Commercial/Industrial Floodplain Development Permit

Doddridge County, WV Floodplain Management

This permit has been issued to **CESO, Inc. CONSOL, & Cone Gathering, LLC**, and is for the approved commercial and/or industrial development project associated with this permit 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: #14-254 ~ CONSOL OX11 – OX13 Pipeline

Date Approved: 08/08/2014 **Expires: N/A**

Issued to: CESO, CONSOL, Cone Gathering, LLC

POC: Natalie Hooton
412-221-2236

Company Address: 800 Bursca Drive STE 804
Bridgeville, PA 15017-1451

Project Address: Southwest District

Lat/Long: 39.168227N/80.748344W to 39168227N/80.760058W

Purpose of development: Pipeline constructiopn. ***Project does not impact floodplain.***

Issued by: Edwin L. "Bo" Wriston, Doddridge County FPM (*or designee*)

_____ **Date: 08/08/2014**

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_____ **Date: 08/08/2014**

Legal Advertisement:

Doddridge County

Floodplain Permit Application

Please take notice that on the 4th day of August, 2014

CONSOL, CESO, & Cone Gathering, LLC

filed an application for a Floodplain Permit to develop land located at or about:

Southwest District 39.168227N / 80.748344W to 39.168227N / 80.760058W

Permit #14-254 CONSOL OX-11 to OX-13 Pipeline

(Note: This project is not within the floodplain)

The Application is on file with the Clerk of the County Court and may be inspected or copied during regular business hours. As this project is outside the FEMA identified floodplain of Doddridge County, Doddridge County Floodplain Management has no regulatory authority.

Any interested persons who desire to comment shall present the same in writing by **September 8, 2014,** delivered to:

Clerk of the County Court

118 E. Court Street, West Union, WV 26456

Beth A Rogers, Doddridge County Clerk

Edwin L. "Bo" Wriston. Doddridge County Flood Plain Manager

ceso

NATALIE HOOTON, M.S.
Staff Biologist
(412) 221-2236
(412) 639-2231 Cell, (412) 221-2267 Fax
hooton@cesoinc.com
www.cesoinc.com

800 Bursca Drive, Suite 804
Bridgeville, Pennsylvania 15017-1451

ceso

CREATION TO COMPLETION

Engineering • Architecture • Survey
Construction Mgt • Environmental

CESO
CREATION TO COMPLETION

800 Bursca Drive, Suite 804
Bridgeville, Pennsylvania 15017-1451
(412) 221-2236
www.cesoinc.com

August 1, 2014

Mr. Edwin "Bo" Wriston
Doddridge County Floodplain Manager
118 East Court Street
West Union, WV 26456

RE: CONSOL- OX11-OX13 Pipeline
Doddridge County Floodplain Permit

Dear Mr. Wriston:

CESO, Inc. is pleased to submit this information for a Doddridge County Floodplain Permit, for the proposed OX11-OX13 Pipeline. **Cone Gathering, LLC** (Cone), is proposing to construct a new pipeline gathering system within a portion of Doddridge County, West Virginia. The proposed project will begin at the OX13 natural gas well pad located at 39.168227 N Latitude, 80.748344 W Longitude (NAD83) which lies east of Porto Rico, West Virginia. The project starting location is bordered on the west by County Road 40 (Cain Run). The proposed pipeline traverses in a general west and northwesterly direction, prior to reaching its terminus at an interconnect with the EQT to OX11 pipeline located south of the County Route 40 and South Fork of Hughes River Road intersection at 39.173383 N Latitude, 80.760058 W Longitude (NAD83).

CESO, Inc. has identified a total of four (4) named and/or unnamed waterway crossings in Doddridge County as a result of this project. The Doddridge County Development Permit Application further describing project characteristics is presented in Attachment 1. According to the FEMA Flood Insurance Rate Maps, no waterways within the project vicinity exist within the 100-year floodplain. A map depicting the proposed alignment location as well as a table and map identifying stream crossings are also provided.

Waterway crossings associated with the pipeline installation will be the result of open cutting of the stream channel. However, all waterways will be returned to their pre-disturbance plan, profile, and dimension after the pipe has been installed. In addition, proper construction sequencing and implementation of an approved erosion and sediment control plan will ensure water quality impacts are minimized throughout the project area and the proposed activities are in compliance with Nationwide Permit General Conditions and Regional General Conditions.

Should you have any questions or comments please don't hesitate to contact me at 412-221-2236 ext. 2009 or through email at hooton@cesoinc.com.

Sincerely,

CESO, Inc.

Natalie Hooton
Staff Biologist

Table 1. Stream Crossings by Pipeline Activity

Stream Field ID	Stream Category	Stream Name or Tributary Of	Project Activity	Type of Crossing	Coordinates (NAD83) (dd)	Width (feet)	Crossing Size (linear feet)
EH	Ephemeral	UNT South Fork Hughes River	Pipeline	Open Cut/ Timber Matted	39.17350023, -80.75930857	1	47
EF	Intermittent	UNT South Fork Hughes River	Pipeline	Open Cut/ Timber Matted	39.17207587, -80.75695506	5	119
EC	Ephemeral	UNT South Fork Hughes River	Pipeline	Open Cut/Timber Matted	39.16765218, -80.74984009	2	151
EB	Perennial	South Fork Hughes River	Pipeline	Open Cut/Timber Matted	39.16765015, -80.74977009	3	132

FILED

2014 AUG -4 PM 1:02

BETTY A. ROGERS
COUNTY CLERK
DODDRIDGE COUNTY, WV

DODDRIDGE COUNTY
FLOODPLAIN DEVELOPMENT PERMIT APPLICATION

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. Development shall not be used or occupied until a Certificate of Compliance is issued.
5. The permit will expire if no work is commenced within six months of issuance.
6. Applicant is hereby informed that other permits may be required to fulfill local, state, and federal requirements.
7. Applicant hereby gives consent to the Floodplain Administrator/Manager or his/her representative to make inspections to verify compliance.
8. 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 _____ for CESO, Inc

DATE 08/01/2014

SECTION 2: PROPOSED DEVELOPMENT (TO BE COMPLETED BY APPLICANT).

IF THE APPLICANT IS NOT A NATURAL PERSON, THE NAME, ADDRESS, AND TELEPHONE NUMBER OF A NATURAL PERSON WHO SHALL BE APPOINTED BY THE APPLICANT TO RECEIVE NOTICE PURSUANT TO ANY PROVISION OF THE CURRENT DODDRIDGE COUNTY FLOODPLAIN ORDINANCE.

APPLICANT'S NAME: Cone Gathering, LLC
ADDRESS: c/o Adam White, One Energy Drive PO Box 1248 Jane Lew, WV 26378
TELEPHONE NUMBER: 724.627.1300

CONTRACTOR NAME: _____
ADDRESS: _____
TELEPHONE # _____
WV CONTRACTOR LICENCE # _____

ENGINEER'S NAME: CESO, Inc.
ADDRESS: 2800 Corporate Exchange Drive, Suite 160, Columbus, OH 43231
TELEHONE NUMBER: 614.794.7080

PROJECT LOCATION:

NAME OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT) Please see Attachment A.

ADDRESS OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT) Please see Attachment A.

DISTRICT: Please see Attachment A.
LAND BOOK DESCRIPTION: Please see Attachment A.
DEED BOOK REFERENCE: Please see Attachment A.

TAX MAP REFERENCE: Please see Attachment A.

EXISTING BUILDINGS/USES OF PROPERTY: Please see Attachment A.

NAME OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT PROPERTY Please see Attachment A.

ADDRESS OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT PROPERTY Please see Attachment A.

To avoid delay in processing the application, please provide enough information to easily identify the project location.

Cone Gathering, LLC (Cone), is proposing to construct a new pipeline gathering system within a portion of Doddridge County, West Virginia. The proposed project will begin at the OX13 natural gas well pad located at 39.168227 N Latitude, 80.748344 W Longitude (NAD83) which lies east of Porto Rico, West Virginia. The project starting location is bordered on the west by County Road 40 (Cain Run). The proposed pipeline traverses in a general west and northwesterly direction, prior to reaching its terminus at an interconnect with the EQT to OX11 pipeline located south of the County Route 40 and South Fork of Hughes River Road intersection at 39.173383 N Latitude, 80.760058 W Longitude (NAD83).

DESCRIPTION OF WORK (CHECK ALL APPLICABLE BOXES)

A. STRUCTURAL DEVELOPMENT

ACTIVITY		STRUCTURAL TYPE	
[]	New Structure	[]	Residential (1 – 4 Family)
[]	Addition	[]	Residential (more than 4 Family)
[]	Alteration	[]	Non-residential (floodproofing)
[]	Relocation	[]	Combined Use (res. & com.)
[]	Demolition	[]	Replacement
[]	Manufactured/Mobil Home		

B. OTHER DEVELOPLMENT ACTIVITIES:

[] Fill [] Mining [] Drilling [☑] Pipelining

[] Grading

[] Excavation (except for STRUCTURAL DEVELOPMENT checked above)

[] Watercourse Alteration (including dredging and channel modification)

[] Drainage Improvements (including culvert work)

[] Road, Street, or Bridge Construction

[] Subdivision (including new expansion)

[] Individual Water or Sewer System

[] Other (please specify)

_____

C. STANDARD SITE PLAN OR SKETCH

1. SUBMIT ALL STANDARD SITE PLANS, IF ANY HAVE BEEN PREPARED (ENGINEERING PLANS MUST BE SIGNED AND SEALED).

2. IF STANDARD SITE PLANS HAVE NOT BEEN PREPARED:

SKETCH ON A SEPARATE 8 ½ X 11 INCH SHEET OF PAPER THE SHAPE AND LOCATION OF THE LOT. SHOW THE LOCATION OF THE INTENDED CONSTRUCTION OR LAND USE INDICATING BUILDING SETBACKS, SIZE & HEIGHT. IDENTIFY EXISTING BUILDINGS, STRUCTURES OR LAND USES ON THE PROPERTY.

3. SIGN AND DATE THE SKETCH. Please see Attachment B and Attachment C.

ACTUAL TOTAL CONSTRUCTION COSTS OF THE COMPLETE DEVELOPMENT/ PROPOSED CONSTRUCTION PROJECT WITHIN THE FLOODPLAIN $ 0.00

D. ADJACENT AND/OR AFFECTED LANDOWNERS:

1. NAME AND ADDRESS OF ALL OWNERS OF SURFACE TRACTS ADJACENT TO THE AREA OF THE SURFACE TRACT (UP & DOWN STREAM) UPON WHICH THE PROPOSED ACTIVITY WILL OCCUR AND ALL OTHER SURFACE OWNERS UP & DOWN STREAM) WHO OWN PROPERTY THAT MAY BE AFFECTED BY FLOODING AS IS DEMONSTRATED BY A FLOODPLAIN STUDY OR SURVEY (IF ONE HAS BEEN COMPLETED.

NAME: Please see Attachment D.
ADDRESS: Please see Attachment D.

NAME:
ADDRESS:

NAME:
ADDRESS:

NAME:
ADDRESS:

1. NAME AND ADDRESS OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON ANY ADJACENT PROPERTY AT THE TIME THE FLOODPLAIN PERMIT APPLICATION IS FILED AND THE NAME AND ADDRESS OF AT LEAST ONE ADULT RESIDING IN ANY HOME ON ANY PROPERTY THAT MAY BE AFFECTED BY FLOODING AS IS DEMONSTRATED BY A FLOODPLAIN STUDY OR SURVEY.

NAME: Refer to Attachment D.
ADDRESS:

NAME:
ADDRESS:

E. CONFIRMATION FORM

THE APPLICANT ACKNOWLEDGES, AGREES, AND CONFIRMS THAT HE/IT WILL PAY WITHIN 30 DAYS OF RECEIPT OF INVOICE BY THE COUNTY FOR ALL EXPENSES RELATIVE TO THE PERMIT APPLICATION PROCESS GREATER THAN THE REQUIRED DEPOSIT FOR EXPENSES INCLUDING:

(A) PERSONAL SERVICE OF PROCESS BY THE DODDRIDGE COUNTY SHERIFF AT THE RATES PERMITTED BY LAW FOR SUCH SERVICE.

(B) SERVICE BY CERTIFIED MAIL RETURN RECEIPT REQUESTED.

(C) PUBLICATION.

(D) COURT REPORTING SERVICES AT ANY HEARINGS REQUESTED BY THE APPLICANT.

(E) CONSULTANTS AND/OR HEARING EXPERTS UTILIZED BY DODDRIDGE COUNTY FLOODPLAIN ADMINISTRATOR/MANAGER OR FLOODPLAIN APPEALS BOARD FOR REVIEW OF MATERIALS AND/OR TESTIMONY REGARDING THE EFFICACY OF GRANTING OR DENYING THE APPLICANT'S FLOODPLAIN PERMIT.

NAME (PRINT): Natalie Hooton for CESO, Inc

SIGNATURE: [signature]

DATE: 08/01/2014

After completing SECTION 2, APPLICANT should submit form and fees to Clerk of Doddridge County Court or his/her representative for review.

SECTION 3: FLOODPLAIN DETERMINATION (to be completed by Floodplain Administrator/Manager or his/her representative)

THE PROPOSED DEVELOPMENT:

THE PROPOSED DEVELOPMENT IS LOCATED ON:
FIRM Panel:_____
Dated:_____
_____

[] Is NOT located in a Specific Flood Hazard Area (Notify applicant that the application review is complete and NO FLOOPLAIN DEVELOPMENT PERMIT IS REQUIRED).

[] Is located in Special Flood Hazard Area.
FIRM zone designation_____
100-Year flood elevation is _____NGVD .
Stream name _____.
Profile # _____.

[] Unavailable

[] The proposed development is located in a floodway.

[] See section 4 for additional instructions.

SIGNED_____ DATE_____

SECTION 4: ADDITIONAL INFORMATION REQUIRED FOR DEVELOPMENT IN SPECIAL FLOOD HAZARD AREA (To be completed by Floodplain Administrator/Manager or his/her representative)

The applicant must submit the documents checked below before the application can be processed.

[] A plan showing the location of all existing structures, water bodies, adjacent roads and proposed development.

[] Development plans, drawn to scale, and specifications, including where applicable: details for anchoring structures, storage tanks, proposed elevation of lowest floor, (including basement or crawl space), types of water resistant materials used below the first floor, details of flood proofing of utilities located below the first floor and details of enclosures below the first floor.
Also_____
_____

[] Subdivision or other development plans (If the subdivision or development exceeds 10 lots or 2 acres, whichever is the lesser, the applicant must provide 100-year flood elevations if they are not otherwise available).

[] Plans showing the extent of watercourse relocation and/or landform alterations.

[] Top of new fill elevation _____Ft. NGVD.
For floodproofing structures applicant must attach certification from registered engineer or architect.

[] Certification from a registered engineer that the proposed activity in a regulatory floodway will not result in any increase in the height of the 100-year flood. A copy of all data and calculations supporting this finding must also be submitted.

[] Manufactured homes located in a Flood Hazard Area must have a West Virginia Contractor's License and a Manufactured Home Installation License as required by the Federal Emergency Management Agency (FEMA).

[] Other:_____

SECTION 5: PERMIT DETERMINATION (To be completed by Floodplain Administrator/Manager or his/her representative)

I have determined that the proposed activity (type is or is not) in conformance with provisions of the Floodplain Ordinance adopted by the County Commission of Doddridge County on May 21, 2013. The permit is issued subject to the conditions attached to and made part of this permit.

SIGNED_____DATE_____

If the Floodplain Administrator/Manager found that the above was not in conformance with the provisions of the Doddridge County Floodplain Ordinance and/or denied that application, the applicant may appeal.

APPEALS: Appealed to the County Commission of Doddridge County? [] Yes {} No
Hearing Date:_____
County Commission Decision - Approved [] Yes [] No

CONDITIONS:_____
_____
_____

SECTION 6: AS-BUILT ELEVATIONS (To be submitted by APPLICANT before Certificate of Compliance is issued).

The following information must be provided for project structures. This section must be completed by a registered professional engineer or a licensed land surveyor (or attach a certification to this application).

