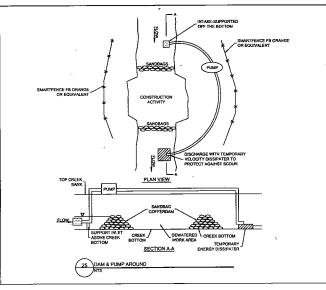
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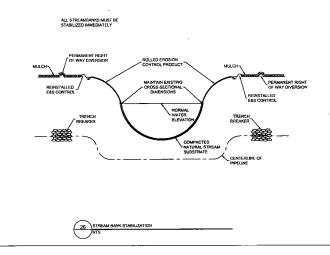
PROPOSED 16" STEEL GAS LINE & 18" HDPE SURFACE WATER LINE

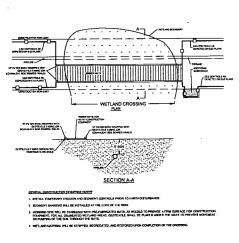
DODDRIDGE COUNTY, WEST VIRGINIA



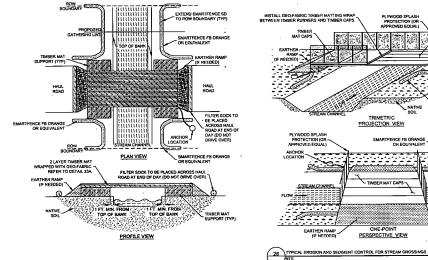


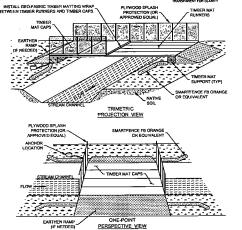






27 TYPICAL EROSION AND SEDIMENT CONTROL FOR WETLAND CROSSINGS





 ALL AREAS DISTURBED DURING BRIDGE INSTALLATION SHALL BE STABILIZED IMMEDIATELY. PLYWOOD SPLASH PROTECTION (OR APPROVED EQUAL) SHALL BE WELL MAINTAINED, CLEARING SEDIMENT WHEN NECESSARY.

CONSTRUCTION SPECIFICATIONS AND GENERAL SPECIFICATIONS:

1. GROSSING AUGMIDIN' SHALL BE AT RIGHT ANGLE TO THE STREAM, WHERE THE APPROACH CONDITIONS DICTATE, THE CROSSING MAY VARY 15 DECREES FROM THE LINE DRAWN PERPENDICULAR TO THE CONTINUES OF THE STREAM.

TIMBER NATTING RUNNERS SHALL BE PLACED PERPENDICULAR TO STREAM AND ADJACENT TO ONE ANOTHER.

3. TIMBER MATTING CAPS SHALL BE PLACED PARALLEL TO STREAM AND ADJACENT TO ONE ANOTHER FOR THE ENTIRE SPAN OF THE BRIDGE.

TMBER MATTING CAPS SHALL BE WANDED UNDERWEITH AND ALONE THE MATTING CAPS SHALL BE WANDED UNDERWEITH AND ALONE THE MATTING AND ALONE THE PROPERTY OF THE WANDED WANDED TO ALONE MOUTH AT THE AND ALONE OF THE PROPERTY OF THE WAND SHALL AND WAND THE WAND THE WAND SHALL AND WAND THE WAND THE WAND THE WAND SHALL AND WAND THE WAND THE WAND THE WAND THE WAND THE WAND THE WAND SHALL AND WAND THE W

PLYMOOD SPLASH PROTECTION FENGING (OR APPROVED EQUAL) SHALL BE SECURELY ATTACHED ALONG THE QUIER SDES OF THISER MATTING TO CONTROL SEDIMENT COLLECTION AND ALLOW GEO—FABRIC MATERIAL TO BE STAPLED TO CUTSIDE OF PLYMOOD.

BRIDGE SHALL BE CONSTRUCTED MINIMUM 1 FOOT OUTSIDE TOP OF BANK.

BRIDGE SHALL BE SECURELY ANCHORED AT ONLY ONE END USING STEEL CABLE OR CHAIN, ACCEPTABLE ANCHORS ARE LARGE TREES, LARGE BOULDERS, OR DRIVEN STEEL ANCHORS, ANCHORING SHALL BE SUFFICIENT TO PREVENT THE BRIDGE FROM FLOATING DOWNSTREAM.

FILTER SOCK SHALL BE PLACED ALONG BOTH ENTRANCES OF THE BRIDGE WHEN NOT IN USE FOR MORE THAN 24 HOURS AND/OR PRIOR TO PRECIPITATION EVENTS. DO NOT DRIVE OVER FILTER SOCK.

THRASHER

IFP ISSUED FOR PERMITTING 1/24/2022 DATE: _

AFE # A08641

	SUMMARY OF MATERIALS (3D)			SUMMARY OF MATERIALS (3D)						
			E							
\vdash		-	NO.	DESCRIPTION	ОТ	Y				
F			\top	REVISION						
Н			1	REVISED PER COMMENTS FROM ILEMFELDER, NATIONAL & THRASHER	1/19/22	B				
\vdash			2	REVISED PER CONNENTS FROM ANTORO	1/24/22	131				
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NO.	DESCRIPTION	QTY	NO.	DESCRIPTION	DATE	BY				

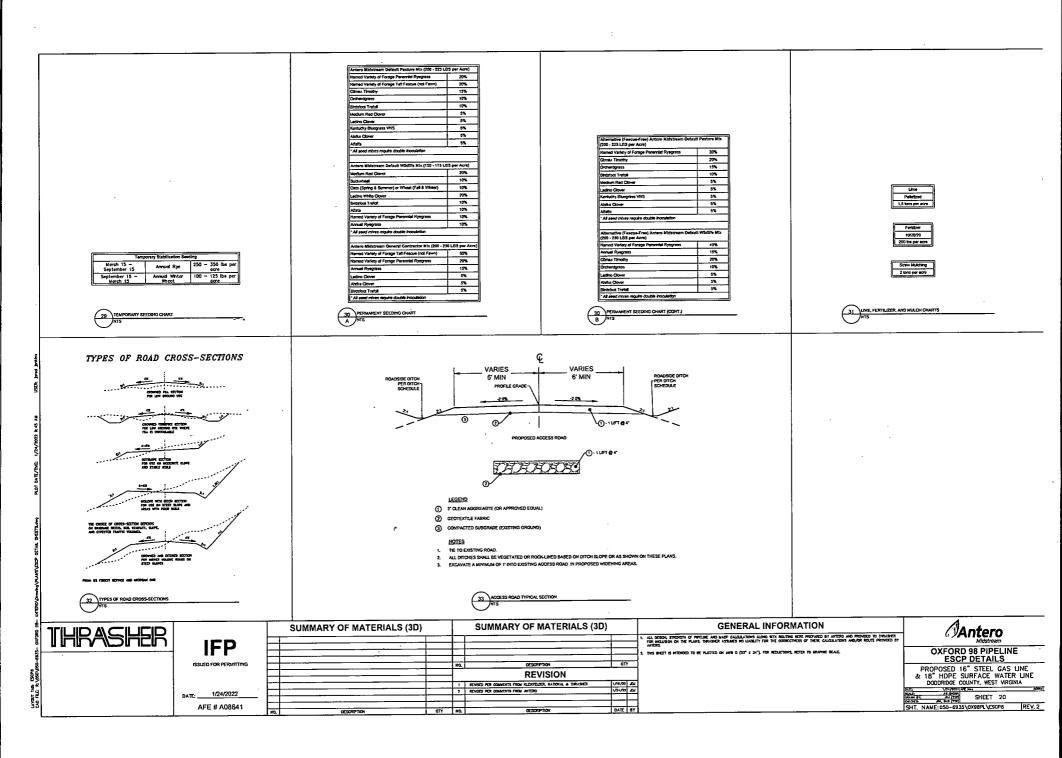
GENERAL INFORMATION ALL DESIGN. STRENGTH OF PIPELINE AND MADE CALGRATIONS ALONG WITH ROUTING WERE PREPARED BY ANTERO AND PROVIDED TO THRASHER TOR INCLUSION ON THE PLAYS, THRASHER ASSUMES NO LIABILITY FOR THE CORRECTNESS OF THESE CALGRATIONS AND/OR ROUTE PROVIDED B ANTERO.

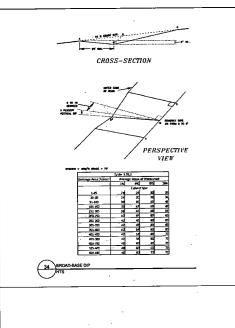
OXFORD 98 PIPELINE ESCP DETAILS

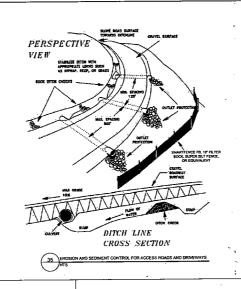
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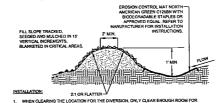
PROPOSED 16" STEEL GAS LINE & 18" HOPE SURFACE WATER LINE DODDRIDGE COUNTY, WEST VIRGINIA

SHT. NAME: 050-6935\0X98PL\ESCP7 REV. 2







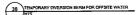


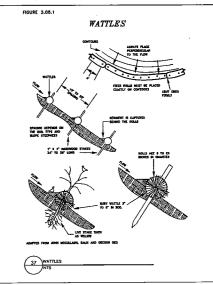
- DIAMALINE:
 10. REATER V
 WHEN CLEARING THE LOCATION FOR THE BORRISON, ONLY CLEAR ENOUGH ROOM FOR CONSTRUCTION AND MAINTENANCE COLUMBERT ACCESS, DO NOT CLEAR MAY MODITIONAL AREA UNIT. ALL RESIDENCE ONTRICL DEVISE ARE WILLIAGE REMOVE ALL STUMES ROOTS, AND OTHER DESIRES AND DISPOSE OF THEM PROPERLY REMOVED AND COMPACT, AS SERVINE IN DETAIL, RISSUE POSITIVE DUMANGE OUTNING STANDARD AND COMPACT AS SERVINE IN DETAIL, RISSUE POSITIVE DUMANGE OUTNING SCAMPY, SEED, MULCH AND TACK DISTUMBED AREAS IMMEDIATELY UPON COMPRETION OF BERM INSTALL REMOVED CONTROL, MAIN THAN HARDING RESECUTIVE CLUST PER MAINTEGATURERS RECOMMENDATIONS AND KEY INTO SIDES OF CHANNEL TO PREVENT WATER FROM UNDERMINING OR RAMAGING OWNEL, LIKER.

