



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: #20-572

Date Approved: May 11, 2020 Expires: May 11, 2021

Issued to: MarkWest Liberty Midstream & Resources POC: Richard Lowry

Company Address: 320 South View Drive, Suite 200 Bridgeport, WV 26330

Project Address: 320 South View Drive, Suite 200 Bridgeport, WV 26330

Firm: 54017C0105C

**Lat/Long: 39.278330N, -80.684775W
39.399618N, -80.647173W**

Purpose of Development: Renewal Permit #20-572

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

Date: May 11, 2020

For additional information regarding this permit, please contact
Doddridge County Floodplain Manager at 304.873.2631, or via email at
doddridgecountyfpm@gmail.com
118 East Court Street; West Union, WV 26456

160032

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

133 BALDWIN ROAD
PITTSBURGH, PA 15205
(412) 429-2324

PNC BANK, N.A.
Pittsburgh, PA

8-07430



CHECK DATE 4/2/2020

PAY Two Thousand Five Hundred Sixty Two and 50/100 Dollars

TO Doddridge County Commission

AMOUNT 2,562.50

AUTHORIZED SIGNATURE

⑆160032⑆ ⑆043000096⑆ ⑆0002272405⑆

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

160032

Check Date: 4/2/2020

Invoice Number	Date	Voucher	Amount	Discounts	Previous Pay	Net Amount
CR131	4/2/2020	000000357073	2,562.50			2,562.50
Doddridge County Commission - Operating Account			TOTAL			2,562.50
		11261				

APR 29 1:38PM

COPY

FP
#20-572

COPY

Security features. Details on back.

FLOODPLAIN PERMIT #20-572

Mark West, Sherwood to Mobley Pipeline, Renewal of FP #19-549, 39.278330, -80.684775/39.399618, -80.647173

TASK	COMPLETE (DATE)	NOTES
<i>CHECK RECEIVED</i>	4/15/2020	
<i>US ARMY CORP. ENGINEERS (USACE)</i>		
<i>US FISH & WILDLIFE SERVICES (USFWS)</i>		
<i>WV DEPT. NATURAL RESOURCES (WVDNR)</i>		
<i>WV DEPT. ENVIROMENTAL PROTECTION (WVDEP)</i>		
<i>STATE HISTORIC & PRESERVATION OFFICE (SHPO)</i>		
<i>OFFICE of LAND & STREAM (OLS)</i>		
<i>DATE OF COMMISSION READING</i>	4/21/2020	No Reading at commission meeting due to the Coronavirus (COVID-19) emergency. All permits processed during this time will be done as though they have been read
<i>DATE AVAILABLE TO BE GRANTED</i>	5/11/2020	
<i>PERMIT GRANTED</i>		
<i>COMPLETE</i>		



Doddridge County Floodplain Permits

(Week of April 20, 2020)

Please take notice that on the **(15th) of (April), 2020, (Mark West)** filed an application for a Floodplain Permit **(#20-572)** to develop land located at or about **(Buckeye Creek/McElroy Creek); Coordinates: 39.278330, -80.684775 / 39.399618, -80.647173**. 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 **(May 11, 2020)** (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 the Sherwood to Mobley pipeline project renewal of floodplain permit #19-549**



GEORGE C. EIDEL, CFM

Doddridge County Floodplain Manager



APR 22 20 11:14AM

west virginia department of environmental protection

Division of Waster and Water Management
601 57th Street SE
Charleston West Virginia 25304-2345
Phone: 304-926-0495
Fax: 304-926-0496

Austin Caperton, Cabinet Secretary
dep.wv.gov

May 28, 2019

Markwest Liberty Midstream & Resources, LLC
Mr. Richard Lowry
4600 J. Barry Court, Suite 500
Canonsburg, PA 15317

Re: Permit Registration No.
WVR311004, Doddridge Co.
Sherwood to Mobley 20" NGL
Acres Permitted to be Disturbed (416.9)

Dear Permittee:

You are now authorized to operate under General Permit No. WV0116815 to discharge stormwater associated with construction activities. This registration form should be kept with your copy of the General Permit. You should carefully read the contents of the permit and become familiar with all requirements needed to remain in compliance.

Although you should be aware of all the terms and conditions of this permit, we wish to advise you of the following important requirements:

1. In accordance with Section G.5.a. of the General Permit, you have developed a complete storm water pollution prevention plan. This plan is to be retained on site and be available for review by the Director or the Director's authorized representative as of the date of your coverage by the General Permit, which is the date of this letter.

2. The erosion control measures approved by this Agency for this project shall be maintained in proper condition to individually and collectively perform the functions for which they were designed. In order to ensure the efficiency and proper maintenance of these measures, the permittee shall make sufficiently frequent, periodic inspections to detect any impairment of the designed stability, capacity or environmental requirements of the approved measures. The permittee shall take immediate steps to correct any such impairment found to exist.

3. If this Stormwater Pollution Prevention Plan (SWPPP) proves to be ineffective in controlling erosion and the sediment in storm water discharges associated with industrial/construction activities, or site conditions change, the Permittee shall amend the SWPPP and install appropriate sediment and/or control devices in accordance with Section III.C.1. of this permit and the application instructions

Promoting a healthy environment.

4. This project is located in a watershed with an approved Total Maximum Daily Load (TMDL). The use of Enhanced BMP's is required in accordance with Section C.12.a. Pursuant to the re-issued General Permit this Registration will expire on 24th of May 2020. If the project does not meet stabilization requirements (G.5.e.2.A.1.c.) for termination of General Permit coverage at or before the date of expiration, which is verified by the submittal of a Notice of Termination (NOT) form, the permittee must reapply for General Permit coverage.

5. Final stabilization means disturbed areas shall be covered by the appropriate permanent protection. Final stabilization includes: pavement; compacted gravel; permeable pavement/pavers; buildings; stable waterways (riprap, concrete, grass or pipe); a healthy, vigorous stand of perennial grass that uniformly covers at least 70 percent of the ground; stable outlet channels with velocity dissipation which directs site runoff to a natural watercourse; and any other approved structure or material.

You will be invoiced for your annual permit fees one month prior to the anniversary date of today's date. Failure to submit the annual fee within 90 days of the due date will render your permit void upon the date you are mailed a certified written notice to that effect.

Issuance of this registration does not authorize any injury to persons or property or invasion of other private rights, or any infringement of federal, state or local law or rules.

Your efforts toward preventing the degradation of our natural resources are greatly appreciated. If you have any questions, please contact **Joseph Cochran** at (304) 926-0499 Ext. **1069** or by email at joseph.w.cochran@wv.gov.

Harold D. Ward
Acting Director
WV DEP-Division of Water & Waste Mgt.
601 57th St SE
Charleston, WV 25304-2345
Phone: (304) 926-0495
Fax: (304) 926-0463



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
HUNTINGTON DISTRICT, CORPS OF ENGINEERS
502 EIGHTH STREET
HUNTINGTON, WEST VIRGINIA 25701-2070

January 9, 2018

01-09-2018 11:14 AM

Regulatory Division
Energy Resource Branch
LRH-2017-00932-OHR-Middle Island Creek

NATIONWIDE PERMIT NO. 12 VERIFICATION

Rick Lowry
MarkWest Liberty Midstream & Resources LLC
4600 J. Barry Court, Suite 500
Canonsburg, Pennsylvania 15317

Dear Mr. Lowry:

I refer to the Pre-Construction Notification (PCN) received in this office on November 8, 2017, and additional information received November 15, 2017, concerning the Sherwood to Mobley Pipeline project. The proposed project is located in the Middle Island Creek watershed in West Union in Doddridge and Wetzel counties, West Virginia. Middle Island Creek is an indirect tributary to the Ohio River, a traditional navigable water of the United States. Your PCN has been assigned the following file number: LRH-2017-00932-OHR-Middle Island Creek. Please reference this number on all future correspondence related to this project.

The United States Army Corps of Engineers' (Corps) authority to regulate waters of the United States is based on the definitions and limits of jurisdiction contained in 33 CFR 328 and 33 CFR 329. Section 404 of the Clean Water Act (Section 404) requires a Department of the Army (DA) permit be obtained prior to discharging dredged or fill material into waters of the United States, including wetlands. Section 10 of the Rivers and Harbors Act of 1899 (Section 10) requires a DA permit be obtained for any work in, on, over or under a navigable water.

The proposed project, as described in the submitted information, has been reviewed in accordance with Section 404 and Section 10. Based on your description of the proposed work, and other information available to us, it has been determined that this project will not involve activities subject to the requirements of Section 10. However, this project will include the discharge of dredged or fill material into waters of the United States subject to the requirements of Section 404.

In the submitted PCN materials received in this office on November 8, 2017, and additional information received November 15, 2017, you have requested a DA authorization for the discharge dredged and/or fill material into approximately 2642 linear feet of forty-one (41) streams and 0.408 acre of fourteen (14) wetlands, as listed on the enclosed Table 1, at 55 separate and distant locations, in association with the Sherwood to Mobley Pipeline project. We have determined these proposed discharges of dredged and/or fill material into waters of the

United States associated with the 55 single and complete projects meet the criteria for Nationwide Permit Number (NWP) No. 12 under the January 6, 2017, Federal Register, Issuance of NWPs (82 FR 1860) provided you comply with all terms and conditions of the enclosed material, the enclosed special conditions, and the 401 Water Quality Certification (401 WQC) issued by the West Virginia Department of Environmental Protection. Please be aware this NWP verification does not obviate the requirement to obtain any local, state or federal assent required by law for the activities.

This verification is valid until the expiration date of the NWPs, unless the NWP authorization is modified, suspended, or revoked. The verification will remain valid if the NWP authorization is reissued without modification or the activity complies with any subsequent modification of the NWP authorization. All of the existing NWPs are scheduled to be modified, reissued, or revoked on March 18, 2022. Prior to this date, it is not necessary to contact this office for re-verification of your project unless the plans for the proposed activity are modified. Furthermore, if you commence or under contract to commence this activity before March 18, 2022, you will have twelve (12) months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this NWP.

Enclosed is a copy of the NWPs and the 401 WQC to be kept at the project site during construction. You shall supply a copy of these documents to your project engineer responsible for construction activities.

Upon completion of the work, the enclosed certification must be signed and returned to this office. If you have any questions concerning the above, please contact Rachel Klug of the Energy Resource Branch at 304-399-5858, by mail at the above address, or by email at: rachel.a.klug@usace.army.mil.

Sincerely,

SPAGNA.T

ERESA.D.12

29740519

Digitally signed by
SPAGNA.TERESA.D.1229740519
DN: cn=US, o=U.S. Government,
ou=DoD, ou=PRK, ou=USA,
c=US, email=SPAGNA.TERESA.D.1229740519
Date: 2018.01.09 08:32:55 -05'00'

Teresa D. Spagna
Chief, North Branch

Enclosures

**SPECIAL CONDITIONS FOR THE
NATIONWIDE PERMIT NO. 12 VERIFICATION FOR
Sherwood to Mobley Pipeline Project
LRH-2017-00932-OHR-Middle Island Creek**

1 of 2

APR 20 11:14AM

1. Enclosed is a copy of Nationwide Permit 12, which will be kept at the site during construction. A copy of the nationwide permit verification, special conditions, and the enclosed construction plans must be kept at the site during construction. The permittee will supply a copy of these documents to their project engineer responsible for construction activities.
2. Upon completion of the activity authorized by this nationwide permit verification, the enclosed certification must be signed and returned to this office along with as-built drawings showing the location and configuration, as well as all pertinent dimensions and elevations of the activity authorized under this nationwide permit verification.
3. Construction activities will be performed during low flow conditions to the greatest extent practicable. Additionally, appropriate site specific best management practices for sediment and erosion control will be fully implemented during construction activities at the site.
4. No area for which grading has been completed will be unseeded or unmulched for longer than 14 days. All disturbed areas will be seeded and/or revegetated with native species and approved seed mixes (where practicable) after completion of construction activities for stabilization and to help preclude the establishment of non-native invasive species
5. Should new information regarding the scope and/or impacts of the project become available that was not submitted to this office during our review of the proposal, the permittee must submit written information concerning proposed modification(s) to this office for review and evaluation, as soon as practicable.
6. In the event any previously unknown historic or archaeological sites or human remains are uncovered while accomplishing the activity authorized by this nationwide permit authorization, the permittee must cease all work in waters of the United States immediately and contact local, state and county law enforcement offices (only contact law enforcement on findings of human remains), the Corps at 304-399-5210 and West Virginia Historic Preservation Office at 304-558-0220. The Corps will initiate the Federal, state and tribal coordination required to comply with the National Historic Preservation Act and applicable state and local laws and regulations. Federally recognized tribes are afforded a government-to-government status as sovereign nations and consultation is required under Executive Order 13175 and 36 CFR Part 800.

**SPECIAL CONDITIONS FOR THE
NATIONWIDE PERMIT NO. 12 VERIFICATION FOR
Sherwood to Mobley Pipeline Project
LRH-2017-00932-OHR-Middle Island Creek**

2 of 2

Based upon the results of the summer mist net survey titled "Indiana Bat and Northern Long-Eared Bat Mist Net Survey Along the Proposed Markwest Sherwood to Mobley Pipeline Project Doddridge and Wetzel Counties, West Virginia" and dated October 26 2017, no federally-listed endangered Indiana bats (*Myotis sodalis*) were detected, however, twenty-seven (27) of the mist net sites were within the Indiana bat known use area. Sixty-eight (68) northern long-eared bats (*Myotis septentrionalis*) were captured and none were tracked during the bat mist net survey. The 4(d) rule for the northern long-eared bat applies (<http://www.fws.gov/midwest/endangered/mammals/nleb/index.html>). MarkWest has committed to implement seasonal tree clearing restrictions within the known use area between November 15 and March 31, and between August 1 and May 31 in areas outside of the known use area to ensure that direct effects to any Indiana bats that may be potentially present within the project area are avoided. Tree clearing will not result in any unauthorized incidental take of the northern long-eared bats. The survey will expire on May 15, 2022. If a significant amendment is proposed to change or expand this project, or if timber will be removed after that date, a new survey may be necessary and the United States Fish and Wildlife Service must be contacted. The United States Fish and Wildlife Service may be contacted by mail at 694 Beverly Pike, Elkins, West Virginia or by phone at (304) 636-6586.

7. Section 7 obligations under Endangered Species Act must be reconsidered if new information reveals impacts of the project that may affect federally listed species or critical habitat in a manner not previously considered, the proposed project is subsequently modified to include activities which were not considered during Section 7 consultation with the United States Fish and Wildlife Service, or new species are listed or critical habitat designated that might be affected by the subject project.

**Table 1.
Authorized Discharge of Dredged and/or Fill Material into Waters of the United States**

Feature	Impact Length (lf)	Impact Area (ac)	Type of Impact	Nature of Disturbance
UNT-115	68	0.009	Temporary	Pipeline Crossing
UNT-111	67	0.008	Temporary	Pipeline Crossing
Richwood Run	66	0.027	Temporary	Pipeline Crossing
UNT-58	67	0.010	Temporary	Pipeline Crossing
Wetland X	N/A	0.005	Temporary	Pipeline Crossing
Wetland W	N/A	0.031	Temporary	Pipeline Crossing
UNT-51	80	0.013	Temporary	Pipeline Crossing
UNT-122	66	0.008	Temporary	Pipeline Crossing
UNT-56	75	0.014	Temporary	Pipeline Crossing
UNT-50	67	0.020	Temporary	Pipeline Crossing
UNT-49	35	0.001	Temporary	Pipeline Crossing
Wetland S	N/A	0.005	Temporary	Pipeline Crossing
Wetland T	N/A	0.011	Temporary	Pipeline Crossing
Wetland U	N/A	0.001	Temporary	Pipeline Crossing
Arches Fork	79	0.042	Temporary	Pipeline Crossing
UNT-47	71	0.015	Temporary	Pipeline Crossing
UNT-150	71	0.010	Temporary	Pipeline Crossing
Wetland AZ	N/A	0.041	Temporary	Pipeline Crossing
UNT-81	71	0.011	Temporary	Pipeline Crossing
UNT-21	72	0.012	Temporary	Pipeline Crossing
UNT-44	68	0.010	Temporary	Pipeline Crossing
UNT-136	18	0.002	Temporary	Pipeline Crossing
UNT-133	66	0.008	Temporary	Pipeline Crossing
UNT-42	104	0.017	Temporary	Pipeline Crossing
Franks Run	71	0.024	Temporary	Pipeline Crossing
UNT-40	72	0.011	Temporary	Pipeline Crossing
UNT-38	66	0.009	Temporary	Pipeline Crossing
UNT-36	79	0.011	Temporary	Pipeline Crossing
UNT-37	24	0.001	Temporary	Pipeline Crossing
UNT-106	71	0.011	Temporary	Pipeline Crossing
Wetland AV	N/A	0.016	Temporary	Pipeline Crossing
Wetland AU	N/A	0.112	Temporary	Pipeline Crossing
UNT-104	71	0.008	Temporary	Pipeline Crossing
Wetland AT	N/A	0.002	Temporary	Pipeline Crossing
UNT-103	36	0.001	Temporary	Pipeline Crossing
UNT-102	68	0.011	Temporary	Pipeline Crossing

**Table 1.
Authorized Discharge of Dredged and/or Fill Material into Waters of the United States**

Feature	Impact Length (lf)	Impact Area (ac)	Type of Impact	Nature of Disturbance
UNT-26	81	0.011	Temporary	Pipeline Crossing
Wetland D	N/A	0.009	Temporary	Pipeline Crossing
UNT-63	66	0.005	Temporary	Pipeline Crossing
UNT-9	69	0.010	Temporary	Pipeline Crossing
UNT-18	67	0.018	Temporary	Pipeline Crossing
Wetland AR	N/A	0.015	Temporary	Pipeline Crossing
Riggins Run	74	0.009	Temporary	Pipeline Crossing
Wetland AQ	N/A	0.117	Temporary	Pipeline Crossing
Wetland 4A	N/A	0.018	Temporary	Pipeline Crossing
UNT-97	71	0.012	Temporary	Pipeline Crossing
Wetland AM	N/A	0.025	Temporary	Pipeline Crossing
Flint Run	65	0.027	Temporary	Pipeline Crossing
Morgans Run	66	0.019	Temporary	Pipeline Crossing
UNT-160	67	0.004	Temporary	Pipeline Crossing
Righthand Fork Morgans Run	67	0.009	Temporary	Pipeline Crossing
UNT-3	43	0.001	Temporary	Pipeline Crossing
UNT-4	73	0.010	Temporary	Pipeline Crossing
McElroy Creek	20	0.017	Temporary	Pipeline Crossing
Morgans Run	44	0.012	Temporary	Pipeline Crossing
Total	2,642	0.896		



DIVISION OF NATURAL RESOURCES
324 Fourth Avenue, Room 200
South Charleston WV 25303-1228
TDD (304) 558-1439
TDD 1-800-354-6087
Fax (304) 558-6048
Telephone (304) 558-3225

Jim Justice
Governor

Stephen S. McDaniel
Director

NOV 20 11:24 AM

November 22, 2017

Division of Natural Resources
LICENSE AND RIGHT OF ENTRY

Re: P-17-I/52-1942

Markwest Liberty Midstream and Resources, LLC
Rick Lowry
c/o Civil & Environmental Consultants, Inc.
Attention: Jacquelyn Kester
600 Market Place Ave., Suite 200
Bridgeport, WV 26330-

Dear Mr. Lowry:

The Division of Natural Resources hereby grants to you for a term of ten (10) years, from the date hereof, a License and Right of Entry to construct, replace, cover, repair, operate, maintain, use and remove a twelve inch (12") pipeline at one (1) location and a twenty inch (20") pipeline at twelve (12) separate locations (Sherwood to Mobley Pipeline Project) along Richwood Run, unnamed tributaries of Richwood Run, an unnamed tributary of Fallen Timber Run, South Fork Fishing Creek, an unnamed tributary of South Fork Fishing Creek, Arches Fork, and unnamed tributaries of Arches Fork, near Smithfield in Wetzel County, West Virginia, as shown located and highlighted in red on the map attached hereto as Exhibit A.

This License and Right of Entry is subject to the following terms and conditions:

High Quality Streams (HQS) as listed in the West Virginia Division of Natural Resources High Quality Stream Sixth Edition published in 2001 and for any trout streams and direct tributaries of trout streams:

- Directional boring is the only method permitted during the fish spawning season. Fish spawning season for warmwater streams runs from April 1st through June 30th. Trout spawning season runs from October 1st through April 30th.
- Other dry ditch methods (pump around, flume or cofferdam) as described in WVDEP water resources manual (published 2006) on page 3.21-4 may be used outside of spawning seasons.
- Each crossing that utilizes dry ditch methods must be completed in 2 consecutive work days.

Non-high quality stream:

- Directional boring or other dry ditch methods (pump around, flume or cofferdam) as described in WVDEP water resources manual (published 2006) on page 3.21-4 may be used at all times during fish spawning season from April 1st through June 30th. This eliminates the need for spawning season restrictions.
- Crossings using methods other than directional boring. Must be completed in 1 work day.
- Only ephemeral/intermittent streams that are dry can be trenched.

Bank Stabilization

All bank stabilization projects must begin immediately upon completion of utility line crossing and be completed within 24 hours of completion of utility line crossing.

Freshwater Mussels

Mussel surveys on streams with known US Fish and Wildlife listed or candidate endangered species will be required if directional boring is not an option. Contact Janet Clayton of the WVDNR Wildlife Diversity Program for information concerning mussels at 304-637-0245.

For further assistance, contact the appropriate WVDNR District Fisheries Biologist.
District 1 304-825-6787 District 2 304-822-3551 District 3 304-924-6211
District 4 304-256-6947 District 5 304-675-0871 District 6 304-420-4550

The issuance of this License and Right of Entry by the Division of Natural Resources does not preclude the necessity to obtain a permit from the Corps of Engineers or any other state or federal permits which may be required by law, nor does this License and Right of Entry negate the need to comply with the West Virginia Water Pollution Control Act and/or the State Environmental Quality Board's administrative regulations, applicant is also responsible for determining if the proposed activity is located within an identified flood plain and it is the applicant's responsibility for contacting the local governmental agency in charge of that program and obtaining a flood plain development permit for it. This License and Right of Entry does not grant any rights or privileges, or permission to enter upon or to cross the property of any other person, nor is permission granted to remove any material that lies upon the property of any other persons. Work should be completed in as brief a period as possible and within one year from the date of this letter. In the event you fail or refuse to comply with any of the terms or conditions herein, this License and Right of Entry will be canceled and considered null and void and the Division will reject further applications.

Your check in the amount of \$3475.00 is now due and payable to the Division of Natural Resources covering the (10) ten-year fee of this agreement. Your agreement will be effective upon receipt of your payment in full.

Sincerely,


Joe T. Scarberry, Supervisor
Office of Land and Streams

JTS:cb

attachment

pc: DNR Fish Biologist
Jeremy Bandy, Environmental Enforcement
DNR Conservation Officers



11/20/17 11:13AM

DIVISION OF NATURAL RESOURCES

**324 Fourth Avenue, Room 200
South Charleston WV 25303-1228**

TDD (304) 558-1439

TDD 1-800-354-6087

Fax (304) 558-6048

Telephone (304) 558-3225

November 22, 2017

Jim Justice
Governor

Stephen S. McDaniel
Director

**Division of Natural Resources
RIGHT OF ENTRY**

Re: LS-17-I/52-1943

Markwest Liberty Midstream and Resources, LLC
Rick Lowry
c/o Civil & Environmental Consultants, Inc.
Attention: Jacquelyn Kester
600 Market Place Ave., Suite 200
Bridgeport, WV 26330-

Dear Mr. Lowry:

The Division of Natural Resources hereby grants to you for a period of ten (10) years from the date hereof, a Right of Entry to install, use and maintain a timber mat crossing at twenty-two (22) separate locations (Sherwood to Mobley Pipeline Project) along Richwood Run, unnamed tributaries of Richwood Run, unnamed tributaries of Fallen Timber Run, unnamed tributaries of South Fork Fishing Creek, Arches Fork, and unnamed tributaries of Arches Fork near Smithfield in Wetzel County, West Virginia.