COMPLETE 1 OR 2 BELOW:

1 Actual (As-Built) Elevation of the top of the lowest floor (including basement or crawl space is _____FT. NGVD.
2 Actual (As Built) elevation of floodproofing is _____FT. NGVD.

Note: Any work performed prior to submittal of the above information is at risk of the applicant.
SECTION 7: COMPLIANCE ACTION (To be completed by the Floodplain Administrator/Manager or his/her representative).

The Floodplain Administrator/Manager or his/her representative will complete this section as applicable based on inspection of the project to ensure compliance with the Doddridge County Floodplain Ordinance.
INSPECTIONS:

DATE:_____ BY:_____
DEFICIENCIES ? Y/N

COMMENTS_____
_____
_____
_____

SECTION 8: CERTIFICATE OF COMPLIANCE (To be completed by Floodplain Administrator/Manager or his/her representative).

Certificate of Compliance issued: DATE:_____ BY:_____

CERTIFICATE OF COMPLIANCE
FOR DEVELOPMENT IN SPECIAL FLOOD HAZARD AREA (OWNER MUST RETAIN)

PERMIT NUMBER:_____
PERMIT DATE:_____

PURPOSE –

CONSTRUCTION LOCATION:_____

OWNER'S ADDRESS:_____

THE FOLLOWING MUST BE COMPLETED BY THE FLOODPLAIN ADMINISTRATOR/MANAGER OR HIS/HER AGENT.

COMPLIANCE IS HEREBY CERTIFIED WITH THE REQUIREMENT OF THE FLOODPLAIN ORDINANCE ADOPTED BY THE COUNTY COMMISSION OF DODDRIDGE COUNTY ON MAY 21, 2013.

SIGNED_____DATE_____

Attachment B-
Location Map

NORTH

0 2,000 4,000
Feet

Legend
Proposed Pipeline

OX11-OX13 Pipeline
Location Map (Oxford, WV and New Milton, WV Quads)
Southwest District
Doddridge County, West Virginia

CONSOLENERGY

cesa

Date: 07/31/1
By: N. Hootor

CREATION TO COMPLETION

Attachment A- Project Location- Surface Owner Information

TAX ID: 09-07-0010-0002-0000-6001

NAME OF SURFACE OWNER/OWNERS: I.L. Ike Morris

ADDRESS OF PROPERTY: Route 23, West Union, WV 26456

ADDRESS OF SURFACE OWNER/OWNERS: P.O. Box 397, Glenville, WV 26351

DISTRICT: Southwest

LAND BOOK DESCRIPTION:

DEED BOOK REFERENCE: Book 230/ Page 307

TAX MAP REFERENCE: MAP 10/ Parcel 2

EXISTING BUILDINGS/USES OF PROPERTY: There are currently several horizontal 6A wells with access roads located on the property. One residential (rented) structure is present on the property. The remaining portions of the parcel are forested and undeveloped.

NAME OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT PROPERTY: Unknown

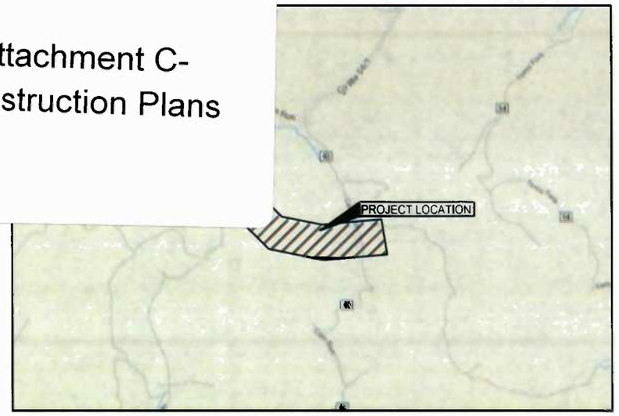
ADDRESS OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT PROPERTY: Unknown

Attachment C-
Construction Plans

OX11-OX13 PIPELINE

DODDRIDGE COUNTY, WEST VIRGINIA

CONSOL ENERGY

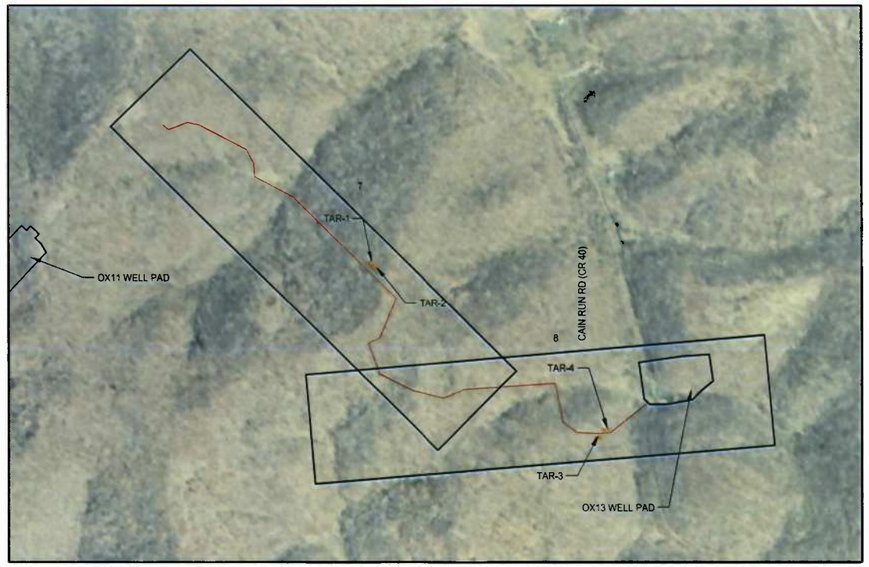


VICINITY MAP
NOT TO SCALE

OX11-OX13 PIPELINE:

APPROX. START POINT: STA 0+00
(NAD 83) LAT: 39.173383 N / LONG: 80.760058 W
(UTM) (ZONE 17) NORTHING: 247770.10 / EASTING: 1611280.38

APPROX. END POINT: STA 49+09
(NAD 83) LAT: 39.168227 N / LONG: 80.748344 W
(UTM) (ZONE 17) NORTHING: 245845.81 / EASTING: 1614575.05



PROJECT AREA MAP

500 0 500 1000
GRAPHIC SCALE (IN FEET)

NOTES:

1. THIS PLAN DOES NOT PURPORT TO BE A COMPREHENSIVE REPRESENTATION OF EXISTING UTILITIES IN THE PROJECT AREA. UTILITIES SHOWN ARE BEING PROVIDED FOR INFORMATIONAL PURPOSES ONLY, BASED ON SURFACE FEATURES OBSERVED IN THE FIELD. CESO, INC. MAKES NO GUARANTEE TO THEIR ACCURACY AND/OR COMPLETENESS. FORTY-EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTOR SHALL NOTIFY THE STATEWIDE ONE CALL SYSTEM, MISS UTILITY OF WEST VIRGINIA, INC. (WV811) AT 1-800-245-4848. THE CONTRACTOR SHALL ALSO NOTIFY ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES IN THE PROJECT AREA AND ARE NON-MEMBERS OF WV811.
2. QUANTITIES LISTED ARE BASED ON SLOPE LENGTH. CONTRACTOR SHALL VERIFY ALL QUANTITIES.

UTILITY OWNERS

NOTES:

1. CONTRACTOR SHALL CALL THE STATEWIDE ONE CALL SYSTEM, MISS UTILITY OF WEST VIRGINIA, INC. (WV811) AT 1-800-245-4848 72 HOURS PRIOR TO CONSTRUCTION AND SHALL NOTIFY ALL UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO WORK IN THE VICINITY OF THEIR UNDERGROUND LINES.
2. UTILITIES SHOWN ARE TAKEN FROM THE SURVEY AND RECORDS OF RESPECTIVE UTILITY COMPANIES AND DO NOT NECESSARY REPRESENT ALL UNDERGROUND UTILITIES ADJACENT TO OR UPON SITE SHOWN ON PLAN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREIN OR NOT AND TO PROTECT THEM FROM DAMAGE.

CONSOL ENERGY
ONE ENERGY DRIVE
JANE LEW, WV 26378
ADAM WHITE
240-506-7299
ADAMWHITE@CONSOLENERGY.COM

DOMINION TRANSMISSION
445 W MAIN STREET
CLARKSBURG, WV 26301
STEVEN D. GUM
304-782-5024
STEVEN.D.GUM@DOM.COM

WEST VIRGINIA 811

DRAWING INDEX

VERTICAL DATUM NOTE

VERTICAL CONTROL IS BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1983 (NAVD 83).

PLAN REPRODUCTION WARNING

THE PLANS HAVE BEEN CREATED ON ANSI D (22"x 34") SHEETS. FOR REDUCTIONS, REFER TO GRAPHIC SCALE.

THE PLANS HAVE BEEN CREATED FOR FULL COLOR PLOTTING. ANY SET OF THE PLANS THAT IS NOT PLOTTED IN FULL COLOR SHALL NOT BE CONSIDERED ADEQUATE FOR CONSTRUCTION PURPOSES.

**"WARNING" INFORMATION MAY BE LOST IN COPYING AND/OR GRAY SCALE PLOTTING.

APPROVED BY CONSOL:

REPRESENTATIVE DATE

KEVIN M. BOHMAN REGISTERED 20416 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

08/01/14
DATE

SUMMARY OF MATERIALS

MRKR #	QTY.	DESCRIPTION
1	5,093 LF	PIPELINE (SLOPE LENGTH)
2	19 EA	Elbow, 45° Segmentable Fitting
3	6 EA	PIPELINE WARNING SIGN

REFERENCE DRAWINGS

DWG.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

ceso
CREATION to COMPLETION
www.cesoinc.com
Engineering • Architecture • Survey • Construction Mgt • Environmental

OX11-OX13 PIPELINE

COVER SHEET

STATION(S): N/A

CONSOL ENERGY
200 EVERGREENE DRIVE
WAYNESBURG, PA 15370

DATE:	08/01/14
JOB NO.:	90126
DESIGN:	BEM
DRAWN:	BEM
CHECKED:	BJM
SHEET NO.	1 of 10

K:\PROJECTS\CONSOL ENERGY\90126-00 - SHERWOOD SOUTH PIPELINE\DESIGN\BASE DWGS\90126-OX11-OX13 IFC.DWG - 8/1/2014 2:51 PM

CONTRACTOR NOTES

1. THIS PLAN DOES NOT PURPORT TO BE A COMPREHENSIVE REPRESENTATION OF EXISTING UTILITIES IN THE PROJECT AREA. UTILITIES SHOWN ARE BEING PROVIDED FOR INFORMATIONAL PURPOSES ONLY, BASED ON SURFACE FEATURES OBSERVED IN THE FIELD. CESO, INC. MAKES NO GUARANTEE TO THEIR ACCURACY AND/OR COMPLETENESS. FORTY-EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTOR SHALL NOTIFY THE STATEWIDE ONE CALL SYSTEM, MISS UTILITY OF WEST VIRGINIA, INC. (WV811) AT 1-800-245-4848.. THE CONTRACTOR SHALL ALSO NOTIFY ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES IN THE PROJECT AREA AND ARE NON-MEMBERS OF WV811.
2. ALL CONTRACTORS/SUBCONTRACTORS PERFORMING WORK ON THIS PROJECT SHALL FAMILIARIZE THEMSELVES WITH THE SITE AND SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING DIRECTLY OR INDIRECTLY FROM THEIR OPERATIONS. SAID EXISTING IMPROVEMENTS SHALL INCLUDE, BUT NOT BE LIMITED TO, BERMS, DITCHES, FENCES AND PLANTS. ANY REMOVAL OR DAMAGE TO EXISTING IMPROVEMENTS SHALL BE REPLACED OR REPAIRED BY THE CONTRACTORS TO EXISTING OR BETTER CONDITIONS, AT THEIR EXPENSE, AND SHALL BE APPROVED BY THE OWNER.
3. ALL CONSTRUCTION, TESTING AND MATERIALS SHALL MEET OR EXCEED ALL REQUIREMENTS OF THE "PERMITTING ENTITY" AND LOCAL, STATE AND FEDERAL REGULATIONS.
4. ALL NECESSARY TESTING SHALL BE PERFORMED BY AN APPROVED LABORATORY AT THE EXPENSE OF THE CONTRACTOR.
5. PRIOR TO CONSTRUCTION, ALL CONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS AND ALL OTHER NECESSARY DETAILS AND SPECIFICATIONS RELEVANT TO THE PROPER COMPLETION OF THE WORK SPECIFIED. FAILURE ON THE PART OF THE CONTRACTOR TO FAMILIARIZE THEMSELVES WITH ALL STANDARDS OR SPECIFICATIONS PERTAINING TO THIS WORK SHALL IN NO WAY RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PERFORMING THE WORK IN ACCORDANCE WITH ALL SUCH APPLICABLE STANDARDS AND SPECIFICATIONS.
6. THE CONTRACTOR SHALL HAVE IN THEIR POSSESSION, PRIOR TO CONSTRUCTION, ALL NECESSARY PERMITS, LICENSES, BONDS, INSURANCE, ETC. CONTRACTORS SHALL EACH HAVE AT LEAST ONE SET OF APPROVED ENGINEERING PLANS AND SPECIFICATIONS ON-SITE AT ALL TIMES.
7. IN THE EVENT THAT AN ITEM IS NOT SPECIFICALLY COVERED IN THE PERTINENT AGENCIES CONSTRUCTION STANDARDS AND SPECIFICATIONS AND DETAILS, THE CONTRACTOR SHALL NOTIFY THE OWNER AND PROJECT ENGINEER. THE OWNER SHALL HAVE THE FINAL DECISION ON ALL CONSTRUCTION MATERIALS, METHODS AND PROCEDURES.
8. THE CONTRACTORS MUST CONFINE THEIR ACTIVITIES TO THE WORK AREA AS SHOWN ON THE PLANS. NO ENCROACHMENTS OUTSIDE OF THE SPECIFIED AREAS SHALL BE ALLOWED. ANY DAMAGE RESULTING THERE FROM SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR.
9. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING PUBLIC AND PRIVATE UTILITIES THROUGHOUT THE CONSTRUCTION OF THE PROJECT. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANIES OR LINE LOCATION SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL ASSUME FULL LIABILITY TO THOSE COMPANIES FOR ANY DAMAGES CAUSED TO THEIR FACILITIES.
10. TRENCH BEDDING SHALL BE AS PER WVDOH CONSTRUCTION AND MATERIAL SPECIFICATIONS, LATEST EDITION.
11. TOP OF NATURAL GAS PIPELINE SHALL BE A MINIMUM OF 3'-0" BELOW THE FINISHED GROUND ELEVATION IN ALL VEGETATED AREAS, EXCEPT IN AGRICULTURAL FIELDS, WHICH THE DEPTH SHALL BE 4'-0". MINIMUM BURY UNDER ROADWAYS AND OTHER PAVED AREAS SHALL BE PER THE PERMITTING AUTHORITIES SPECIFICATIONS AND THE ASSOCIATED PERMIT & DRAWINGS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH STANDARD TRENCH SAFETY GUIDELINES AND THE U.S. DEPARTMENT OF LABOR AND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS.
13. THESE PLANS DO NOT CONSTITUTE A BOUNDARY SURVEY. BOUNDARY LINES AS SHOWN HEREON ARE BASED ON TAX MAPS AS PROVIDED BY OWNER.
14. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION TO THE PROJECT MANAGER FOR ANY DEVIATION FOUND RELATIVE TO THE PROJECT.
15. EXISTING EASEMENTS AND/OR RIGHT-OF-WAYS WERE NOT RESEARCHED AND SURVEYED DURING THIS PROJECT, OTHER THAN THOSE SHOWN WITHIN THE PLANS.
16. FENCE LINES ENCOUNTERED DURING CONSTRUCTION SHOULD BE RELOCATED AND REPLACED PER LANDOWNER AND OWNER'S REPRESENTATIVE.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE GOVERNING AUTHORITIES PRIOR TO ALL ROAD CROSSINGS. MAINTENANCE OF TRAFFIC IS TO BE IMPLEMENTED AS NECESSARY TO ENSURE THAT THE ROAD HAS CONTINUAL ACCESS. MAINTENANCE OF TRAFFIC SHALL BE PER THE LATEST EDITION OF THE WVDOH TEMPORARY TRAFFIC CONTROL FOR STREETS AND HIGHWAYS MANUAL.