- INDEED, THE STATE SHALL SHALL SE FLACED, MANTAINED, AND ADAISTED CONTINUOUSLY LIVITE 50% VOCETAINE GROWTH IS ESTABLISHED ON THE EXTERIORS GLOR'S WITH PERMANENT STORM PRANAMER FACILITIES FANCTIONNE.
 BEINGS SHALL DUTLET TO SIGN FIFTES, CONVENEL, SIGN OF CONVENEL SHALL WARM OF CONVETING CONVENEL SHALL DUTLET HAVE AND SIGN OF COLLECTOR CHAINED.

 CHANNEL SHALL DUTLET THE SHALL SHA

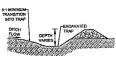
INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK GUTLETS AND MAKE TIMELY REPAIRS REMOVE THE RIDGE AND THE CHANNEL TO BLEYD WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.



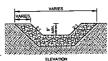


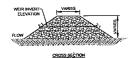


CHECK DAM SPACING



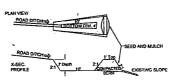
CHECK DAM WITH SUMP





MOTES from which is construction owners to be abused above, the construction of the other beautiful processes along the construction of the filter than the construction of the filter than the first of the construction of the filter than the first of the construction of the filter than the first of the construction of the filter than the first of the construction of the filter of the construction of the filter of the filter of the construction of the filter of





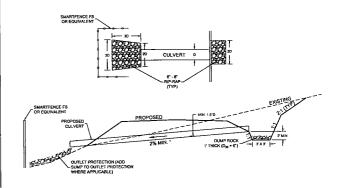
LEVEL SPREADER DETAIL

NOTE: TO BE PLACED AT THE ENDS OF DITCHES CALLING FOR LEVEL SPREADERS LEVEL SPREADERS WILL BE CUT INTO THE CONTOUR OF THE EXISTING SLOPE.

NOTES:

LEVEL SPREADER TO BE CONSTRUCTED IN AREAS WHERE A CILY VERT OR CHANNEL MUST EMPTY ONTO GROUND WITH NO ASSOCIATES CHANNEL MEDITED FLOW, THE PURPOSE OF THE LEVEL SPREADER IS TO GROSPIATE EMERGY AND SERVED. THE FLOW OUT OVER A SIGNAFICANT AREA THIS WILL TAKE A CHANNELLED FLOW AND ESSETHALLY CONNERT IT BLOW TO A SHEET FLOW OVER THE GROUND SURFACE. THE SHEET FLOW WILL MAKE LESS CHANGE FOR SERSION CONSIDERING THE LOWER VEROCHES THE WAY OF A SHEET FLOW WILL MAKE LESS CHANGE FOR SERSION CONSIDERING THE LOWER VEROCHES THE WAY OF THE SHE THAN THE WAY OF THE MAY OF THE WILL ALL ON SERVICE AND THE WAY OF THE WAY OF THE WILL ALL ON SECONSTRUCTED AND THE GOVERNOR OF CONTROLLED AND THE SHOT OF THE MAY OF THE CONTROLLED AND THE SHOT OF THE MAY OF THE CONTROLLED AND THE SHOT OF THE SHOT OF THE MAY OF THE CONTROLLED AND THE SHOT OF THE MAY OF THE CONTROLLED AND THE SHOT OF THE MAY OF THE CONTROLLED AND THE MAY OF THE CONTROLLED AND THE MAY OF THE CONTROLLED AND THE SHOT OF THE MAY OF THE CONTROLLED AND THE MAY OF THE MAY OF THE CONTROLLED AND THE MAY OF THE MAY OF THE CONTROLLED AND THE MAY OF THE MAY OF THE CONTROLLED AND THE MAY OF THE MAY OF THE CONTROLLED AND THE MAY OF THE MA





NOTES:

1. 2% MINIMUM SLOPE EXCEPT WHERE NOTED ON PLANS.

* CULVERTS IN STREAMS SHALL BE LAID AT 0% AND COUNTERSUNK.

INLET AND OUTLET PROTECTION IS ESSENTIALLY GRAVELS AND OR RIP RAP PLACED AT BOTH THE INLET AND OUTLET SIDES OF CLUVERTS. THE GRAVELS WILL HIELP TO SLOW THE FLOW OF WATER, AND DISSIPATE DERROY, THIS WILL IN TURN BECREASE THE CHANCES OF EROSION AND ALSO ALLOW ANY SEDIMENT IN THE WATER TO SETTLE OUT.

40 TYPICAL CULVERT & CULVERT INLET/OUTLET PROTECTION



IFP

AFE # A08641

1/24/2022

SUMMARY OF MATERIALS (3D) SUMMARY OF MATERIALS (3D) REVISION 1 REMSED PER COMMENTS FROM INLEINFELDER, MATIONAL & THRASHES
2 REMSED PER COMMENTS FROM ANTERO DESCRIPTION

GENERAL INFORMATION

NAL DESIGN, STRUKETH OF PREDICE AND MADE CALCULATIONS ALONG WITH NEUTRIN WERE PREPARED BY ANTERO AND PROVIDED TO THRASHER FOR PRUMBING ON THE PLANS. THRASHER ASSUMES HIS UMBILITY FOR THE CORRECTNESS OF THESE CALCULATIONS AND/OR RELITE PROVIDED 6

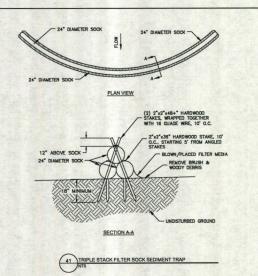
Antero

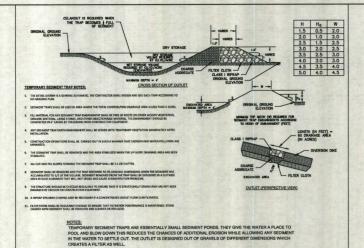
OXFORD 98 PIPELINE ESCP DETAILS

PROPOSED 16" STEEL GAS LINE & 18" HDPE SURFACE WATER LINE

DODDRIDGE COUNTY, WEST VIRGINIA 1/34/6025 FF Haz 41 PHOTH 50 (TITO) SHEET 21

REV. 2 SHT. NAME: 050-6935\0x98PL\ESCP9





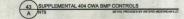
NOTES:

ON MOST LOCATIONS ANTERO WILL ALSO CONSTRUCT EROSION AND SEDMENT (ESS) CONTROLS
ASOVE AND SEYOND THE ESS CONTROLS LISTED ON THE PLAN SHEETS. THESE CONTROLS WILL BE
ASOVE AND SEYOND THE ESS CONTROLS LISTED ON THE PLAN SHEETS. THESE CONTROLS WILL BE
NEXTALLED TO BOTH PROVIDE EXTRA ESS PROTECTION, AND TO FLUMANTE THE CHANGES OF
MATERIALS SUCH AS SOUL GREATER, BERNE PLACED IN A STEMAN OF REVENAND. THE STEP PLANS
AND DELINEATIONS ARE REVIEWED AND THESE CONTROLS ARE SPECIFIED IN ANTERO'S
CONSTRUCTION REASE WINCH IS SETT OUT JUST PROVEN TO CONSTRUCTION BEGINNING. THE
PHASE I, II, AND III CONTROLS WILL BE CONSTRUCTED AS FOLLOWS:



PHASE I.

THIS IS ESENTIALLY ORANGE SAFETY FENCE LIKE SHOWN ABOVE. THIS MEASURE IS PUT IN PLACE
TO LET CONTRACTORS SHOW THAT NO WORK IS TAKE PLACE BEYOND THIS POINT, THIS CONTROL,
IS TYPICALLY UTILIZED WHEN THERE IS A WETLAND OR STREAM LOCATED IN THE AREA BUT NOT
WHICH APPROXIMATELY 10 PIECT OF THE DISTURBANCE.





<u>PHASE II:</u>
THIS CONTROL CONSISTS OF TYPICAL SILT FENCE, SUPER SILT FENCE, OR FILTER SOXX. THIS CONTROL
WILL BE INSTALLED AS DESCRIBED IN THE PREVIOUS SECTIONS. THIS CONTROL WILL TYPICALLY BE
USED WHEN WETLANDS OR STREAMS ARE LOCATED WITHIN 100 FEET OF THE DISTURBED AREA

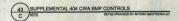




12 TEMPORARY SEDIMENT TRAP

PHASE II!
THIS CONTROL CONSISTS OF SUPER SILT FENCE WITH ORANGE CONSTRUCTION FENCE ACTING
AS THE VISIBLE PORTION OF THE BARRIER. THIS CONTROL IS USE TO PREVENT SOLS OR
GRAVELS FROM ENTERING STREAMS OR WETLANGS DURING CONSTRUCTION. THE SUPER SIL.
FENCE CAN BE USED IN CONLINCTION WITH OTHER LESS METHODS. THIS CONTROL IS USED IN
AREAS WHERE STREAMS OR WETLANGS ARE WITHIN APPROXIMATELY 59 FEET OF THE
DISTURBED AND

"NOTE THAT THE DISTANCES MENTIONED IN THE PHASE I, II, AND III CONTROLS ARE A GUIDELINE NOT A RULE FOR THE DECISION OF WHEN AND WHERE TO USE THESE CONTROLS.





RIP RAP - LOOSE STONE USED TO FORM A FOUNDATION FOR A BREAKWATER OR OTHER STRUCTURE. THIS STONE IS TYPICALLY 3 INCHES OR GREATER IN DIAMETER.

FILTER CLOTH - TYPICALLY TYPAR OR ANOTHER SUCH MATERIAL (USUALLY WOVEN) WHICH IS DESIGNED TO ALLOW WATER TO FLOW BUT RETAIN SEDIMENT.

AGGREGATE - TERM USED TO IDENTIFY ANY TYPE SOLID DENSE MATERIAL USED DURING CONSTRUCTION TYPICALLY GRAVELS, SANDS, AND STONES.

EMBANKMENT - A WALL OR BANK OF EARTH OR STONE.

CLASS 1 RIP RAP - TYPICAL RIP RAP WITH STONES OF A DIAMETER BETWEEN 8 AND

DEFINITIONS

DETAIL PROVIDED BY ANTERO MOSTREAM LLC

THRASHER

IFP
ISSUED FOR PERMITTING

DATE: 1/24/2022

AFE # A08641

SUMMARY OF MATERIALS (3D)

SUMMARY OF MATERIALS (3D)

NO. DESCRIPTION OF MATERIALS (3D)

NO. DESCRIPTION OF MATERIALS (3D)

1 REVISION

1 REVISION

2 REVISION 1/19/22 20

100 DESCRIPTION ORACITOR FROM ANTENDED 1/19/22 20

NO. DESCRIPTION ORACITOR OF DESCRIPTION ORACITOR OF DATE BY

GENERAL INFORMATION

. ALL DESIGN, STRENGTH OF PIPELINE AND MADE CALCULATIONS ALONG WITH ROUTING WERE PREPARED BY ANTERO AND PROVIDED TO THRASHER FOR ROLLISION ON THE PLANS. THRASHER ASSAMES NO LIABILITY FOR THE CORRECTNESS OF THESE CALCULATIONS AND/OR ROUTE PROVIDED BY ANTERO.