This Right of Entry is subject to the following terms and conditions:

1. No in stream work during the fish-spawning season (April 1-June 30).
2. Work should be completed as quickly as possible during low flows in designated work areas only.
3. Any streambed disturbance should be restricted to the immediate area. In stream use of equipment should be kept to a minimum.
4. All shore areas disturbed by this operation must be reshaped, seeded and mulched immediately upon completion of work. The prompt establishment of vegetative cover will reduce future damage from high water levels.
5. Green concrete must not be put in the stream (highly toxic to aquatic life).
6. Guidance should be obtained from NRCS (formerly SCS) and a registered engineer for the design and construction. Must allow for passage of at least ten-year year flood flow.

Markwest Liberty Midstream and Resources, LLC

LS-17-I/52-1943

Page 2

November 22, 2017

7. Best management practices should be followed; measures such as hay bales must be used to reduce downstream siltation.
8. Applicant is responsible for removing debris from in and around the installation periodically to prevent stream flow obstruction.
9. Durable head walls of logs, crossties, rock, or concrete shall be constructed at both the upstream and downstream ends of crossing to prevent erosion of fill material into the stream.
10. The State's issuance of this Right-of-Entry does not provide for the applicant to work outside the requested boundaries nor does the State assume any liability for the applicant's/landowner's construction activities. By accepting this Right-of-Entry, the applicant/landowner assumes liability for any/all damages caused by this activity to both upstream and downstream landowners.

Guidelines of Best Management Practices for Sediment and Erosion Control as outlined by the Section of Water Resources, Division of Environmental Protection must be followed. Copies of those guidelines are available from the Section of Water Resources, Telephone No. (304) 926-0440.

The issuance of this Right of Entry by the Division of Natural Resources does not preclude the necessity for you to obtain a permit from the U.S. Corps of Engineers District Office, Permit Section, or any other state or federal permits which may be required by law, nor does this Right of Entry negate the need to comply with the West Virginia Water Pollution Control Act and/or the State Environmental Quality Board's administrative regulations, applicant is also responsible for determining if the proposed activity is located within an identified flood plain and it is the applicant's responsibility for contacting the local governmental agency in charge of that program and obtaining a flood plain development permit for it. This Right of Entry does not grant any rights or privileges, or permission to enter upon or to cross the property of any other person, nor is permission granted to remove any material that lies upon the property of any other persons. Work should be completed in as brief a period as possible and within one year from the date of this letter. In the event you fail or refuse to comply with any of the terms or conditions herein, this Right of Entry will be canceled and considered null and void and the Division will reject further applications.

Your payment is now due and payable in the amount of \$2200.00 to the Division of Natural Resources covering the first year's annual fee of this agreement. Your agreement will be effective upon receipt of your payment in full. You must notify this office in writing when this installation has been removed.

Sincerely,


Joe T. Scarberry, Supervisor
Office of Land and Streams

JTS:cb

pc: DNR Fish Biologist
Jeremy Bandy, Environmental Enforcement
DNR Conservation Officers



DIVISION OF NATURAL RESOURCES

324 Fourth Avenue, Room 200
South Charleston WV 25303-1228
TDD (304) 558-1439
TDD 1-800-354-6087
Fax (304) 558-6048
Telephone (304) 558-3225

Jim Justice
Governor

Stephen S. McDaniel
Director

November 22, 2017

Division of Natural Resources
LICENSE AND RIGHT OF ENTRY

Re: P-17-VI/09-1944

Markwest Liberty Midstream and Resources, LLC
Rick Lowry
c/o Civil & Environmental Consultants, Inc.
Attention: Jacquelyn Kester
600 Market Place Ave., Suite 200
Bridgeport, WV 26330-

Dear Mr. Lowry:

The Division of Natural Resources hereby grants to you for a term of ten (10) years, from the date hereof, a License and Right of Entry to construct, replace, cover, repair, operate, maintain, use and remove a twenty inch (20") pipeline at twenty-nine (29) separate locations (Sherwood to Mobley Pipeline Project) along unnamed tributaries of Beverlin Fork, Franks Run, unnamed tributaries of Franks Run, McElroy Creek, Riggins Run, unnamed tributaries of Riggins Run, Flint Run, Morgans Run, unnamed tributaries of Morgans Run, Righthand Fork Morgans Run, and Buckeye Creek, near Smithfield in Doddridge County, West Virginia, as shown located and highlighted in red on the map attached hereto as Exhibit A.

This License and Right of Entry is subject to the following terms and conditions:

High Quality Streams (HQS) as listed in the West Virginia Division of Natural Resources High Quality Stream Sixth Edition published in 2001 and for any trout streams and direct tributaries of trout streams:

- Directional boring is the only method permitted during the fish spawning season. Fish spawning season for warmwater streams runs from April 1st through June 30th. Trout spawning season runs from October 1st through April 30th.
- Other dry ditch methods (pump around, flume or cofferdam) as described in WVDEP water resources manual (published 2006) on page 3.21-4 may be used outside of spawning seasons.
- Each crossing that utilizes dry ditch methods must be completed in 2 consecutive work days.

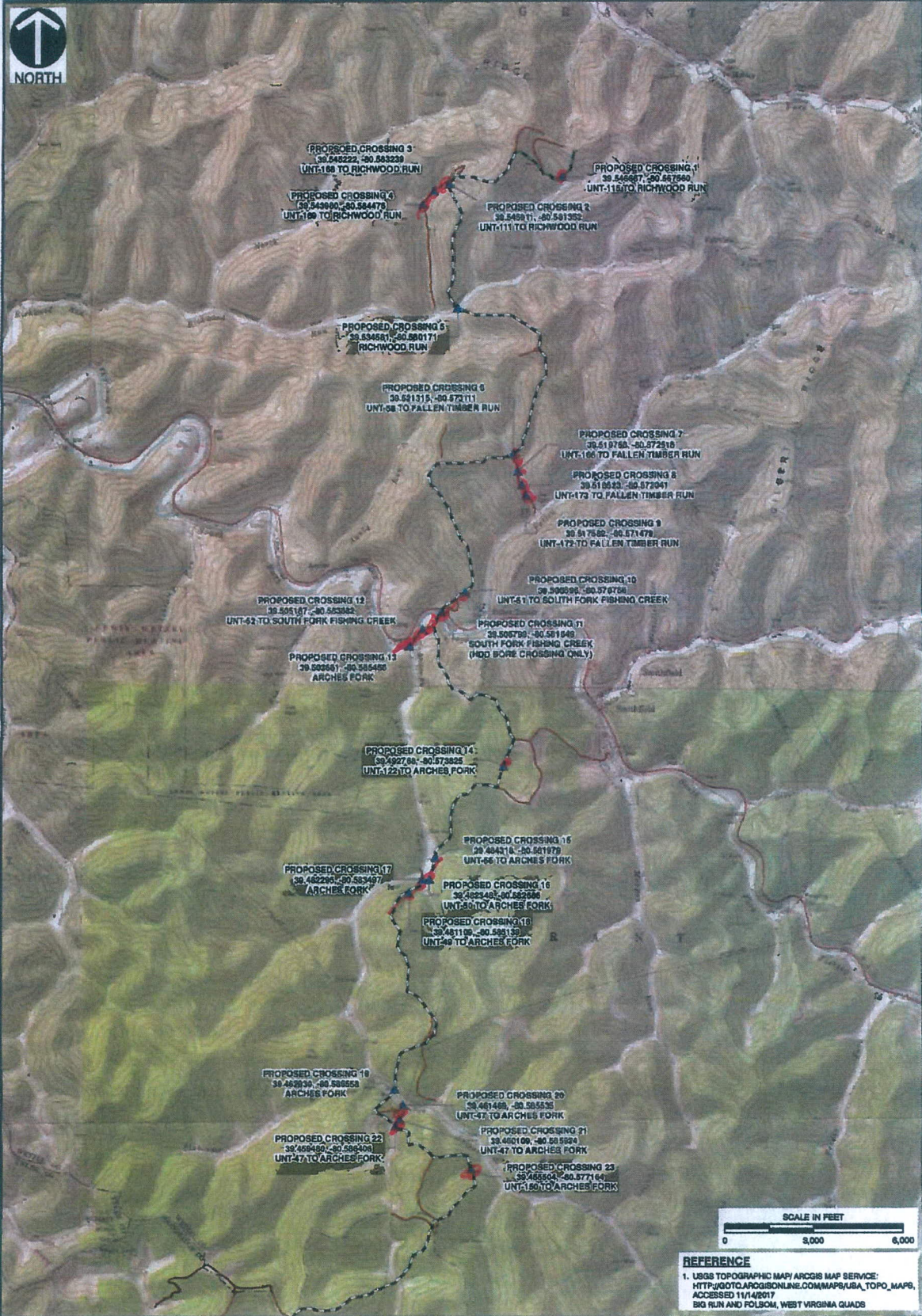



Exhibit A

PR22 20 11:13AM

P-17-E/52-1942

LEGEND	
▲	PROPOSED STREAM CROSSING
---	PROPOSED 20-INCH PIPELINE
---	PROPOSED 12-INCH PIPELINE
---	PROPOSED ACCESS ROAD


Civil & Environmental Consultants, Inc.
 600 Marketplace Avenue, Suite 200 • Bridgeport, WV 26330-6121
 Ph: 304-933-3119 • Toll: 855-488-0530 • Fax: 304-933-3327
www.cecinc.com

DRAWN BY:	GSK	CHECKED BY:	AJL	APPROVED BY:	<i>[Signature]</i> JDJ*	FIGURE NO:	1
DATE:	11/14/2017	SCALE:	1" = 3,000'	PROJECT NO:	171-778.0007		

MARKWEST LIBERTY MIDSTREAM & RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
WETZEL COUNTY, WEST VIRGINIA

USGS SITE LOCATION MAP



11/22/2011 11:03 AM

DIVISION OF NATURAL RESOURCES

324 Fourth Avenue, Room 200
South Charleston WV 25303-1228
TDD (304) 558-1439
TDD 1-800-354-6087
Fax (304) 558-6048
Telephone (304) 558-3225

Jim Justice
Governor

Stephen S. McDaniel
Director

November 22, 2017

Division of Natural Resources
RIGHT OF ENTRY

Re: **LS-17-VI/09-1945**

Markwest Liberty Midstream and Resources, LLC
Rick Lowry
c/o Civil & Environmental Consultants, Inc.
Attention: Jacquelyn Kester
600 Market Place Ave., Suite 200
Bridgeport, WV 26330-

Dear Mr. Lowry:

The Division of Natural Resources hereby grants to you for a period of ten (10) years from the date hereof, a Right of Entry to install, use and maintain a timber mat crossing at thirty-one (31) separate locations, a forty-two inch by twenty foot (42"x20') culvert in the streambed at one (1) locations, and a fourteen foot by sixty foot (14'x60') temporary bridge at one (1) separate location (Sherwood to Mobley Pipeline Project) along unnamed tributaries of Beverlin Fork, Franks Run, unnamed tributaries of Franks Run, McElroy Creek, Riggins Run, unnamed tributaries of Riggins Run, Flint Run, Morgans Run, unnamed tributaries of Morgans Run, Righthand Fork Morgans Run, and Buckeye Creek near Smithfield in Doddridge County, West Virginia.

This Right of Entry is subject to the following terms and conditions:

1. No in stream work during the fish-spawning season (April 1-June 30).
2. Work should be completed as quickly as possible during low flows in designated work areas only.
3. Any streambed disturbance should be restricted to the immediate area. In stream use of equipment should be kept to a minimum.
4. All shore areas disturbed by this operation must be reshaped, seeded and mulched immediately upon completion of work. The prompt establishment of vegetative cover will reduce future damage from high water levels.
5. Green concrete must not be put in the stream (highly toxic to aquatic life).
6. Guidance should be obtained from NRCS (formerly SCS) and a registered engineer for the design and construction. Must allow for passage of at least

ten-year year flood flow.

7. Best management practices should be followed; measures such as hay bales must be used to reduce downstream siltation.
8. Applicant is responsible for removing debris from in and around the installation periodically to prevent stream flow obstruction.
9. Durable head walls of logs, cross-ties, rock, or concrete shall be constructed at both the upstream and downstream ends of crossing to prevent erosion of fill material into the stream.
10. The State's issuance of this Right-of-Entry does not provide for the applicant to work outside the requested boundaries nor does the State assume any liability for the applicant's/landowner's construction activities. By accepting this Right-of-Entry, the applicant/landowner assumes liability for any/all damages caused by this activity to both upstream and downstream landowners.

Guidelines of Best Management Practices for Sediment and Erosion Control as outlined by the Section of Water Resources, Division of Environmental Protection must be followed. Copies of those guidelines are available from the Section of Water Resources, Telephone No. (304) 926-0440.

The issuance of this Right of Entry by the Division of Natural Resources does not preclude the necessity for you to obtain a permit from the U.S. Corps of Engineers District Office, Permit Section, or any other state or federal permits which may be required by law, nor does this Right of Entry negate the need to comply with the West Virginia Water Pollution Control Act and/or the State Environmental Quality Board's administrative regulations, applicant is also responsible for determining if the proposed activity is located within an identified flood plain and it is the applicant's responsibility for contacting the local governmental agency in charge of that program and obtaining a flood plain development permit for it. This Right of Entry does not grant any rights or privileges, or permission to enter upon or to cross the property of any other person, nor is permission granted to remove any material that lies upon the property of any other persons. Work should be completed in as brief a period as possible and within one year from the date of this letter. In the event you fail or refuse to comply with any of the terms or conditions herein, this Right of Entry will be canceled and considered null and void and the Division will reject further applications.

Your payment is now due and payable in the amount of \$3300.00 to the Division of Natural Resources covering the first year's annual fee of this agreement. Your agreement will be effective upon receipt of your payment in full. You must notify this office in writing when this installation has been removed.

Sincerely,


Joe T. Scarberry, Supervisor
Office of Land and Streams

JTS:cb
pc: DNR Fish Biologist
Jeremy Bandy, Environmental Enforcement
DNR Conservation Officers

West Virginia Division of Natural Resources

07/22/20 11:10AM

Invoice

Pay on-line at <http://wvdnr.gov/REM>

Invoice#: 28496

Comp. ID#: 5137

Bill Date: 11/27/2017

In
Acct
With

Markwest Liberty Midstream & Resources, LLC
Attention: Rick Lowry
Rlowry@markwest.com
4600 J. Barry Court, Suite 500
Canonsburg, PA 15317

<u>AGREEMENT</u>	<u>INVOICE PERIOD</u>	<u>AMOUNT PAID</u>	<u>AMOUNT DUE</u>
<u>AGREEMENT DATED 11/22/2017 P-17-I/52-1942</u> Pipeline (Sherwood to Mobley Pipeline Project) along Richwood Run and other tribs, Wetzel Co., WV	For 11/22/2017 to 11/22/2027 Land and Streams/DNR	\$0.00	\$3475.00
<u>AGREEMENT DATED 11/22/2017 P-17-VI/09-1944</u> Pipeline (Sherwood to Mobley Pipeline Project) along unnamed tribs of Beverlin Fork, and other named tribs, Doddridge Co., WV	For 11/22/2017 to 11/22/2027 Land and Streams/DNR	\$0.00	\$7975.00
<u>AGREEMENT DATED 11/22/2017 LS-17-I/52-1943</u> Timber mat crossing (Sherwood to Mobley Pipeline Project) along Richwood Run and other named tribs, Wetzel Co., WV	For 11/22/2017 to 11/22/2018 Land and Streams/DNR	\$0.00	\$2200.00
<u>AGREEMENT DATED 11/22/2017 LS-17-VI/09-1945</u> Timber mat crossing (Sherwood to Mobley Pipeline Project) along unnamed tribs of Beverlin Fork, and other named tribs, Doddridge Co., WV	For 11/22/2017 to 11/22/2018 Land and Streams/DNR	\$0.00	\$3300.00
TOTAL INVOICE:			\$16950.00
NUMBER OF AGREEMENTS:			4

Please Reference Either Invoice Number or Agreement Re: on Payment

WV Division of Natural Resources
Office of Land & Streams
324 Fourth Avenue, Room 200
South Charleston, WV 25303

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT

Brian Eid (304) 558-3225
brian.n.eid@wv.gov

Sherwood to Mobley - Doddridge County, WV

Opinion of Probable Construction Costs - Construction in the Floodplain

Project #: 171-778

4/1/2020

Item	Total Cost
R/W Repairs/Maintenance	\$412,500

Doddridge County Fee	
$1,000 + ((5/1,000) * (412,500 - 100,000)) =$	2562.5



United States Department of the Interior

FISH AND WILDLIFE SERVICE

West Virginia Field Office
694 Beverly Pike
Elkins, West Virginia 26241

December 7, 2017



9922 26 11:10 AM

Ms. Rachel Klug
U.S. Army Corps of Engineers
502 8th Street
Huntington, West Virginia 25701

Re: MarkWest Liberty Midstream & Resources LLC – Sherwood to Mobley Pipeline Project,
Doddridge and Wetzel Counties, West Virginia (FWS File Number 2017-I-0832)

Dear Ms. Klug:

This letter responds to the U.S. Army Corps of Engineers (Corps) request for concurrence dated November 15, 2017, that the Sherwood to Mobley Pipeline project may affect, but is not likely to adversely affect, any federally listed species. MarkWest Liberty Midstream & Resources LLC (MarkWest), the applicant, proposes to construct 28.1 miles of 20-inch diameter and 0.6 miles of 12-inch diameter steel natural gas liquids pipeline for the Sherwood to Mobley Pipeline project in Doddridge and Wetzel Counties, West Virginia. MarkWest proposes to clear approximately 303 forested acres for project construction and operation. This project has been assigned FWS File number 2017-I-0832 and all future correspondence should clearly reference this number. The following comments are provided pursuant to the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

The U.S. Fish and Wildlife Service (Service) has determined that three federally listed species are within the range of the proposed project, and may be affected by the construction and operation of the proposed project. These species are the endangered Indiana bat (*Myotis sodalis*) and snuffbox mussel (*Epioblasma triquetra*), and the threatened northern long-eared bat (*Myotis septentrionalis*) (NLEB).

Federally Listed Bats

The Service has reviewed MarkWest's bat mist-net survey report submitted on October 31, 2017. The survey followed the protocol outlined in the current Range-wide Indiana Bat Summer Survey Guidelines. These Guidelines are acceptable to address the Indiana bat and the NLEB. The survey covered 24 kilometers of potential bat habitat and was conducted at 59 net sites from July 27, 2017 to August 15, 2017. Of these 59 sites, 27 were located within an Indiana bat known maternity use area in Wetzel County. The remaining 32 sites were located outside of the known use area.

According to MarkWest's December 5, 2017, Cave and Portal Survey results, no suitable hibernacula were identified within the project area.

No Indiana bats were captured during mist-net surveys. However, a total of 326 bats were captured within the proposed project area. Of which, 219 (67.2%) were captured at the 27 mist-net sites within the Indiana bat known use area, including 51 NLEB captures (75% of the total NLEB captured). These mist-net survey data (e.g. number of bat captures, rare species captured, and distribution within the known use area) indicate that this area is heavily used by bats. In addition, we note that during peer-review of our survey guidelines, a reviewer/biostatistician informed us that we would need to use a different mathematical formula if we were wanting to set an level of effort for determining probable absence via surveys of an area previously known to be occupied, and that this level of effort would be higher than that needed to survey areas with unknown occupancy. The Service is currently working with the U.S. Geological Survey to determine appropriate level of effort for known use areas. Therefore, while the mist net survey results may suggest potential absence or low usage of the Indiana bat within this project area, the Service recommends that the results of this mist-net survey alone are not enough to discount this known use area as summer maternity habitat for the Indiana bat.

Because a portion of the project is occurring within an Indiana bat known use area, MarkWest has committed to implement seasonal tree clearing restrictions within the known use area between November 15 and March 31, and between August 1 and May 31 in areas outside of the known use area. These conservation measures should ensure that direct effects to any Indiana bats that may potentially be present within the project area are avoided. Therefore based on the results of MarkWest's mist-net surveys and cave/abandoned mine portal surveys, and their commitment to implement time-of-year restrictions, the Service concurs with your determination that this project is not likely to adversely affect the Indiana bat.

Sixty-eight NLEB were captured during the survey effort and none were tracked. Thus, the NLEB occurs within the range of the proposed project, and may be affected by the proposed construction and operation of this project. Any take of NLEB occurring in conjunction with these activities that complies with the conservation measures (as outlined in the 4(d) rule), as necessary, is exempted from section 9 prohibitions by the 4(d) rule and does not require site specific incidental take authorization. Note that the 4(d) rule does not exempt take that may occur as a result of adverse effects to hibernacula and that no conservation measures are required as part of the 4(d) rule unless the proposed Project: 1) involves tree removal within 0.25 miles of known NLEB hibernacula; or 2) cuts or destroys known, occupied maternity roost trees or any other trees within a 150-foot radius around known, occupied maternity tree during the pup season (June 1 to July 31). This proposed project is not located within any of these radii around known hibernacula or roost trees and will not affect any known NLEB hibernacula, therefore any take of NLEB associated with this project is exempted under the 4(d) rule and no conservation measures are required.

Survey results are considered current for 5 years (the summer they are completed and the following four summer seasons). In this case, the survey will expire on May 15, 2021. If a significant amendment is proposed to change or expand this project, or if timber will be removed after that date, a new survey may be necessary and the Service should be contacted.

Ms. Rachel Klug
December 7, 2017

3

Although we do not anticipate that this particular project is likely to adversely affect the Indiana bat, we recommend that any future projects proposed in this area coordinate with the Service to develop conservation measures, and/or determine the appropriate level of effort for surveys, prior to conducting surveys and/or initiating construction activities.

Freshwater Mussels

The proposed project will cross McElroy Creek, which has the potential to provide habitat for the snuffbox mussel. In order to limit the potential for adverse effects on freshwater mussels, MarkWest proposes to cross McElroy Creek via a temporary bridge crossing with one instream pier within the footprint of the existing ford crossing. The West Virginia Division of Natural Resources (WVDNR) conducted a mussel survey at this crossing in 2012 and no federally listed mussels were found at the site. MarkWest has committed to implement erosion and sedimentation control measures, including water bars at both approaches to the bridge and the placement of filter sock along the stream banks and at the outlets of the waterbars. Therefore, based on the results of WVDNR's 2012 mussel survey, and MarkWest's commitment to implement avoidance and minimization measures at the crossing, the Service concurs with your determination that this project is not likely to adversely affect the snuffbox mussel.

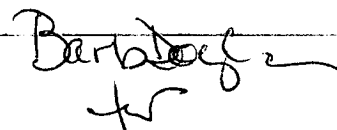
Mussel survey results are considered valid for five years from the date of completion. If the project is not completed before that time, additional survey efforts may be necessary. Please note that if any federally listed species are found during any future survey or relocation efforts for native freshwater mussels, this determination will no longer be considered valid. You should immediately contact the Service and reinstate consultation before proceeding with any further project efforts.

Conclusion

Based on MarkWest's commitment to implement avoidance and minimization measures, including time-of-year restrictions for tree removal, and the results of the bat and mussel surveys, the Service has concluded this project is not likely to adversely affect any federally listed endangered and threatened species. Therefore, no further section 7 consultation under the ESA is required with the Service. The Service requests that the Corps include all of our recommendations, regarding listed species, as mandatory conditions in any Corps permit issued for this project and that the applicant implements all of the measures as proposed. Should project plans change, or if additional information on listed and proposed species becomes available, or new species are listed or critical habitat designated, this determination may be reconsidered.

If you have any questions regarding this letter, please contact Tiernan Lennon of my staff at (304) 636-6586, Ext. 12, or at the letterhead address.