GENERAL CONSTRUCTION SEQUENCE

THE PIPELINE PROJECT CONSISTS OF ONE GENERAL CONSTRUCTION PHASE. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND THE WEST VIRGINIA DEPARTMENT OF NATURAL RESOURCES (WVDNR) AND WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WVDEP) EROSION AND SEDIMENT CONTROL FIELD MANUAL.

THE CONSTRUCTION SEQUENCE IS INTENDED AS A GENERAL COURSE OF ACTION TO COMPLY WITH WVDNR AND WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WVDEP) EROSION AND SEDIMENT CONTROL REGULATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL MEASURES NECESSARY TO MEET APPLICABLE RULES AND REGULATIONS ARE INSTALLED. MEASURES AS SHOWN ON THESE PLANS MAY BE ALTERED TO BETTER MEET SITE SPECIFIC CONDITIONS AT THE DISCRETION OF THE CONTRACTOR.

BMP DETAILS AND CONSTRUCTION SPECIFICATIONS CAN BE FOUND ON THE STANDARD DETAIL SHEETS.

1. A COPY OF THE FOR CONSTRUCTION PLANS MUST BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES.
2. AT LEAST THREE DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITY, ALL CONTRACTORS INVOLVED IN THESE ACTIVITIES SHALL NOTIFY THE WEST VIRGINIA ONE CALL SYSTEM BEFORE STARTING ANY CONSTRUCTION ACTIVITIES.
3. PRIOR TO COMMENCEMENT OF ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, CONTRACTOR SHALL CLEARLY DELINEATE SENSITIVE AREAS, RIPARIAN FOREST BUFFER BOUNDARIES, THE LIMITS OF CLEARING, AND TREES THAT ARE TO BE CONSERVED WITHIN THE PROJECT SITE, AND INSTALL APPROPRIATE BARRIERS WHERE EQUIPMENT MAY NOT BE PARKED, STAGED, OPERATED OR LOCATED FOR ANY PURPOSE. APPROPRIATE BMP's SHOULD BE INSTALLED AND FUNCTIONING.
4. CONSTRUCTION FENCE SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE PLANS. CONSTRUCTION FENCE SHALL BE CHECKED REGULARLY FOR WEATHER RELATED OR OTHER DAMAGE. ANY NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY.
5. INSTALLATION OF STONE CONSTRUCTION ENTRANCES AT ALL ACCESS LOCATIONS SHALL BE THE FIRST STEP OF CONSTRUCTION AND SHALL BE FOLLOWED BY INSTALLATION OF BMP's FOR ALL AREAS DESIGNATED FOR EQUIPMENT AND MATERIAL STAGING.
6. INSTALL ROCK CHECK DAMS AT LOCATIONS SHOWN ON THE PLANS. INSPECT EACH CHECK DAM AT A MINIMUM ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAT 0.5 INCHES OF RAIN PER 24 HOUR PERIODS. CHECK TO SEE IF WATER HAS FLOWED AROUND THE EDGE OF THE STRUCTURE. REPLACE STONE AND REPAIR DAM AS NECESSARY TO MAINTAIN THE CORRECT HEIGHT AND CONFIGURATION. SEDIMENT SHALL BE REMOVED FROM BEHIND THE CHECK DAMS WHEN IT HAS ACCUMULATED TO ONE HALF OF THE ORIGINAL HEIGHT OF THE DAM.
7. INSTALL PERIMETER BMP's (SILT FENCING OR FILTER SOCKS) WHERE NECESSARY ALONG CLEARING AND GRUBBING BOUNDARIES.
8. BEGIN LAND CLEARING AND GRADING (IF NECESSARY) ONLY AFTER ALL DOWNSLOPE BMP's HAVE BEEN INSTALLED. IF POSSIBLE, MINIMIZE CLEARING AND GRADING AT STREAM CROSSINGS UNTIL THE TIME OF CROSSING.
9. APPLY TEMPORARY OR PERMANENT STABILIZATION MEASURES IMMEDIATELY TO ANY DISTURBED AREAS WHERE WORK HAS REACHED FINAL GRADE, HAS BEEN DELAYED OR OTHERWISE TEMPORARILY SUSPENDED.
10. INSTALL TEMPORARY WATERBARS AT LOCATIONS SHOWN ON THE DRAWINGS. WATERBARS WILL BE INSTALLED WITH FILTER SOCKS AT THE DISCHARGE TO HELP CONTROL THE VOLUME AND SPEED OF STORMWATER.
11. INSTALL BMP's FOR TEMPORARY ROAD CROSSINGS OF WETLANDS AND WATER BODIES WITHIN THE PIPELINE ROW AS NECESSARY. FOLLOW STREAM AND WETLAND CROSSING DETAILS FOR ACCESS ROAD CROSSINGS OF THESE FEATURES. FILTER SOCKS SHALL BE USED AT ALL STREAM CROSSINGS. SEE STREAM CROSSING PROCEDURES AND WETLAND CROSSING PROCEDURES FOR ADDITIONAL INFORMATION ON WATER BODY AND WETLAND CROSSINGS.
12. CONSTRUCTION OF UTILITIES (INSTALL NATURAL GAS PIPELINE). WHEN TRENCH EXCAVATION TAKES PLACE IN AN AGRICULTURAL, WETLAND, OR RESIDENTIAL AREA, THEN SEGREGATION OF TOPSOIL AND SUBSOIL WILL BE PERFORMED. PLACE TRENCH PLUGS AT THE REQUIRED SPACING DURING UTILITY INSTALLATION. FOLLOW STREAM AND WETLAND CROSSING DETAILS LOCATED ON THE EROSION AND SEDIMENT CONTROL DRAWINGS FOR UTILITY CROSSINGS OF THESE FEATURES. SEE STREAM CROSSING PROCEDURES AND WETLAND CROSSING PROCEDURES FOR ADDITIONAL INFORMATION ON WATER BODY AND WETLAND CROSSING. DURING CONSTRUCTION, INSTALL AND MAINTAIN ANY ADDITIONAL EROSION AND SEDIMENT CONTROL BMP's AND IMPLEMENT STRUCTURAL POST CONSTRUCTION STORMWATER BMP's (PERMANENT WATERBARS) THAT MAY BE REQUIRED. SEE UTILITY LINE INSTALLATION REQUIREMENTS NOTES FOR LIMITS OF WORK.
13. ANY WATER ENCOUNTERED WITHIN THE EXCAVATION AREAS DURING CONSTRUCTION SHALL BE REMOVED BY USING PUMPS, HOSES, AND PUMPED WATER FILTER BAGS WHICH SHALL BE DISCHARGED INTO UNDISTURBED WELL-VEGETATED UPLAND AREAS.
14. BACKFILL AREAS EXCAVATED FOR THE INSTALLATION OF UTILITIES WITH SUITABLE EXCAVATED MATERIAL. IN AREAS WHERE TOPSOIL HAS BEEN SEGREGATED, THE SUBSOIL SHALL BE REPLACED FIRST, FOLLOWED BY THE TOPSOIL BEING SPREAD OVER THE AREA FROM WHICH IT WAS REMOVED. FINAL GRADES SHALL BE THE SAME AS PRE-CONSTRUCTION CONTOURS.
15. AFTER CONSTRUCTION IS COMPLETE, FINAL SEEDING AND MULCHING OF ALL DISTURBED AREAS NOT YET STABILIZED SHALL BE COMPLETED. INSTALL EROSION CONTROL BLANKETING ON SLOPES WHICH ARE 3:1 OR STEEPER. STABILIZE AND SEED ALL OPEN AREAS INCLUDING BORROW AND SPOIL AREAS.
16. REMOVAL OF ALL TEMPORARY BMP's CAN BE PERFORMED UPON ACHIEVEMENT OF A UNIFORM 70 PERCENT PERENNIAL VEGETATIVE COVER WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION FOR ALL AREAS WHICH WOULD CONTRIBUTE RUNOFF TO THE BMP's. STABILIZE ANY DISTURBANCES ASSOCIATED WITH THE REMOVAL OF THE BMP's.

WETLAND CROSSING SEQUENCE OF CONSTRUCTION

1. INSTALL TEMPORARY EROSION AND SEDIMENT CONTROLS PRIOR TO EARTH DISTURBANCE.
2. SEDIMENT BARRIERS SHALL BE INSTALLED AT THE EDGE OF THE RIGHT-OF-WAY AND AROUND TOPSOIL AND SUBSOIL PILES.
3. GEOTEXTILE SHALL BE PLACED UNDER SUBSOIL AND TOPSOIL PILES.
4. WORKING SIDE OF TRENCH WILL BE STABILIZED WITH PRE-FABRICATED MATS, AS NEEDED, TO PROVIDE A FIRM SURFACE FOR CONSTRUCTION EQUIPMENT. FOR HEAVY SATURATED AREAS, GEOTEXTILE SHALL BE PLACED UNDER THE MATS TO PREVENT MOVEMENT OR PUMPING OF THE SOIL THROUGH THE MATS.
5. IN WETLAND AREAS WITHOUT STANDING WATER OR SATURATED SOILS, TOPSOIL (TOP 12 INCHES) AND SUBSOIL SHALL BE SEGREGATED AND STOCKPILED DURING TRENCHING.
6. UPON COMPLETION OF PIPE INSTALLATION THROUGH WETLAND, TRENCH PLUG(S) SHALL BE INSTALLED AS REQUIRED TO MAINTAIN ORIGINAL WETLAND HYDROLOGY.
7. THE SEGREGATED TOPSOIL SHALL BE RESTORED TO IT'S ORIGINAL CONDITION DURING BACKFILLING. THE ORIGINAL TOPSOIL SHALL BE KEPT IN A CONDITION THAT WILL ALLOW IT TO MAINTAIN SUFFICIENT SEED AND ROOT MATERIAL AND TO PROVIDE VEGETATIVE COVER.
8. ALL SEEDING SHOULD COMPLY WITH EITHER OPTION "A" OR OPTION "B" SEED MIXES LISTED UNDER THE SPECIAL NOTES SECTION FOR STREAM/WETLAND CROSSINGS CONTAINED IN THESE DRAWINGS. SEEDING ONLY, WITH NO FERTILIZING, SHALL BE DONE IN CRITICAL AREAS (i.e. WITHIN 50' OF AN HQ OR EV STREAM CHANNEL OR WITHIN WETLANDS). DO NOT APPLY MULCH WITHIN WETLANDS.

"OPEN CUT" STREAM CROSSING (TEMPORARY) CONSTRUCTION SEQUENCE - PIPE INSTALLATION

1. ALL IN-STREAM DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHOULD BE COMPLETED IN COMPLIANCE WITH WVDEP'S OFFICE OF CONSTRUCTION STORMWATER EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.
2. ALL WORK SHALL BE PERFORMED IN LOW FLOW CONDITIONS AND EACH CROSSING SHALL BE COMPLETED WITHIN 72 HOURS OF START OF WORK.
3. POINTS OF INGRESS AND EGRESS TO STREAMS FOR EQUIPMENT SHALL BE WITHIN THE WORK SITE ONLY.
4. SURFACE DISTURBANCE WILL NOT EXTEND BEYOND THE RIGHT-OF-WAY LIMITS. STREAM CROSSINGS WILL BE CONDUCTED AS CLOSE TO A RIGHT ANGLE TO THE WATERCOURSE AS PRACTICAL AND THE AREA OF DISTURBANCE WILL BE LIMITED TO REDUCE IN STREAM ACTIVITY.
5. INSTALL TEMPORARY COFFER DAM AT UPSTREAM EDGE OF PROPOSED WORK AREA. DEWATER THE COFFERDAM AS NECESSARY.
6. OPEN CUT CHANNEL TO A WIDTH AND DEPTH THAT IS NO MORE THAN WHAT IS NECESSARY FOR INSTALLATION OF PIPE. DURING EXCAVATION, SEPARATE THE INITIAL ONE FOOT OF STREAM SUBSTRATE FROM THE SUBSURFACE MATERIAL INTO TWO SEPARATE PILES.
7. INSTALL PIPE AS SHOWN ON PLANS.
8. BACKFILL TRENCH BY FIRST ADDING SUBSURFACE MATERIAL, THEN THE STREAM SUBSTRATE MATERIAL, ENSURING THAT ORIGINAL GRADE, DIMENSIONS, AND CONTOURS OF THE CHANNEL ARE RE-ESTABLISHED.
9. REMOVE COFFERDAM AND STABILIZE ANY REMAINING DISTURBED AREAS.

STREAM CROSSING (TEMPORARY) CONSTRUCTION SEQUENCE - ACCESS ROADS

1. ALL IN STREAM DISTURBANCE ACTIVITY SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED IN COMPLIANCE WITH WVDEP, THE WEST VIRGINIA OFFICE OF LAND AND STREAMS (WVOLS), THE WDNR, AND THE U.S. ARMY CORPS OF ENGINEERS (USACE) RULES AND REGULATIONS.
2. STREAM CROSSING SHALL MEET THE REQUIREMENTS OF THE WVDEP'S OFFICE OF CONSTRUCTION STORMWATER EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL CHAPTER 3.21.
3. SEE CULVERT STREAM CROSSING FROM THE WVDEP'S OFFICE OF CONSTRUCTION STORMWATER EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL.
4. ALL WORK SHALL BE PERFORMED IN LOW FLOW CONDITIONS AND EACH CROSSING SHALL BE COMPLETED WITHIN 72 HOURS OF START OF WORK.
5. POINTS OF INGRESS AND EGRESS TO STREAMS FOR EQUIPMENT SHALL BE WITHIN THE WORK SITE ONLY.
6. SURFACE DISTURBANCE WILL NOT EXTEND BEYOND THE RIGHT-OF-WAY LIMITS. STREAM CROSSINGS WILL BE CONDUCTED AS CLOSE TO A RIGHT ANGLE TO THE WATERCOURSE AS PRACTICAL AND THE AREA OF DISTURBANCE WILL BE LIMITED TO REDUCE IN STREAM ACTIVITY.
7. INSTALL TEMPORARY COFFER DAM AT UPSTREAM EDGE OF PROPOSED WORK AREA. DEWATER THE COFFERDAM AS NECESSARY.
8. INSTALL ACCESS ROAD TEMPORARY CROSSING AS SHOWN ON PLANS.
9. REMOVE COFFERDAM AND STABILIZE ANY REMAINING DISTURBED AREAS.

UTILITY LINE INSTALLATION REQUIREMENTS

1. THE CONTRACTOR SHALL LIMIT TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT AND BACKFILL THAT CAN BE INSTALLED IN ONE DAY.
2. THE CONTRACTOR SHALL GRADE TO FINAL CONTOURS, INSTALL REQUIRED EROSION CONTROL MEASURES, AND SEED AND MULCH ALL DISTURBED AREAS AT THE END OF EACH WEEK.
3. DEWATER ALL TRENCHES PRIOR TO PIPE INSTALLATION AND BACKFILLING. ALL WATER TO BE PUMPED INTO A SEDIMENT FILTER BAG.
4. ALL TRENCH EXCAVATION MATERIAL TO BE PLACED ON DOWNHILL SIDE OF TRENCH.
5. IN THE EVENT THAT THESE REQUIREMENTS CAN'T BE MET DUE TO FIELD CONDITION, THE CONTRACTOR SHALL COORDINATE ALTERNATE REQUIREMENTS WITH OWNER'S REPRESENTATIVE.

UTILITY RIGHT-OF-WAY RESTRICTIONS

1. CONSTRUCTION VEHICLES, VEHICLES WITH BOOMS AND EQUIPMENT OPERATING WITHIN OR ADJACENT TO A UTILITY RIGHT-OF-WAY MUST BE PROPERLY GROUNDED.
2. CHANGES TO GRADE ELEVATION WITHIN THE UTILITY RIGHT-OF-WAY ARE NOT PERMITTED.
3. GROUND DISTURBANCE OR EXCAVATIONS ARE NOT PERMITTED WITHIN 50 FEET OF ANY UTILITY STRUCTURES (POLES, TOWERS, GUYS, ETC.)
4. EXPLOSIVES OR COMBUSTIBLE LIQUIDS, SUBSTANCES, OR MATERIALS ARE NOT PERMITTED WITHIN THE RIGHT-OF-WAY. PROHIBITED MATERIALS INCLUDE BUT ARE NOT LIMITED TO FUEL, WOOD CHIPS, MULCH, BRUSH, AND TIRES.