2. THIS SHEET IS INTENDED TO BE PLOTTED ON ANSI D (22" x 34"). FOR REDUCTIONS, REFER TO GRAPHIC SCALL

Antero

OXFORD 98 PIPELINE ESCP DETAILS

PROPOSED 16" STEEL GAS LINE & 18" HDPE SURFACE WATER LINE DODDRIDGE COUNTY, WEST VIRGINIA

1/34/2022 APE No.

1/34/2022 APE No.

AS 9100M

T. AD (170)

NAME (70)

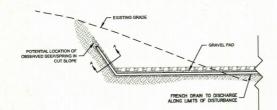
NAME (70)

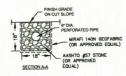
NAME (70)

NAME (70)

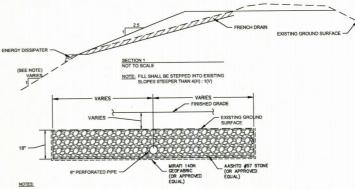
NAME (70)

SHT. NAME: 050-6935\0x98PL\ESCP10 REV. 2









2. THE FRENCH DRAIN SHOULD CONSIST OF A 6 INCH DIAMETER PERFORATED PIPE SURROUNDED BY DRAINABLE FILL, INSTALLED IN AN 18 INCH DEEP TRENCH ACHOL THE EXISTING DRAINAGE FEATURE OR SEEP, PRIOR TO DRAINABLE FILL PLACEMENT, THE TRENCH SHOULD BE LINED WITH A LAYER OF GEOFARIOS, SUCH AS MIRARI THAN OR APPROVED EQUAL, WITH SUFFICIENT OVERLAP TO PROVIDE AN ENVELOP AROUND THE PIPE TRENCH TO PREVENT THE MIGRITION OF PINES INTO THE FRENCH DRAIN.

THE FRENCH DRAIN SHOULD DAYLIGHT BEYOND THE TOE OR SIDE OF THE SLOPE AND EXTEND UP TO THE CREST OF THE SLOPE TO FACULTATE DRAINAGE THROUGH THE FILL SECTION. THE ASSULT WIDTH OF THE FRENCH DRAIN SHOULD BE A FUNCTION OF THE WIDTH OF THE SPRING, SEEP OR DRAINAGE FAZULT GESERVED DURING CONSTITUCTION.

4.THE FRENCH DRAIN SHOULD BE CONSTRUCTED TO SPAN THE ENTIRE WIDTH OF THE OBSERVED SPRING OR SEEP.





A BONDED FIBER MATRIX (BMF) IS AN EFFECTIVE METHOD OF STABILIZING STEEP SLOPES WHEN USED PROPERLY. BMFs MMR USE OF A CROSS-LINNED HODOCOLLIDO TACKPIER TO BOND HERBMALLY PROCESSED WOOD FREERS, APPLICATION AREAS WAYE ACCORDING TO SITE CONDITIONS, FOR SLOPES UP TO SHEY THE BM SHOULD BE APPLIED AT A MATE OF 3000 LBMCHE. STEEPER SLOPES WAT IN TEED AS MUCH AS 4,000 LBMCHE.

BPMs SHOULD ONLY BE USED WHEN NO RAIN IS FORECASTED FOR AT LEAST 48 HOURS FOLLOWING THE APPLICATION. THIS IS TO ALLOW THE TACKFIERS SUFFICIENT TIME TO QUEE PROPERLY, ONCE PROPERLY APPLIED, A BPM IS TYPICALLY SIGN, EFFOTIVE IN PREVENTING ACCELERATED EROSION. BPMs SHOULD NOT BE APPLIED BETWEEN SEPTEMBER 30 AND APRIL 1.

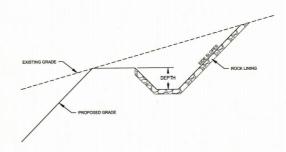
A POLYMER STABILIZED FIBER MATRIX (PSFM) CAN ALSO BE AN EFFECTIVE METHOD OF STABILIZING STEEP SLOPES WHEN USED PROPERTY. PSFM MARE USE OF A LINEAR SOL STABILIZING TACKNERS THAT WORKS DIRECTLY ON SOL TO MAINTAIN SOL STRUCTURE. MAINTAIN PORE SPACE CAPACITY AND FLOCULATE DISLODGED SEDMENT THAT WILL SIGNEFCANTLY REDUCE RUNOFF TURBIDITY. PROPERLY APPLIED, A PSFM MAY BE AS MICHAS 99% EFFECTIVE.

Typical Maximum Rainfa	all of ≤ 20"		Transition.				
SLOPE	6:1	5:1	4:1	3:1	2:1	1.5:1	1:1
Soil Stabilizer (gals/acre)	4	5	6	7	8	9	10
Fiber (lb/acre)	1,500	1,500	1,500	1,800	2,000	2,500	3,000
		ım Rainf					
	SLOPE		≤5:1	4:1	≥3:1		
	Soil St				10		

UNIX.E ROLLED BLANKETS. THERE IS NO NEED TO SMOOTH THE SLOPE PRIOR TO APPLICATION OF
HYDRALICALLY APPLIED BLANKETS. IN FACT SOME ROUGHENHOU OF THE SUMFACE, EFFER
NATURAL, OR BLANKETS. IN FACT SOME ROUGHENHOU OF THE SUMFACE, EFFER
NATURAL, AND EXISTING PROPERTIES OF SUMPLEY LARGE ROOKS, THOSE 3 or
NOTES. AND EXISTING PROPERTIES OF SUMPLEY AND EXPERTISE OF SUMPLEY AND EXPENSIVE OF SUMPLEY AND EXPENSIVE OF SUMPLEY AND EXPENSIVE OF SUMPLEY AND SU

2,000 2,500 3,000

HOTBAULGULY APPLIED BLANETS ARE TYPICALLY APPLIED IN TWO STAGES, UNLESS SPECEFICALLY RECOMMENDED TO BE APPLIED IN ONE APPLICATION BY THE MANUFACTURER, THE SEED MINTURE AND SOL MARCHMENTS SHOULD BE APPLIED STRIST. IT THE SEED SAPELED AT THE APPLIED ALMOST, THE BOYAGO FREIGH MAY KEEP THE SEED FROM MANING SUPPLICANT THE SEED OF SEED MINTURES SHOULD SHOW THE SEED MINTURES APPLIED. THE SENT APPLIED THE SEED MINTURES SHOULD SHOW AND ASSESS APPLIED. THE SENT KEEN OF SPRING SHOULD SHOULD SHOULD SHOULD SHOULD SHOW THE AREA AT THE REQUIRED APPLICATION FAIR (SEE AROVE TABLE).



NEL DIMENSIONS AND LINING WILL BE DETERMINED BY FNGINEER AS APPLICABLE.



10	TYPICAL ROCK LINED CHANNEL	
40	INTS	



IFP

1/24/2022 DATE: AFE # A08641

SUMMARY OF MATERIALS (3D) SUMMARY OF MATERIALS (3D) REVISION 1 REVISED PER COMMENTS FROM ILLEINFELDER, NATIONAL & THRASH 2 REVISED PER COMMENTS FROM ANTER

GENERAL INFORMATION

ALL DESIGN, STRONGTH OF PPELINE AND MADE CALCULATIONS ALONG WITH ROLLING WERE PREPARED BY ANTERO, AND PROVIDED TO THEMSEER FOR HOLLISION ON THE PLANS, THRUSHER ASSAMES NO LIABILITY FOR THE CORRECTNESS OF THESE CALCULATIONS AND/OR ROLLIE PROVIDED BY ANTERO.

Antero **OXFORD 98 PIPELINE**

PROPOSED 16" STEEL GAS LINE & 18" HDPE SURFACE WATER LINE DODDRIDGE COUNTY, WEST VIRGINIA

1/24/2022 AFE No.: AS \$1009N .DJ (TT0) .JBH, RAS (TT0) SHEET 23 REV. 2 SHT. NAME: 050-6935\OX98PL\ESCP11



ATTACHMENT E NO-RISE CERTIFICATE



This is to certify that I am a duly qualified registered professional engineer licensed to practice in the State of West Virginia.

It is further to certify that based on the information provided to me, and the attached technical data supports the fact, the floodplain encroachments for the Oxford 98 Pipeline (Site) will not impact the 100-year flood elevation of Right Fork Arnold Creek at the published section in the Flood Insurance Study for Doddridge County (Community ID 540024) effective October 4, 2011 and will not impact the 100-year flood elevation at unpublished cross-sections in the vicinity of the proposed development. Work to be performed within the floodplain limits that was considered during the evaluation includes the proposed temporary disturbances associated with access roads, staging areas, and equipment and supplies supporting the pipeline installation. It should be noted that all disturbed areas proposed within the floodplain of Right Fork Arnold Creek will be reclaimed to original contours upon completion of the pipeline installation.

The total watershed (drainage basin) for the Right Fork Arnold Creek floodplain encroachments were shown to be 4.0 square miles, and maximum flows were calculated utilizing the National Streamflow Statistics (NSS) application available online. A Hydrologic Engineering Center's – River Analysis System (HEC-RAS) analysis was completed, based on the drainage area above and associated flows, to verify that no influence will occur due to the proposed activities within the floodplain for Right Fork Arnold Creek. The flows compared for the affected area are attached.