Sincerely,



John E. Schmidt
Field Supervisor

Markwest Liberty Midstream and Resources, LLC
P-17-VI/09-1944
Page 2
November 22, 2017

Non-high quality stream:

- Directional boring or other dry ditch methods (pump around, flume or cofferdam) as described in WVDEP water resources manual (published 2006) on page 3.21-4 may be used at all times during fish spawning season from April 1st through June 30th. This eliminates the need for spawning season restrictions.
- Crossings using methods other than directional boring. Must be completed in 1 work day.
- Only ephemeral/intermittent streams that are dry can be trenched.

APR 22 20 11:13 AM

Bank Stabilization

All bank stabilization projects must begin immediately upon completion of utility line crossing and be completed within 24 hours of completion of utility line crossing.

Freshwater Mussels

Mussel surveys on streams with known US Fish and Wildlife listed or candidate endangered species will be required if directional boring is not an option. Contact Janet Clayton of the WVDNR Wildlife Diversity Program for information concerning mussels at 304-637-0245.

For further assistance, contact the appropriate WVDNR District Fisheries Biologist.
District 1 304-825-6787 District 2 304-822-3551 District 3 304-924-6211
District 4 304-256-6947 District 5 304-675-0871 District 6 304-420-4550

The issuance of this License and Right of Entry by the Division of Natural Resources does not preclude the necessity to obtain a permit from the Corps of Engineers or any other state or federal permits which may be required by law, nor does this License and Right of Entry negate the need to comply with the West Virginia Water Pollution Control Act and/or the State Environmental Quality Board's administrative regulations, applicant is also responsible for determining if the proposed activity is located within an identified flood plain and it is the applicant's responsibility for contacting the local governmental agency in charge of that program and obtaining a flood plain development permit for it. This License and Right of Entry does not grant any rights or privileges, or permission to enter upon or to cross the property of any other person, nor is permission granted to remove any material that lies upon the property of any other persons. Work should be completed in as brief a period as possible and within one year from the date of this letter. In the event you fail or refuse to comply with any of the terms or conditions herein, this License and Right of Entry will be canceled and considered null and void and the Division will reject further applications.

Your check in the amount of \$7975.00 is now due and payable to the Division of Natural Resources covering the (10) ten-year fee of this agreement. Your agreement will be effective upon receipt of your payment in full.

Sincerely,


Joe T. Scarberry, Supervisor
Office of Land and Streams

JTS:cb

attachment

pc: DNR Fish Biologist
Jeremy Bandy, Environmental Enforcement
DNR Conservation Officers



Exhibit A

P-17-0109-1944

LEGEND
 ▲ PROPOSED STREAM CROSSING
 — PROPOSED 20-INCH PIPELINE
 — PROPOSED ACCESS ROAD

REFERENCE
 1. USGS TOPOGRAPHIC MAPS ARCBG MAP SERVICE: [HTTP://GCO.ARCGIS.COM/MAPS/USA_TOPO_MAPS](http://gco.arcgis.com/maps/usa_topo_maps), ACCESSED 11/14/2017, POLSON, CENTER POINT, AND SMITHBURG, WEST VIRGINIA QUADS


Civil & Environmental Consultants, Inc.
 600 Marketplace Avenue, Suite 200 - Bridgeport, WV 26330-9121
 Ph: 304-833-3119 • Toll: 855-469-9530 • Fax: 304-833-3327
www.cecinc.com

MARKWEST LIBERTY MIDSTREAM & RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

USGS SITE LOCATION MAP

DRAWN BY: GSK	CHECKED BY: AJL	APPROVED BY: ^{Hand Signature} <i>JDK*</i>	FIGURE NO: 1
DATE: 11/14/2017	SCALE: 1" = 4,400'	PROJECT NO: 171-778.0007	



George Eidel <doddridgecountyfpm@gmail.com>

Doddridge County Floodplain Permit 19-549 Renewal (Sherwood to Mobley Pipeline)

5 messages

Celender, Rick <rcelender@cecinc.com>
To: George Eidel <doddridgecountyfpm@gmail.com>
Cc: "Johnston, Tim" <tjohnston@cecinc.com>

Tue, Apr 14, 2020 at 1:37 PM

George,

Appended please find a .pdf for the renewal of MarkWest floodplain permit #19-549. We are Fed-x-ing the info and the application fee today.

Let me know if you need anything else for this one.

Regards,

Rick

Richard P. Celender, RLA*, C.E.T., CPESC, CPSWQ

Vice President/ASLA/FAA Remote Pilot

Civil & Environmental Consultants, Inc.

333 Baldwin Road · Pittsburgh, PA 15205-1751

Direct: 412-249-2309 · Fax: 412-429-2114

Mobile: 412-760-0136 · <http://www.cecinc.com>

* Registered Landscape Architect in NY, PA, TX & WV



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20200413-171778-Floodplain Permit Application.pdf
17306K

Celender, Rick <rcelender@cecinc.com>
To: George Eidel <doddridgecountyfpm@gmail.com>
Cc: "Johnston, Tim" <tjohnston@cecinc.com>

Tue, Apr 14, 2020 at 1:52 PM

George,

I forgot to send you how we calculated the fee...see appended.

[Quoted text hidden]



Doddridge County Floodplain Permit Fee Calculation.pdf
217K

George Eidel <doddridgecountyfpm@gmail.com>
To: "Celender, Rick" <rcelender@cecinc.com>

Tue, Apr 14, 2020 at 1:54 PM

Got it, thanks will go through it and get it process as fast as i can.

[Quoted text hidden]

--

George C. Eidel, CFM, OEM Director/Floodplain Manager

Doddridge County Office of Emergency Management
101 Church Street Suite 102
West Union, WV 26456-2095
Work Phone: 1-304-873-1343
Mobile Phone: 1-304-281-7407
Fax: 1-304-873-1840
doddridgecountyfpm@gmail.com

--

CONFIDENTIALITY NOTE: This email message is for the sole use of the intended recipient(s) and may contain confidential, privileged, or sensitive information. Any unauthorized review, use, disclosure, or distribution is strictly prohibited and may be legally accountable.

Celender, Rick <rcelender@cecinc.com>
To: George Eidel <doddridgecountyfpm@gmail.com>
Cc: "Johnston, Tim" <tjohnston@cecinc.com>

Tue, Apr 14, 2020 at 2:05 PM

Thanks George.

We still owe you info for the Smithburg Floodplain (#17-485 Permit) and will get you the No-Rise letter, etc. ASAP.

Hope all is well.

[Quoted text hidden]

George Eidel <doddridgecountyfpm@gmail.com>
To: "Celender, Rick" <rcelender@cecinc.com>
Cc: "Johnston, Tim" <tjohnston@cecinc.com>

Tue, Apr 14, 2020 at 2:06 PM

Great, thanks for the update. Hope you all are doing good, stay safe!!

[Quoted text hidden]

April 13, 2020

Mr. George Eidel
Doddridge County Floodplain Manager
108 Court Street, Suite 1
West Union, WV 26456

APR 15 20 11:08 AM

Dear Mr. Eidel:

Subject: Commercial/Industrial Floodplain Development Permit
Proposed Sherwood to Mobley NGL Pipeline, Doddridge County, West Virginia
CEC Project 171-778

On behalf of MarkWest Liberty Midstream & Resources, LLC (MarkWest), Civil & Environmental Consultants, Inc. (CEC) is submitting this request to extend the Commercial/Industrial Floodplain Development Permit (#19-549) associated with the Sherwood to Mobley NGL Pipeline located in Doddridge and Wetzel Counties, West Virginia. The pipeline serves as a connection from MarkWest's Sherwood Gas Plant to a meter site south of MarkWest's Mobley Gas Plant. The pipeline has been installed, but Right-of-Way repair and maintenance is currently ongoing. The current permit expires on May 27, 2020. CEC understands that this enclosed Floodplain Permit Application and Application Fee are required to extend the permit for one (1) additional year upon approval. On behalf of MarkWest, CEC is submitting the following enclosed information for the Doddridge County Floodplain Development Permit Application:

- The permit fee in the amount of \$2,562.50 (Check No. 160032); and
- The Doddridge County Floodplain Development Permit Application.

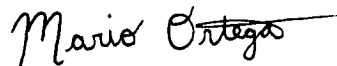
The Sherwood to Mobley NGL Pipeline project is located within the Middle Ohio North Watershed, a tributary of the Ohio River. The pipeline and associated access roads will enter and/or cross the following FEMA Special Flood Hazard Areas:

1. Zone AE of Buckeye Creek located on FEMA FIRM panel number 54107C0145C.
2. Zone AE of Morgan's Run located on FEMA FIRM panel number 54017C0140C.
3. Zone AE of McElroy Creek located on FEMA FIRM panel number 54017C0045C.

Please note, while plans show the pipeline centerline within Buckeye Creek Zone AE floodplain, this was performed via horizontal directional drilling, no maintenance activities are required within this floodplain. No impacts to the base flood elevations in either of the other locations are anticipated because the access roads follow approximate existing grade and the stream equipment crossings are to be achieved with temporary timber mat bridges. Please contact us at 412-429-2324 if you have any questions.

Very truly yours,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.



Mario Ortega
Staff Consultant



Richard P. Celender, RLA, C.E.T., CPESC, CPSWQ
Vice President

Enclosure

171-778-L-Floodplain Permit-4.13.20



Permit#	<u>19-549</u>	<i>New #</i> <u>20-572</u>
Project Name:	<u>Sherwood to Mobley</u> <u>NGL Pipeline</u>	
Permittees Name:	<u>Markwest</u>	

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 *R.P.C.*
Agent for Landowner

DATE April 13, 2020

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

Applicant Information:

Please provide all pertinent data.

Applicant Information		
Responsible Company Name: MarkWest Liberty Midstream & Resources, LLC		
Corporate Mailing Address: 4600 J. Barry Ct., Suite 500		
City: Canonsburg	State: PA	Zip: 15317
Corporate Point of Contact (POC): Richard Lowry		
Corporate POC Title: Environmental Manager – New Construction		
Corporate POC Primary Phone: (724) 416-0520		
Corporate POC Primary Email: RALowry@marathonpetroleum.com		
Corporate FEIN: 30-0528059	Corporate DUNS:	
Corporate Website:		
Local Mailing Address: 320 South View Drive, Suite 200		
City: Bridgeport	State: WV	Zip: 26330
Local Project Manager (PM): Dustin Vincent		
Local PM Primary Phone: (304) 842-2034		
Local PM Secondary Phone: (304) 638-8134		
Local PM Primary Email: DBVincent@marathonpetroleum.com		
Person Filing Application: Richard Lowry		
Applicant Title: Environmental Manager – New Construction		
Applicant Primary Phone: (724) 416-0520		
Applicant Secondary Phone: (412) 925-8165		
Applicant Primary Email: RALowry@marathonpetroleum.com		

Doddridge County Commercial/Industrial Floodplain Development Permit Application

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:
MarkWest is performing Right-of-Way repairs and maintenance for the Sherwood to Mobley
Pipeline project. The pipeline and LOD cross or enter twenty-eight (28) streams located in
Doddridge County, WV. Two of those streams have FEMA designated floodplains: Morgan's Run
(FIRM Panel # 54017C0140C) and McElroy Creek (FIRM Panel # 54017C0045C). No impacts to the
base flood elevations in either of the locations are anticipated because the access roads follow
approximate existing grade and the stream equipment crossings are to be achieved with temporary
timber mat bridges.

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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>	<u>STRUCTURAL TYPE</u>
<input type="checkbox"/> New Structure	<input type="checkbox"/> Residential (1 – 4 Family)
<input type="checkbox"/> Addition	<input type="checkbox"/> Residential (more than 4 Family)
<input type="checkbox"/> Alteration	<input type="checkbox"/> Non-residential (floodproofing)
<input type="checkbox"/> Relocation	<input type="checkbox"/> Combined Use (res. & com.)
<input type="checkbox"/> Demolition	<input type="checkbox"/> Replacement
<input type="checkbox"/> Manufactured/Mobil Home	

B. OTHER DEVELOPMENT 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)

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 1 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: 218 Swisher Lane		
Decimal Latitude/Longitude: N 39.278647°, E -80.684569°		
DMS Latitude/Longitude: 39° 16' 43.13" N, -80° 41' 04.45" E		
District: Grant	Map: 19	Parcel: 32
Land Book Description:		
Deed Book Reference: DBV 406, PG 133		
Tax Map Reference: Tax Map 19		
Existing Buildings/Use of Property: Existing Gas Plant, Existing Stream – Buckeye Creek, Existing Right-of-Way, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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 24

Property Owner Data:		
Name of Primary Owner (PO): Sherwood Midstream Holdings LLC		
PO Address: 1515 Arapahoe St – Tower 1 Suite 1600		
City: Denver	State: CO	Zip: 80202
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Sherwood Midstream Holdings LLC		
PO Address: 1515 Arapahoe St – Tower 1 Suite 1600		
City: Denver	State: CO	Zip: 80202
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

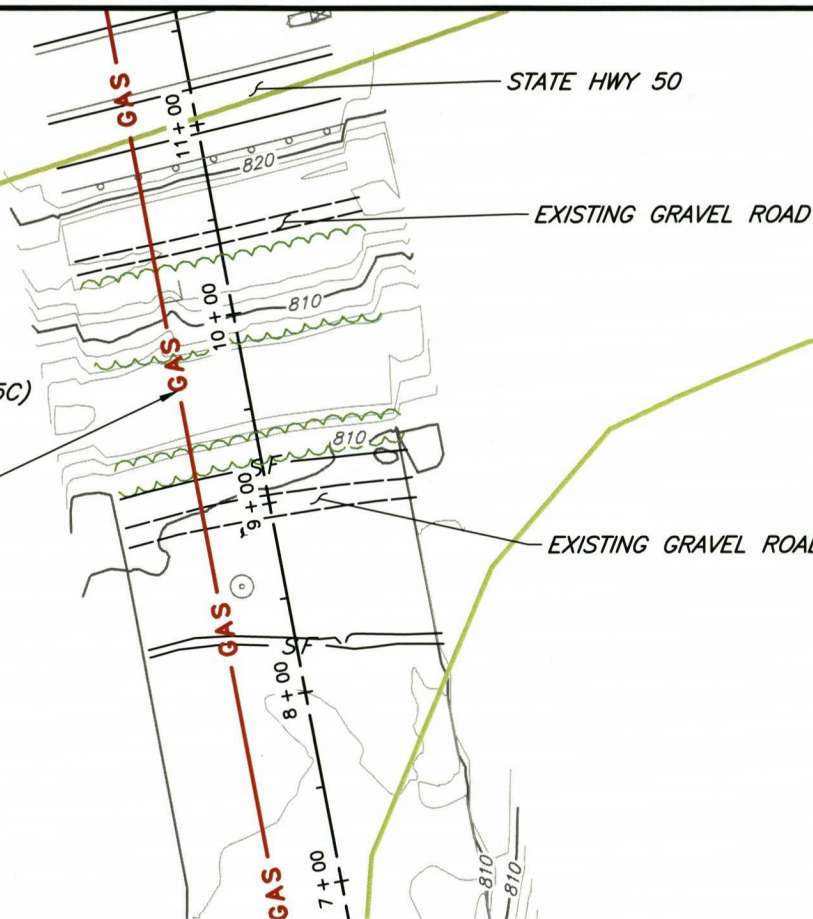
Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



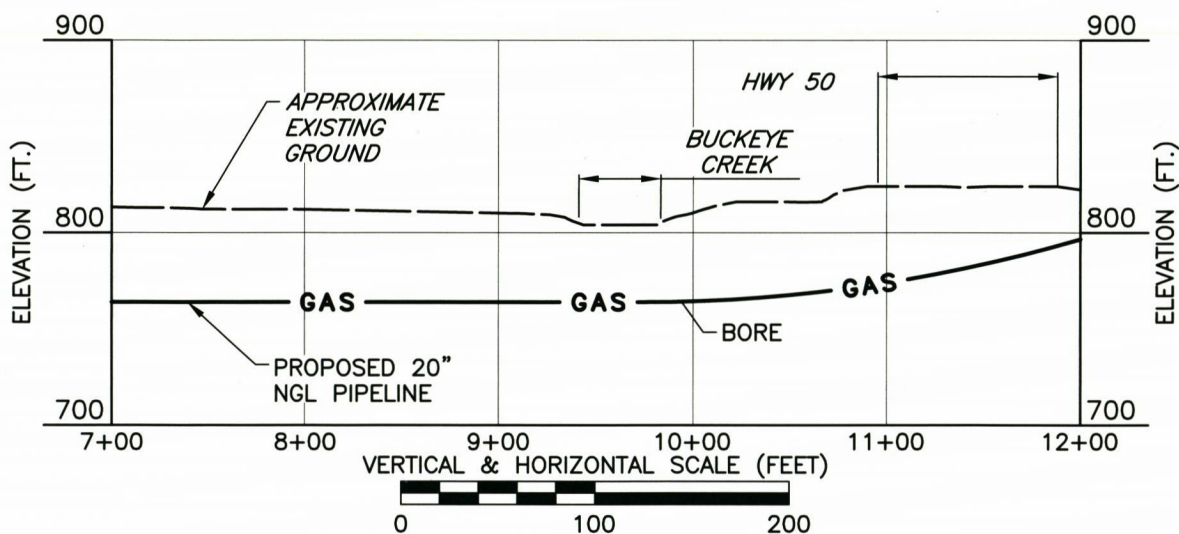
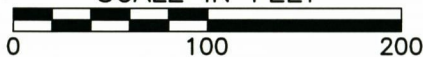
NORTH

FEMA ZONE AE FLOODPLAIN
(FIRM PANEL # 54017C0145C)

CROSSING #58
BUCKEYE CREEK (PER)



PLAN VIEW
SCALE IN FEET



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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MARKWEST LIBERTY MIDSTREAM
& RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

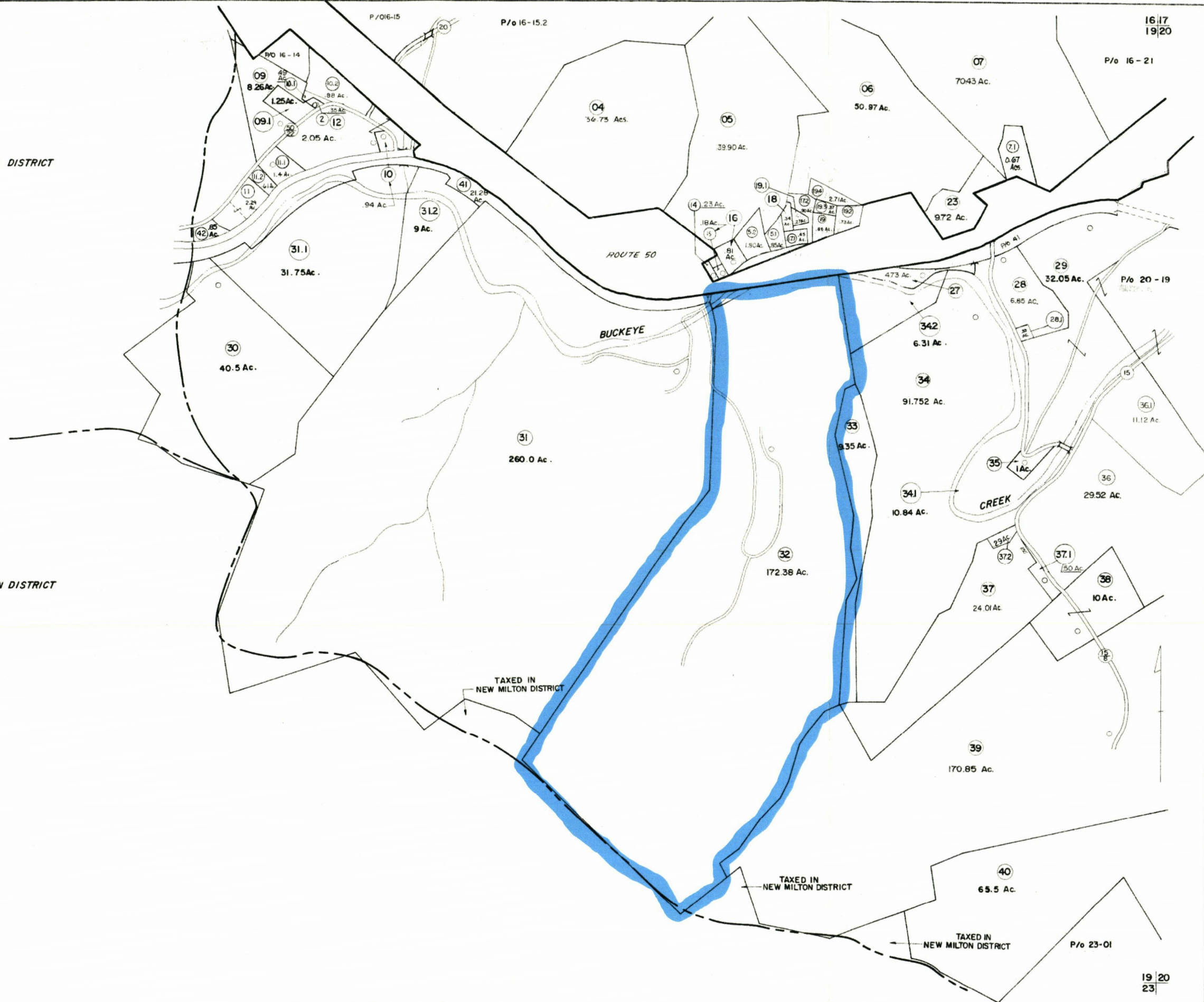
CROSSING #58
BUCKEYE CREEK (PER)

DRAWN BY:	LKC	CHECKED BY:	ARG	APPROVED BY:	*JK	FIGURE NO.:	3PP
DATE:	NOVEMBER 2017	DWG SCALE:	AS SHOWN	PROJECT NO.:	171-778-0003		

P:\2017\171-778\171-778-CADD\DWG\ECO1\171778-ECO1-FIG-3-08.dwg(58) LS:3/1/2018 - btomiczek) - LP: 3/1/2018 11:45 AM

WEST UNION DISTRICT

NEW MILTON DISTRICT



FOR TAX PURPOSES ONLY

Prepared by
L. ROBERT KIMBALL
Consulting Engineer

Legend	
Property line	Original lot line
Edge of pavement or roadway	Dead lot number in parenthesis
Corporation line	Parcel or index number in box
District line	Improvement
County line	Railroad

Revisions	
1	REVISED 3/23/64
2	1-25-72 <i>TL</i>
3	8-25-76
4	REVISED 7-81 T Groves
5	70 JULY 1982 <i>CF</i>
6	11-93
7	OGIS 1-17-91 <i>JB</i>
8	OGIS 10-24-91 <i>NK</i>
9	OGIS 12-8-92 <i>JER</i>
10	OGIS 11-93 <i>RD</i>
11	SLS INC. 3/08/00 <i>JAW</i>
12	ESI 3/29/01 <i>REK</i>
13	2/29/04 <i>SBH</i>
14	3/17/05 <i>SBH</i>

STATE OF WEST VIRGINIA
DODDRIDGE COUNTY
Office of Assessor

GRANT DISTRICT
SHEET 19

Date: Aerial Photography APRIL, 1962 Date: Map OCT. 1963

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 2 of 24

Site/Property Information:

Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Rd 20/6		
Decimal Latitude/Longitude: N 39.288243°, E -80.684990°		
DMS Latitude/Longitude: 39° 17' 17.68" N, -80° 41' 05.96" E		
District: Grant	Map: 16	Parcel: 15.2
Land Book Description:		
Deed Book Reference: DBV 378, PG 704		
Tax Map Reference: Tax Map 16		
Existing Buildings/Use of Property: Existing Stream – UNT-4, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)

Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 2 of 24

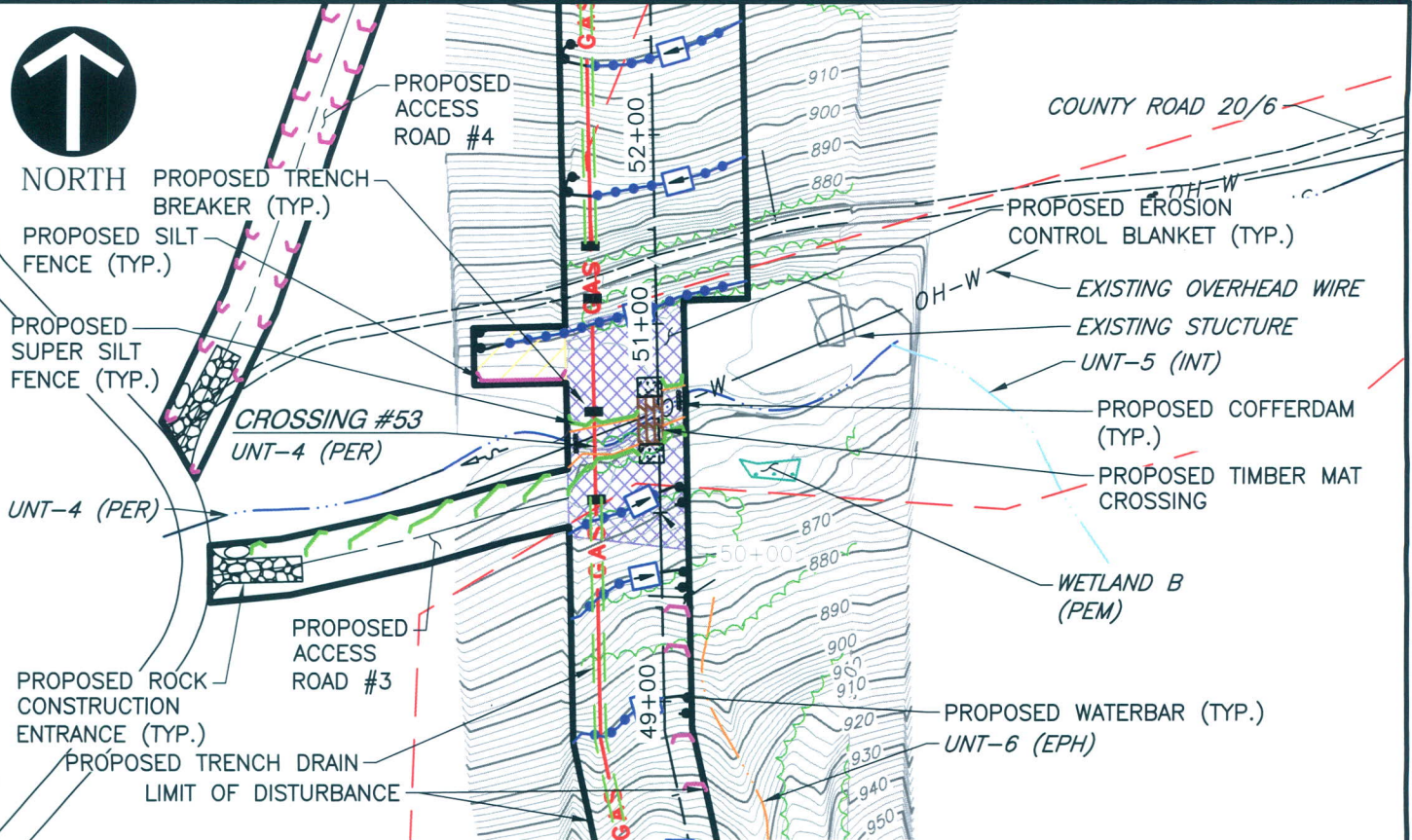
Property Owner Data:		
Name of Primary Owner (PO): Hass Ronald M & Jaime M		
PO Address: 130 L C Ln		
City: West Union	State: WV	Zip: 26456
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Hass Ronald M & Jaime M		
PO Address: 130 L C Ln		
City: West Union	State: WV	Zip: 26456
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

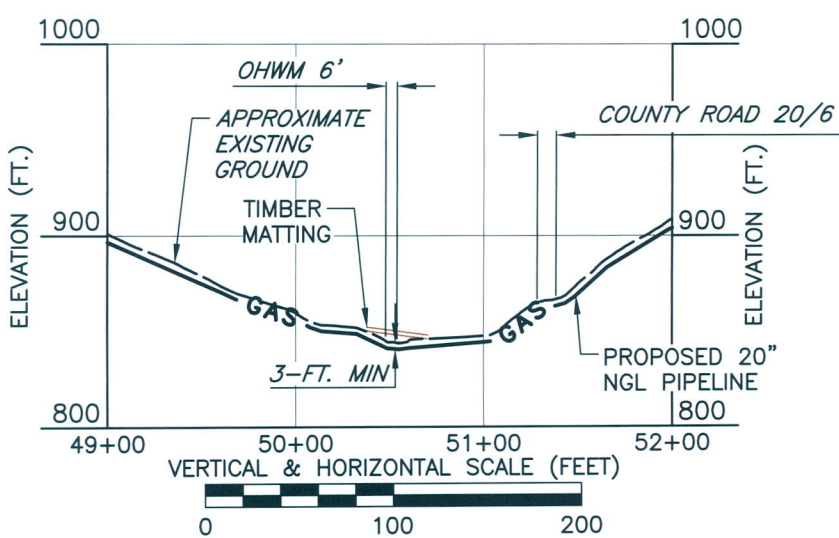
Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



NORTH



PLAN VIEW
SCALE IN FEET



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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MARKWEST LIBERTY MIDSTREAM & RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSING #53
UNT-4 (PER)

DRAWN BY: LKC	CHECKED BY: ARG	APPROVED BY: *JK	FIGURE NO.: 3NN
DATE: NOVEMBER 2017	DWG SCALE: AS SHOWN	PROJECT NO: 171-778-0003	

P:\2017\171-778\CADD\DWG\ECOT\171778-ECOT-FIG-3-07.dwg(53) LS:(2/28/2018 - btomiczek) - LP: 2/28/2018 1:30 PM

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 3 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 20		
Decimal Latitude/Longitude: N 39.293963°, E -80.679221°		
DMS Latitude/Longitude: 39° 17' 38.27" N, -80° 40' 45.20" E		
District: Grant	Map: 16	Parcel: 19
Land Book Description:		
Deed Book Reference: DBV 237, PG 504		
Tax Map Reference: Tax Map 16		
Existing Buildings/Use of Property: Existing Stream – UNT-3, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 3 of 24

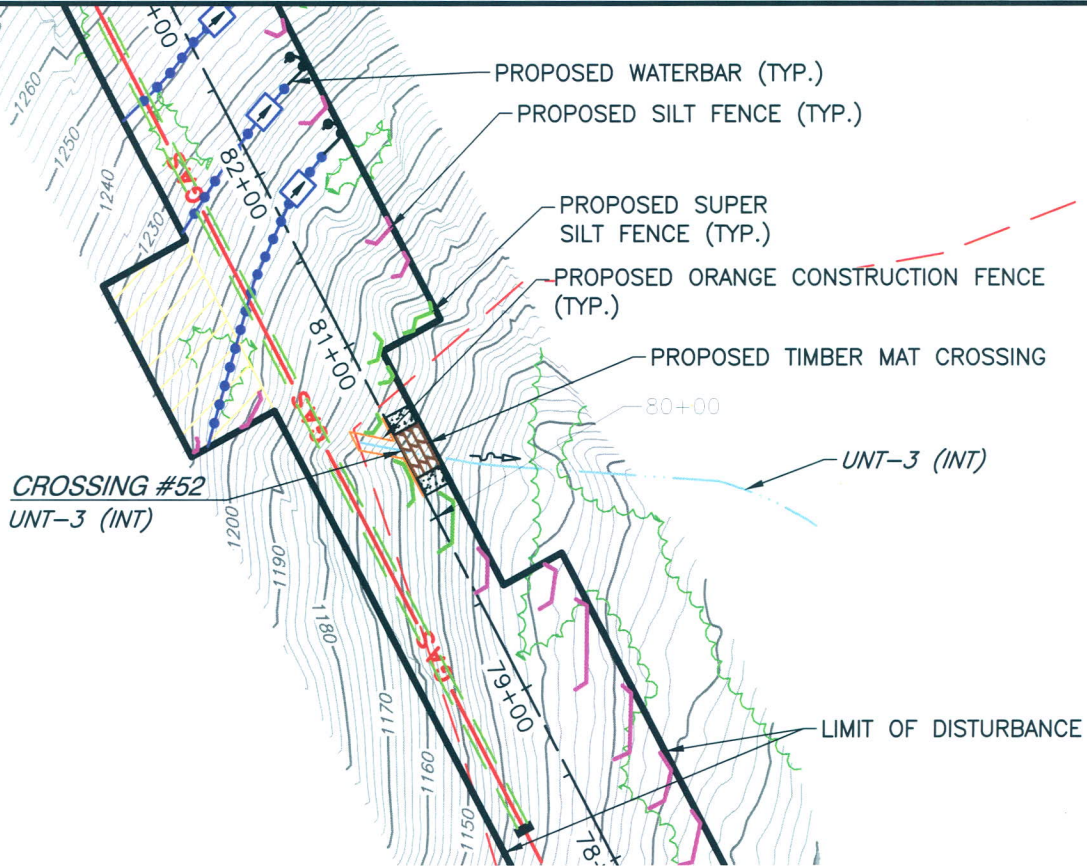
Property Owner Data:		
Name of Primary Owner (PO): Jett Gloria J		
PO Address: 189 Ranch Rd		
City: Fairmont	State: WV	Zip: 26554
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Jett Gloria J		
PO Address: 189 Ranch Rd		
City: Fairmont	State: WV	Zip: 26554
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

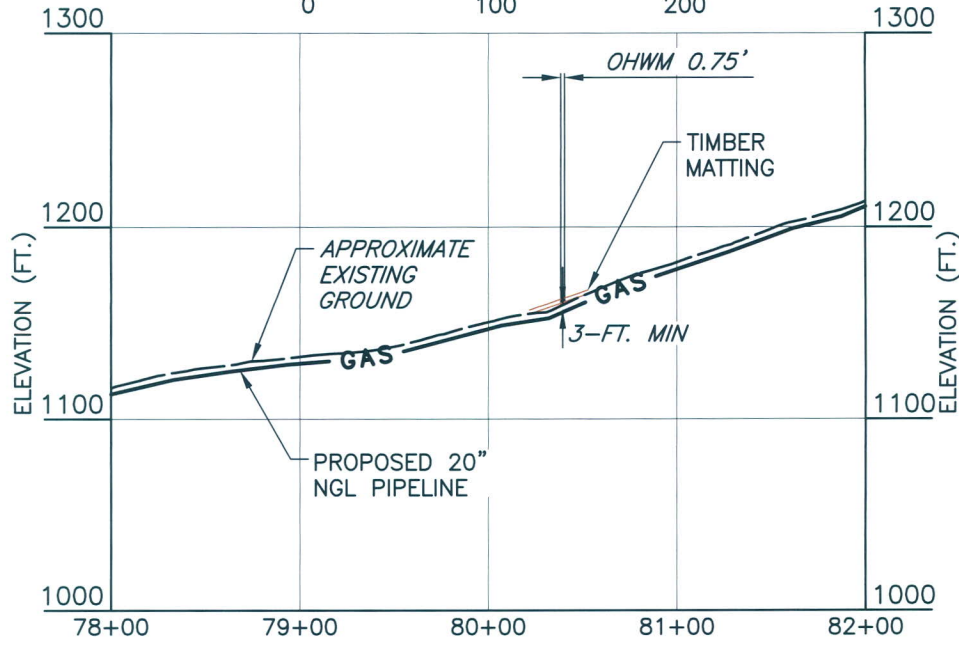
Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



NORTH



PLAN VIEW
SCALE IN FEET



VERTICAL & HORIZONTAL SCALE (FEET)



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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MARKWEST LIBERTY MIDSTREAM
& RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSING #52
UNT-3 (INT)

DRAWN BY: LKC	CHECKED BY: ARG	APPROVED BY: *JK	FIGURE NO.: 3MM
DATE: NOVEMBER 2017	DWG SCALE: AS SHOWN	PROJECT NO: 171-778-0003	

P:\2017\171-778\CADD\DWG\EC01\171778-EC01-FIG-3-07.dwg LS:(2/28/2018 - btomiczek) - LP: 2/28/2018 1:27 PM

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 4 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: Dogwood Lane		
Decimal Latitude/Longitude: N 39.300770°, E -80.676351°		
DMS Latitude/Longitude: 39° 18' 02.77" N, -80° 40' 34.86" E		
District: Grant	Map: 16	Parcel: 13
Land Book Description:		
Deed Book Reference: DBV WB19, PG 455		
Tax Map Reference: Tax Map 16		
Existing Buildings/Use of Property: Existing Stream – Righthand Fork of Morgans Run, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

Property Owner Data:

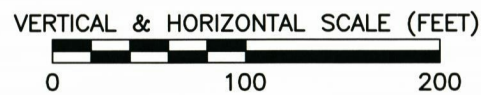
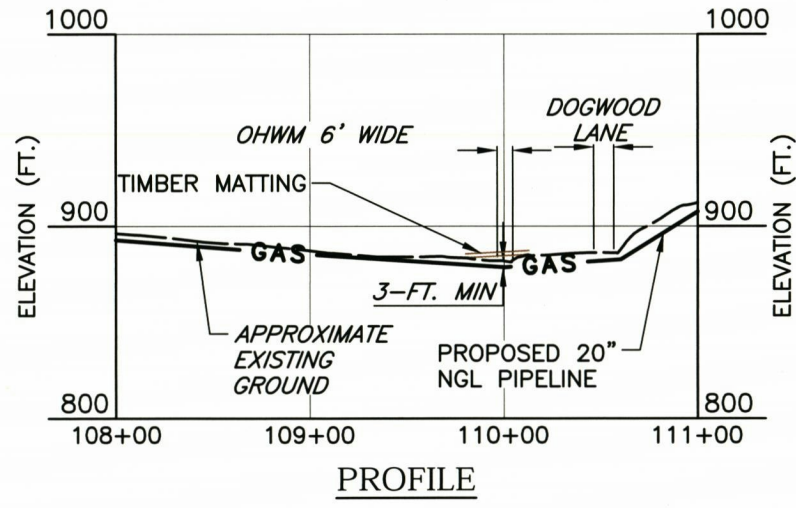
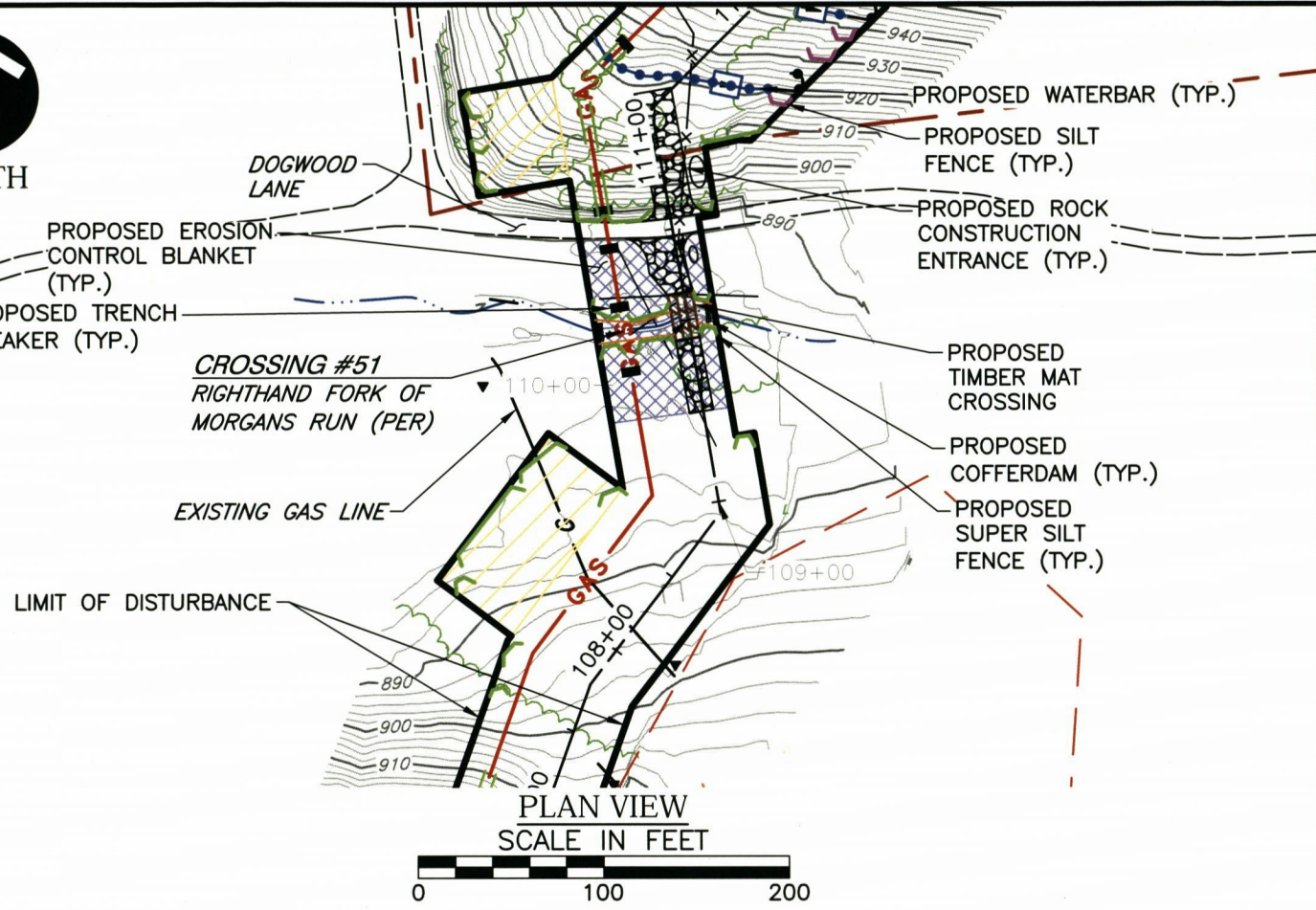
Please provide data on current site/property landowner(s), both surface and mineral rights (as applicable). Use additional copies of this page as needed. Designate each page in relation to each property listed above.

Property Designation: 4 of 24

Property Owner Data:		
Name of Primary Owner (PO): Holden William D ETAL		
PO Address: 4141 Long Run Rd		
City: Pennsboro	State: WV	Zip: 26415
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Holden William D ETAL		
PO Address: 4141 Long Run Rd		
City: Pennsboro	State: WV	Zip: 26415
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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MARKWEST LIBERTY MIDSTREAM
& RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSING #51
RIGHTHAND FORK OF MORGANS RUN (PER)

DRAWN BY:	LKC	CHECKED BY:	ARG	APPROVED BY:	*JK	FIGURE NO.:	3LL
DATE:	NOVEMBER 2017	DWG SCALE:	AS SHOWN	PROJECT NO:	171-778-0003		

P:\2017\171-778-CADD\DWG\ECO1\171778-EC01-FIG-3-07.dwg(51) LS:(2/28/2018 - btomiczek) - LP: 2/28/2018 1:22 PM

WEST UNION DISTRICT

TAXED IN
WEST UNION DISTRICT

STATE OF WEST VIRGINIA
DODDRIDGE COUNTY
Office of Assessor

GRANT DISTRICT
SHEET 16

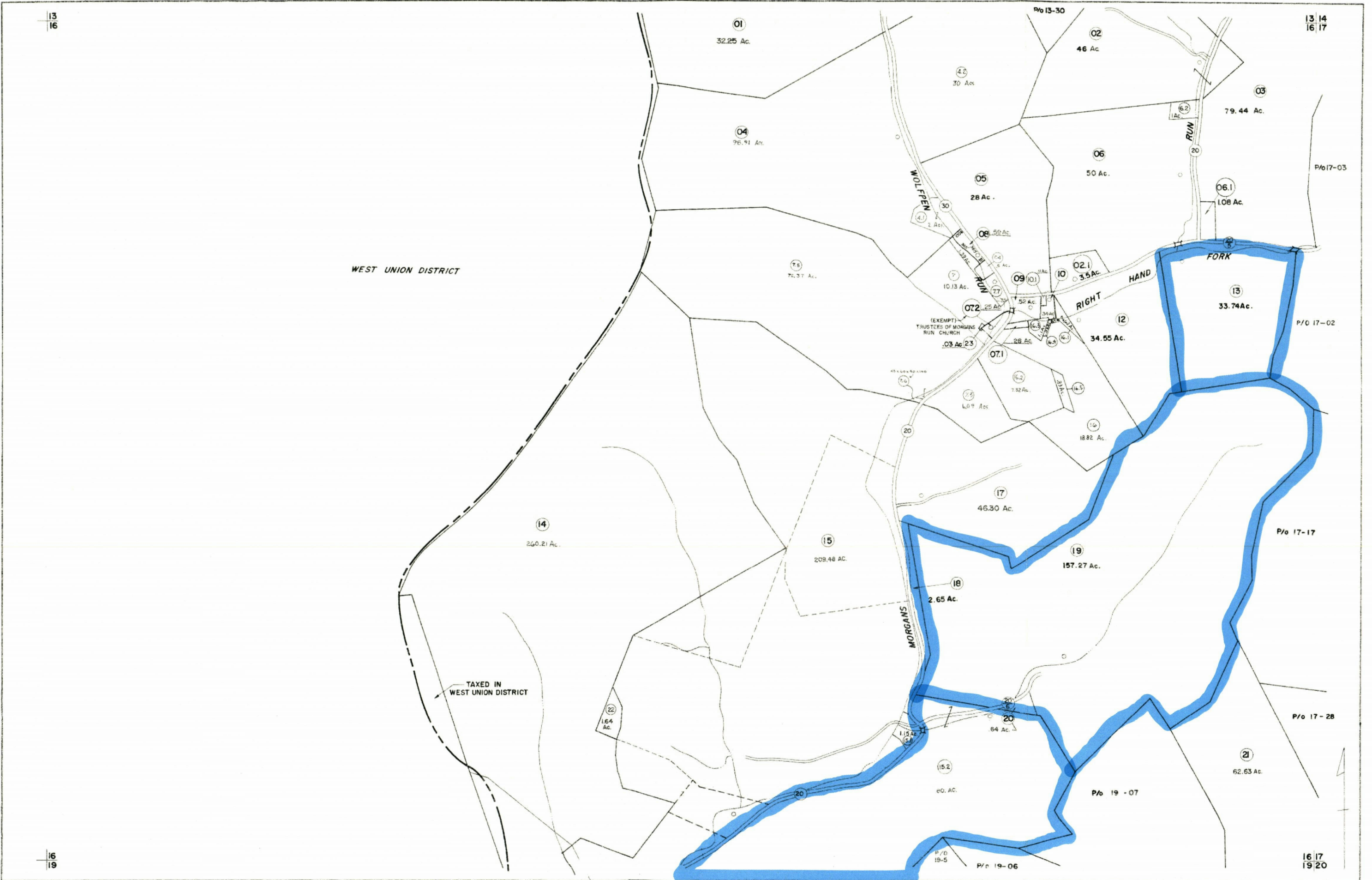
Date: Aerial Photographs used Date: March 1968

Legend

Property line	Original lot line
Edge of pavement or roadway	Deed lot number in numbers
Corporation line	Parcel or index number in ink
District line	Improvement
County line	Railroad

Revisions

1	REVISED 3/23/64								
2	REVISED 6/1/64								
3	1-20-72								
4	1-20-72								
5	REV 7-91 DR 8-82	T. Groves							
6	OGIS 1-16-91		JB						
7	OGIS 10-24-91		NK						
8	OGIS 11-93		RD						
9	OGIS 1-23-96		J.E.R.						
10	OGIS 12-96		HD						



Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 5 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: Morgans Run Road		
Decimal Latitude/Longitude: N 39.309142°, E -80.673082°		
DMS Latitude/Longitude: 39° 18' 32.91" N, -80° 40' 23.10" E		
District: Grant	Map: 14	Parcel: 33-0001
Land Book Description:		
Deed Book Reference: DBV 246, PG 708		
Tax Map Reference: Tax Map 14		
Existing Buildings/Use of Property: Existing Stream – UNT-160, and Morgans Run , Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 5 of 24

Property Owner Data:		
Name of Primary Owner (PO): Swentzel Neil D & Saren		
PO Address: 196 Retriever Run Rd		
City: West Union	State: WV	Zip: 26456
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Swentzel Neil D & Saren		
PO Address: 196 Retriever Run Rd		
City: West Union	State: WV	Zip: 26456
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



NORTH

PROPOSED WATERBAR (TYP.)