IFC

08/01/14
DATE

SUMMARY OF MATERIALS

MRKR #	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

CREATION TO COMPLETION
www.cesoinc.com
Engineering • Architecture • Survey • Construction Mgt • Environmental

OX11-OX13 PIPELINE

SWPPP NOTES

STATION(S): N/A

CONSOL ENERGY

200 EVERGREENE DRIVE
WAYNESBURG, PA 15370

DATE:	08/01/14
JOB NO.:	90126
DESIGN:	BEM
DRAWN:	BEM
CHECKED:	BJM
SHEET NO.	2 of 10

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EROSION AND SEDIMENT CONTROL NARRATIVE:

PLAN DESIGNER:
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WV DEP PERMIT #: WVRXXXXXX

PROJECT DESCRIPTION: THIS PROJECT CONSISTS OF CONSTRUCTING 2-30" AND 1-16" NATURAL GAS PIPELINES AND 1-16" WATER LINE IN DODDRIDGE COUNTY, WEST VIRGINIA.
17.08 ACRES TOTAL PROJECT AREA
0 ACRES PROPOSED IMPERVIOUS AREA
17.08 ACRES DISTURBED
0 CY CUT/ 0 CY FILL (BALANCED)

EXISTING SITE CONDITIONS: THE TOPOGRAPHY OF THIS SITE CONSISTS OF MANY RIDGES AND VALLEYS. THIS SITE CONSISTS PREDOMINATELY OF WOODS AND OPEN FIELDS. THIS SITE DRAINS TO CAIN RUN.

ADJACENT AREAS: ADJACENT AREAS THAT MAY BE AFFECTED BY SITE DISTURBANCE INCLUDE WETLAND EC, WETLAND 1, AND CAIN RUN RD (CR 40).

THE DRAINAGE PATH LEADING FROM THE SITE TO THE RECEIVING BODY OF WATER CONSISTS OF VEGETATED SWALES, EXISTING EROSIONAL FEATURES, AND TRIBUTARIES OF STREAMS.

CRITICAL AREAS: PIPELINE: STREAM EH, WETLAND EG, STREAM EF, STREAM EC, STREAM EB, AND WETLAND EA.

REQUIREMENTS FOR WORKING IN OR NEAR CRITICAL AREAS CAN BE FOUND ON SHEETS 2-6.

SOILS:

Soil name	Soil Mapping Unit	Erodibility (K Factor, Whole Soil)	Settleability (Unavailable)	Permeability	Depth (cm)	Texture	Soil Structure (Unavailable)
GILPIN-PEABODY COMPLEX, 15 TO 35 PERCENT SLOPES, VERY STONY	GsE	0.37	-	Well drained	84	Silt loam	-
GILPIN-PEABODY COMPLEX, 35 TO 70 PERCENT SLOPES, VERY STONY	GsF	0.37	-	Well drained	84	Silt loam	-
GILPIN UPSHUR COMPLEX, 15 TO 25 PERCENT SLOPES	GuD	0.43	-	Well drained	84	Silt loam	-
SENSABAUGH SILT LOAM	Se	0.37	-	Well drained	>200	Silt loam	-
SENSABAUGH SILT LOAM, 3 TO 8 PERCENT SLOPES, RARELY FLOODED	SeB	0.37	-	Well drained	>200	Silt loam	-

*Data obtained from NRCS-USDA Web Soil Survey

EROSION PROBLEM AREAS: POTENTIAL EROSION PROBLEMS ON THIS SITE EXIST ALONG STEEP SLOPES WHERE THE PIPELINE WILL BE LAID.

CONSTRUCTION STORMWATER POLLUTION PREVENTION ELEMENTS: THE SEDIMENT CONTROL PLAN SHOWS ALL CLEARING LIMITS AND PROPOSED SEDIMENT CONTROLS. THE GENERAL NOTES ADDRESS THE STABILIZATION OF SOILS, SLOPE PROTECTION, CONTROL OF OTHER POLLUTANTS, DEWATERING CONTROL, MAINTENANCE OF BMPs, MANAGEMENT OF THE PROJECT, AND STABILIZATION. TYPES OF BMPs USED ON THIS PROJECT INCLUDE FILTER SOCKS, WATER BARS, TRENCH PLUGS, SILT FENCE, AND SUPER SILT FENCE. REFER TO SHEETS 7-8 FOR LOCATIONS.

CONSTRUCTION PHASING AND SCHEDULE: THE CONSTRUCTION SEQUENCE FOR THIS PROJECT CAN BE FOUND ON SHEET 2. WET SEASON CONSTRUCTION ACTIVITIES INCLUDE BUT ARE NOT LIMITED TO CLEARING, EROSION & SEDIMENT CONTROL INSTALLATION, ACCESS ROAD CONSTRUCTION, TRENCH EXCAVATION, UTILITY PLACEMENT, BACKFILLING, AND OPEN CUTTING OF STREAMS. CONSTRUCTION RESTRAINTS FOR ENVIRONMENTALLY CRITICAL AREAS CAN BE FOUND ON SHEET 2.

ENGINEERING CALCULATIONS: NO ENGINEERING CALCULATIONS ARE REQUIRED FOR THIS PROJECT.

EROSION & SEDIMENT CONTROL PLAN NOTES

1. ALL EROSION AND SEDIMENTATION CONTROL SHALL BE PERFORMED ACCORDING TO: THIS PLAN; WEST VIRGINIA GENERAL WATER POLLUTION CONTROL PERMIT; ANY AND ALL REQUIRED PERMITS, REPORTS, AND RELATED DOCUMENTS. ALL CONTRACTORS AND SUBCONTRACTORS MUST BECOME FAMILIAR WITH ALL OF THE ABOVE.
2. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE EROSION CONTROL PLAN. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AND GRADE CHANGES TO THE SITE AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
3. CONTRACTOR SHALL MINIMIZE CLEARING AND DISTURBANCE TO THE ENVIRONMENT TO THE MAXIMUM EXTENT POSSIBLE OR AS REQUIRED BY THE GENERAL PERMIT.
4. PERIMETER SEDIMENT BARRIERS SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING WITHIN SEVEN (7) DAYS FROM THE START OF CLEARING AND GRUBBING, AND SHALL CONTINUE TO FUNCTION UNTIL THE SLOPE DEVELOPMENT AREA IS RESTABILIZED.
5. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN SEVEN DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS PERMANENTLY CEASED.
6. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE SEVENTH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS CONDITIONS ALLOW.
7. WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 14 DAYS FROM WHEN ACTIVITIES CEASED, (E.G., THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY HALTED IS LESS THAN 14 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 CEASED.
8. AREAS WHERE THE SEED HAS FAILED TO GERMINATE ADEQUATELY (UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70%) WITHIN 30 DAYS AFTER SEEDING AND MULCHING MUST BE RESEEDED IMMEDIATELY, OR AS SOON AS WEATHER CONDITIONS ALLOW.
9. TEMPORARY SEEDING SHALL BE IN ACCORDANCE WITH WVDEP'S OFFICE OF CONSTRUCTION STORMWATER EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL, CHAPTER 3.10.
10. PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH WVDEP'S OFFICE OF CONSTRUCTION STORMWATER EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL, CHAPTER 3.11.
11. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION. ALL SLOPES 3:1 OR GREATER THAN 3:1 SHALL BE FERTILIZED, SEEDED, AND CURLEX BLANKETS BY AMERICAN EXCELSIOR COMPANY, NORTH AMERICAN GREEN, INC. OR AN APPROVED EQUAL AS SPECIFIED IN THE PLANS SHALL BE INSTALLED ON THE SLOPES.
12. NO SOLID (OTHER THAN SEDIMENT) OR LIQUID WASTE, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED IN STORM WATER RUNOFF. ALL NON-SEDIMENT POLLUTANTS MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL GUIDELINES. WASH OUT OF CEMENT TRUCKS SHOULD OCCUR IN DESIGNATED PIT OR DIKED AREAS, WHERE WASHINGS CAN BE REMOVED AND PROPERLY DISPOSED OFF-SITE WHEN THEY HARDEN. STORAGE TANKS SHOULD ALSO BE LOCATED IN PIT OR DIKED AREAS. IN ADDITION, SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS TO CLEAN AND CONTAIN FUEL AND CHEMICAL SPILLS MUST BE KEPT ON SITE.
13. IF THE ACTION OF VEHICLES TRAVELING OVER THE STABILIZED CONSTRUCTION EXIT DOES NOT SUFFICIENTLY REMOVE MOST OF THE DIRT AND MUD, THEN THE TIRES MUST BE WASHED BEFORE VEHICLES ENTER A PUBLIC ROAD. PROVISIONS MUST BE MADE TO INTERCEPT THE WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
14. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DISPOSED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE SITE THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
15. DUST CONTROL USING APPROVED MATERIALS MUST BE PERFORMED AT ALL TIMES. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION IS PROHIBITED.
16. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED ONTO THE ROADWAYS OR INTO THE STORM SEWERS MUST BE REMOVED IMMEDIATELY.

EROSION & SEDIMENT CONTROL MAINTENANCE NOTES

ALL CONTROL MEASURES STATED IN THIS PLAN SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL TEMPORARY OR PERMANENT STABILIZATION OF THE SITE IS ACHIEVED. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED BY A QUALIFIED PERSON IN ACCORDANCE TO THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED ACCORDING TO THE FOLLOWING:

1. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STANDING OF GRASS IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
2. SILT FENCES, AND CHECK DAMS SHALL BE REPAIRED TO THEIR ORIGINAL CONDITION IF DAMAGED. SEDIMENT ACCUMULATION MUST BE REMOVED WHEN SEDIMENT HEIGHT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE OR CHECK DAM.
3. SEDIMENTATION TRAPS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT MUST BE REMOVED FROM TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 40%.
4. MINIMIZE OFF-SITE SEDIMENT TRACKING OF VEHICLES BY THE USE OF STONE MATERIAL IN ALL CONSTRUCTION ENTRANCES, ALONG WITH REGULARLY SCHEDULED SWEEPING/GOOD HOUSEKEEPING. STABILIZED CONSTRUCTION ENTRANCES TO BE PROPERLY MAINTAINED BY GENERAL CONTRACTOR AND IN GOOD WORKING ORDER AT ALL TIMES; THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE STONE AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE) BY GENERAL CONTRACTOR. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
6. CONTRACTORS AND SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ALL SEDIMENT FROM THE SITE, INCLUDING SEDIMENT TRAPS AND STORM SEWER PIPES. SEDIMENT DEPOSITION DURING SITE STABILIZATION MUST ALSO BE REMOVED.
7. ALL ROCK CHANNEL PROTECTION MUST BE PLACED OVER GEOTEXTILE FILTER.
8. ROCK CHECK DAMS SHOULD BE ROUTINELY CLEANED ONCE SEDIMENT BEGINS TO APPEAR ON THE UPSTREAM SIDE OF THE ROCK.
9. CONTAINERS SHALL BE AVAILABLE FOR DISPOSAL OF DEBRIS, TRASH, HAZARDOUS OR PETROLEUM WASTES. ALL CONTAINERS MUST BE COVERED AND LEAK-PROOF. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THE PERTINENT MATERIAL
10. AREA SHALL BE DESIGNATED BY CONTRACTOR AND SHOWN ON SWPPP MAP FOR MIXING OR STORAGE OF COMPOUNDS SUCH AS FERTILIZERS, LIME ASPHALT, OR CONCRETE, THESE DESIGNATED AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS, OR OTHER STORMWATER DRAINAGE AREA.
11. EQUIPMENT FUELING & MAINTENANCE SHALL BE IN DESIGNATED AREAS ONLY.
12. A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN MUST BE DEVELOPED FOR SITES WITH ONE ABOVE-GROUND STORAGE TANK OF 660 GALLONS OR MORE, TOTAL ABOVE-GROUND STORAGE OF 1,330 GALLONS OR BELOW-GROUND STORAGE OF 4,200 GALLONS OF FUEL.
13. ALL CONTAMINATED SOIL MUST BE TREATED AND/OR DISPOSED IN AN WVDEP APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITIES.
14. THE CONTRACTOR SHALL CONTACT THE WVDEP, THE LOCAL FIRE DEPARTMENT AND THE LOCAL EMERGENCY PLANNING COMMITTEE IN THE EVENT OF A PETROLEUM SPILL (>25 GALLONS) OR THE PRESENCE OF SHEEN.

EROSION & SEDIMENT CONTROL MAINTENANCE NOTES

ALL EROSION AND SEDIMENT CONTROLS ON THE SITE SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES PER 24 HOUR PERIOD. ANY REQUIRED REPAIRS OR MAINTENANCE SHALL BE MADE IMMEDIATELY.

TEMPORARY SEEDING CHART

Common Name	Scientific Name	Planting Dates	PLS Lbs/Acre
Annual Ryegrass	Lolium multiflorum	2/16-5/15, 8/1-11/1	40
Field Bromegrass	Bromus ciliatus	3/1-6/15, 8/1-9/15	40
Spring Oats	Avena sativa	3/1-6/15	100
Winter Rye	Secale cereale	8/15-2/28	170
Winter Wheat	Triticum aestivum	8/18-2/28	180
Japanese Millet	Echinochloa crusgalli	5/15-8/15	30
Redtop	Agrostis alba	3/1-6/15	10
Annual Ryegrass and Spring Oats	Lolium multiflorum, Avena sativa	3/1-6/15	30, 70
German, Foxtail Millet	Setaria italica	5/1-8/1	40
Hairy Vetch	Vicia villosa	8/15-4/1	60

1. PRIOR TO SEEDING, INSTALL NECESSARY EROSION CONTROL PRACTICES SUCH AS DIKES, WATERWAYS, AND BASINS.
2. SEED SHALL BE EVENLY APPLIED WITH A BROADCAST SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. SMALL GRAINS SHALL BE PLANTED NO MORE THAN 1.5 INCHES DEEP, SMALL SEEDS, SUCH AS ANNUAL RYE, SHALL BE PLANTED NO MORE THAN A QUARTER INCH DEEP. OTHER GRASSES AND LEGUMES SHALL BE PLANTED NO MORE THAN A HALF INCH DEEP.
3. TEMPORARY SEEDING CONDUCTED IN FALL FOR WINTER COVER AND DURING HOT AND DRY SUMMER MONTHS SHALL BE MULCHED WITH STRAW AND HAY ACCORDING TO THE STANDARD FOR MULCHING, HYDROMULCHES (FIBER MULCH) MAY NOT PROVIDE ADEQUATE TEMPERATURE AND MOISTURE CONTROL.

PERMANENT SEEDING CHART

Seed Mix	Common Name	Scientific Name	PLS Lbs/Acre
O	Perennial Ryegrass	Lolium perenne	40
	Birdsfoot Trefoil	Lotus corniculatus	15
	Redtop	Agrostis alba	5
p	Serecia Lespedeza	Lespedeza cunata	40
	Orchardgrass	Dactylis glomerata	30
	Redtop	Agrostis alba	5

1. ALL PERMANENT SEEDING SHALL CONFORM TO WV DEP EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL, SECTION 3.10-1.
2. SEED MIX O OR P SHALL BE USED FOR PERMANENT SEEDING.