Attached are the following documents that support my findings:

Maps of the Site from the West Virginia Flood Tool
National Streamflow Statistics – Drainage Area Flow
Comparison for Calculated Flows – HEC-RAS Excel Data

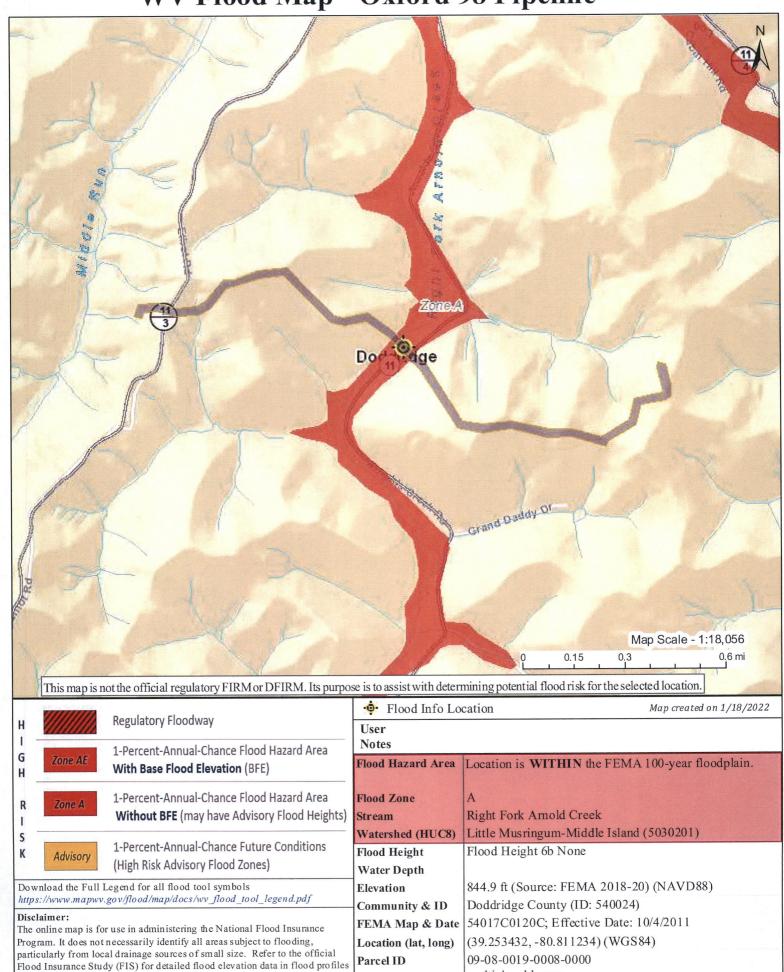
Date: February 8, 2022

oignataro.

Title: Program Manager

APPENDIX A WV FLOOD TOOL MAPS

WV Flood Map - Oxford 98 Pipeline



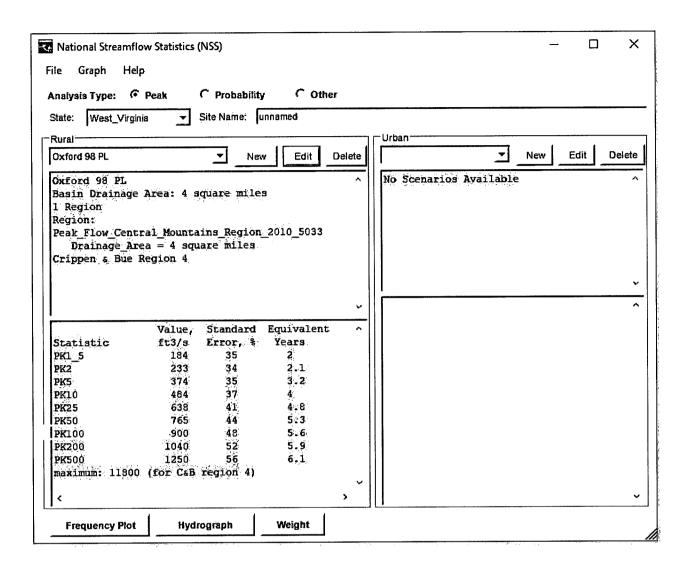
E-911 Address

and data tables. WV Flood Tool (https://www.MapWV.gov/flood) is

supported by FEMA, WV NFIP Office, and WV GIS Technical Center

multiple addresses

APPENDIX B NATIONAL STREAMFLOW STATISTICS (NSS) RIGHT FORK ARNOLD CREEK DODDRIDGE COUNTY, WV



Basemaps Basins Layers Legend

Input Coordinate

examples: 38 15 30.1, -81 25 15.2 (lat, lon) 38.123456, -81.123456 (lat, lon) 500000, 4200000 (UTM as easting, northing)

Lat/Lon WGS 1984

zoom to point



7Q10 Query Results

Right Fork/Arnold Creek Stream Name OMN-13-DA-20 Stream Code WVOMI-40-I WV Code 4.062 Drainage Area sq mi

Exceptions and Warnings

Regulated Flow	N
Regulated Flow Info	NA
Known Losing Stream	N
Potential Karst Influence	N
Potential Non-Perennial	N

Gage-based Estimates

Method Upstream Gage Downstream Gage cfs Annual 7Q10 cfs Spring 7Q10 Summer 7Q10 cfs cfs Fall 7Q10 cfs Winter 7Q10

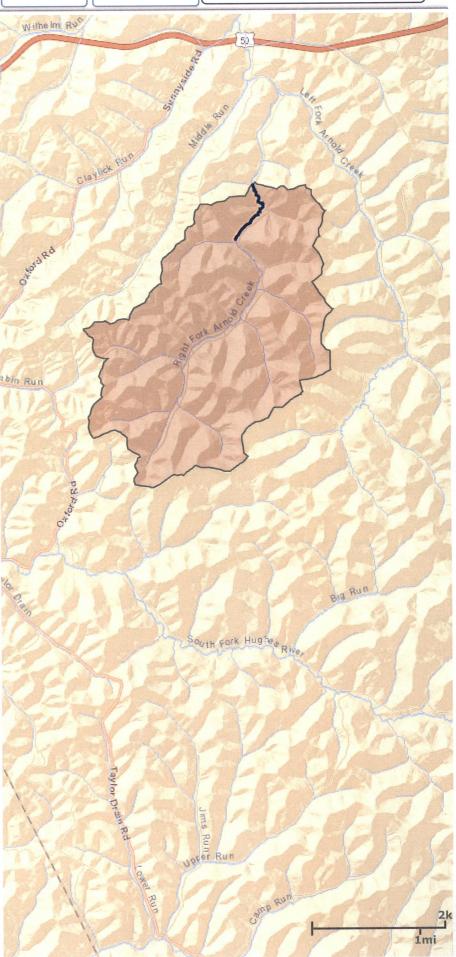
Regional Estimates

Regional Estimates		
Annual 7Q10	0.001	cfs
Spring 7Q10	0.034	cfs
Summer 7Q10	0.001	cfs
Fall 7Q10	0.007	cfs
Winter 7Q10	0.284	cfs
Spring D50	1.582	cfs
Summer D50	0.117	cfs
Fall D50	0.619	cfs
Winter D50	4.067	cfs
D75	0.188	cfs
Harmonic Mean	0.072	cfs

Guidance:

This stream is not proximate to a stream gage. Use the regional estimate.

flow calculation methods

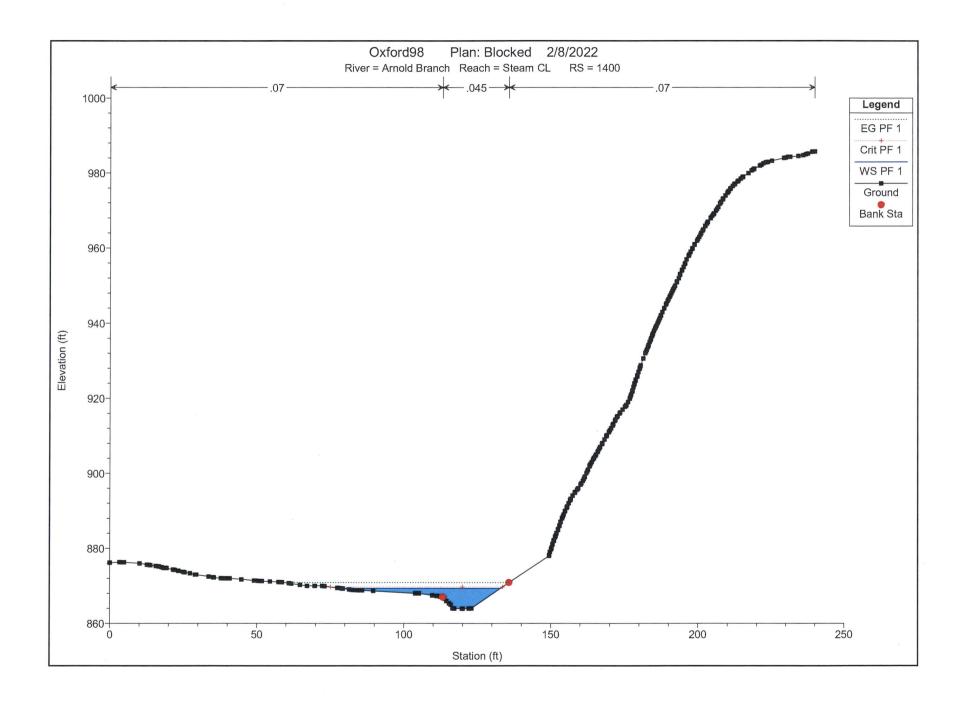


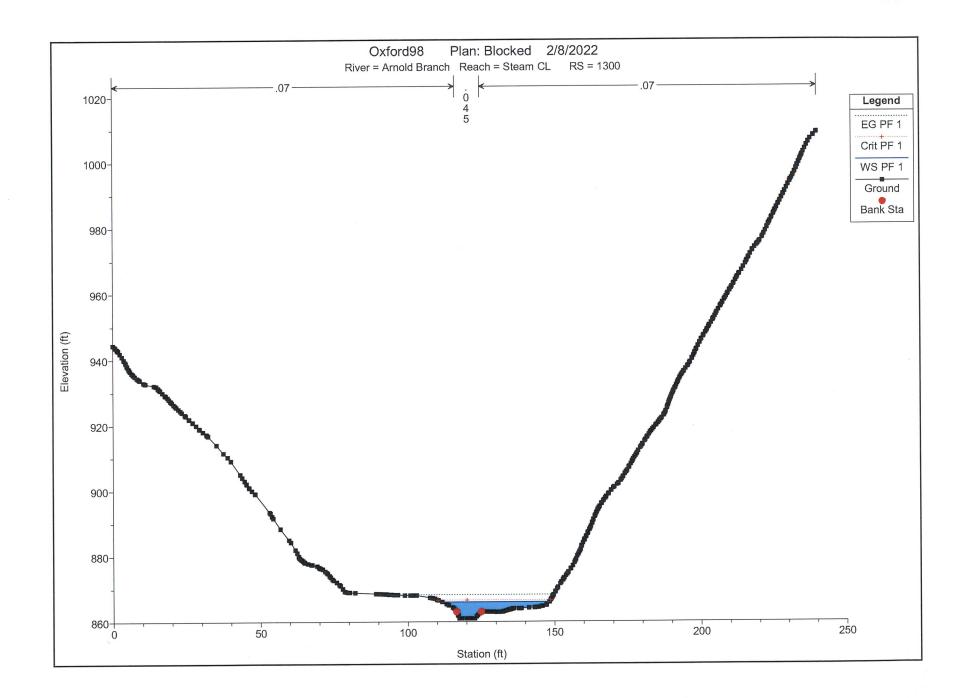
APPENDIX C HEC-RAS FLOW COMPARISON – EXCEL SHEET RIGHT FORK ARNOLD CREEK DODDRIDGE COUNTY, WV