PROPOSED EROSION CONTROL BLANKET (TYP.)

LEFT HAND FORK OF MORGANS RUN ROAD

CROSSING #49 MORGANS RUN (PER)

CROSSING #55 MORGANS RUN (PER)

PROPOSED CULVERT CROSSING (3) 42" HDPE PIPES

PROPOSED TRENCH BREAKER (TYP.)
PROPOSED COFFERDAM (TYP.)
PROPOSED TIMBER MAT CROSSING

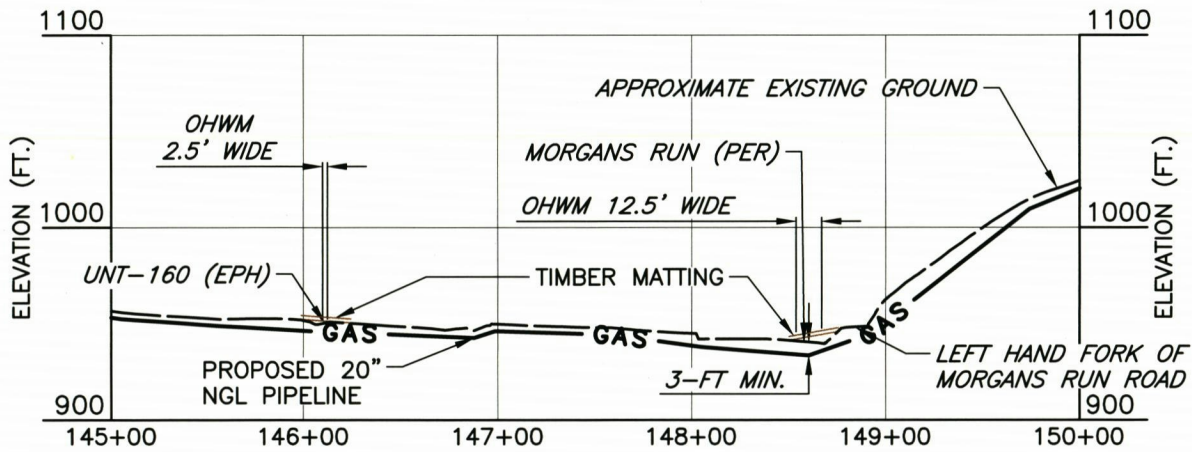
PROPOSED SUPER SILT FENCE (TYP.)

UNT-171 (EPH)

LIMIT OF DISTURBANCE

CROSSING #50 UNT-160 (EPH)

PLAN VIEW
SCALE IN FEET



PROFILE

VERTICAL & HORIZONTAL SCALE (FEET)



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



Civil & Environmental Consultants, Inc.

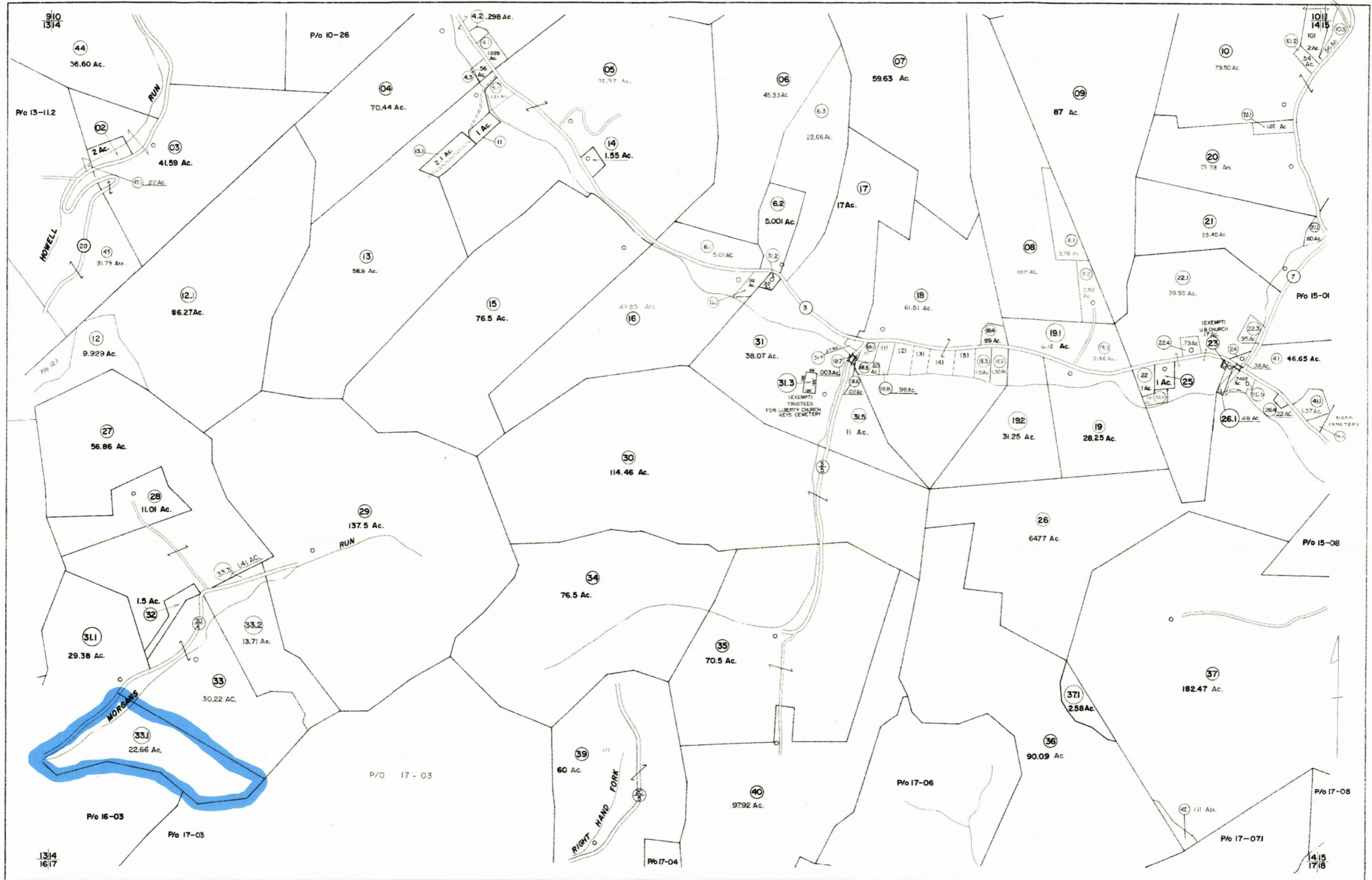
www.cecinc.com

MARKWEST LIBERTY MIDSTREAM & RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSINGS #49-50 & 55
MORGANS RUN (PER) & UNT-160 (EPH)

DRAWN BY: LKC	CHECKED BY: ARG	APPROVED BY: *JK	FIGURE NO.:
DATE: NOVEMBER 2017	DWG SCALE: AS SHOWN	PROJECT NO: 171-778-0003	3J

P:\2017\171-778-CADD\DWG\ECO1\771778-ECO1-FIG-3-02.dwg(49-50) LS:(2/28/2018 - btomiczek) - LP: 2/28/2018 2:11 PM



FOR TAX PURPOSES ONLY

Prepared by
L. ROBERT KIMBALL
Consulting Engineer

Legend

Property line	Original lot line	(05)
Edge of pavement or roadway	Deed lot number in parenthesis	(06)
Corporation line	Parcel or index number in box	(07)
District line	Improvement	(08)
County line	Railroad	(09)

Revisions

1	REVISED 3/23/64		
2	1-20-72 RM		
3	12-27-76		
4	3-22-80		
5	Revised to 7-80		
6	REVISED 7-8	T. Goves	
7	July, 1985		
8	July, 1987		
9	Proposed to 7-1-88		
10	Revised to 7-1-88		
11	OGIS 1-14-91	JB	
12	5/5/03		
13	5/5/03		
14	5/5/03		
15	5/5/03		
16	5/5/03		
17	5/5/03		
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58	5/5/03		
59	5/5/03		
60	5/5/03		
61	5/5/03		
62	5/5/03		
63	5/5/03		
64	5/5/03		
65	5/5/03		
66	5/5/03		
67	5/5/03		
68	5/5/03		
69	5/5/03		
70	5/5/03		
71	5/5/03		
72	5/5/03		
73	5/5/03		
74	5/5/03		
75	5/5/03		
76	5/5/03		
77	5/5/03		
78	5/5/03		
79	5/5/03		
80	5/5/03		
81	5/5/03		
82	5/5/03		
83	5/5/03		
84	5/5/03		
85	5/5/03		
86	5/5/03		
87	5/5/03		
88	5/5/03		
89	5/5/03		
90	5/5/03		
91	5/5/03		
92	5/5/03		
93	5/5/03		
94	5/5/03		
95	5/5/03		
96	5/5/03		
97	5/5/03		
98	5/5/03		
99	5/5/03		
100	5/5/03		

4/6/07 SBH STATE OF WEST VIRGINIA
DODDRIDGE COUNTY
Office of Assessor

GRANT DISTRICT
SHEET 14

Date Aerial Photography: 1998 1999 Date Map: OCT 1987

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 6 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 3		
Decimal Latitude/Longitude: N 39.334756°, E -80.665180°		
DMS Latitude/Longitude: 39° 20' 05.09" N, -80° 39' 54.65" E		
District: Grant	Map: 10	Parcel: 20
Land Book Description:		
Deed Book Reference: DBV WB95, PG 409		
Tax Map Reference: Tax Map 10		
Existing Buildings/Use of Property: Existing Stream – Flint Run, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 6 of 24

Property Owner Data:		
Name of Primary Owner (PO): Heflin Julie M & Michael Z Hill		
PO Address: 607 Holly Dr		
City: Summersville	State: WV	Zip: 26651
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Heflin Julie M & Michael Z Hill		
PO Address: 607 Holly Dr		
City: Summersville	State: WV	Zip: 26651
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



NORTH

LIMIT OF DISTURBANCE

CROSSING #48
FLINT RUN (PER)

FEMA FLOODPLAIN

PROPOSED SUPER SILT FENCE (TYP.)

PROPOSED TRENCH BREAKER (TYP.)

UNT-94 (EPH)

UNT-93 (EPH)

PROPOSED COFFERDAM (TYP.)

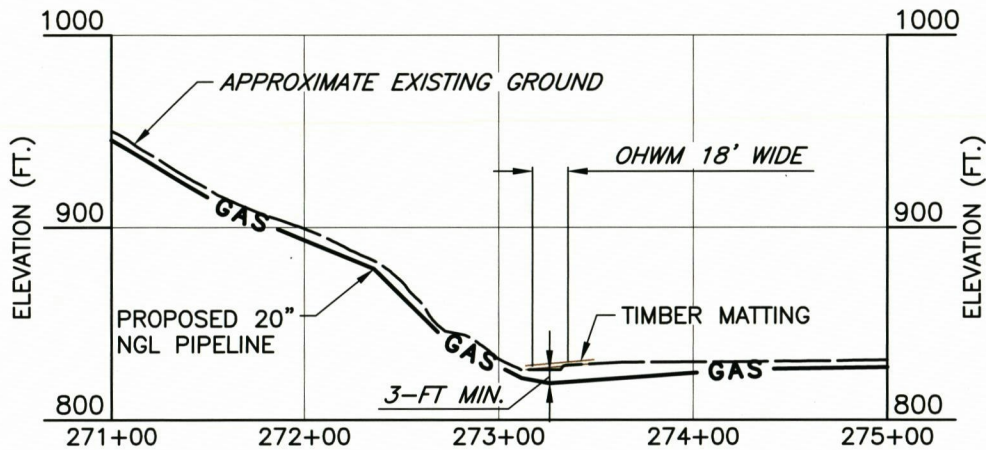
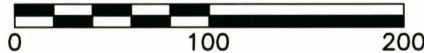
PROPOSED TIMBER MAT CROSSING

PROPOSED EROSION CONTROL
BLANKET (TYP.)

PROPOSED WATERBAR (TYP.)

PLAN VIEW

SCALE IN FEET



PROFILE

VERTICAL & HORIZONTAL SCALE (FEET)



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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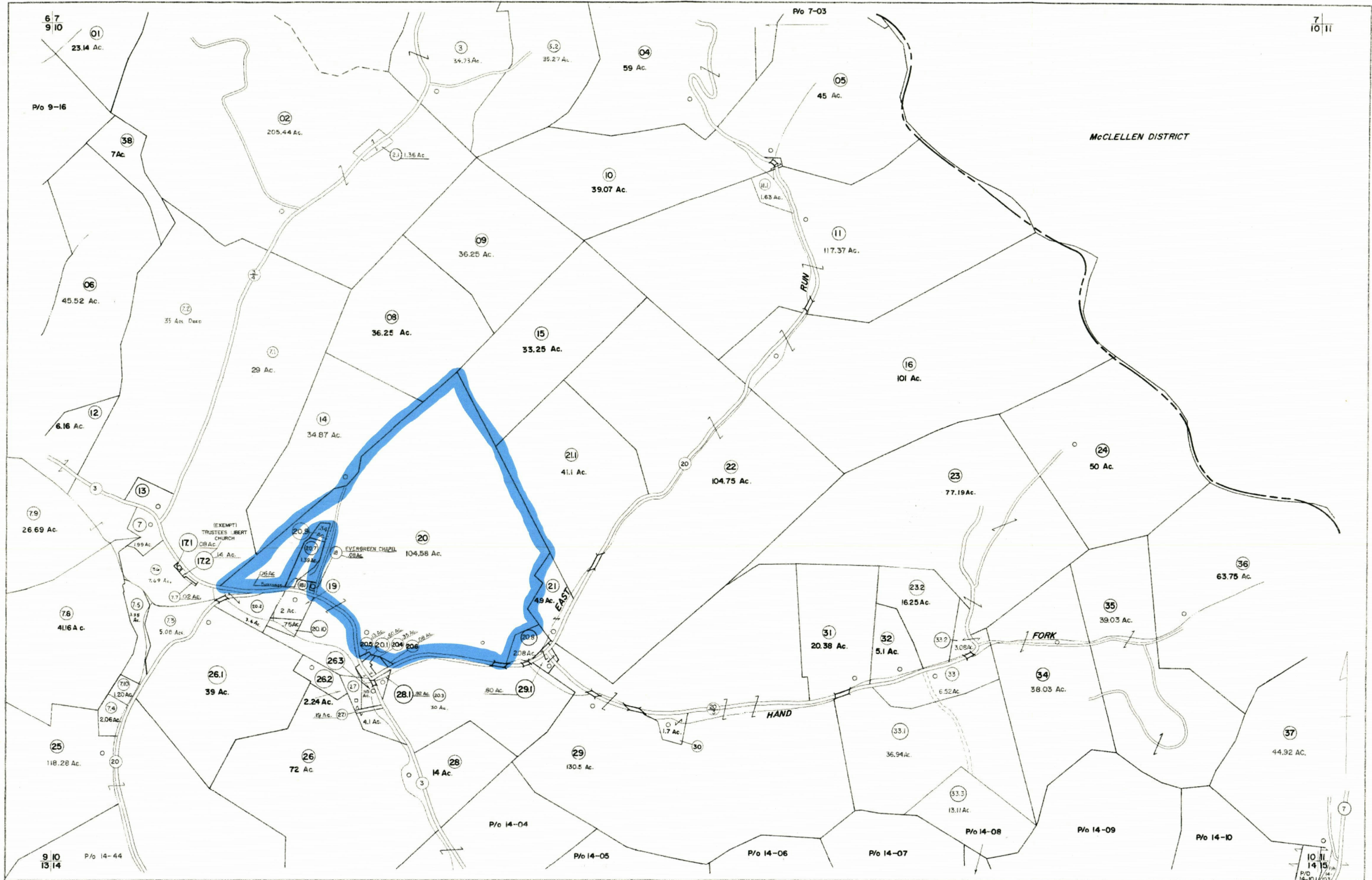
MARKWEST LIBERTY MIDSTREAM
& RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSING #48
FLINT RUN (PER)

DRAWN BY:	LKC	CHECKED BY:	ARG	APPROVED BY:	*JK	FIGURE NO.:
DATE:	NOVEMBER 2017	DWG SCALE:	AS SHOWN	PROJECT NO.:	171-778-0003	

3I

F:\2017\171-778-CADD\DWG\EC01\771778-EC01-FIG-3-02.dwg\48} LS:(2/28/2018 - btomiczek) - LP: 2/28/2018 4:13 PM



FOR TAX PURPOSES ONLY

Prepared by
L. ROBERT KIMBALL
Consulting Engineer

Legend	
Property line	Original lot line
Edge of pavement or sidewalk	Deed lot number
Corporation line	Parcel or index number mark
District line	Improvement
County line	Railroad

Revisions	
1	REVISED 3/23/64
2	1-20-72
3	11-11-91
4	HEV 7-81 OR 7-82 T. Green
5	TO JULY 1982 C.P.
6	July, 1987
7	OGIS 1-11-91
8	OGIS 12-8-92
9	OGIS 11-93
10	SLS INC. 2/16/99
11	SLS INC. 3/06/00
12	ESI 3/29/01
13	ESI 3/7/02
14	5/5/03
15	2/25/04

STATE OF WEST VIRGINIA
DODDRIDGE COUNTY
Office of Assessor

GRANT DISTRICT
SHEET 10

Date: Aerial Photography: 1991 1993 Data: Map: 11-11-91

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 7 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 20		
Decimal Latitude/Longitude: N 39.358244°, E -80.658625°		
DMS Latitude/Longitude: 39° 21' 29.68" N, -80° 39' 31.05" E		
District: McClellan	Map: 23	Parcel: 19
Land Book Description:		
Deed Book Reference: DBV 247, PG 599		
Tax Map Reference: Tax Map 23		
Existing Buildings/Use of Property: Existing Stream – UNT-97, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 7 of 24

Property Owner Data:		
Name of Primary Owner (PO): Archer Steven Richard & Rhonda A		
PO Address: 1058 Bean Hollow Rd		
City: West Union	State: WV	Zip: 26456
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Archer Steven Richard & Rhonda A		
PO Address: 1058 Bean Hollow Rd		
City: West Union	State: WV	Zip: 26456
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



NORTH

PROPOSED LIMIT OF DISTURBANCE

PROPOSED WATERBAR (TYP.)

PROPOSED EROSION CONTROL BLANKET (TYP.)

PROPOSED ORANGE CONSTRUCTION FENCE (TYP.)

CROSSING #46

UNT-97 (PER)

PROPOSED SUPER SILT FENCE (TYP.)

PROPOSED TRENCH BREAKER (TYP.)

UNT-98 (EPH)
NO IMPACT

EXISTING CULVERT

ACCESS ROAD #18 TO BEAN HOLLOW ROAD

UNT-97 (PER)

PROPOSED TIMBER MAT CROSSING

PROPOSED COFFERDAM (TYP.)

WETLAND AN (PEM)

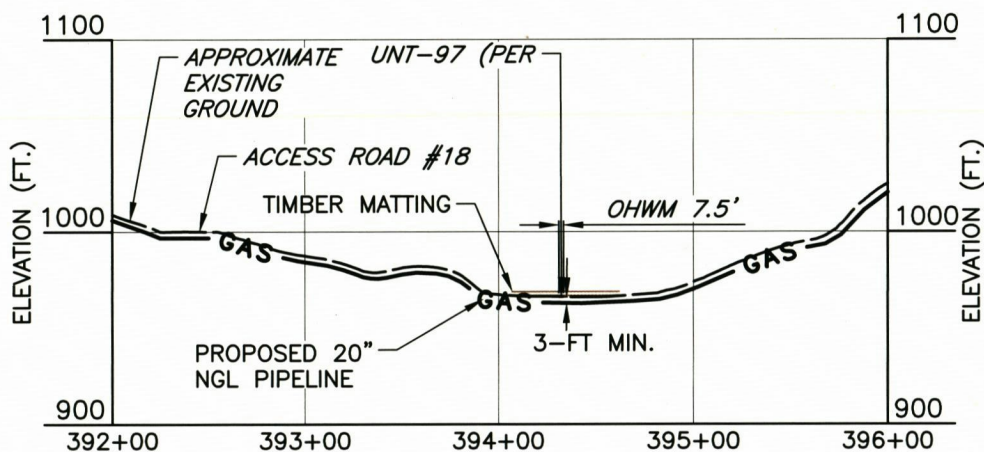
UNT-99 (EPJ)

NO IMPACT
EXISTING CULVERT

PROPOSED ROCK CONSTRUCTION ENTRANCE (TYP.)

PROPOSED SILT FENCE (TYP.)