IFC

08/01/14
DATE

SUMMARY OF MATERIALS

MRKR #	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

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OX11-OX13 PIPELINE

SWPPP NOTES

STATION(S): N/A

CONSOL ENERGY
200 EVERGREENE DRIVE
WAYNESBURG, PA 15370

DATE:	08/01/14
JOB NO.:	90126
DESIGN:	BEM
DRAWN:	BEM
CHECKED:	BJM
SHEET NO.	3 of 10

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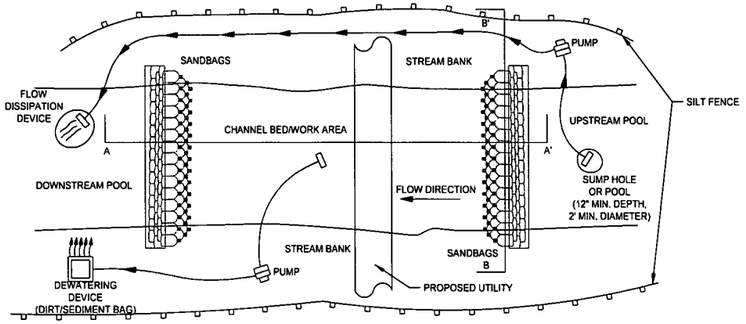
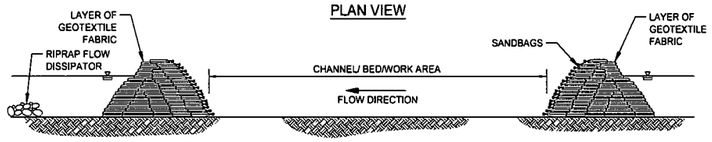
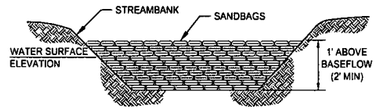


PLAN VIEW

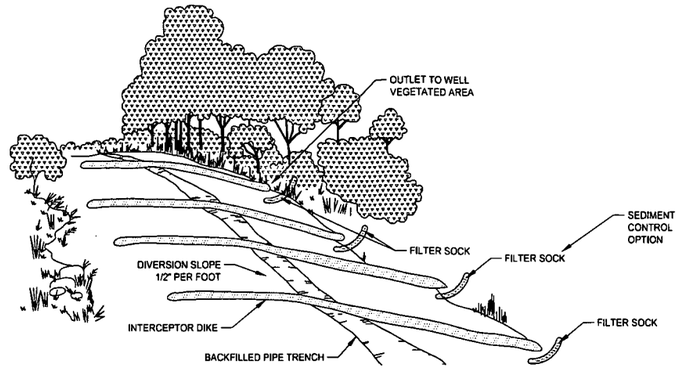


SECTION A-A



SECTION B-B

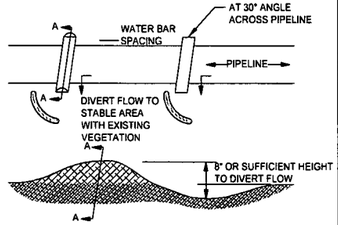
(A) STREAM CROSSING PUMP AROUND DETAIL
NOT TO SCALE



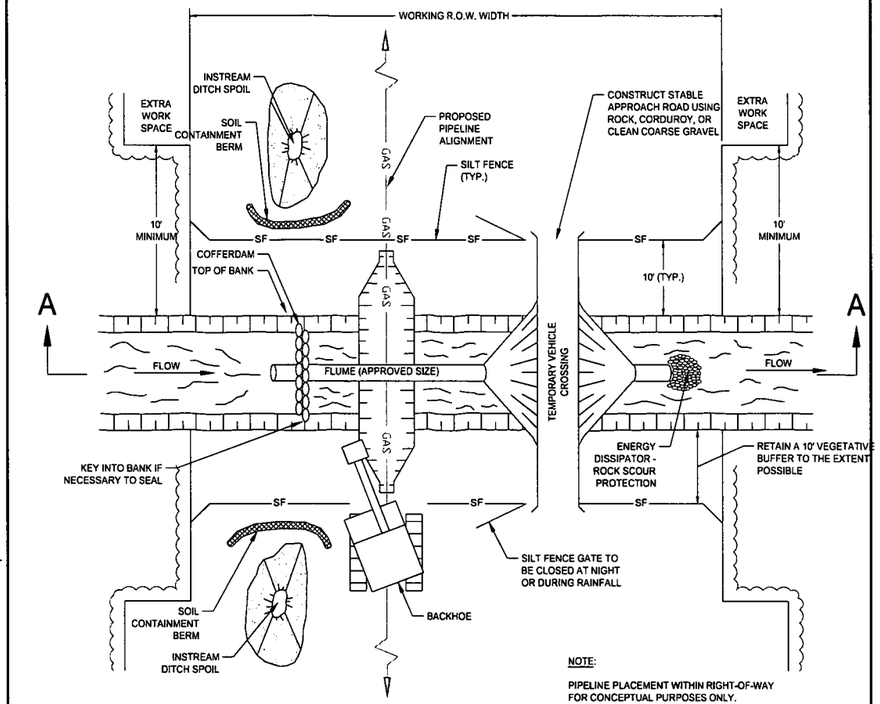
1. THE MINIMUM WATER BAR DIMENSIONS SHALL BE: TOP WIDTH OF BERM/DIKE - 2 FEET MINIMUM. HEIGHT/DEPTH - 8 INCHES UNLESS OTHERWISE NOTED ON PLANS.
2. THE SPACING BETWEEN WATER BARS SHALL BE AS NOTED:

PIPELINE GRADE (%)	>200' FROM STREAMS	<200' FROM STREAMS
2-5	400	200
6-12	300	150
13-21	200	100
22-34	100	50
35-50	50	25

3. THE FIELD LOCATION SHALL BE ADJUSTED AS NEEDED TO PROVIDE A STABILIZED SAFE OUTLET.
4. THE DIVERTED RUNOFF SHALL BE DIRECTED ONTO AN UNDISTURBED VEGETATION AREA, TO A SETTLING TRAP OR BASIN OR TRAP IF CONTRIBUTING AREA IS STABLE.
5. DIVERSIONS/DIKES SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT DURING CONSTRUCTION.
6. THE WATER BAR SHALL BE ANGLED SLIGHTLY DOWN SLOPE ACROSS THE CENTERLINE OF THE PIPELINE RIGHT OF WAY.
7. REFER TO MAINTENANCE PROGRAMS NOTES FOR MAINTENANCE PROCEDURES.
8. UNTIL AREA IS STABILIZED, USE SEDIMENT CONTROL OPTIONS SHOWN.
9. REMOVE ALL SEDIMENT CONTROL OPTIONS ONCE SITE IS STABILIZED.



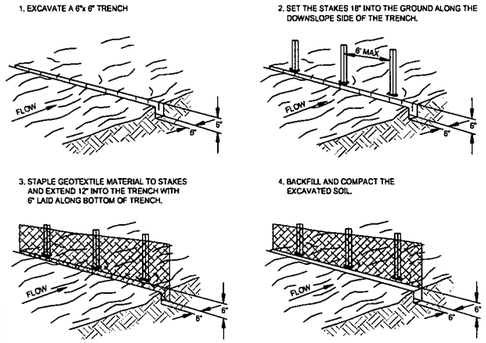
(B) STANDARD WATER BAR DETAIL
NOT TO SCALE



NOTE:
PIPELINE PLACEMENT WITHIN RIGHT-OF-WAY FOR CONCEPTUAL PURPOSES ONLY.

PLAN VIEW

NOTE: SILT FENCE WITHOUT WIRE SUPPORT SHOULD BE USED ON A LIMITED BASIS ONLY ALONG PERIMETERS WITH LESS THAN 1/4 ACRE DRAINAGE AREA PER 100 LINEAR FEET OF FENCE.



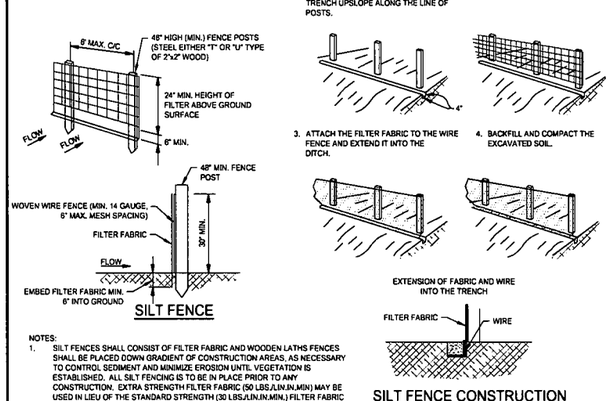
SHEET FLOW INSTALLATION
(PERSPECTIVE VIEW)

POSTS: 2"x2"x36" HARDWOOD OR T TYPE POST

FABRIC: 1. AMOCO - PROPEX 1198 2. BELTECH 751 3. MIRAFI 100X 4. LIND GTF 190 5. SI 9155 C 6. OR APPROVED EQUAL

MAINTENANCE: SEDIMENT SHALL BE REMOVED WHEN WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FENCE.

(D) SILT FENCE w/o WIRE SUPPORT
NOT TO SCALE

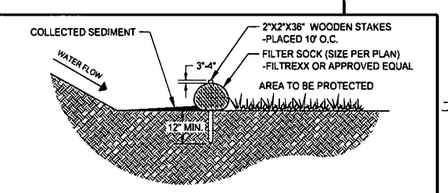


SILT FENCE

SILT FENCE CONSTRUCTION

NOTES:
1. SILT FENCES SHALL CONSIST OF FILTER FABRIC AND WOODEN LATHS FENCES SHALL BE PLACED DOWN GRADIENT OF CONSTRUCTION AREAS, AS NECESSARY TO CONTROL SEDIMENT AND MINIMIZE EROSION UNTIL VEGETATION IS ESTABLISHED. ALL SILT FENCING IS TO BE IN PLACE PRIOR TO ANY CONSTRUCTION. EXTRA STRENGTH FILTER FABRIC (50 LBS./LIN.IN.MIN) MAY BE USED IN LIEU OF THE STANDARD STRENGTH (30 LBS./LIN.IN.MIN.) FILTER FABRIC AND THE 14 GAUGE WOVEN WIRE FENCE COMBINATION.
2. CONTRACTOR HAS THE OPTION OF USING EITHER SILT FENCE OR SILT SOCKS.
3. SUPPORT STAKES WITH 1"x2"x 12" STAKES WITH MINIMUM 10 GAUGE WIRE AT 3:1 ANGLE.
4. MAINTENANCE: SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FENCE.

(E) REINFORCED (30" HIGH) SILT FENCE DETAIL
NOT TO SCALE



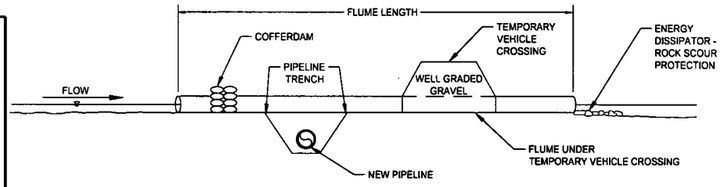
SECTION

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

INSTALLATION NOTES:
1. FILTER SOCKS SHALL BE PLACED ON A LEVEL LINE ACROSS SLOPES.
2. FILTER SOCKS INTENDED TO BE PERMANENT SHALL BE SEEDED AT TIME OF INSTALLATION.
3. FILTER SOCKS ARE NOT TO BE USED IN CONCENTRATED FLOW SITUATIONS OR IN RUNOFF CHANNELS.

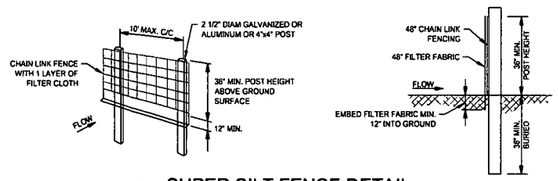
MAINTENANCE NOTES:
1. ROUTINELY INSPECT FILTER SOCKS AFTER A RUNOFF EVENT, MAINTAINING FUNCTIONALITY AT ALL TIMES.
2. REMOVE SEDIMENT COLLECTED AT THE BASE OF THE UPSLOPE SIDE OF THE FILTER SOCK WHEN SEDIMENT ACCUMULATION HAS REACHED 1/3 OF THE EXPOSED HEIGHT OF THE SOCK.
3. WHERE THE FILTER SOCK IS DAMAGED, DETERIORATED, OR FAILS, IT SHALL BE REPAIRED OR REPLACED WITH A MORE EFFECTIVE ALTERNATIVE.
4. THE FILTER MEDIA WITHIN THE FILTER SOCK SHALL BE DISPERSED ON SITE ONCE THE DISTURBED AREA HAS BEEN PERMANENTLY STABILIZED, OR WHEN NO LONGER REQUIRED IN SUCH A WAY AS TO FACILITATE AND NOT OBSTRUCT SEEDING.

(F) FILTER SOCK
NOT TO SCALE



SECTION A-A

(C) FLUME PIPE AND COFFERDAM
NOT TO SCALE



(G) SUPER SILT FENCE DETAIL
NOT TO SCALE

IFC

08/01/14
DATE

SUMMARY OF MATERIALS

MRKR #	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

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OX11-OX13 PIPELINE

SWPPP DETAILS

STATION(S): N/A

CONSOL ENERGY
200 EVERGREENE DRIVE
WAYNESBURG, PA 15370

DATE:	08/01/14
JOB NO.:	90126
DESIGN:	BEM
DRAWN:	BEM
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SHEET NO.	4 of 10

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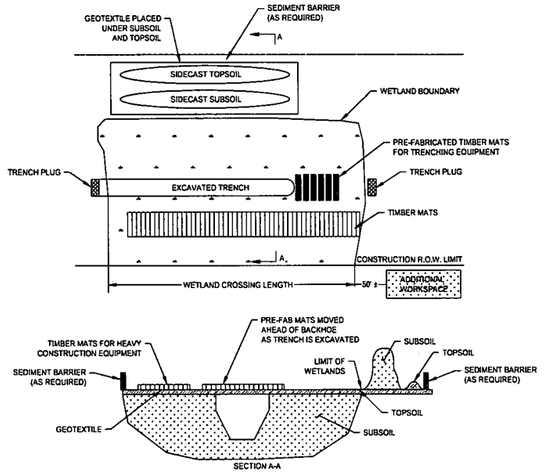
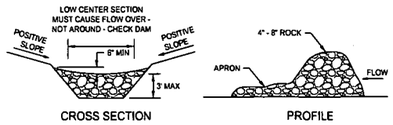


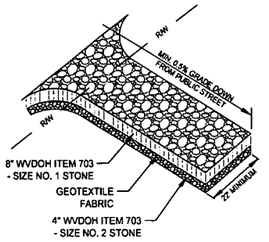
H TYPICAL PIPELINE WETLAND CROSSING
NOT TO SCALE



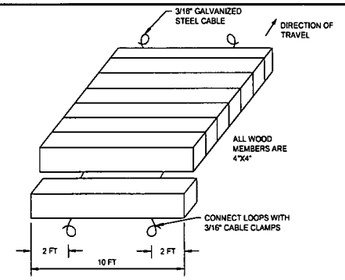
NOTES:

1. THE CHECK DAM SHALL BE CONSTRUCTED OF 4-6" DIAMETER STONE, PLACED SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL.
2. MAXIMUM HEIGHT OF CHECK DAM SHALL NOT EXCEED 3.0 FEET.
3. THE MIDPOINT OF THE ROCK CHECK DAM SHALL BE A MINIMUM OF 6" LOWER THAN THE SIDES IN ORDER TO DIRECT ACROSS THE CENTER AND AWAY FROM THE CHANNEL SIDES.
4. THE BASE OF THE CHECK DAM SHALL BE ENTRENCHED APPROXIMATELY 6 INCHES.
5. SPACING OF CHECK DAMS SHALL BE IN A MANNER SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM.
6. A SPLASH APRON SHALL BE CONSTRUCTED WHERE CHECK DAMS ARE EXPECTED TO BE IN USE FOR AN EXTENDED PERIOD OF TIME. A STONE APRON SHALL BE CONSTRUCTED IMMEDIATELY DOWNSTREAM OF THE CHECK DAM TO PREVENT FLOWS FROM UNDERCUTTING THE STRUCTURE. THE APRON SHOULD BE 6 IN. THICK AND ITS LENGTH TWO TIMES THE HEIGHT OF THE DAM.
7. STONE PLACEMENT SHALL BE PERFORMED BY EITHER HAND OR MECHANICALLY AS LONG AS THE CENTER OF CHECK DAM IS LOWER THAN THE SIDES AND EXTENDS ACROSS THE ENTIRE CHANNEL.
8. SIDE SLOPES SHALL BE A MINIMUM OF 2:1.