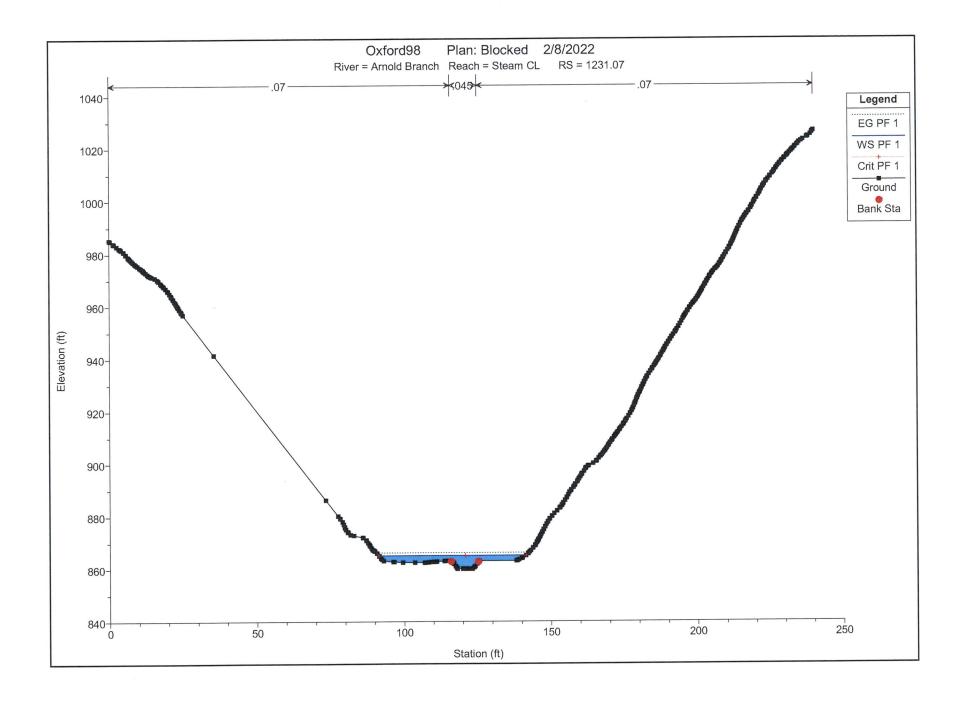
Profile Output Table - Standard Table 1

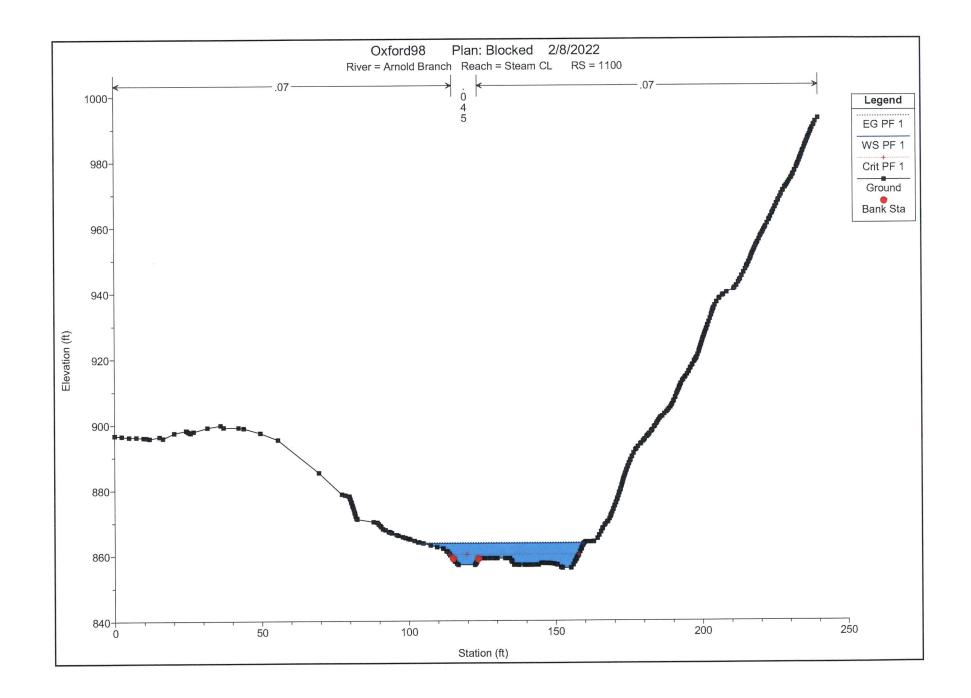
ANTERO - OXFORD 98 IMPACTS TO ARNOLD BRANCH, 100-YEAR WATER SURFACE COMPARISON

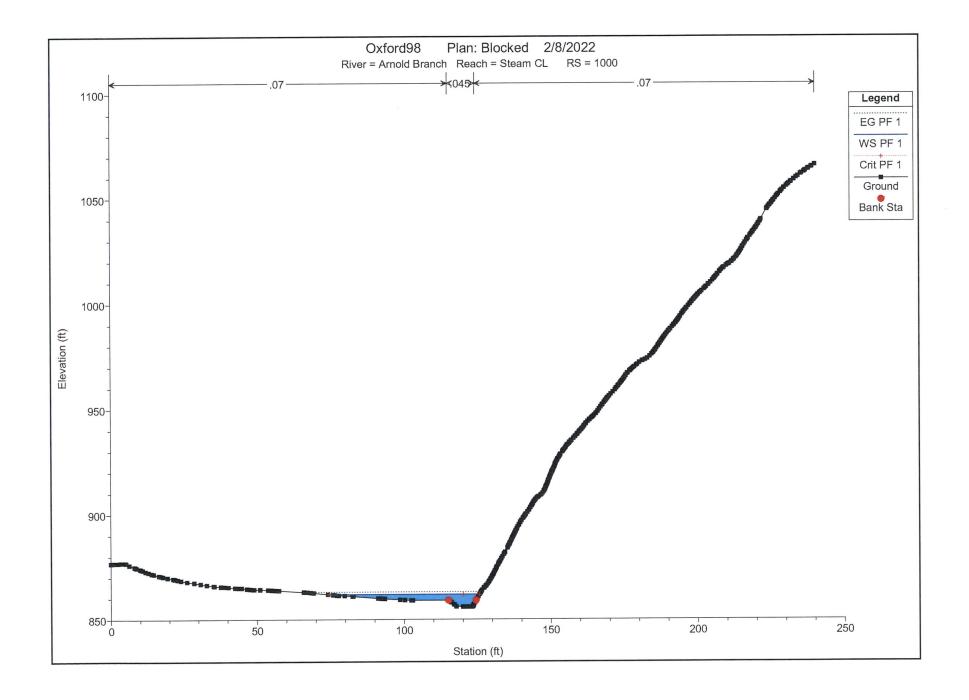
Reach	River Sta	Profile	Q Total	Condition	Min Ch El	W.S. Elev	WS Diff	Vel Chnl	Vel. Diff.	Top Width	Top Width	
			(cfs)		(ft)	(ft)	(ft)	(ft/s)	(sq ft)	(ft)	Diff (ft)	
S. S.	1100	DE 4	000	Existing		869.36	0.00	10.65	0.00	54.52	0.00	
Steam CL	1400	PF 1	900	Proposed	863.94	869.36	0.00	10.65	0.00	54.52	0.00	
a. a.	1200	DE 1	000	Existing		865.94	0.00	14.50	0.00	36.34	0.00	
Steam CL	1300	PF 1	900	Proposed	860.96	865.94	0.00	14.50	0.00	36.34	0.00	
C1 C1	1221.07	DE 1	900	Existing		865.07	0.00	11.00	0.00	50.10	0.00	
Steam CL	1231.07	PF 1	900	Proposed	859.99	865.07	0.00	11.00	0.00	50.10	0.00	
C1 C1	1100	DE 1	900	Existing		863.56	0.00	4.91	0.00	54.37	0.00	
Steam CL	1100	PF 1	900	Proposed	857	863.56	0.00	4.91	0.00	54.37	0.00	
CI	1000	DF 1	900	Existing		861.89	0.00	10.96	0.00	50.94	0.00	
Steam CL	1000	PF 1	900	Proposed	855.96	861.89	0.00	10.96	0.00	50.94	0.00	
C+ C1	000	DE 1	900	Existing		859.98	0.00	7.67	0.00	45.87	0.00	
Steam CL	900	PF 1	900	Proposed	853.97	859.98	0.00	7.67	0.00	45.87	0.00	
C1 C1	000	PF 1	900	Existing		858.64	0.00	9.98	0.00	37.51	0.00	
Steam CL	800	PF I	900	Proposed	852	858.64	0.00	9.98		37.51	0.00	
Characa Cl	700	700 PF 1		Existing		857.14	0.00	10.75	0.00	48.73	0.00	
Steam CL	700	PFI	900	Proposed	850	857.14	0.00	10.75	0.00	48.73		
Characa Cl	614.59	PF 1	900	Existing		854.86	0.00	8.33	0.00	60.81	0.00	
Steam CL	614.59	PF 1	900	Proposed	849	854.86	0.00	8.33	0.00	60.81	0.00	
Charma Cl	F00	PF 1	900	Existing		852.68	0.00	10.80	0.00	53.15	0.00	
Steam CL	500	Pr 1	300	Proposed	847	852.68	0.00	10.80	0.00	53.15	5.55	
Character Cl	400	PF 1	900	Existing		852.32	0.00	7.25	0.00	68.13	0.00	
Steam CL	400	PFI	300	Proposed	846	852.32	0.00	7.25	0.00	68.13		
Charm Cl	300	PF 1	900	Existing		850.92	0.00	9.94	0.00	43.96	0.00	
Steam CL	300	PF 1	300	Proposed	843.99	850.92	0.00	9.94	0.00	43.96		
Ctoom Cl	200	PF 1	900	Existing		848.87	0.00	11.65	0.00	46.23	0.00	
Steam CL	200	PFI	300	Proposed	841.99	848.87	0.00	11.65		46.23		
Steam Cl	100	PF 1	900	Existing		847.93	0.16	7.37	-0.35	65.16	0.98	
Steam CL	100	LL T	300	Proposed	841.13	848.09	0.10	7.02	7.02 66.1			
Chapter Cl	0.01	PF 1	900	Existing		847.26	0.17	7.88	0.38	58.55	0.64	
Steam CL 9.81		21] 300	Proposed	843	847.43	0.17	8.26		59.19	0.64	