PLAN VIEW
SCALE IN FEET



PROFILE

VERTICAL & HORIZONTAL SCALE (FEET)



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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MARKWEST LIBERTY MIDSTREAM & RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSING #46
UNT-97 (PER)

DRAWN BY: LKC	CHECKED BY: ARG	APPROVED BY: *JK	FIGURE NO.:
DATE: NOVEMBER 2017	DWG SCALE: AS SHOWN	PROJECT NO: 171-778-0003	

3JJ

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Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 8 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 20		
Decimal Latitude/Longitude: N 39.362181°, E -80.658094°		
DMS Latitude/Longitude: 39° 21' 43.85" N, -80° 39' 29.14" E		
District: McClellan	Map: 23	Parcel: 15
Land Book Description:		
Deed Book Reference: DBV 388, PG 220		
Tax Map Reference: Tax Map 23		
Existing Buildings/Use of Property: Existing Stream – Riggins Run, Existing Woods, Existing		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 8 of 24

Property Owner Data:

Name of Primary Owner (PO): Archer J Samuel & Lois C

PO Address: 441 Wrights Rd

City: Marietta

State: OH

Zip: 45750

PO Primary Phone:

PO Secondary Phone:

PO Primary Email:

Surface Rights Owner Data:

Name of Primary Owner (PO): Archer J Samuel & Lois C

PO Address: 441 Wrights Rd

City: Marietta

State: OH

Zip: 45750

PO Primary Phone:

PO Secondary Phone:

PO Primary Email:

Mineral Rights Owner Data: (As Applicable)

Name of Primary Owner (PO): N/A

PO Address:

City:

State:

Zip:

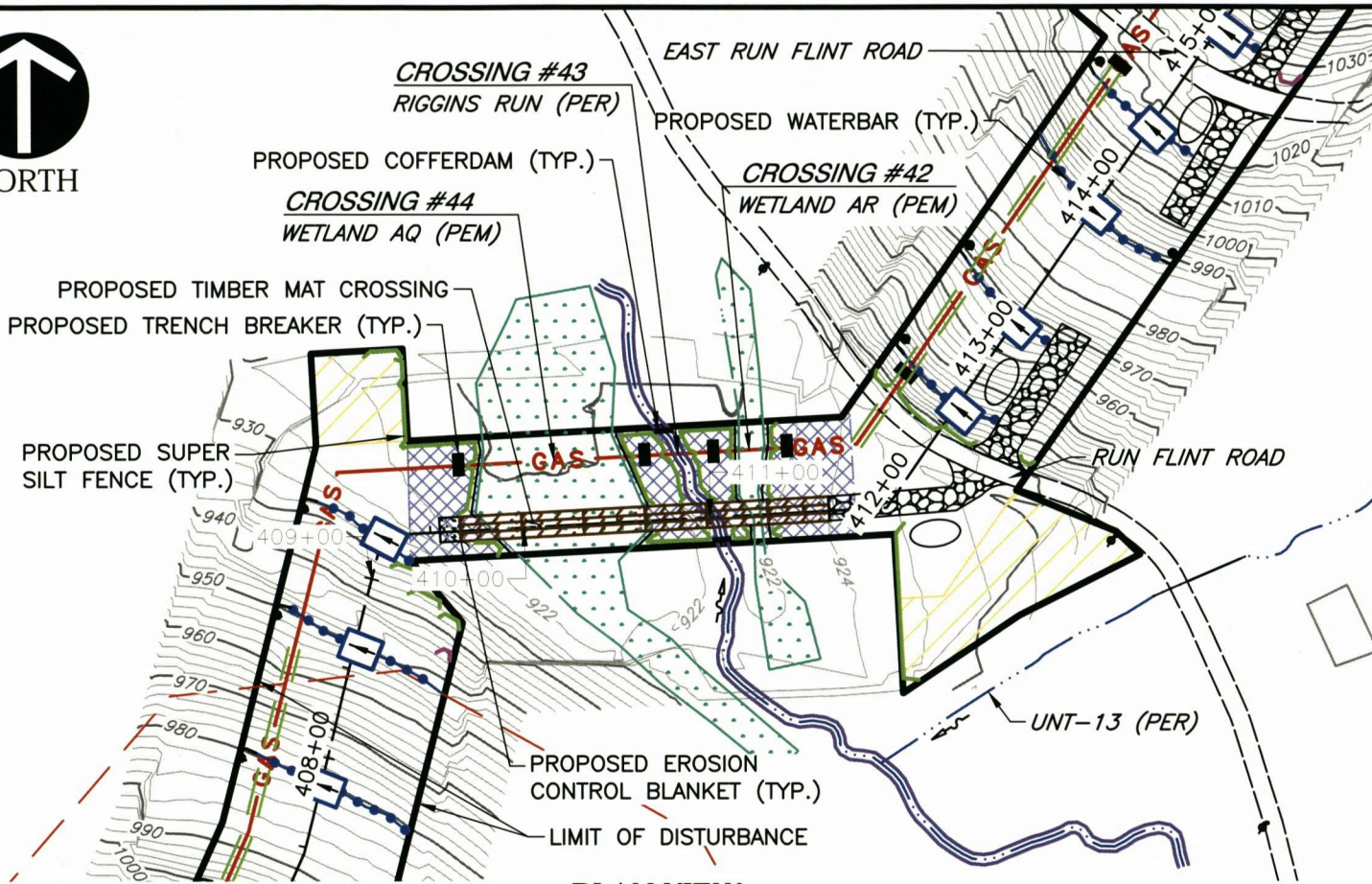
PO Primary Phone:

PO Secondary Phone:

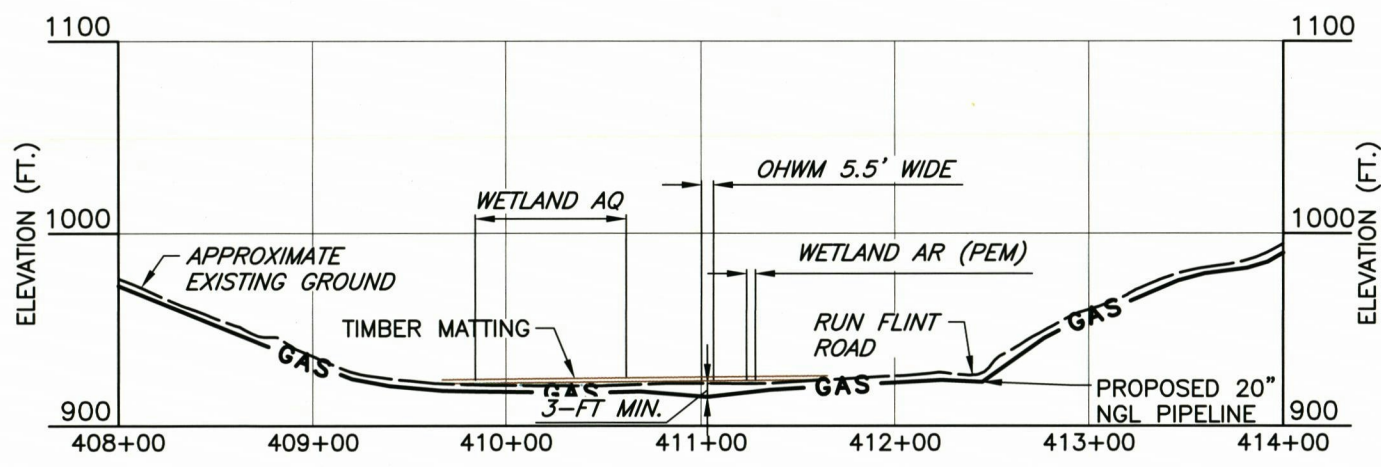
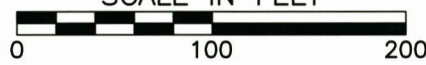
PO Primary Email:



NORTH



PLAN VIEW
SCALE IN FEET



PROFILE

VERTICAL & HORIZONTAL SCALE (FEET)



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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MARKWEST LIBERTY MIDSTREAM
& RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSINGS #42-43-44
WETLAND AR (PEM), RIGGINS RUN (PER) & WETLAND AQ (PEM)

DRAWN BY:	LKC	CHECKED BY:	ARG	APPROVED BY:	*JK	FIGURE NO.:	3H
DATE:	NOVEMBER 2017	DWG SCALE:	AS SHOWN	PROJECT NO.:	171-778-0003		

F:\2017\171-778\171-778-CADD\DWG\EC01\171778-EC01-FIG-3-02.dwg(42-43-44) LS:(2/28/2018 - btomiczek) - LP: 2/28/2018 4:20 PM

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 9 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 20		
Decimal Latitude/Longitude: N 39.367875°, E -80.657286°		
DMS Latitude/Longitude: 39° 22' 04.35" N, -80° 39' 26.23" E		
District: McClellan	Map: 23	Parcel: 10
Land Book Description:		
Deed Book Reference: DBV 256, PG 507		
Tax Map Reference: Tax Map 23		
Existing Buildings/Use of Property: Existing Stream – UNT-18, Existing Woods, Existing Meadow		

Floodplain Location Data: <i>(to be completed by Floodplain Manager or designee)</i>			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
Is the development in the floodway?		Is the development in the floodplain?	
<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 9 of 24

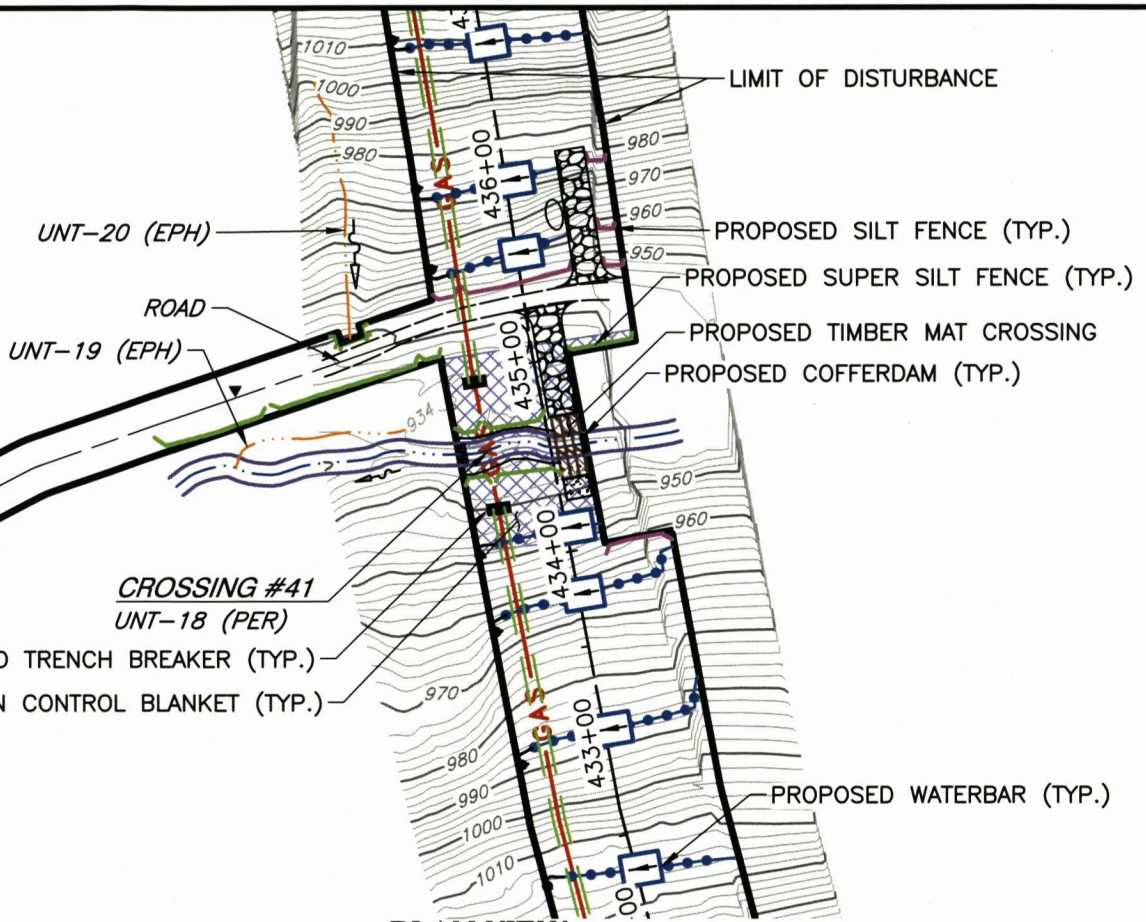
Property Owner Data:		
Name of Primary Owner (PO): Asher Jimmy R (LIFE)		
PO Address: 1196 Chub Run Rd		
City: Mt Clare	State: WV	Zip: 26408
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Asher Jimmy R (LIFE)		
PO Address: 1196 Chub Run Rd		
City: Mt Clare	State: WV	Zip: 26408
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

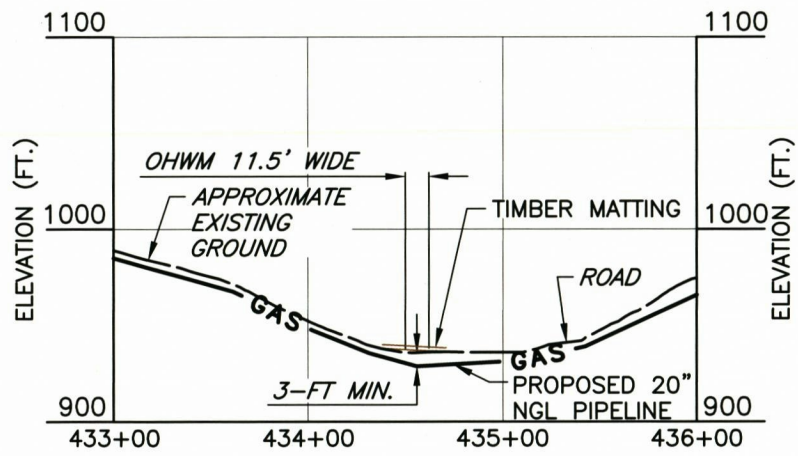
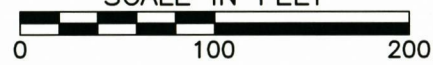
Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



NORTH



PLAN VIEW
SCALE IN FEET



PROFILE

VERTICAL & HORIZONTAL SCALE (FEET)



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



Civil & Environmental Consultants, Inc.

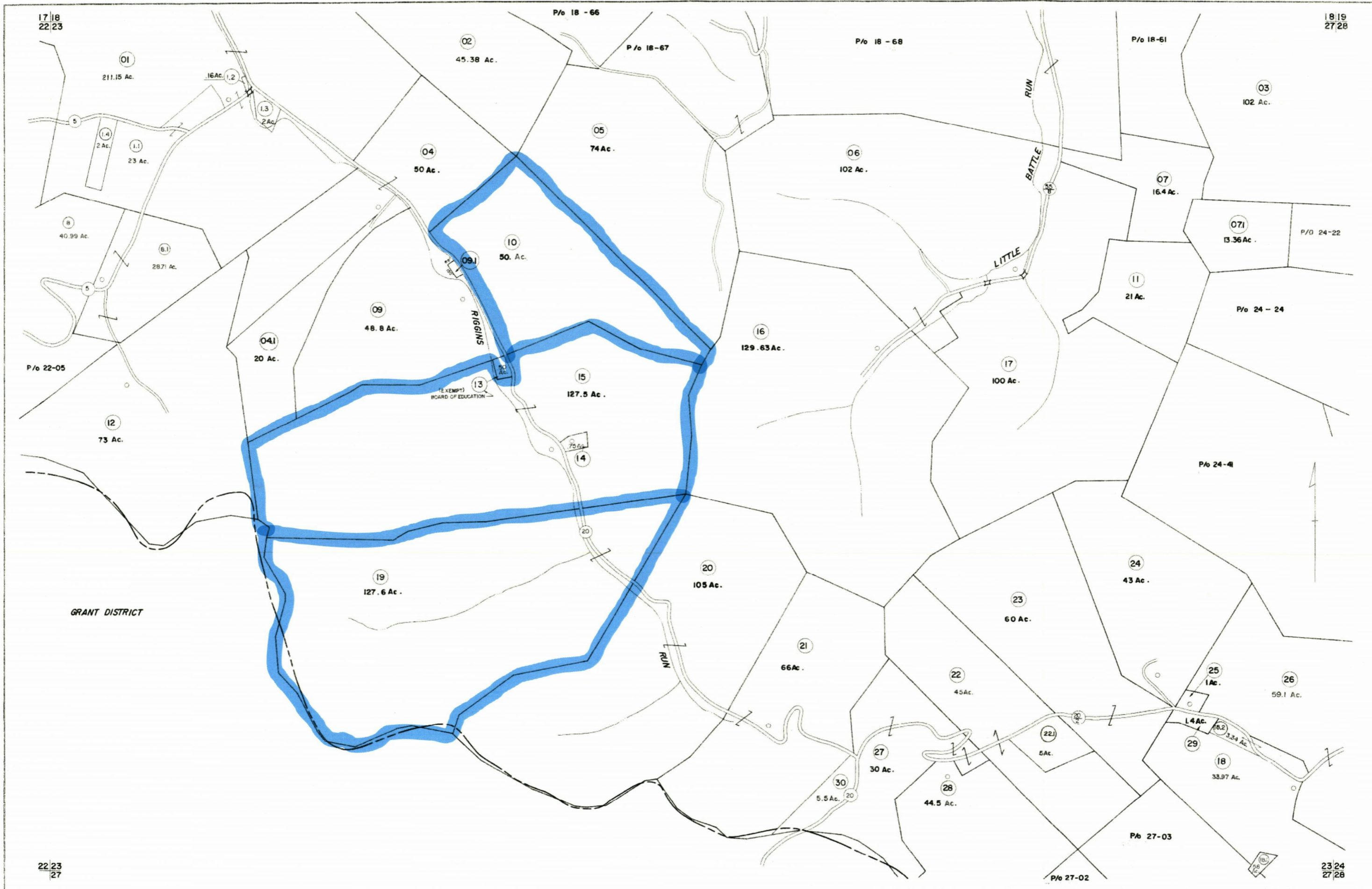
www.cecinc.com

MARKWEST LIBERTY MIDSTREAM
& RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSING #41
UNT-18 (PER)

DRAWN BY: LKC	CHECKED BY: ARG	APPROVED BY: *JK	FIGURE NO.:
DATE: NOVEMBER 2017	DWG SCALE: AS SHOWN	PROJECT NO: 171-778-0003	3G

F:\2017\171-778-CADD\DWG\EC01\171778-EC01-FIG-3-02.dwg(1) LS:(2/28/2018 4:28 PM LP: 2/28/2018 4:28 PM - btomiczek)



2223
27

2324
2728

FOR TAX PURPOSES ONLY

Prepared by
L. ROBERT KIMBALL
Consulting Engineer

Legend	
Property line	Original set line
Edge of pavement or roadway	Dead lot number
Corporation line	Parcel or index number in book
District line	Improvement
County line	Railroad

Revisions			
1	REVISED 3/24/64	BLS INC.	12/29/97 DSW
2	3-31-80	ALCO	3/27/01 REK
3	REVISED 7-81	T. Groves	2/28/02 REK
4	OGIS 12-28-90	JB	5-3-05 JWC
5	OGIS 10-23-91	NK	4/6/07 SBH

STATE OF WEST VIRGINIA
DODDRIDGE COUNTY
Office of Assessor

McCLELLAN DISTRICT
SHEET 23

Date, Aerial Photography: APRIL, 1962 Date, Map: SEPT. 1963

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 10 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 52		
Decimal Latitude/Longitude: N 39.377536°, E -80.660583°		
DMS Latitude/Longitude: 39° 22' 39.13" N, -80° 39' 38.10" E		
District: McClellan	Map: 18	Parcel: 54
Land Book Description:		
Deed Book Reference: DBV 274, PG 552		
Tax Map Reference: Tax Map 18		
Existing Buildings/Use of Property: Existing Stream – UNT-9, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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.

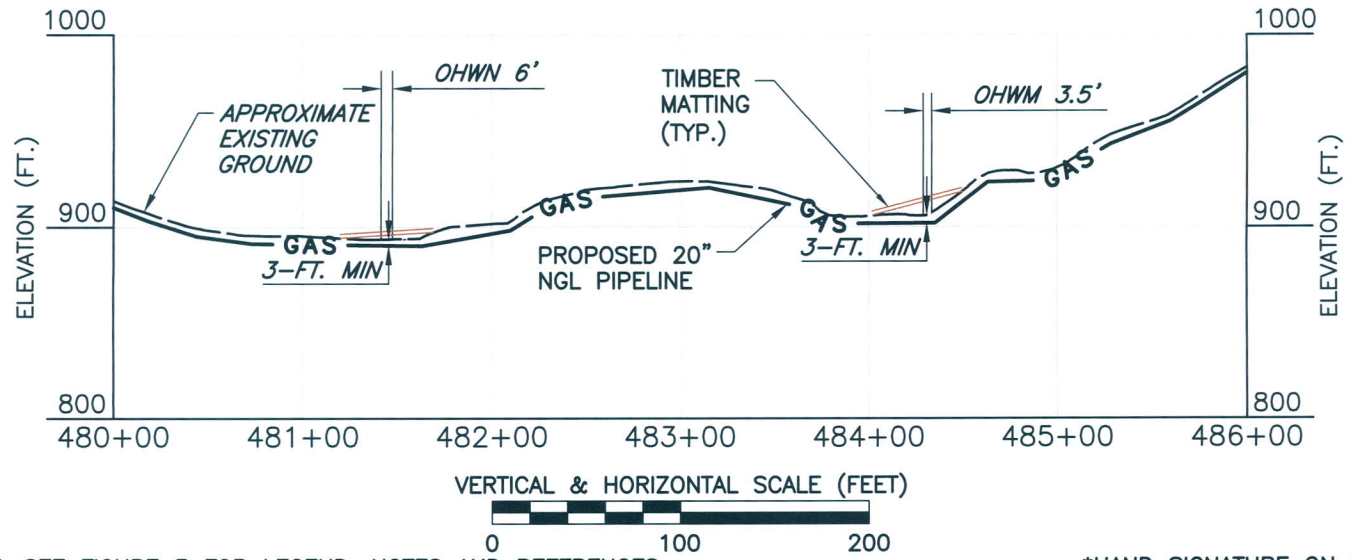
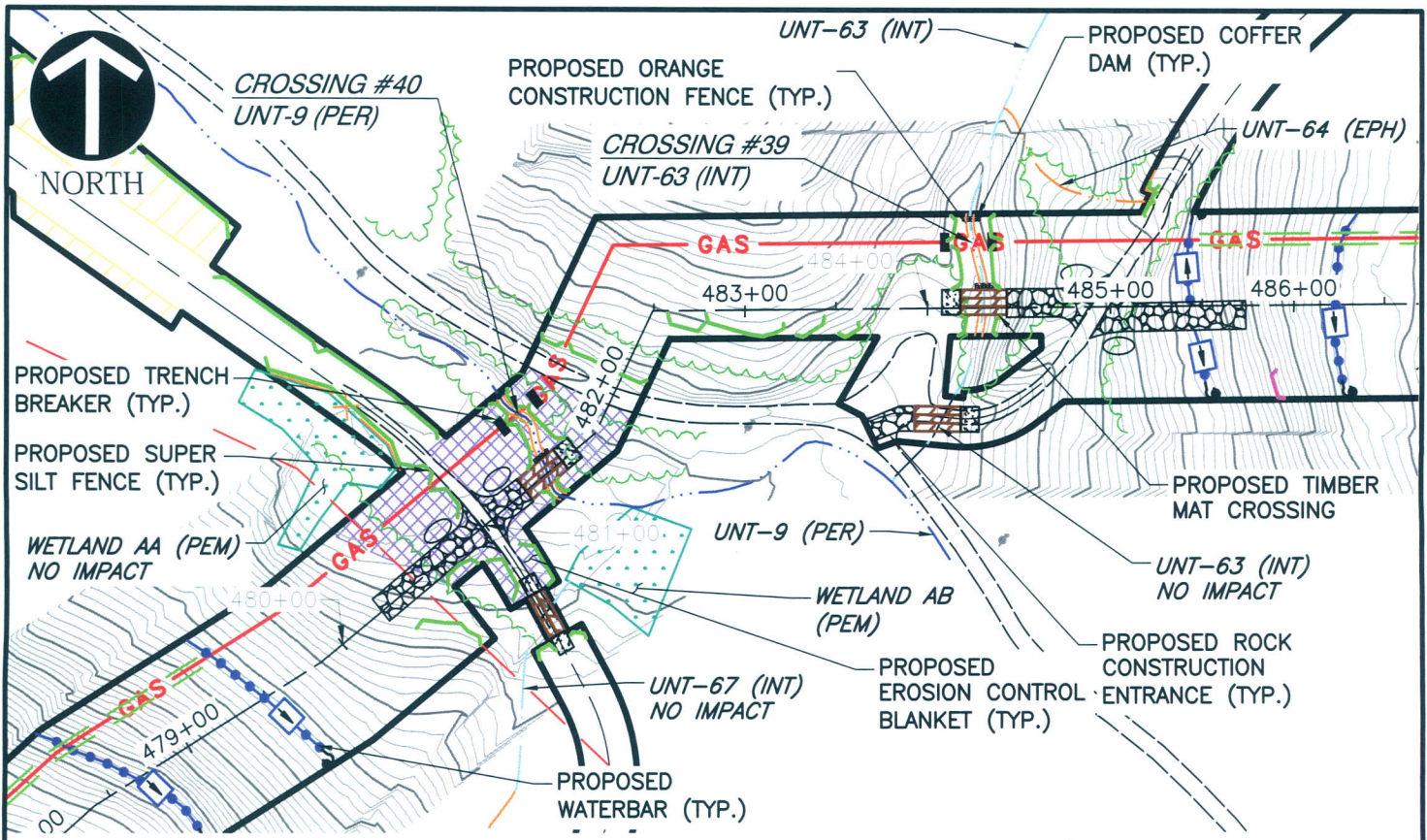
Property Designation: 10 of 24

Property Owner Data:		
Name of Primary Owner (PO): Adams David Laurence ET AL		
PO Address: 3631 Riggins Run Rd		
City: West Union	State: WV	Zip: 26456
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		


Surface Rights Owner Data:		
Name of Primary Owner (PO): Adams David Laurence ET AL		
PO Address: 3631 Riggins Run Rd		
City: West Union	State: WV	Zip: 26456
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