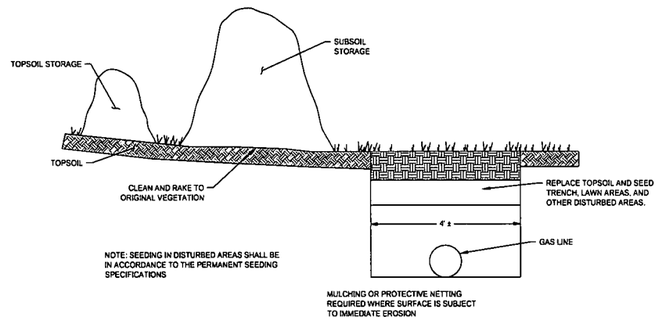
I ROCK CHECK DAM DETAIL
NOT TO SCALE



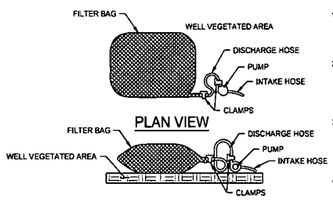
J STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



K TYPICAL TIMBER MAT FOR WETLAND CROSSING
NOT TO SCALE

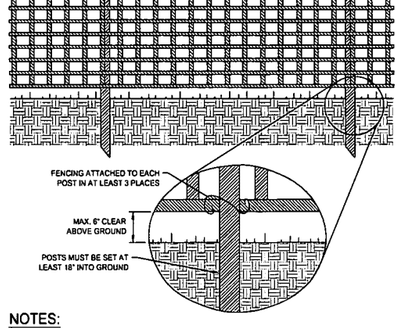


L DOUBLE DITCH FOR UTILITY TRENCHES
NOT TO SCALE



1. FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY COME 1/2 FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
3. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE FLOW PATH SHALL BE PROVIDED. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%.
4. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED.
5. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.

M SEDIMENT FILTER BAG FOR PUMPED WATER DETAIL
NOT TO SCALE



NOTES:

1. PROTECTION BARRIER SHALL BE 4' HIGH, CONSTRUCTED OF DURABLE AND HIGHLY VISIBLE MATERIAL (PLASTIC ORANGE CONSTRUCTION FENCE AND SNOW-FENCE MAY BE USED).
2. PROTECTION BARRIERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK AT THE SITE.
3. ADDITIONAL WARNING SIGNS SHOULD ALSO BE PLACED ON THE FENCING AND IN APPROPRIATE AREAS NEAR THE WORK ZONE.

N CONSTRUCTION FENCE DETAIL
NOT TO SCALE

OPTION A

"Wooded Wetland Establishment Seed Mix" (available from JFNew or Ernst)

Scientific Name	Common Name	PLS Ounces/Acre
Permanent Grasses/Sedges:		
Calamagrostis canadensis	Bluejoint Grass	1.00
Carex crinita	Fringed Sedge	2.00
Carex lupulina	Common Hop Sedge	4.00
Carex lurida	Bottlebrush Sedge	1.50
Carex frankii	Bristly Cattail Sedge	3.00
Carex squarrosa	Narrow-Leaved Cattail Sedge	1.00
Carex typhinia	Common Cattail Sedge	1.00
Carex vulpinoidea	Brown Fox Sedge	4.00
Elymus virginicus	Virginia Wild Rye	20.00
Glyceria striata	Fowl Manna Grass	2.00
Leersia oryzoides	Rice Cut Grass	2.00
Scirpus atrovirens	Dark Green Rush	2.00
Spartina pectinata	Prairie Cord Grass	1.00
	Total	44.50
Temporary Cover:		
Avena sativa	Common Oat	360.00
Lolium multibrum	Annual Rye	100.00
	Total	460.00

Temporary Cover:		
Alisma spp.	Water Plantain Mix	3.00
Angelica atropurpurea	Great Angelica	1.00
Aster puniceus	Bristly Aster	0.75
Aster umbellatus	Flat-Top Aster	0.25
Bidens cernua	Nodding Bur Marigold	2.50
Cephalanthus occidentalis	Buttonbush	0.50
Campanula americana	Tall Bellflower	0.25
Helenium autumnale	Sneezeweed	2.00
Heracleum lanatum	Cow Parsnip	0.75
Hibiscus moscheutos	Swamp Rose Mallow	2.00
Lobelia siphilitica	Great Blue Lobelia	1.50
Lycopus americanus	Common Water Horehound	0.25
Mimulus ringens	Monkey Flower	1.25
Penthorum sedoides	Ditch Stonecrop	0.50
Polygonum spp.	Pinkweed mix	0.50
Rudbeckia laciniata	Wild Golden Glow	0.75
Verbesina alternifolia	Wingstem	2.00
	Total	19.75

NOTE: APPLY AT 32.8 PLS POUNDS PER ACRE.

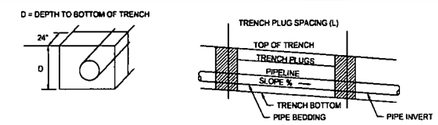
OPTION B

Wetland Restoration Mixture

Scientific Name	Common Name	PLS Ounces/Acre
Avena sativa	Common Oat	480.00
Secale cereale	Cereal Rye	480.00
Panicum virgatum	Switch Grass	32.00
Panicum clandestinum	Deer-tongue Grass	32.00
Elymus riparius	Riverbank Wild Rye	32.00
Poa palustris	March Bluegrass	32.00
Sorghastrum nutans	Indian Grass	16.00
Glyceria striata	Fowl Manna Grass	8.00
Carex crinita	Fringe Sedge	8.00
Carex lurida	Bottlebrush Sedge	8.00
Scirpus atrovirens	Dark Green Rush	8.00
Polygonum pensylvanicum	Pinkweed	8.00
Verbena hastata	Blue Vervain	8.00
Verbesina alternifolia	Wingstem	8.00
Senna hebecarpa	Wild Senna	8.00
	Total	1168.00

STREAM/WETLAND CROSSING NOTES

1. ALL TREES AND WOODY DEBRIS REMOVED FROM STREAM OR WETLAND CROSSINGS MUST BE DISPOSED OF OUTSIDE THE RIPARIAN OR WETLAND CROSSING AREAS.
2. CONSTRUCTION TIMBER MATTING MUST BE USED WHEN EQUIPMENT IS CROSSING WETLANDS AND/OR SOFT GROUND.
3. THE SEED MIX FOR STREAM/WETLAND CROSSING AREAS (OPTIONS A OR B) SHALL BE USED.
4. NO FERTILIZER OR LIME SHALL BE USED IN STREAM/WETLAND CROSSING AREAS.
5. NO GRUBBING IS ALLOWED AT TEMPORARY ACCESS CROSSINGS OF STREAMS OR WETLANDS.



SECTION VIEW
NOT TO SCALE

ELEVATION
NOT TO SCALE

REQUIRED SPACING AND MATERIALS FOR TRENCH PLUGS		
TRENCH SLOPE (%)	SPACING (FT)	PLUG MATERIAL
< 5	-	*
5-15	500	** EARTH FILLED SACKS
15-25	300	** EARTH FILLED SACKS
25-35	200	** EARTH FILLED SACKS
35-100	100	** EARTH FILLED SACKS
> 100	50	CEMENT FILLED BAGS (WETTED) OR MORTARED STONE

* TRENCH PLUGS ARE REQUIRED AT ALL STREAM, RIVER, OR WATER-BODY CROSSING REGARDLESS OF TRENCH SLOPE.

O TRENCH PLUG DETAIL
NOT TO SCALE

IFC

08/01/14
DATE

SUMMARY OF MATERIALS

MRKR #	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

CREATION TO COMPLETION
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OX11-OX13 PIPELINE

SWPPP DETAILS

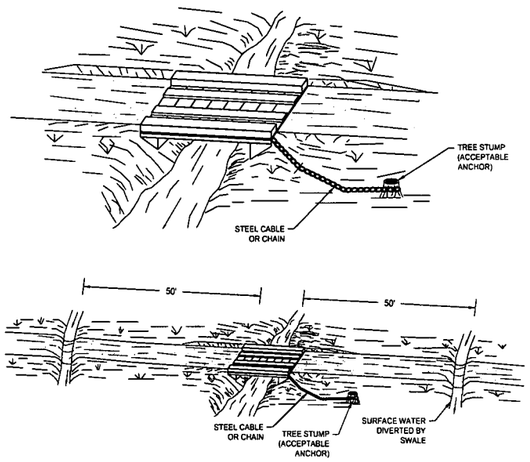
STATION(S): N/A

CONSOL ENERGY

200 EVERGREENE DRIVE
WAYNESBURG, PA 15370

DATE:	08/01/14
JOB NO.:	90126
DESIGN:	BEM
DRAWN:	BEM
CHECKED:	BJM
SHEET NO.	5 of 10

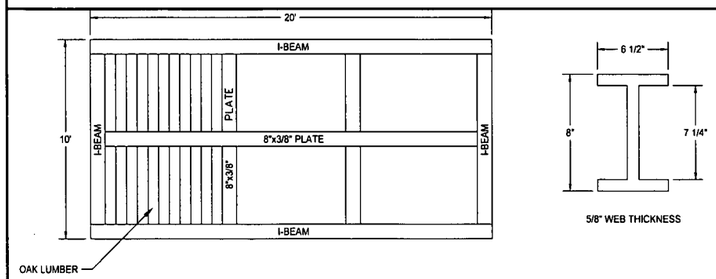
K:\PROJECTS\CONSOL ENERGY\090126-00 - SHERWOOD SOUTH PIPELINE\DESIGN\BASE DWGS\90126-OX11-OX13 IFC TABLES.DWG - 8/1/2014 11:21 AM

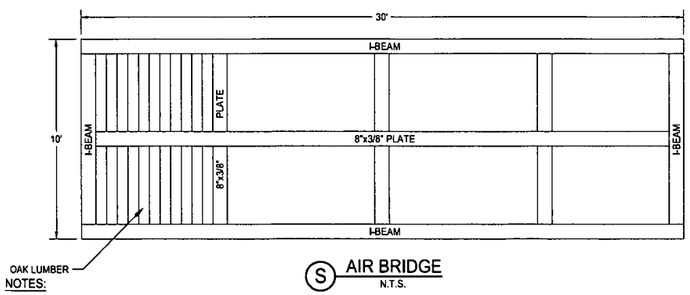


(P) TEMPORARY ACCESS BRIDGE DETAIL
NOT TO SCALE

NOTES:

1. THE STRUCTURE SHALL BE LARGE ENOUGH TO HANDLE A 1-YEAR FREQUENCY STORM, 24 HOUR DURATION.

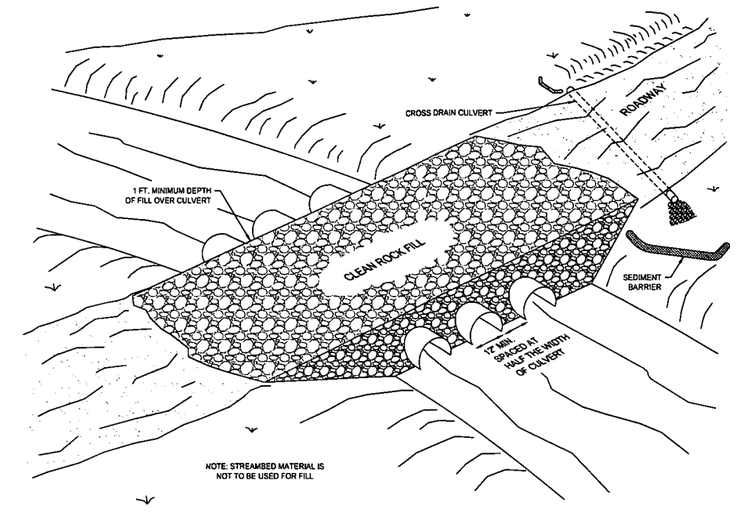




(S) AIR BRIDGE
N.T.S.

NOTES:

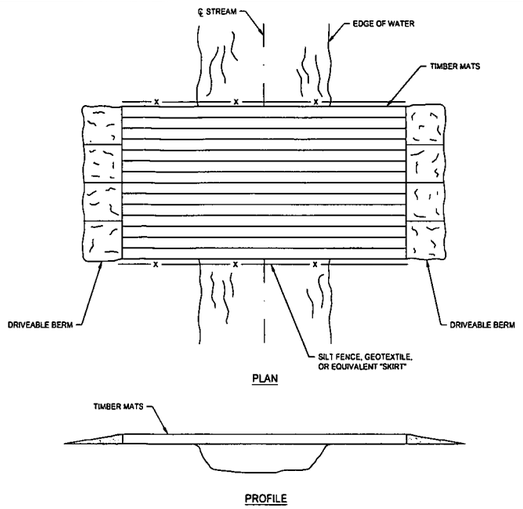
1. CONTACT CONSOL AT LEAST 72 HOURS PRIOR TO CONSTRUCTION TO HAVE THE EXISTING TRANSMISSION LINE FLAGGED.
2. CONSOL REPRESENTATIVES MUST BE ON SITE DURING CONSTRUCTION TO APPROVE INSTALLATION.
3. THE CURRENT PIPELINE COVER MUST BE MAINTAINED. DURING CONSTRUCTION, CONTRACTOR SHALL STRIP TOPSOIL AND PLACE MATTING BOARDS FOR EQUIPMENT CROSSING THE GAS TRANSMISSION EASEMENT. MATTING BOARDS BENEATH THE EMBANKMENT ARE TO REMAIN IN PLACE.
4. AIR BRIDGE IS TO BE REMOVED DURING SITE RESTORATION PHASE. CONSOL REPRESENTATIVES MUST BE ON SITE DURING REMOVAL FOR CONSTRUCTION APPROVAL. AFTER AIR BRIDGE IS REMOVED, FILL AIR GAP WITH SUBSOIL AND COMPACT TO SPECIFICATION. SEED AND MULCH FILL SLOPES.



(Q) DETAIL FIGURE II-9: STREAM CROSSING - TEMPORARY, WITH CULVERT
NOT TO SCALE

NOTES:

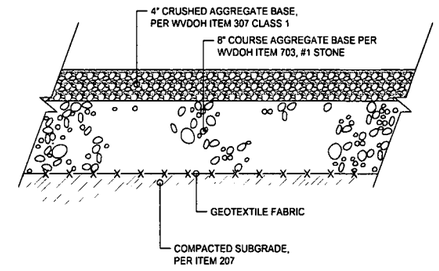
1. THE STRUCTURE SHALL BE LARGE ENOUGH TO HANDLE A 1-YEAR FREQUENCY STORM, 24 HOUR DURATION.
2. DEPTH OF COVER OVER CULVERTS SHALL BE ½ THE DIAMETER OF THE CULVERTS USED OR 12 INCHES, WHICHEVER IS GREATER.
3. MULTI-CULVERTS SHOULD BE INSTALLED WITH SPACES BETWEEN THEM, EQUAL TO ½ THE PIPE DIAMETER.
4. LOW WATER CROSSINGS MAY BE USED, IF PROTECTED WHEN OVERFLOWING OCCURS. THIS CAN BE ACCOMPLISHED BY USING ROCK AND CONCRETE.
5. CROSS CRIBBING OF THE DOWNSTREAM SIDE OF CULVERT INSTALLATIONS MAY BE NEEDED TO AID IN REDUCING STRUCTURAL DAMAGE DURING HIGH VELOCITY WATER OVERFLOW PERIODS.
6. IF CULVERTS OR BRIDGES ARE NOT USED AND A STONE BASE DOESN'T EXIST, STONE SHALL BE INSTALLED, WITH THE ENTRANCE AND EXIT BEING STONED FOR APPROXIMATELY 100 FEET.
7. DITCH LINE EXIT POINTS AT STREAM CROSSINGS MUST HAVE SEDIMENT CONTROLS.