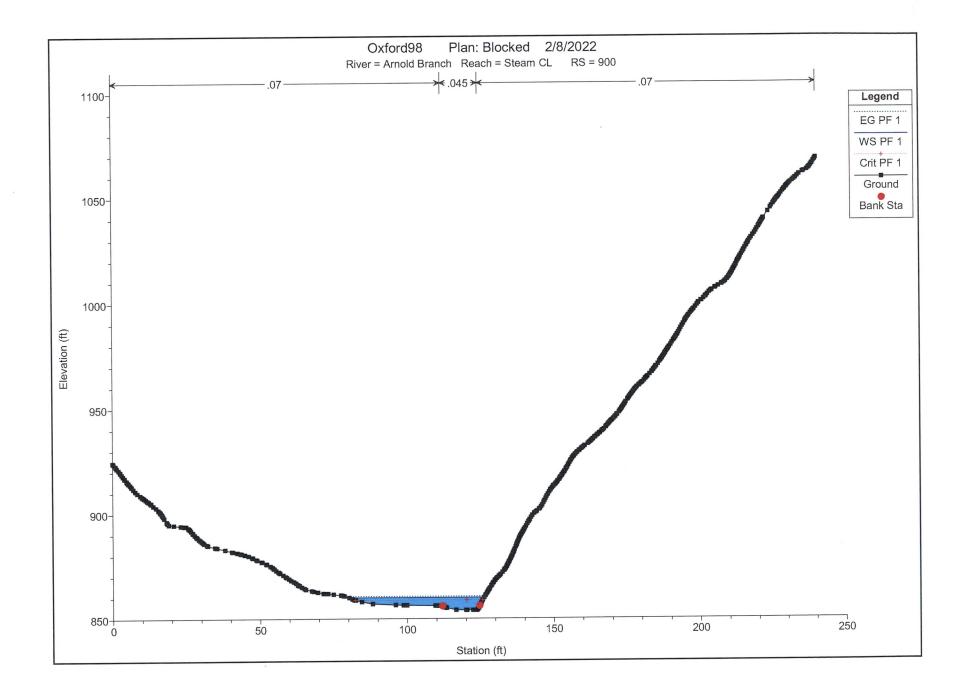


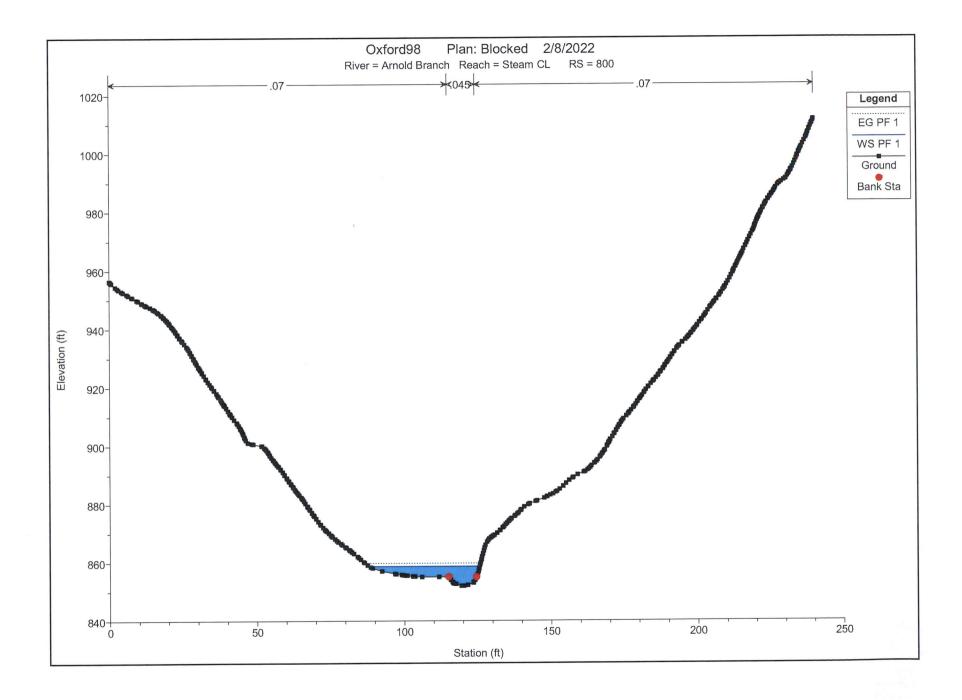


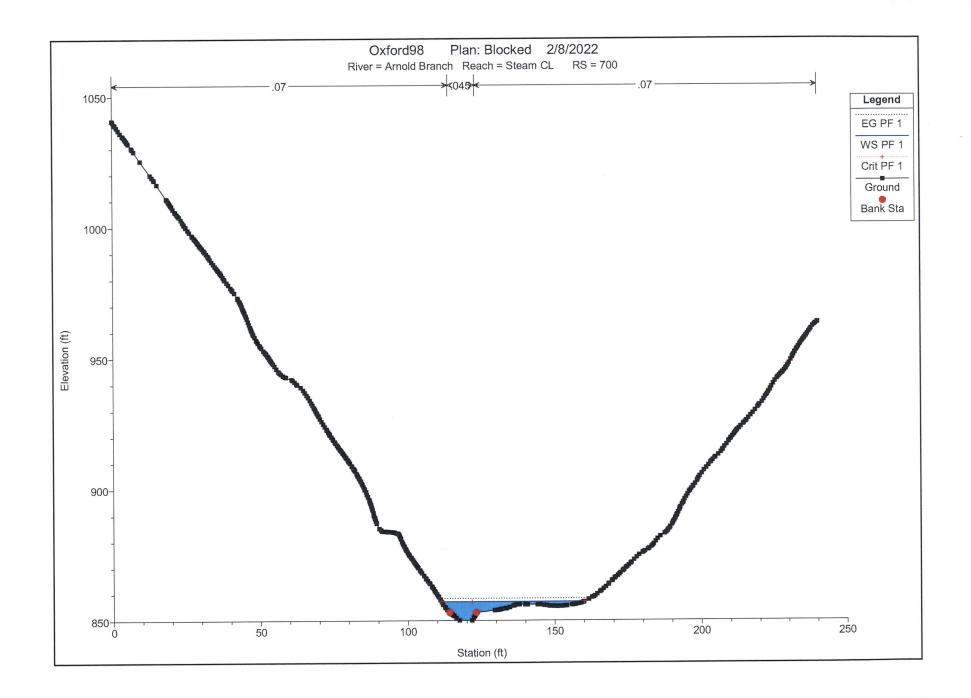


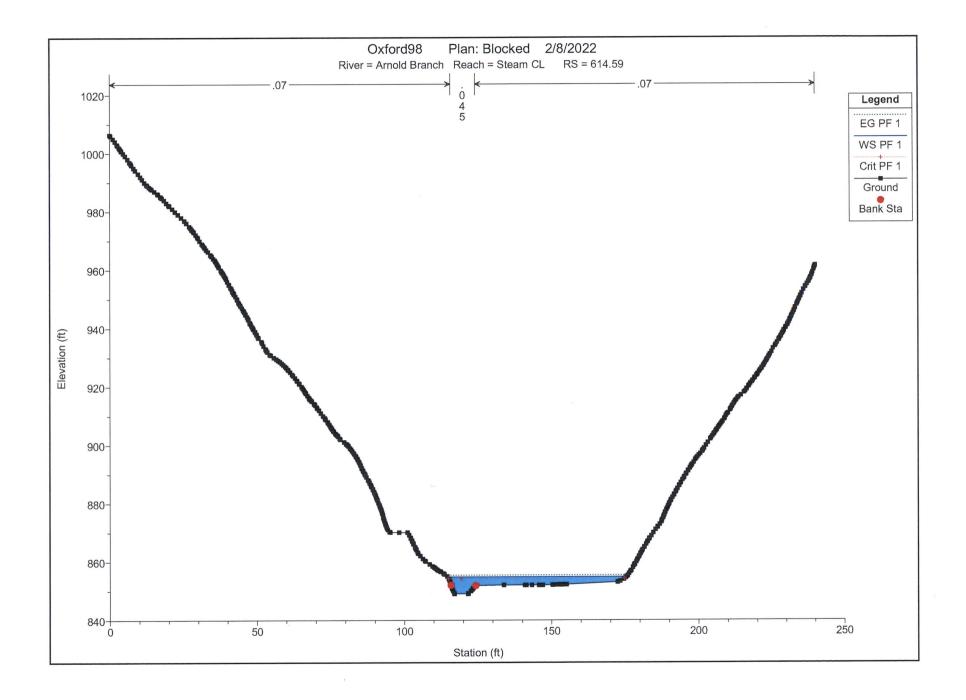


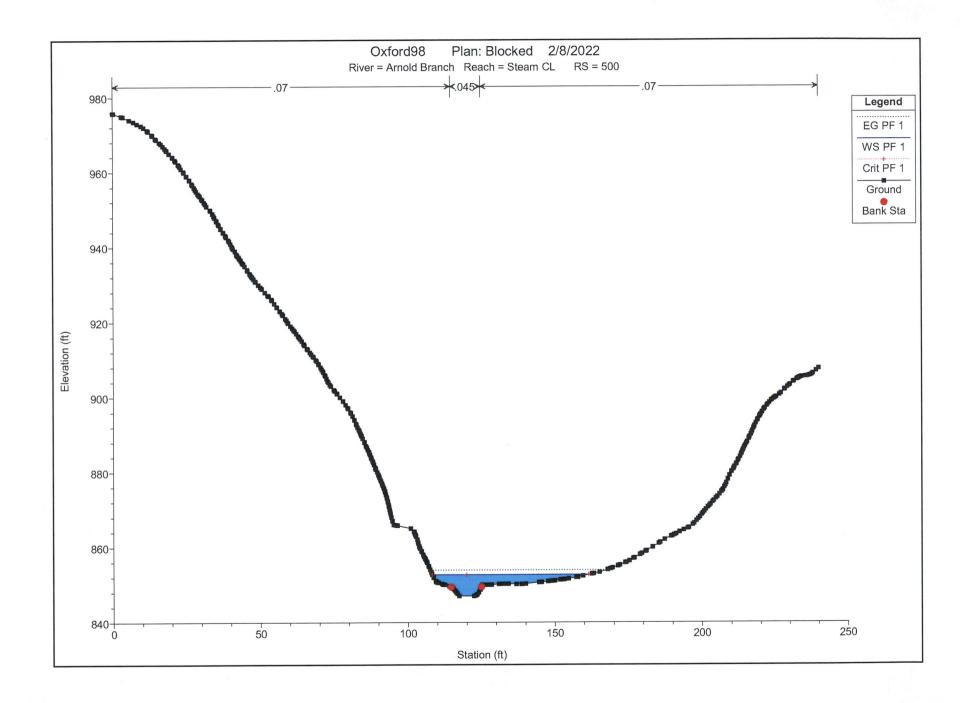


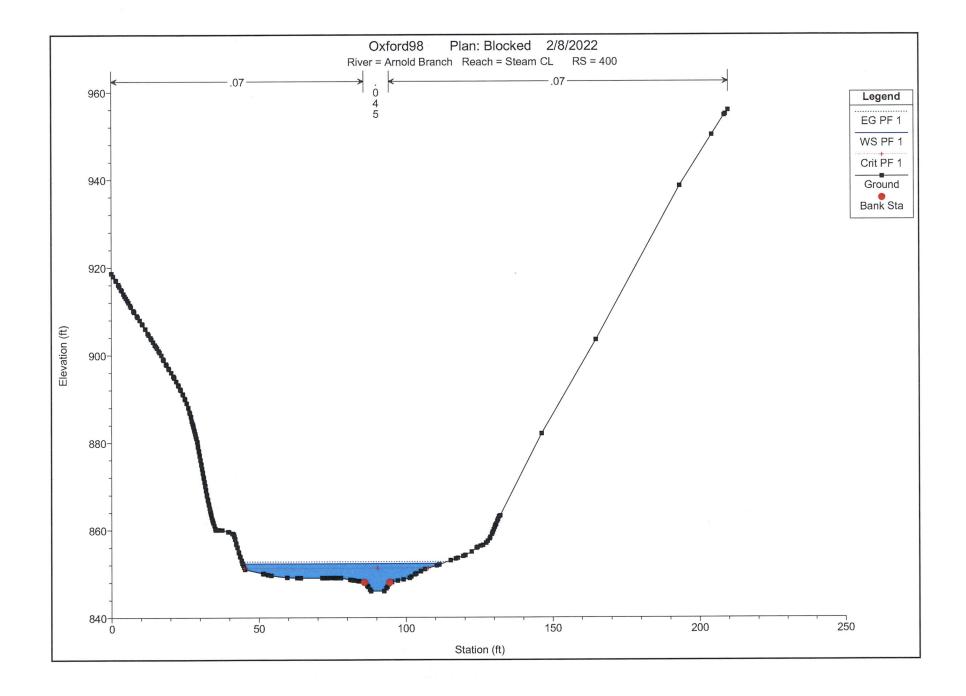


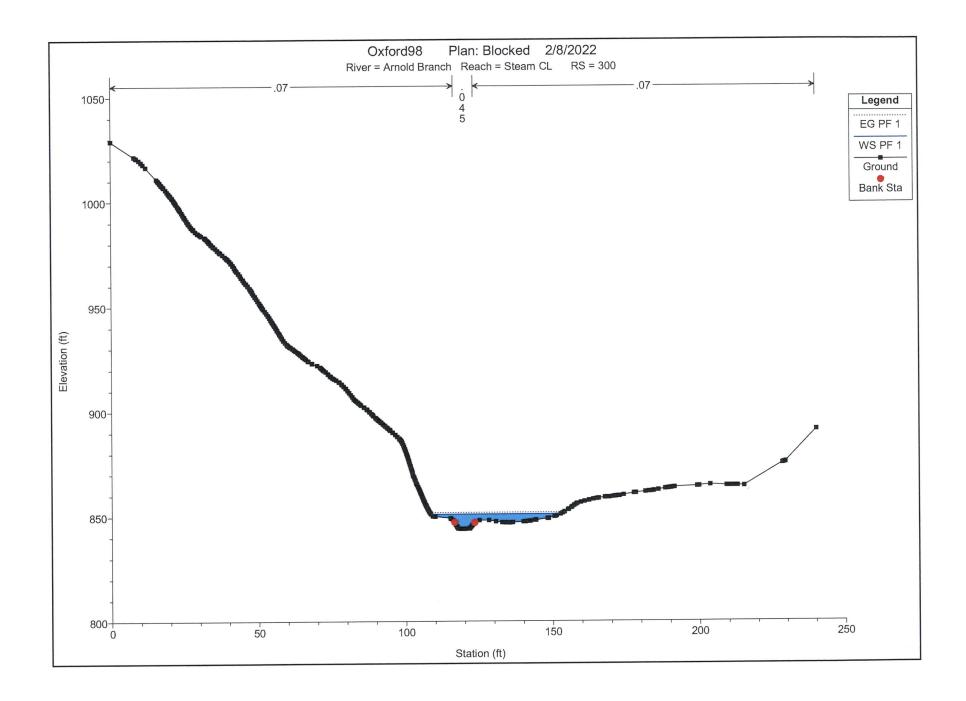


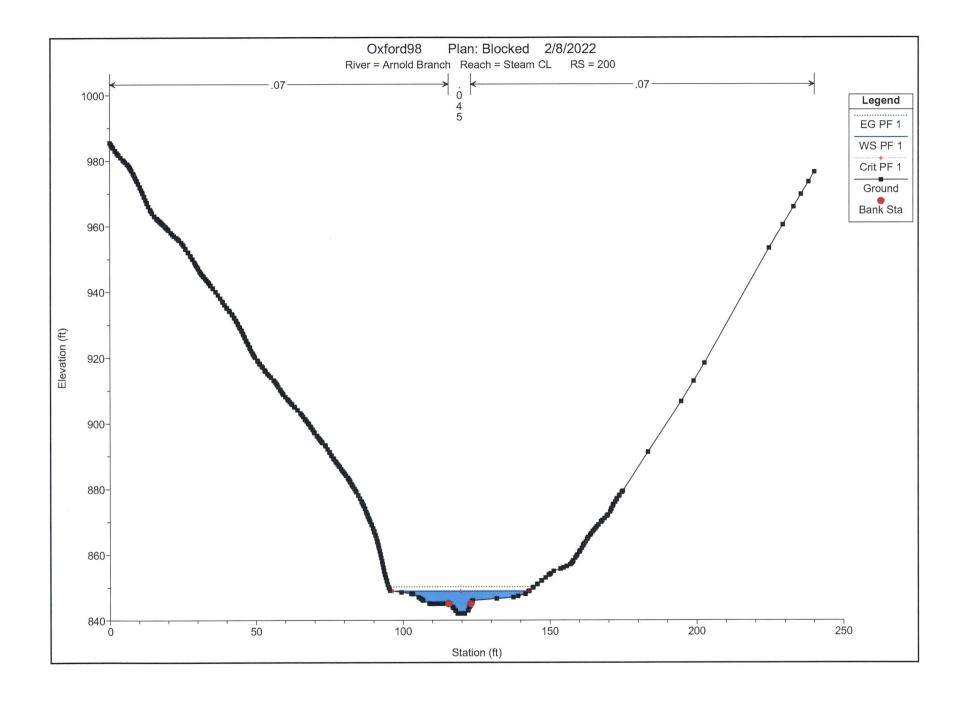


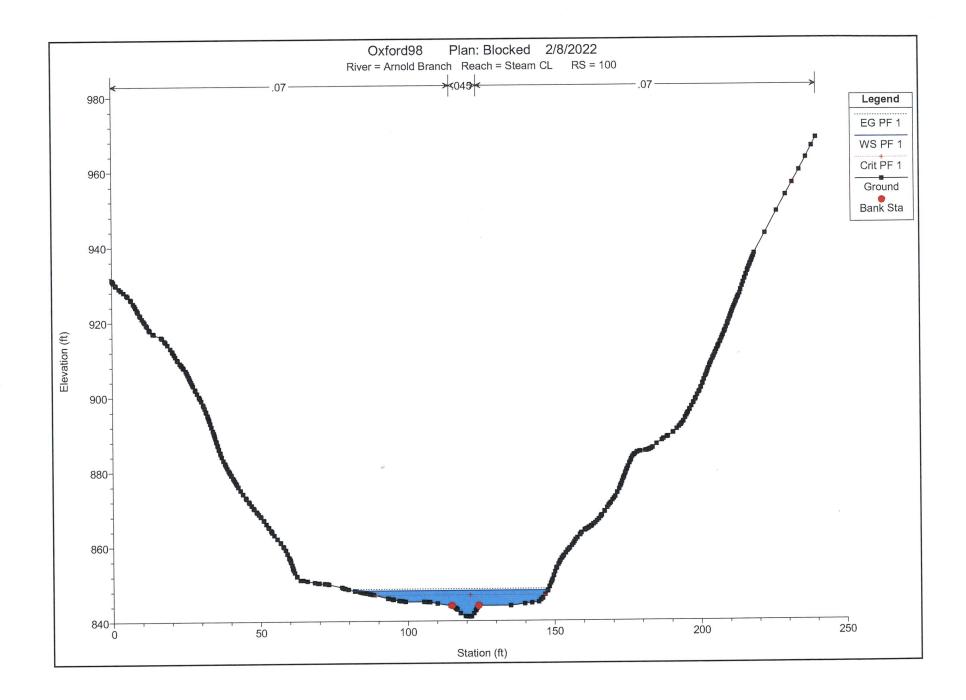


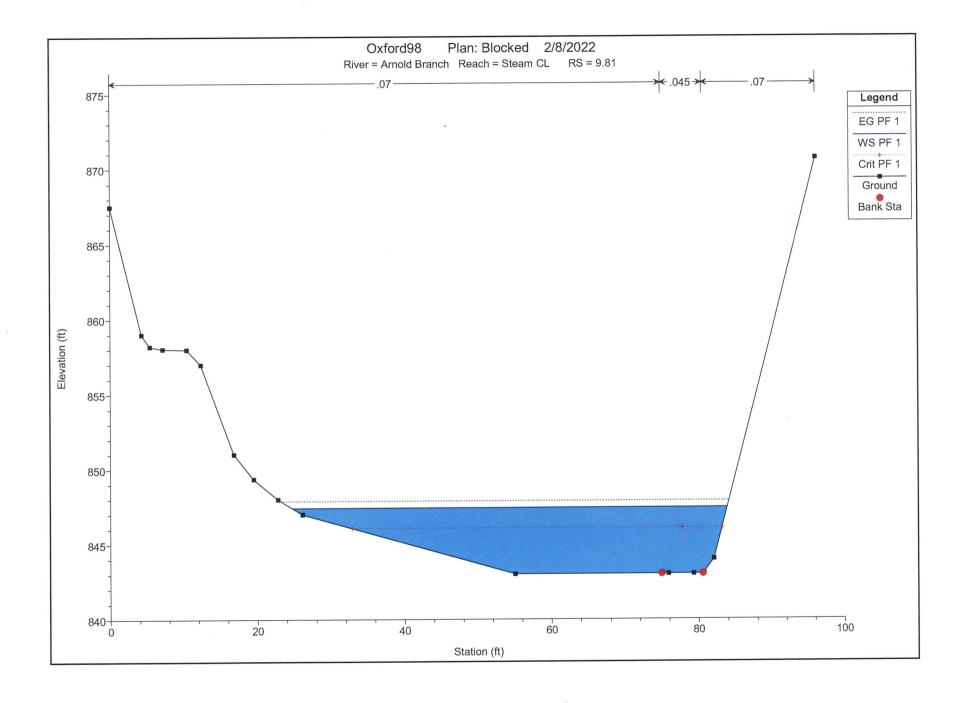














ATTACHMENT F PERMITTING AND COORDINATION

Permitting and Coordination

Permitting Agency	Permit/Coordination Required	Submitted	Received (Anticipated)	Status	
	NWP 12	01/25/22	(03/11/22)	PCN Required	
USACE ¹	Mitigation Plan	Not Applicable	Not Applicable	Not Applicable	
USFWS ²	Threatened & Endangered Species (Section 7 Coordination)	01/21/22	(03/07/22)	Pending	
WVSHPO ³	Section 106 Coordination	WVSHPO. The	e Consultation with Cultural Resources	Required	
***************************************	Phase I & Architectural Survey	Assessment wa Nationwide Po	·		
WVDNR- OLS ⁴	Stream Activity Application (SAA)	01/25/22	(02/24/22)	Pending	
WVDNR-	Threatened & Endangered State Species			Pending	
WRS⁵	Spawning Waiver	01/27/22	01/28/22	Approved	
County Floodplain Manager	Doddridge County Floodplain Coordination	To Be Submitted	To Be Submitted	To Be Submitted	
	401 WQC Program Notification	01/25/22	02/07/22	Approved	
WVDEP6	NPDES ⁷ Permit	Not Applicable	Not Applicable	Not Applicable	
	Construction Stormwater General Permit	01/24/22	02/23/22	Pending	
WVDOH ⁸	Utility Permit	To Be Submitted	To Be Submitted	To Be Submitted	

- United States Army Corps of Engineers
- United States Fish and Wildlife Service 2 3 4 5
- West Virginia Division of Culture and History, State Historic Preservation Office
- West Virginia Division of Natural Resources Office of Land and Stream West Virginia Division of Natural Resources Wildlife Resources Section West Virginia Department of Environmental Protection
- National Pollutant Discharge Elimination System
- West Virginia Division of Highways

Matthew Albright

From:

Wakeford, Anne M <anne.m.wakeford@wv.gov>

Sent:

Friday, January 28, 2022 8:38 AM

To:

DBulian@anteroresources.com; Matthew Albright; Danny A Bennett; John Lewis; Nate D

Taylor; Jocelyn J Phares

Subject:

Fwd: Antero Midstream: Oxford 98 Pipeline - 2022 Fish Spawning Waiver Request

Attachments:

20220127_Oxford 98 Pipeline_WVDNR-WRS_Fish Spawning Waiver.xlsx

External Email

Dear Daniel Bulian,

Your fish spawning waiver requests are approved. This email serves as your approval.

Please contact me if you have any questions.

Regards,

Anne

Anne M. Wakeford
Coordination Biologist
WVDNR/EOC
738 Ward Rd.
PO Box 67
Elkins, WV 26241
304-637-0245 ext 2035
Anne.M.Wakeford@wv.gov

----- Forwarded message -----

From: Matthew Albright < MAlbright@kleinfelder.com >

Date: Thu, Jan 27, 2022 at 8:14 PM

Subject: Antero Midstream: Oxford 98 Pipeline - 2022 Fish Spawning Waiver Request

To: Wakeford, Anne M < Anne.M. Wakeford@wv.gov>

Cc: John Lewis < JALewis@kleinfelder.com >, Daniel Bulian (dbulian@anteroresources.com)

<dbulian@anteroresources.com>, Bennett, Danny A < Danny.A.Bennett@wv.gov>

Hi Anne,