P:\2017\171-778 - CADD\DWG\EC01\171778-EC01-FIG-3-06.dwg[39-40] LS:(2/28/2018 - btomiczek) - LP: 2/28/2018 2:28 PM



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES. *HAND SIGNATURE ON FILE

 Civil & Environmental Consultants, Inc. www.cecinc.com		MARKWEST LIBERTY MIDSTREAM & RESOURCES, LLC SHERWOOD TO MOBLEY PIPELINE PROJECT DODDRIDGE COUNTY, WEST VIRGINIA	
		CROSSINGS #39-40 UNT-63 (INT) & UNT-9 (PER)	
DRAWN BY: LKC DATE: NOVEMBER 2017	CHECKED BY: ARG DWG SCALE: AS SHOWN	APPROVED BY: *JK PROJECT NO: 171-778-0003	FIGURE NO.: 3HH

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 11 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 52		
Decimal Latitude/Longitude: N 39.377797°, E -80.659703°		
DMS Latitude/Longitude: 39° 22' 40.07" N, -80° 34' 34.93" E		
District: McClellan	Map: 18	Parcel: 55.1
Land Book Description:		
Deed Book Reference: DBV 254, PG 27		
Tax Map Reference: Tax Map 18		
Existing Buildings/Use of Property: Existing Stream – UNT-63, Existing Woods, Existing Meadow		

Floodplain Location Data: <i>(to be completed by Floodplain Manager or designee)</i>			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

Property Owner Data:

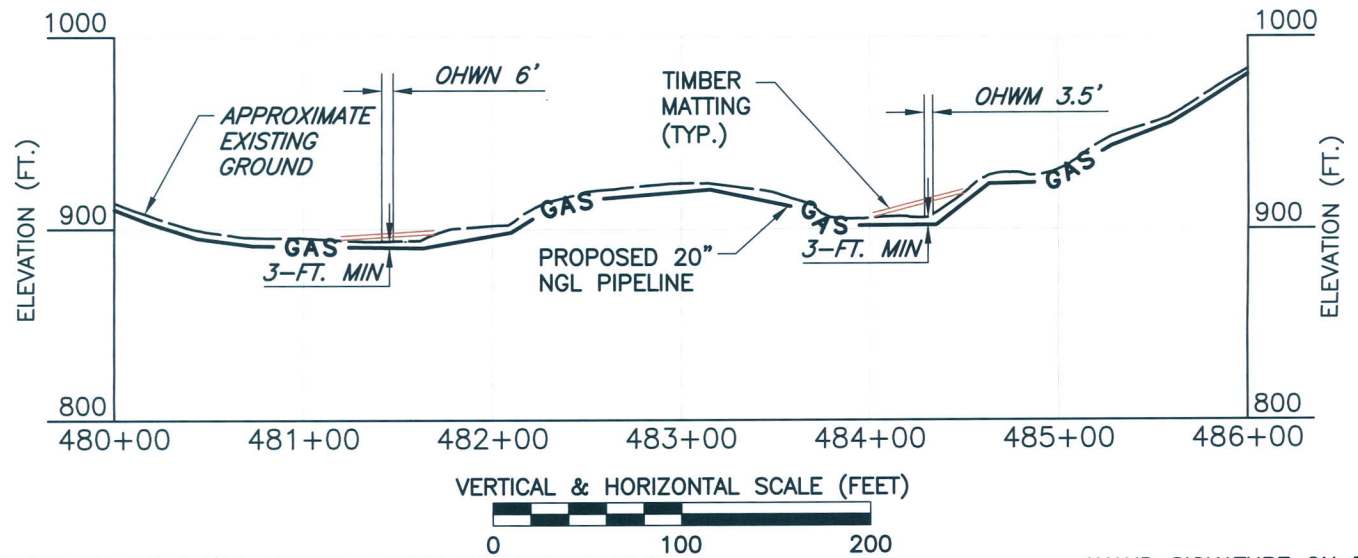
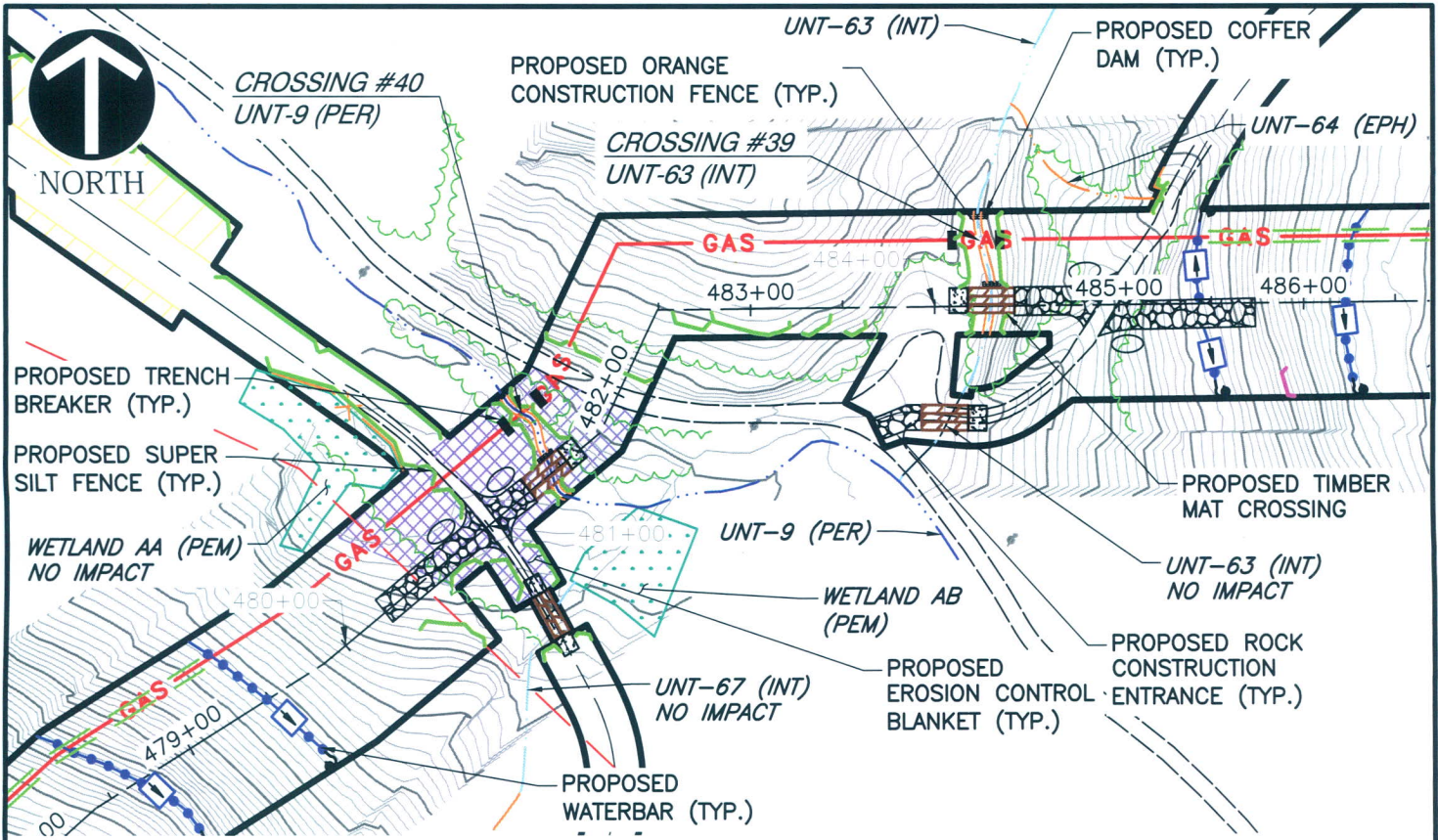
Please provide data on current site/property landowner(s), both surface and mineral rights (as applicable). Use additional copies of this page as needed. Designate each page in relation to each property listed above.

Property Designation: <u> 11 </u> of <u> 24 </u>
--

Property Owner Data:		
Name of Primary Owner (PO): Owens David L & Nancy L		
PO Address: 631 Coon Rd		
City: West Union	State: WV	Zip: 26456
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Owens David L & Nancy L		
PO Address: 631 Coon Rd		
City: West Union	State: WV	Zip: 26456
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES. *HAND SIGNATURE ON FILE



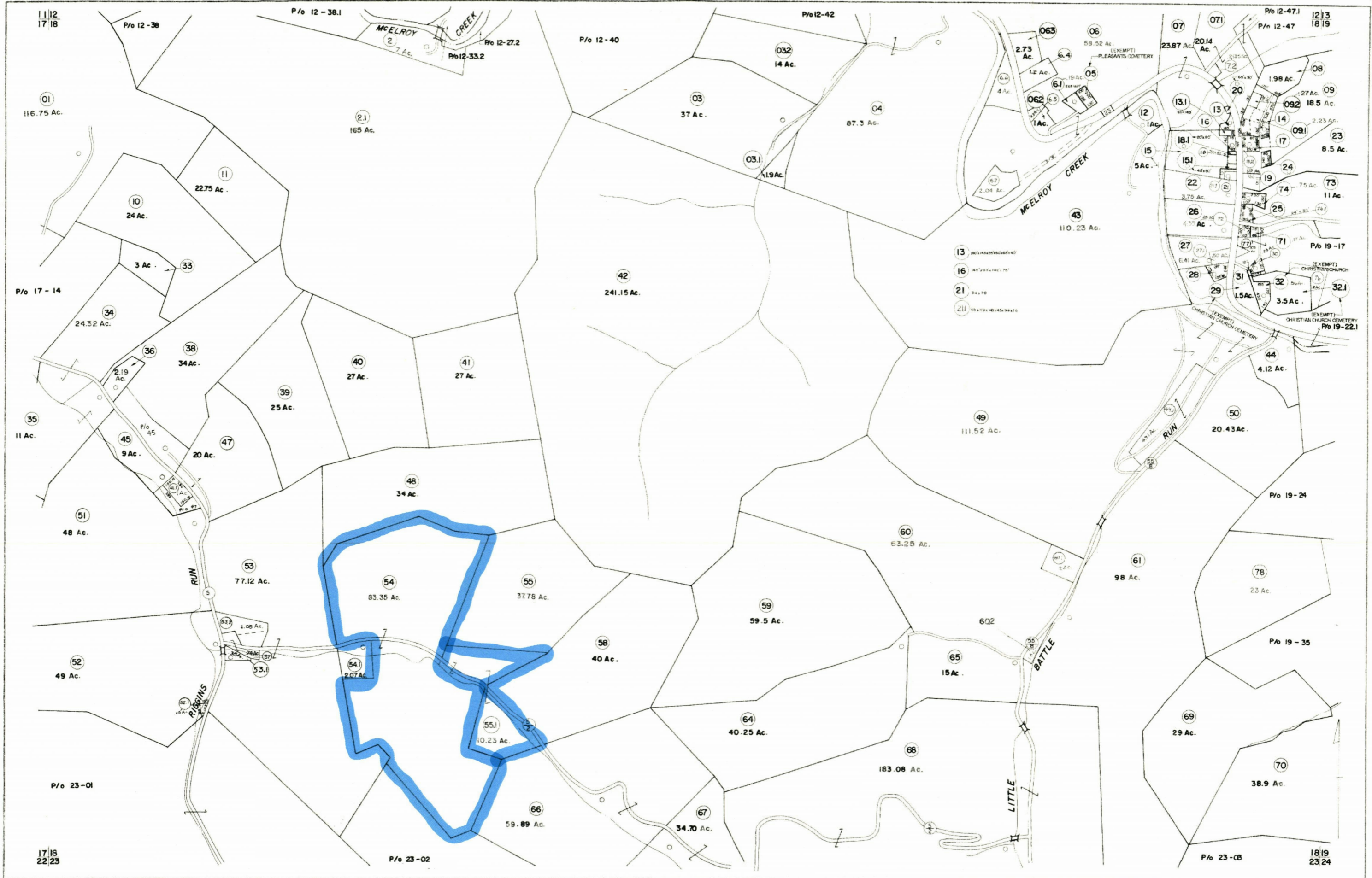
Civil & Environmental Consultants, Inc.

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MARKWEST LIBERTY MIDSTREAM
 & RESOURCES, LLC
 SHERWOOD TO MOBLEY PIPELINE PROJECT
 DODDRIDGE COUNTY, WEST VIRGINIA
 CROSSINGS #39-40
 UNT-63 (INT) & UNT-9 (PER)

DRAWN BY: LKC	CHECKED BY: ARG	APPROVED BY: *JK	FIGURE NO.: 3HH
DATE: NOVEMBER 2017	DWG SCALE: AS SHOWN	PROJECT NO: 171-778-0003	

P:\2017\171-778\CADD\DWG\EC01\171778-EC01-FIG-3-06.dwg(39-40).LS(2/28/2018 - bitomiczek) - LP: 2/28/2018 2:28 PM



FOR TAX PURPOSES ONLY

Prepared by
L. ROBERT KIMBALL
Consulting Engineer

Legend

Property line	Original lot line	(13)
Edge of pavement or roadway	Deed lot number in square	(14)
Corporation line	Parcel or index number in block	(15)
District line	Improvement	(16)
County line	Railroad	(17)

Revisions

1	REVISED 3/24/84	1	O.B.S.	12-28-90	JB	7	ESI	2/28/02	REK
2	1/16/77	2	O.G.S.	10-23-91	NK	8	5/5/03	HB5	
3	8-76	3	P.W.	12-8-92	JEB	9			
4	10/10/76	4	O.G.S.	1-23-96	JEB	10			
5	3-71-80	5	SLS INC.	12/29/97	DSW	11			
6	REV. 7-81 DP 7-82 T. Groves	6	SLS INC.	2/18/98	DSW	12			

STATE OF WEST VIRGINIA
DODDRIDGE COUNTY
Office of Assessor

McCLELLAN DISTRICT
SHEET 18

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 12 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: State Route 23		
Decimal Latitude/Longitude: N 39.399639°, E -80.646406°		
DMS Latitude/Longitude: 39° 23' 58.70" N, -80° 38' 47.06" E		
District: McClellan	Map: 12	Parcel: 41
Land Book Description:		
Deed Book Reference: DBV WB97, PG 348		
Tax Map Reference: Tax Map 12		
Existing Buildings/Use of Property: Existing Stream – McElroy Creek, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 12 of 24

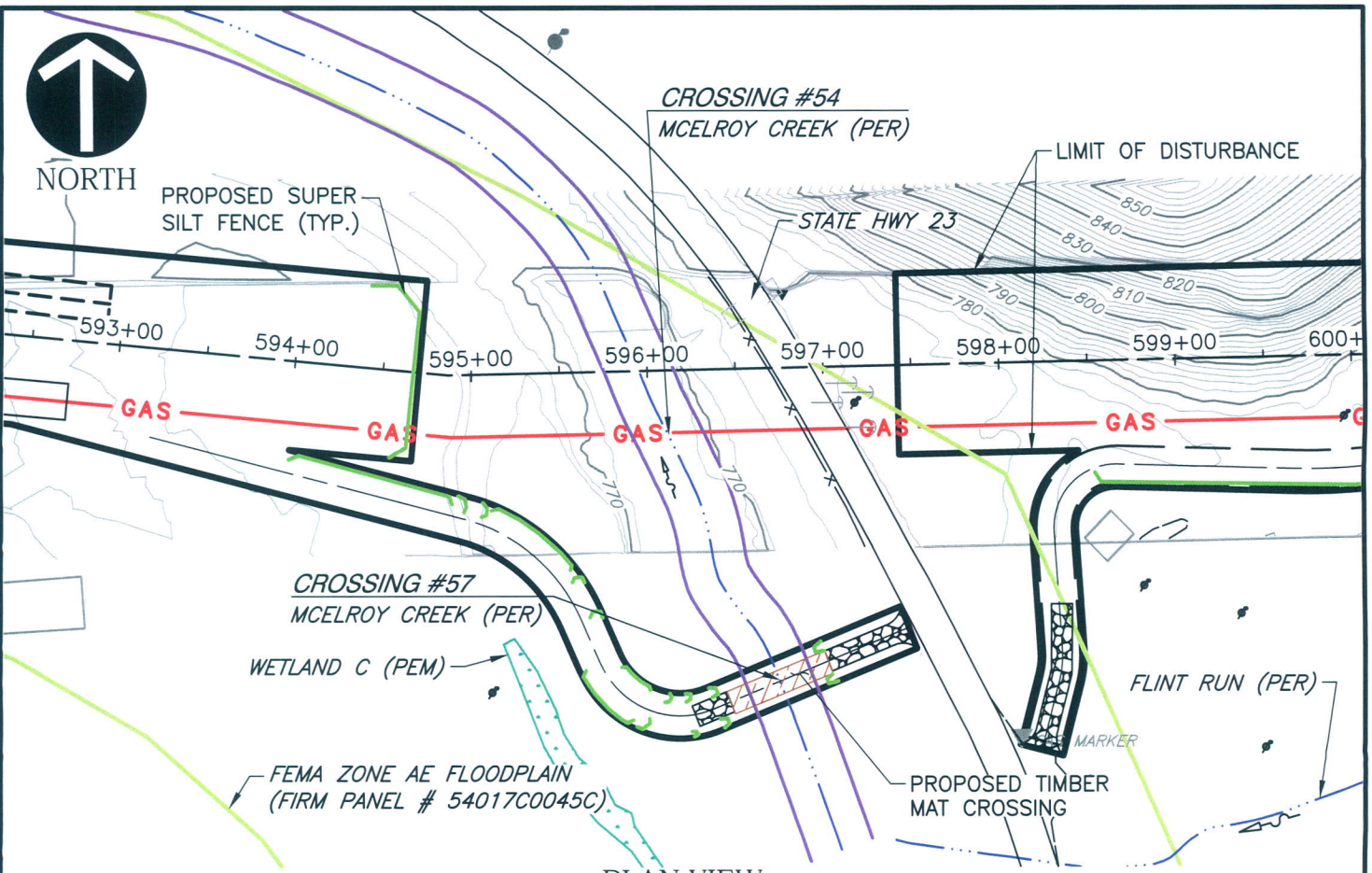
Property Owner Data:		
Name of Primary Owner (PO): Braun Jerry E		
PO Address: 9699 WV Route 23 N		
City: West Union	State: WV	Zip: 26456
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Braun Jerry E		
PO Address: 9699 WV Route 23 N		
City: West Union	State: WV	Zip: 26456
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

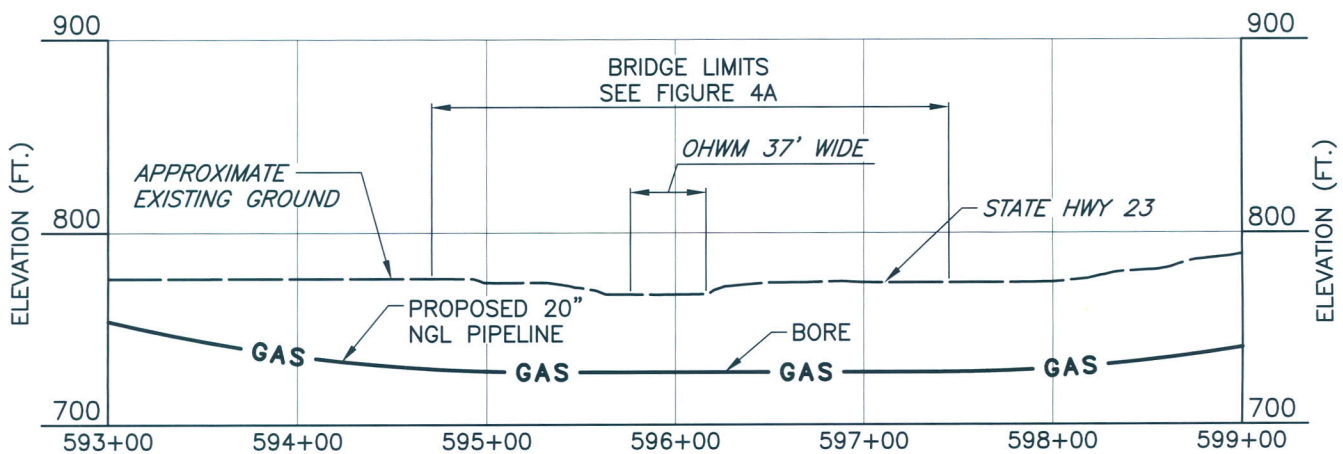
Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



NORTH



PLAN VIEW
SCALE IN FEET



PROFILE

VERTICAL & HORIZONTAL SCALE (FEET)



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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MARKWEST LIBERTY MIDSTREAM
& RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSINGS #54 & 57
MCELROY CREEK (PER)

DRAWN BY: LKC	CHECKED BY: ARG	APPROVED BY: *JK	FIGURE NO.: 3K
DATE: NOVEMBER 2017	DWG SCALE: AS SHOWN	PROJECT NO: 171-778-0003	

P:\2017\171-778\CADD\DWG\EC01\171778-EC01-FIG-3-02.dwg(54) LS:(3/1/2018 - btomiczek) - LP: 3/1/2018 11:41 AM

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 13 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: State Route 23		
Decimal Latitude/Longitude: N 39.399881°, E -80.644064°		
DMS Latitude/Longitude: 39° 23' 59.57" N, -80° 38' 38.63" E		
District: McClellan	Map: 12	Parcel: 29
Land Book Description:		
Deed Book Reference: DBV 252, PG 674		
Tax Map Reference: Tax Map 12		
Existing Buildings/Use of Property: Existing Stream – UNT-26, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: <u> 13 </u> of <u> 24 </u>
--