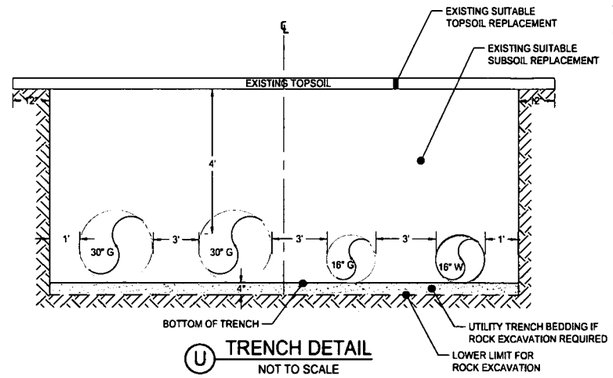
(R) STANDARD CONSTRUCTION DETAIL - TIMBER MAT BRIDGE
NOT TO SCALE

NOTES:

1. THIS TYPE OF BRIDGE IS GENERALLY USED FOR SMALL STREAM CROSSINGS LESS THAN 20 FEET IN WIDTH IN COMBINATION WITH A PROPER STREAM BANK CONFIGURATION.
2. BRIDGE WILL BE TEMPORARILY REMOVED IF HIGH WATER RENDERS IT UNSAFE FOR CROSSING.
3. BRIDGE TO REMAIN IN PLACE UNTIL THE COMPLETION OF FINAL RESTORATION.
4. SILT FENCE, SAND BAGS, DRIVABLE BERMS, OR OTHER APPROPRIATE EROSION CONTROL MAY BE USED INTERCHANGEABLY.
5. A "SKIRT" FORMED OF SILT FENCE, GEOTEXTILE FABRIC, OR EQUIVALENT SHALL BE PLACED ON THE SIDES AND BOTTOM OF THE BRIDGE TO TRAP SEDIMENT AS NECESSARY.
6. INDIVIDUAL MATS SHALL BE ANCHORED AND BUTTED TIGHTLY TO MINIMIZE THE INTRODUCTION OF SEDIMENT TO THE WATERBODY.



(T) ACCESS DRIVE PAVEMENT
N.T.S.



(U) TRENCH DETAIL
NOT TO SCALE

NOTES:

1. WHEN TRENCH EXCAVATION TAKES PLACE IN AN AGRICULTURAL, WETLAND, OR RESIDENTIAL AREA, THEN SEGREGATION OF TOPSOIL AND SUBSOIL WILL BE PERFORMED. PLACE TRENCH PLUGS AT THE REQUIRED SPACING DURING UTILITY INSTALLATION. FOLLOW STREAM AND WETLAND CROSSING DETAILS LOCATED ON THE EROSION AND SEDIMENT CONTROL DRAWINGS FOR UTILITY CROSSINGS OF THESE FEATURES. SEE STREAM CROSSING PROCEDURES AND WETLAND CROSSING PROCEDURES FOR ADDITIONAL INFORMATION ON WATER BODY AND WETLAND CROSSING. DURING CONSTRUCTION, INSTALL AND MAINTAIN ANY ADDITIONAL EROSION AND SEDIMENT CONTROL BMP's AND IMPLEMENT STRUCTURAL POST CONSTRUCTION STORMWATER BMP's (PERMANENT WATERBARS) THAT MAY BE REQUIRED. SEE UTILITY LINE INSTALLATION REQUIREMENTS NOTES FOR LIMITS OF WORK.
2. ANY WATER ENCOUNTERED WITHIN THE EXCAVATION AREAS DURING CONSTRUCTION SHALL BE REMOVED BY USING PUMPS, HOSES, AND PUMPED WATER FILTER BAGS WHICH SHALL BE DISCHARGED INTO UNDISTURBED WELL-VEGETATED UPLAND AREAS.
3. BACKFILL AREAS EXCAVATED FOR THE INSTALLATION OF UTILITIES WITH SUITABLE EXCAVATED MATERIAL. IN AREAS WHERE TOPSOIL HAS BEEN SEGREGATED, THE SUBSOIL SHALL BE REPLACED FIRST, FOLLOWED BY THE TOPSOIL BEING SPREAD OVER THE AREA FROM WHICH IT WAS REMOVED. FINAL GRADES SHALL BE THE SAME AS PRE-CONSTRUCTION CONTOURS.
4. AFTER CONSTRUCTION IS COMPLETE, FINAL SEEDING AND MULCHING OF ALL DISTURBED AREAS NOT YET STABILIZED SHALL BE COMPLETED. INSTALL EROSION CONTROL BLANKETING ON SLOPES WHICH ARE 3:1 OR STEEPER. STABILIZE AND SEED ALL OPEN AREAS INCLUDING BORROW AND SPOIL AREAS.

IFC

08/01/14
DATE

SUMMARY OF MATERIALS		
MRKR #	QTY.	DESCRIPTION

REFERENCE DRAWINGS	
DWG.	DESCRIPTION

REVISIONS		
NO.	DATE	DESCRIPTION

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OX11-OX13 PIPELINE

SWPPP DETAILS

STATION(S): N/A

CONSOL ENERGY
200 EVERGREENE DRIVE
WAYNESBURG, PA 15370

DATE:	08/01/14
JOB NO.:	90126
DESIGN:	BEM
DRAWN:	BEM
CHECKED:	BJM
SHEET NO.	6 of 10

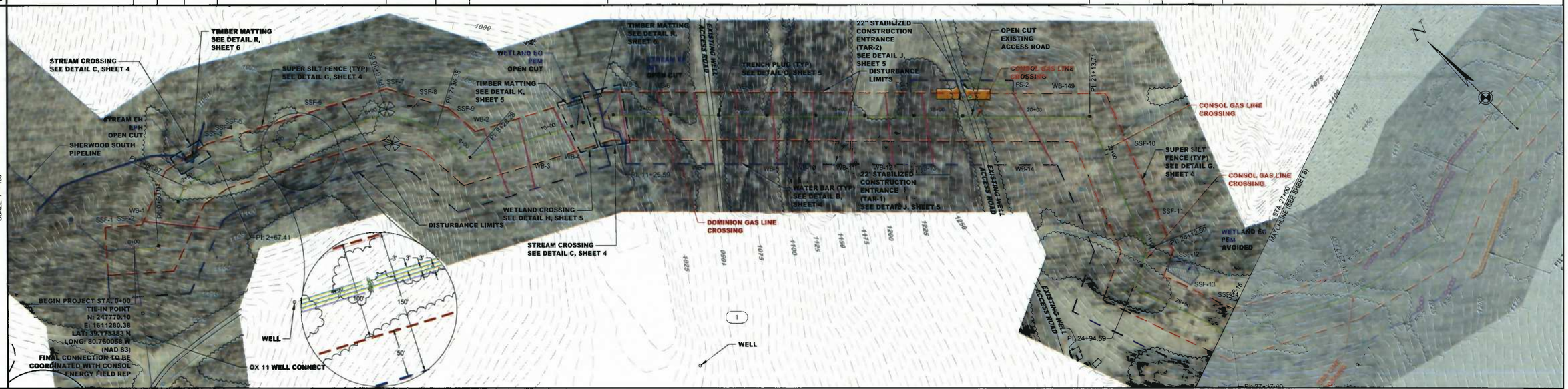
SOUTH WEST DISTRICT, DODDRIDGE COUNTY, WEST VIRGINIA

TOWNSHIP, COUNTY, STATE	
OWNER/PARCEL ID	(1) MORRIS I L IKE 09-07-0010-0002-0000-6001
ENVIRONMENTAL	WOODS; OPEN; WOODS; OPEN; WOODS; OPEN; WOODS; OPEN; WOODS; OPEN; WOODS; OPEN; WOODS; OPEN; WOODS; OPEN

STATIONS & TRAVERSE ANGLES

BEGIN PROJECT 0+00 | 0+50.01 62° 11' 04" LT | 1+86.87 32° 18' 38" RT | 2+67.41 16° 16' 01" RT | 6+30.65 34° 52' 24" RT | 7+36.38 23° 33' 41" RT | 8+26.28 58° 17' 31" LT | 11+25.59 17° 17' 41" RT | 21+13.71 66° 47' 9" RT | 24+12.50 43° 6' 15" RT | 24+94.59 84° 12' 17" LT | MATCHLINE 27+00

ALIGNMENT (PLAN VIEW)
SCALE: 1" = 100'



PIPELINE DATA
SCALE: N.T.S.

PIPELINE SCHEMATIC
- PIPE INSTALL BY OPEN CUT
- PIPE INSTALL BY BORE
- SEGMENTABLE FITTING
- PIPELINE WARNING SIGNS
- PIPELINE MARKER NUMBER (XX)

0+50.01 (1) 50.01' | 62° 11' 04" P.I. (2) (1) 136.86' | 1+86.87 32° 18' 38" P.I. (2) 80.54' | 2+67.41 16° 16' 01" P.I. (1) (2) 363.24' | 6+30.65 34° 52' 24" P.I. (2) 105.73' | 7+36.38 23° 33' 41" P.I. (1) (2) 81.90' | 8+26.28 58° 17' 31" P.I. (2) 297.31' | 11+25.59 17° 17' 41" P.I. (2) 988.12' | 21+13.71 66° 47' 9" P.I. (2) 298.79' | 24+12.50 43° 6' 15" P.I. (2) 24+94.59 84° 12' 17" P.I. (2) (1) 82.09' | (1) 205.41'

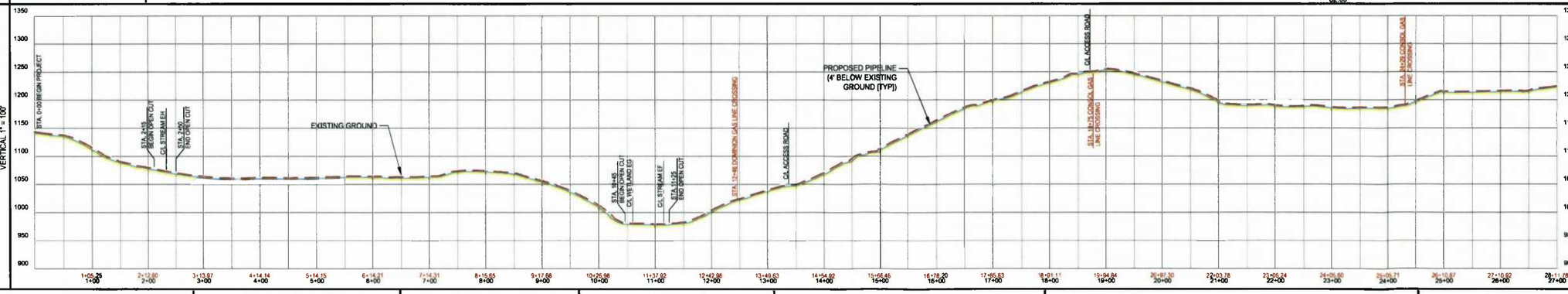
℄ PROPOSED PIPELINE

NOTE:
CONTRACTOR SHALL NOTIFY EXISTING UTILITY OWNERS 48 HOURS PRIOR TO COMMENCEMENT OF EXCAVATION AT SAID EXISTING UTILITY CROSSING(S).

CONSOL ENERGY
ONE ENERGY DRIVE
JANE LEW, WV 26378
ADAM WHITE
240-506-7299
ADAMWHITE@CONSOLENERGY.COM

DOMINION TRANSMISSION
445 W MAIN STREET
CLARKSBURG, WV 26301
STEVEN D. GUM
304-782-5024
STEVEN.D.GUM@DOM.COM

PROFILE
SCALE: HORIZONTAL 1" = 100'
VERTICAL 1" = 100'



WEST VIRGINIA 811

GRAPHIC SCALE (IN FEET)
100 0 100 200

LEGEND
- PIPE INSTALL BY OPEN CUT
- PIPE INSTALL BY BORE
- PERMANENT EASEMENT - LOD
- TEMPORARY EASEMENT - LOD
- LOD
- BURIED ELECTRIC
- OVERHEAD LINE
- WATER LINE
- FENCE
- PROPERTY LINE
- TAX DISTRICT LINE
- COUNTY LINE
- CL ROAD
- EDGE OF ROAD
- TREELINE
- STREAMS
- 8" FILTER SOCK (FS)
- 12" FILTER SOCK (FS)
- 18" FILTER SOCK (FS)
- SUPER SILT FENCE (SSF)
- SILT FENCE
- WATER BAR (WB)
- TRENCH PLUG
- PROPOSED PERMANENT ACCESS ROAD
- PROPOSED TEMPORARY ACCESS ROAD
- PEM/PFO WETLANDS
- PEM WETLANDS
- POTENTIAL ROOST TREE (PRT)
- KEEP OFF PROPERTY

IFC

08/01/14
DATE

SUMMARY OF MATERIALS

MRKR #	QTY.	DESCRIPTION
1	2812 LF	PIPELINE (SLOPE LENGTH)
2	10 EA	ELBOW, 45° SEGMENTABLE FITTING
3	2 EA	PIPELINE WARNING SIGN

REFERENCE DRAWINGS

DWG.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

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OX11-OX13 PIPELINE

PIPELINE PLAN

STATION(S): 0+00 TO 27+00

CONSOL ENERGY
200 EVERGREENE DRIVE
WAYNESBURG, PA 15370

DATE:	08/01/14
JOB NO.:	90126
DESIGN:	BEM
DRAWN:	BEM
CHECKED:	BJM
SHEET NO.	7 of 10

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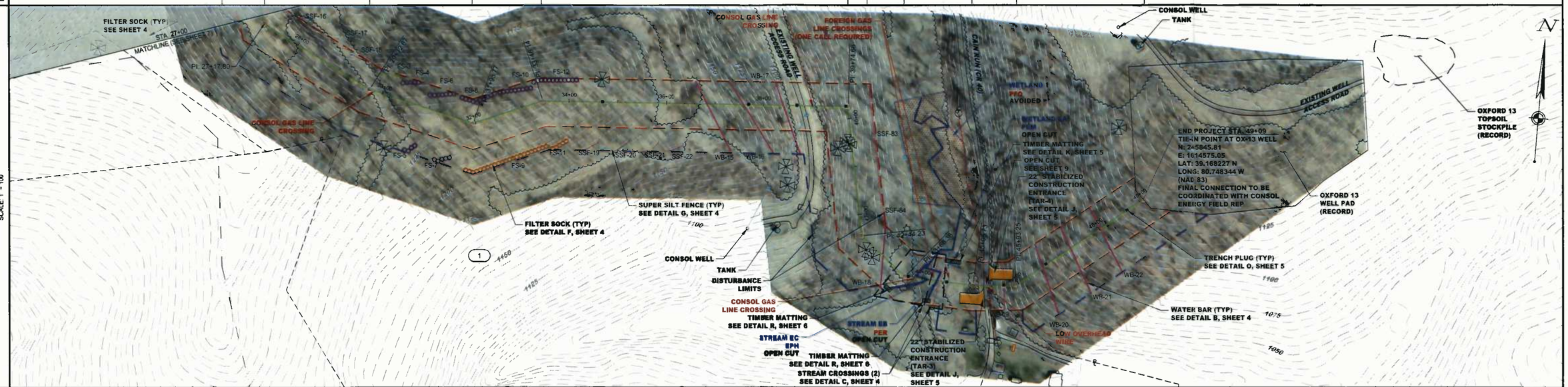
SOUTH WEST DISTRICT, DODDRIDGE COUNTY, WEST VIRGINIA

TOWNSHIP, COUNTY, STATE	
OWNER/PARCEL ID	(1) MORRIS I L IKE 09-07-0010-0002-0000-6001
ENVIRONMENTAL	OPEN · WOODS · OPEN · WOODS · OPEN · WOODS · OPEN · WOODS · OPEN · WOODS · OPEN · WOODS

STATIONS & TRAVERSE ANGLES

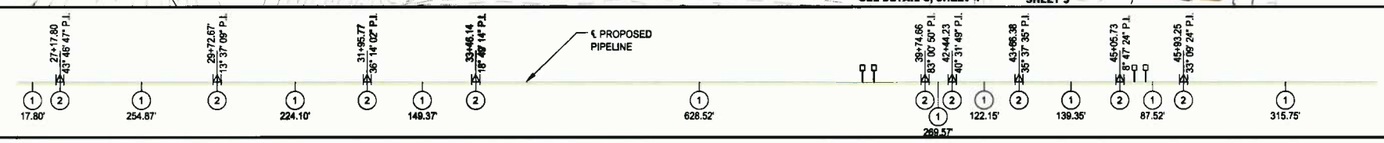
MATCHLINE 27+00 · 27+17.80 43° 46' 47" LT · 29+72.67 13° 37' 09" LT · 31+95.77 36° 14' 02" LT · 33+46.14 18° 49' 14" RT · 39+74.66 83° 00' 50" RT · 42+44.23 40° 31' 48" LT · 43+66.38 35° 37' 35" LT · 45+05.73 8° 47' 24" LT · 45+93.25 33° 09' 24" LT · END PROJECT 49+09

ALIGNMENT (PLAN VIEW)
SCALE: 1" = 100'



PIPELINE DATA
SCALE: N.T.S.