On behalf of Antero Midstream (Antero), Kleinfelder, Inc. is submitting the attached Fish Spawning Waiver Request for intermittent and perennial stream crossings associated with the Oxford 98 Pipeline for your review. Please address your response to Daniel Bulian of Antero. He is cc'd on the email and his contact information is provided below.

Daniel Bulian

Environmental Specialist III

Antero Midstream

535 White Oaks Blvd

Bridgeport, WV 26330

(304) 842-4093

dbulian@anteroresources.com

Thanks,

Matt Albright

Project Manager

51 Dutilh Rd., Suite 240 Cranberry Township, PA 16066 m| 609.947.5296



This email may contain confidential information. If you have received this email—including any attachments—in error, please notify the sender promptly and delete the email and any attachments from all of your systems.

Projectio	ProjectName	SubmittedBy	Date .	StreamName	StreamRegime	County	VIER	allons	PP	Datelinpart (Miles	Duration	Purpose	StreamWidth	Watershed Drain SQMI	Impactifeet	Treatment	ticensekumber	Rationale	Approval
KLF-STREAMOZ (INT)	Oxford 98 Pipeline	Kleinfelder, Inc.	1/27/2022	UNT to Right Fork Arnold Creek	Intermittérit	Doddridge	39.251074	-80.801549	Temporary	Sometime Between April 1 & June 30	3 days	• [1] 16-inch diameter UP gas pipeline • Temporary structure (dam and flume or equivalent) oroxing materials, limber mats [16 feet a 11 feet) temporary orders ranging from 10-inches to 36-icubes in diameter by 30 feet ne captiment tracting, and necessary workspace for pipeline construction.	3'	4.062	32	Seed & Mulcl/Permanently Hervaceous Layer-Mowed Regularly	To Be Assigned	1) Temporary crossing for pipeline installation; pipeline crossing of the stream to be completed within 72 hours. 2) Temporary consing for construction access: culvert size will be selected based on maintaining flow and will be removed from stream once pipeline construction activities are complete.	
KLF-STREAMOS (PER)	Oxford 98 Pipeline	Kleinfelder, inc.	1/27/2022	Right Fork Arnold Creek	Perennial	Doddridge	39.253665	-80.811503	Temporary	Sometime Between April 1 & June 30	3 days	• (1) 16-inch diameter UP gas pipeline • Temporary structure (dam and flume or equivalent) crossing materials, Jersey barrier jiede installations for timber mat (16 feex 70 feet) rounging of equipment, and necessary workspace for pipeline construction.	12'	4.062	100	Seed & Mulch/Permanently Hervaceous Layer-Mowed Regularly	To Be Assigned	Temporary crossing for pipeline installation, pipeline crossing of the stream to be completed within 72 hours. 21 Temporary installation of presy barriers and/or piers will be placed so as not to impede or prevent fish movement upstream or downstream and will be removed from stream once pipeline construction activities are complete.	

Matthew Albright	
From: Sent: To: Subject: External Email	Dickson, Nancy J <nancy.j.dickson@wv.gov> Monday, February 7, 2022 2:10 PM dbulian@anteroresources.com; Matthew Albright Oxford 98 Pipeline PCN</nancy.j.dickson@wv.gov>
Mr. Bulian,	
	ent of Environmental Protection-Division of Water and Waste Management has received the on for the following project:
Company: Antero Midstrea	ım
Project: Oxford 98 Pipeline	
County: Doddridge	