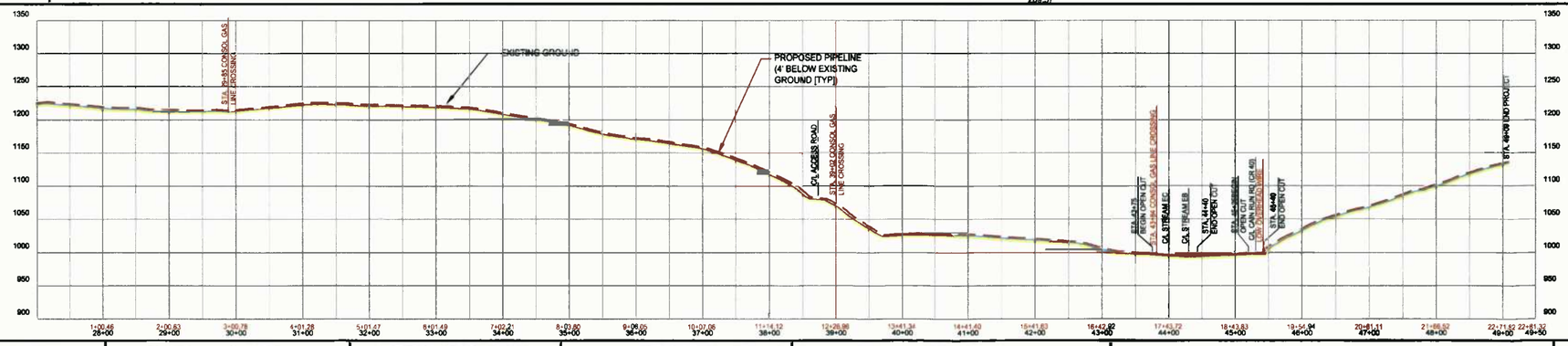
PIPELINE SCHEMATIC
- PIPE INSTALL BY OPEN CUT
- PIPE INSTALL BY BORE
- SEGMENTABLE FITTING
- PIPELINE WARNING SIGNS
- (XX) PIPELINE MARKER NUMBER



NOTE:
CONTRACTOR SHALL NOTIFY EXISTING UTILITY OWNERS 48 HOURS PRIOR TO COMMENCEMENT OF EXCAVATION AT SAID EXISTING UTILITY CROSSING(S).

CONSOL ENERGY
ONE ENERGY DRIVE
JANE LEW, WV 26378
ADAM WHITE
240-506-7299
ADAMWHITE@CONSOLENERGY.COM

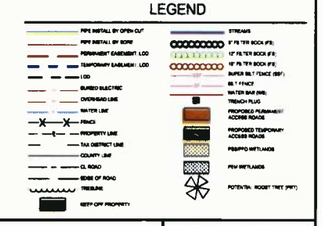
PROFILE
SCALE: HORIZONTAL 1" = 100'
VERTICAL 1" = 100'



WEST VIRGINIA 811

100 0 100 200
GRAPHIC SCALE (IN FEET)

LEGEND



IFC

08/01/14
DATE

SUMMARY OF MATERIALS

MRKR #	QTY.	DESCRIPTION
1	2281 LF	PIPELINE (SLOPE LENGTH)
2	9 EA	ELBOW, 45° SEGMENTABLE FITTING
3	4 EA	PIPELINE WARNING SIGN

REFERENCE DRAWINGS

DWG.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

CREATION to COMPLETION
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OX11-OX13 PIPELINE

PIPELINE PLAN

STATION(S): 27+00 TO 49+09

CONSOL ENERGY
200 EVERGREENE DRIVE
WAYNESBURG, PA 15370

DATE:	08/01/14
JOB NO.:	90126
DESIGN:	BEM
DRAWN:	BEM
CHECKED:	BJM
SHEET NO.	8 of 10

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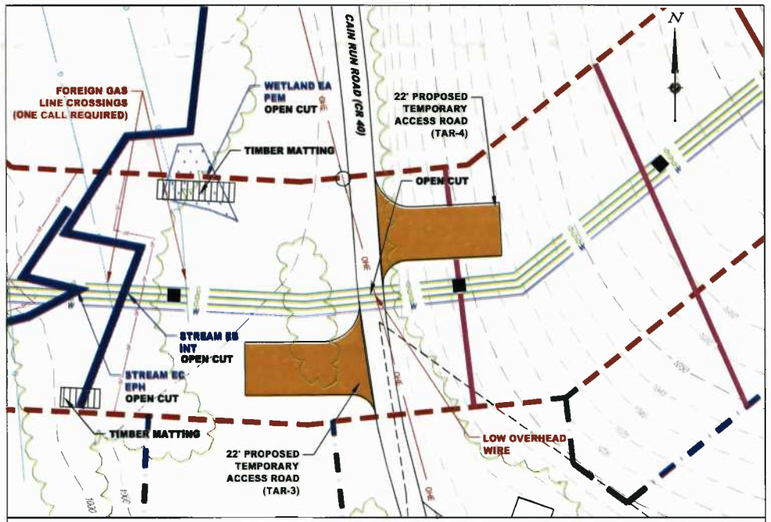
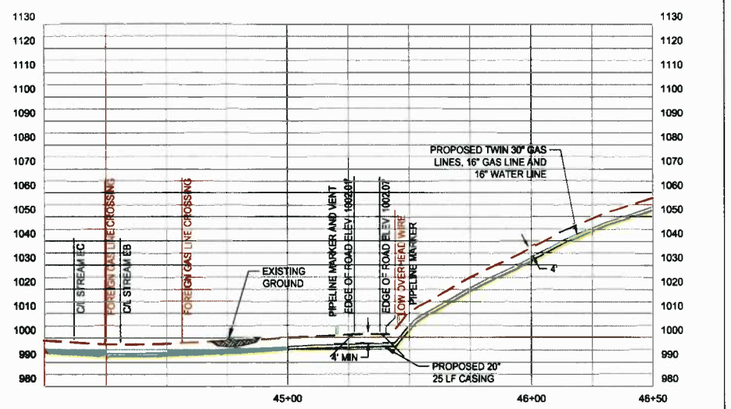


PLAN VIEW
SCALE: 1"=30'



OPEN CUT PROFILE
SCALE: 1"=30'(H), 1"=30'(V)

OPEN CUT DETAIL
CAIN RUN RD (CR 40)

LEGEND

GRAPHIC SCALE
0 30 60
(IN FEET)
1 inch = 30 ft.

OX11-OX13 PIPELINE
SOUTH WEST DISTRICT
DODDRIDGE COUNTY
WEST VIRGINIA
PROJECT NO. 90126
SHEET NO. 1 = 1

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08/01/14
DATE

SUMMARY OF MATERIALS		
MRKR #	QTY.	DESCRIPTION

REFERENCE DRAWINGS	
DWG.	DESCRIPTION

REVISIONS		
NO.	DATE	DESCRIPTION

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OX11-OX13 PIPELINE

ROAD CROSSING DETAILS

STATION(S): N/A

CONSOL ENERGY
200 EVERGREENE DRIVE
WAYNESBURG, PA 15370

DATE:	08/01/14
JOB NO.:	90126
DESIGN:	BEM
DRAWN:	BEM
CHECKED:	BJM
SHEET NO.	9 of 10

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OX11-OX13 WATER BAR SPACING*

STATION BEGIN	STATION END	% SLOPE (AVERAGE)	WATER BAR SPACING (FT)
0+88	1+36	41	75
8+74	8+84	28	75
9+38	9+49	28	75
10+23	10+49	57	75
11+48	11+75	31	75
12+26	12+61	31	75
13+01	13+40	31	75
13+89	14+00	40	75
14+61	14+75	40	75
15+47	15+48	40	75
16+23	16+28	40	75
16+94	17+11	40	75
17+68	17+93	40	75
19+56	20+41	33	75
36+59	37+37	28	75
37+29	38+25	28	75
38+24	38+79	53	75
42+63	43+44	15	125
45+69	45+70	33	75
46+33	46+75	33	75
47+13	47+39	33	75
47+90	48+11	33	75

OX11-OX13 FILTER SOCK SIZING CHART**

SOCK #	SIZE (in.)	SLOPE (%)	ACTUAL SLOPE LENGTH (ft.)	MAX SLOPE LENGTH (ft.)	SOCK LENGTH (ft.)	APPROXIMATE LOCATION
FS-1	12	25	100	100	33	17+50
FS-2	12	18	125	125	108	19+00
FS-3	12	20	120	125	46	30+00
FS-4	8	19	91	100	44	30+50
FS-5	8	13	39	140	34	31+00
FS-6	8	18	42	100	57	31+00
FS-7	8	20	86	100	44	31+50
FS-8	8	10	34	200	87	32+00
FS-9	18	24	106	110	186	32+50
FS-10	8	16	27	100	76	33+00
FS-11	18	25	110	110	41	33+50
FS-12	8	18	25	100	100	34+00

OX11-OX13 TRENCH PLUG LOCATION CHART***

PLUG #	STATION
1	0+53
2	1+53
3	8+25
4	10+47
5	10+72
6	10+96
7	11+37
8	12+53
9	13+53
10	14+52
11	15+52
12	16+53
13	17+53
14	18+52
15	21+12
16	24+48
17	34+69
18	37+69
19	38+69
20	39+69
21	43+72
22	44+51
23	45+69
24	46+69
25	48+69

EROSION AND SEDIMENT CONTROL BMP PRACTICES

BMP	UNITS	QUANTITY
8" COMPOST FILTER SOCK	FT	442
12" COMPOST FILTER SOCK	FT	185
18" COMPOST FILTER SOCK	FT	227
SUPER SILT FENCE	FT	1910
SILT FENCE	FT	615
STABILIZED CONSTRUCTION ENTRANCE	EA	4
TRENCH PLUG	EA	25
TEMPORARY WATERBARS	EA	22
TIMBER MATS (10 FT WIDTH, ASSUME 8 FT SECTION LENGTHS)	LF	144
STREAM CROSSING - FLUME PIPE CROSSING (SEE DETAIL SHEET #4)	EA	4
TOB TO TOB (PIPELINE CONST.)	LF	11

STREAM CROSSINGS - PIPELINE

STREAM ID	TOB	TOB	LENGTH (LF)	TIMBER MAT LENGTH (LF)
STREAM EH	2+27	2+28	1	32
STREAM EF	11+12	11+17	5	16
STREAM EC	43+54	43+56	2	16
STREAM EB	44+15	44+18	3	16
		TOTAL:	11	80

WETLAND CROSSINGS - PIPELINE

WETLAND ID	EDGE	EDGE	LENGTH (LF)	TIMBER MAT LENGTH (LF)
WETLAND EG	10+54	10+81	27	32
WETLAND EA	44+44	44+72	28	32
		TOTAL:	55	64

ROAD CROSSINGS - PIPELINE

ROAD	EOP	EOP	LENGTH (LF)	PAVED / UNPAVED
CAIN RUN (CR 40)	45+28	45+38	10	UNPAVED
		TOTAL:	10	

*WATER BAR SPACING IS BASED ON THE WEST VIRGINIA EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL TABLE 3.18.1: RIGHT-OF-WAY DIVERSION SPACKING. SOME WATER BARS HAVE BEEN OVER-DESIGNED AT THE DISCRETION OF THE ENGINEER BASED ON EXISTING FIELD CONDITIONS.

**FILTER SOCK DESIGN BASED ON THE TABLE FOUND IN THE FILTREXX LOW IMPACT DESIGN MANUAL, VERSION 8, SECTION 1: EROSION & SEDIMENT CONTROL, PAGE 324.

***TRENCH PLUG DESIGN BASED ON THE TABLE PROVIDED ON THE TRENCH PLUG DETAIL ON SHEET 5. SOME TRENCH PLUGS HAVE BEEN OVER-DESIGNED AT THE DISCRETION OF THE ENGINEER BASED ON EXISTING FIELD CONDITIONS.

IFC

08/01/14
DATE

SUMMARY OF MATERIALS

MRKR #	QTY.	DESCRIPTION

REFERENCE DRAWINGS

DWG.	DESCRIPTION

REVISIONS

NO.	DATE	DESCRIPTION

CREATION TO COMPLETION
www.cesoinc.com
Engineering • Architecture • Survey • Construction Mgt • Environmental

OX11-OX13 PIPELINE

E&S TABLES AND QUANTITIES

STATION(S): N/A

CONSOL ENERGY
200 EVERGREENE DRIVE
WAYNESBURG, PA 15370

DATE:	08/01/14
JOB NO.:	90126
DESIGN:	BEM
DRAWN:	BEM
CHECKED:	BJM
SHEET NO.	10 of 10

CREATION TO COMPLETION

Attachment D- Project Location-
Adjacent and/or Affected Landowners

TAX ID: 09-06-0003-0002-0000-6001

NAME OF SURFACE OWNER/OWNERS: I.L. Ike Morris

ADDRESS OF PROPERTY: Route 23, West Union, WV 26456

ADDRESS OF SURFACE OWNER/OWNERS: P.O. Box 397, Glenville, WV 26351

TAX ID: 09-07-0015-0003-0001-0000

NAME OF SURFACE OWNER/OWNERS: Jerry L. and Sharon Leggett

ADDRESS OF PROPERTY: Route 40, New Milton, WV 26411

ADDRESS OF SURFACE OWNER/OWNERS: Rt. 1 Box 59A, New Milton, WV 26411

STATE OF WEST VIRGINIA,
COUNTY OF DODDRIDGE, TO WIT

I, Virginia Nicholson, Editor of THE HERALD RECORD, a weekly newspaper published regularly, in Doddridge County, West Virginia, Do Hereby Certify That the Accompanying Legal Notice Entitled:

Floodplain Permit Application
Permit # 14-254

was published in said paper for 2

successive weeks beginning with the issue of August 19th 2014 and ending with the issue of August 26th 2014 and that said notice contains 189

WORD SPACE at .115 cents a word amounts to the sum of $ 21.74

FOR FIRST PUBLICATION, SECOND PUBLICATION IS 75% OF THE FIRST PUBLICATION

$ 16.31

and each publication thereafter

$ 38.05 TOTAL

EDITOR

Virginia Nicholson

SWORN TO AND SUBSCRIBED BEFORE ME THIS THE 28th DAY OF August 2014

NOTARY PUBLIC

Laura J Adams

OFFICIAL SEAL
Notary Public, State Of West Virginia
LAURA J ADAMS
212 Edmond Street
West Union, WV 26456
My Commission Expires June 14, 2023

THE HERALD RECORD

Legal Advertisement

LEGAL ADVERTISEMENT:
Doddridge County
Floodplain Permit Application

Please take notice that on the 4th day of August, 2014 CONSOL, CESO, & Cone Gathering, LLC filed an application for a Floodplain Permit to develop land located at or about Southwest District 39.168227N/80.748344W to 39.168227N/80.760058W Permit #14-254 CONSOL OX-11 (to OX-13) Pipeline (Note: This project is not within the floodplain). The Application is on file with the Clerk of the County Court and may be inspected or copied during regular business hours. As this project is outside the FEMA identified floodplain of Doddridge County, Doddridge County Floodplain Management has no regulatory authority. Any interested persons who desire to comment shall present the same in writing by September 8, 2014

Delivered to the:
Clerk of the County Court
118 E. Court Street, West Union, WV 26456
Beth A. Rogers, Doddridge County Clerk
Edwin L. "Bo" Wriston, Doddridge County Flood Plain Manager

8-19-2xb