This fulfills the requirement other applicable standard of	t of Standard Condition 1 for prior written notification for these nationwide permits. All conditions for nationwide permits remain in force until the project is complete.
Feel free to contact me sho	ould you have any additional questions or concerns.
Thank you,	
	

Nancy J. Dickson

Environmental Resources Specialist 3

West Virginia Department of Environmental Protection

Division of Water and Waste Management

401 Certification Program

601 57th Street, SE

Charleston, WV 25304

Office: (304) 414-3834

Cell: (304) 541-4268

Email: nancy.j.dickson@wv.gov



TRANSMITTAL

To:

Date: February 8, 2022

Mr. George Eidel Floodplain Manager 101 Church Street, Suite #102 West Union, WV 26456-2095

cc: Project File

F E8 9 22 12:47F#

Antero Midst Oxford 98 Pip		ia		
	⊠	Attached		Under separate cover
Via: Messenger/CourierFirst Class Mail FedEx United Parcel DHL Lone Star Overnight Freight Other Transmitted: As Requested For Approval For Your Use For Review & Comment	Remarks:	facilitate yo application Attachmen Attachmen Attachmen Attachmen	our review nt A – Floon nt B – Tab nt C – WV nt D – Site nt E – No-	d the following documents to w of the above referenced odplain Application ole of Adjacent Property Owners Flood Tool Map Plans Plans Prise Certificate mitting & Coordination
			olain is \$9	\$\$589.00. The site budget within 94,500.00 bringing the permit fee

By: Matt Albright

Project Manager 51 Dutilh Rd., Suite 240 Cranberry Township, PA 16066 MAlbright@Kleinfelder.com m| 609.947.5296

Doddridge County Floodplain Permits (Week of FEBRUARY 14, 2022)

Please take notice that on the (9TH) of (FEBRUARY), 2022, (ANTERO RESOURCES) filed an application for a Floodplain Permit (#22-609) to develop land located at or about (ARNOLDS CREEK RD., RIGHT FORK); Coordinates: 39.253432,-80.811234. The Application is on file with the Floodplain Manager of the County and may be inspected or copied during regular business hours in accordance to WV Code Chapter 29B Freedom of Information, Article I Public Records and county policy and procedures. Any interested persons who desire to comment shall present the same in writing by (MARCH 7, 2022) (20 calendar days after the aunouncement at the regularly scheduled Doddridge County Commission Meeting) delivered to the Floodplain Manager of the County at 105 Court Street, Suite #3, West Union, WV 26456. This project is FOR A NEW OXFORD 98 PIPELINE PROJECT

George C. Eidel, CFM Doddridge County Floodplain Manager

2/16x2XB

STATE of WEST VIRGINIA; COUNTY OF DODDRIDGE, TO WIT:

I, Tamela B. Beamer, Editor of THE HERALD RE-CORD, a certified weekly newspaper published regularly in Doddridge County, West Virginia, DO Hereby Certify Upon Oath that the accompanying Legal Notice entitled:

Floodplain Permit Aplication
42-#609
was published in said paper for2successive weeks beginning with the issue of2/16, 2022and ending with the issue of2/23, 2022 that contains184 word space at115cents per word and amounts to the sum of \$_21.26 FOR THE FIRST PUBLICATION. SECOND PUBLICATION IS 75% OF THE FIRST PUBLICATION and each other publication thereafter \$15.87for the TOTAL OF: \$37.05.
Editor, Manule B. Beann
SWORN TO AND SUBSCRIBED BEFORE ME THIS THE 23 cd day of Felocuary, 2022
NOTARY PUBLIC Crevin