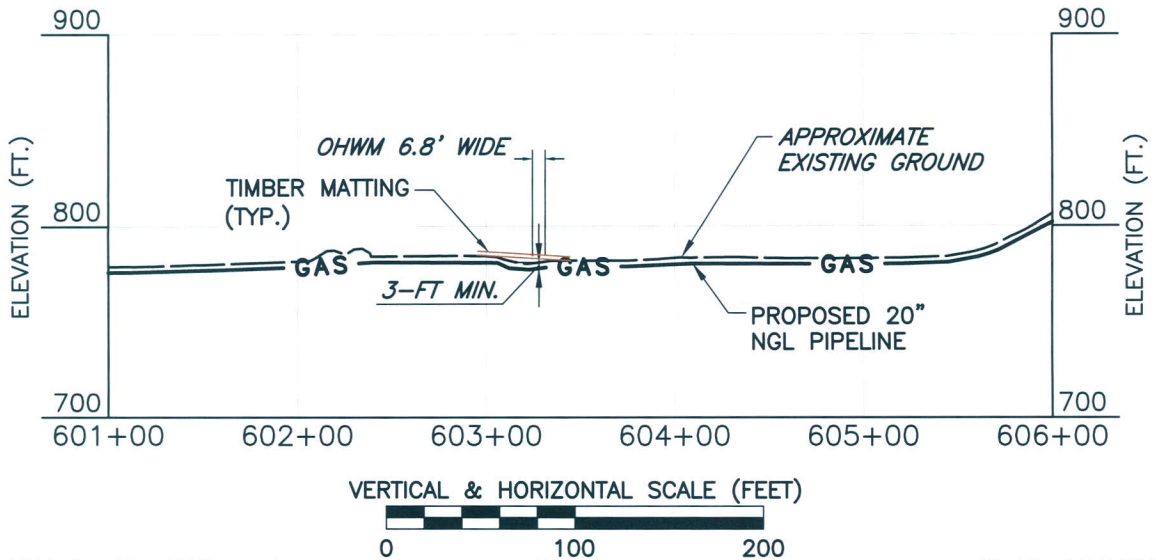
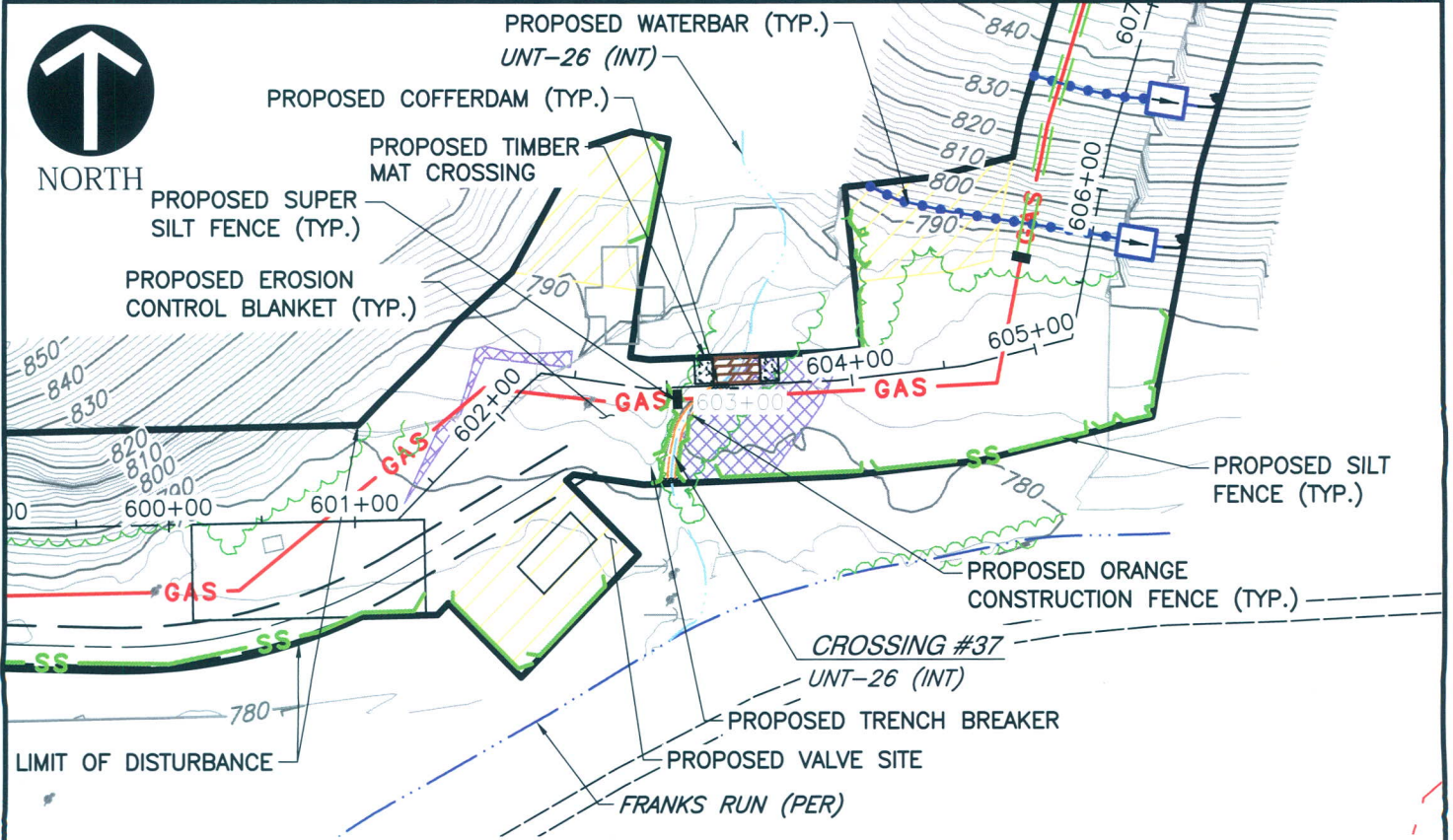
Property Owner Data:		
Name of Primary Owner (PO): Fernet Harold K ET AL		
PO Address: 2419 Maple Ave		
City: Fayetteville	State: WV	Zip: 25840
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Fernet Harold K ET AL		
PO Address: 2419 Maple Ave		
City: Fayetteville	State: WV	Zip: 25840
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



NORTH



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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MARKWEST LIBERTY MIDSTREAM & RESOURCES, LLC
 SHERWOOD TO MOBLEY PIPELINE PROJECT
 DODDRIDGE COUNTY, WEST VIRGINIA

CROSSING #37
 UNT-26 (INT)

DRAWN BY: LKC	CHECKED BY: ARG	APPROVED BY: *JK	FIGURE NO.: 3FF
DATE: NOVEMBER 2017	DWG SCALE: AS SHOWN	PROJECT NO: 171-778-0003	

P:\2017\171-778\CADD\DWG\EC01\171778-EC01-FIG-3-06.dwg\37 LS(2/28/2018 - btomiczek) - LP: 2/28/2018 2:26 PM

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 14 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 6		
Decimal Latitude/Longitude: N 39.401247°, E -80.640458°		
DMS Latitude/Longitude: 39° 24' 04.49" N, -80° 38' 25.65" E		
District: McClellan	Map: 12	Parcel: 19
Land Book Description:		
Deed Book Reference: DBV WB33, PG 513		
Tax Map Reference: Tax Map 12		
Existing Buildings/Use of Property: Existing Stream – UNT-102 and UNT-103, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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.

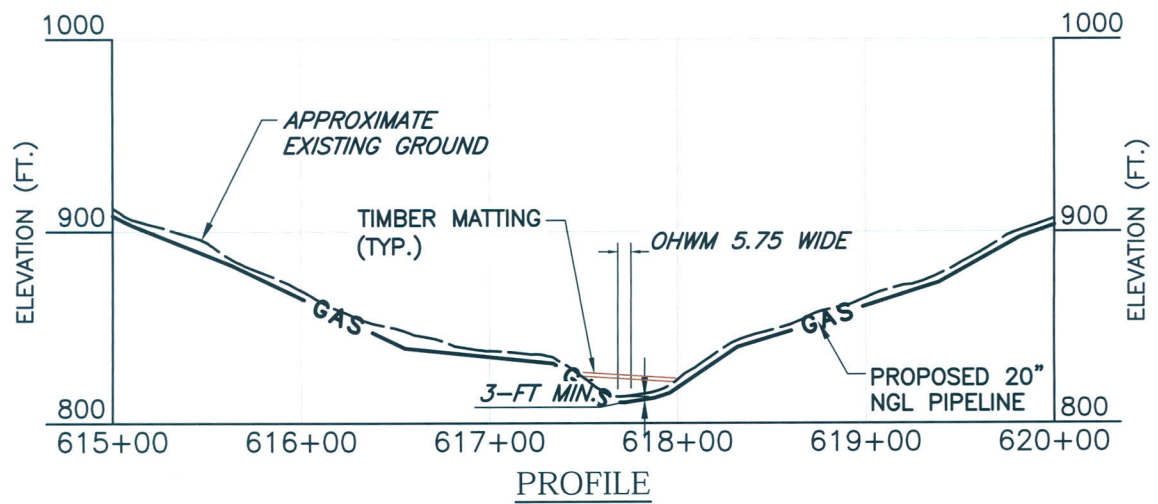
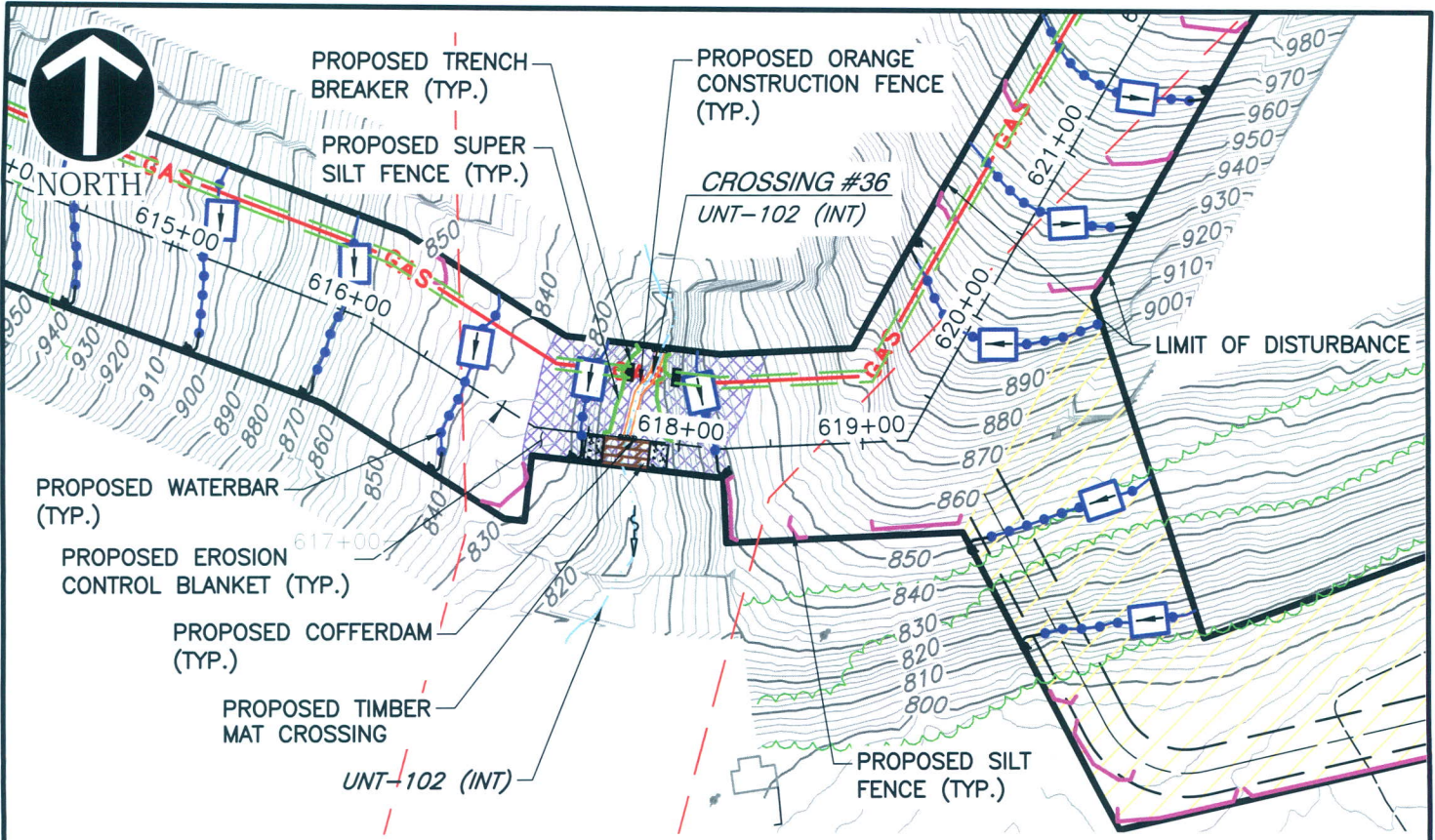
Property Designation: <u> 14 </u> of <u> 24 </u>
--

Property Owner Data:		
Name of Primary Owner (PO): Glaspell Mary L		
PO Address: 14723 WV Route 23 N		
City: West Union	State: WV	Zip: 26456
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Glaspell Mary L		
PO Address: 14723 WV Route 23 N		
City: West Union	State: WV	Zip: 26456
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

P:\2017\171-778\171-778-ECO1-FIG-3-06.dwg\36} LS:(2/28/2018 - bitomiczek) - LP: 2/28/2018 2:24 PM



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES. *HAND SIGNATURE ON FILE



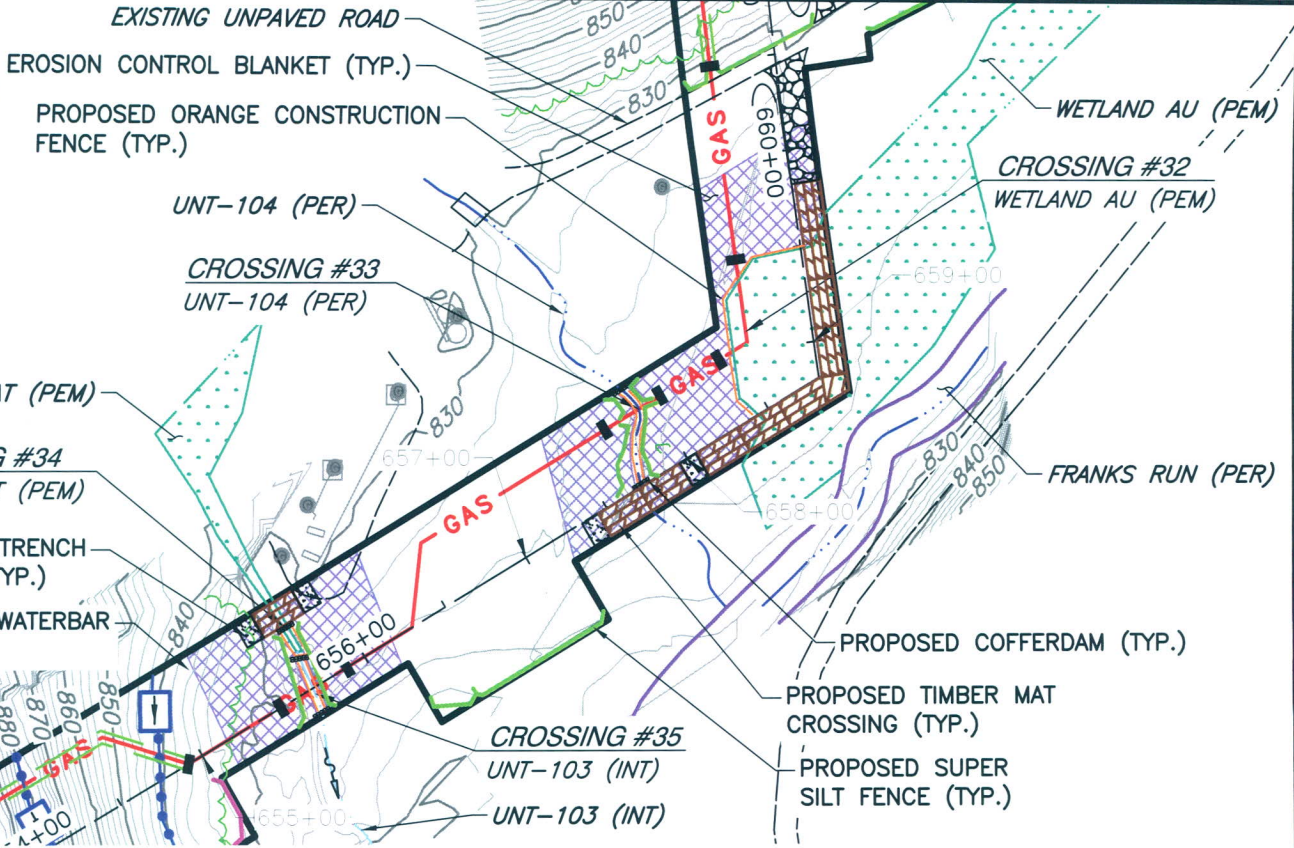
Civil & Environmental Consultants, Inc.

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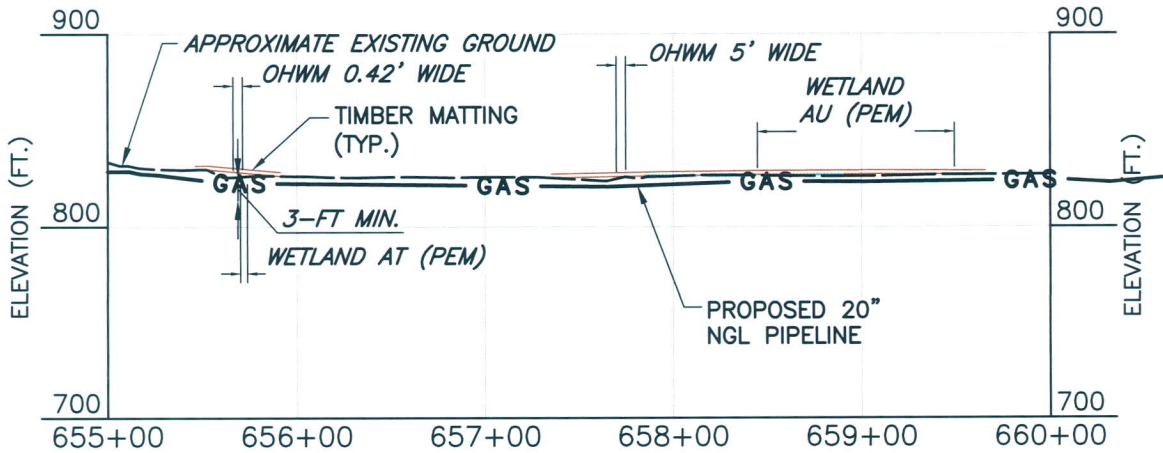
MARKWEST LIBERTY MIDSTREAM
& RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSING #36
UNT-102 (INT)

DRAWN BY: LKC	CHECKED BY: ARG	APPROVED BY: *JK	FIGURE NO.: 3EE
DATE: NOVEMBER 2017	DWG SCALE: AS SHOWN	PROJECT NO: 171-778-0003	



PLAN VIEW
SCALE IN FEET



PROFILE

VERTICAL & HORIZONTAL SCALE (FEET)



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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MARKWEST LIBERTY MIDSTREAM
& RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSINGS #32-35: WETLAND AU (PEM), UNT-104 (PER),
WETLAND AT (PEM), & UNT-103 (INT)

DRAWN BY: LKC	CHECKED BY: ARG	APPROVED BY: *JK	FIGURE NO.: 3DD
DATE: NOVEMBER 2017	DWG SCALE: AS SHOWN	PROJECT NO: 171-778-0003	

P:\2017\171-778-CADD\DWG\EC01\171778-EC01-FIG-3-06.dwg[32-35] Ls:(2/28/2018 - btomiczek) - LP: 2/28/2018 2:22 PM

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 15 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 6		
Decimal Latitude/Longitude: N 39.409569°, E -80.637492°		
DMS Latitude/Longitude: 39° 24' 34.45" N, -80° 38' 14.97" E		
District: McClellan	Map: 12	Parcel: 7
Land Book Description:		
Deed Book Reference: DBV WB33, PG 513		
Tax Map Reference: Tax Map 12		
Existing Buildings/Use of Property: Existing Stream – UNT-104, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

Property Owner Data:

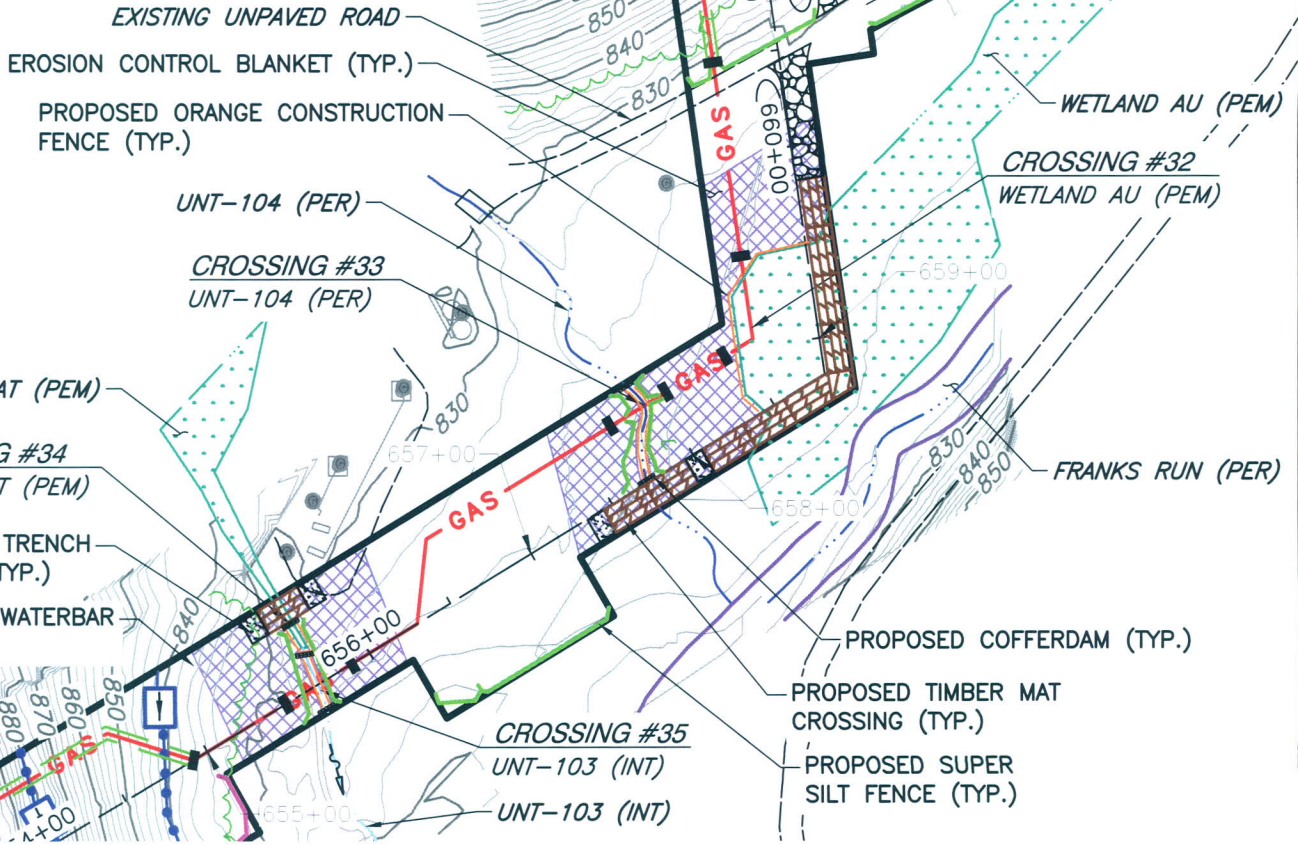
Please provide data on current site/property landowner(s), both surface and mineral rights (as applicable). Use additional copies of this page as needed. Designate each page in relation to each property listed above.

Property Designation: <u> 15 </u> of <u> 24 </u>
--

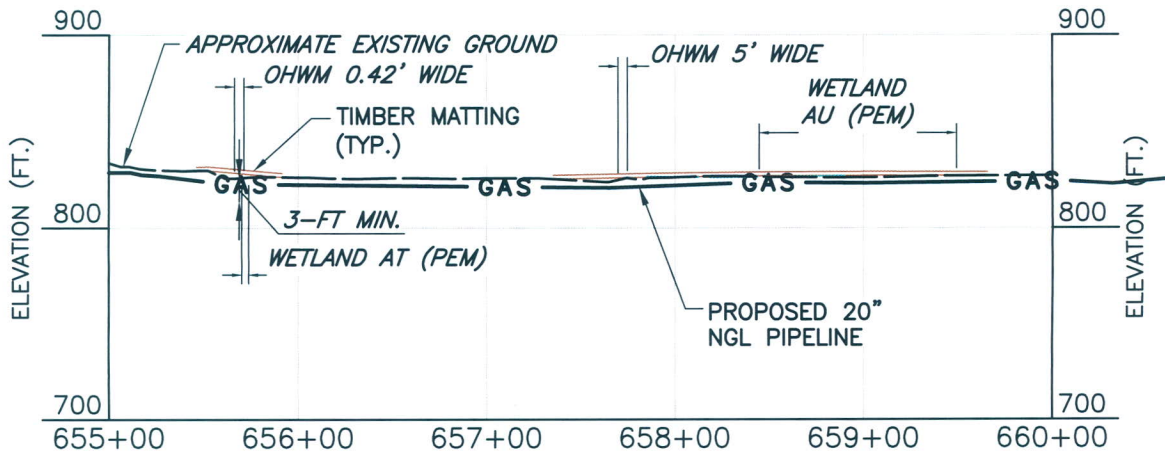
Property Owner Data:		
Name of Primary Owner (PO): Glaspell Mary L		
PO Address: 14723 WV Route 23 N		
City: West Union	State: WV	Zip: 26456
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Glaspell Mary L		
PO Address: 14723 WV Route 23 N		
City: West Union	State: WV	Zip: 26456
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



PLAN VIEW
SCALE IN FEET



PROFILE

VERTICAL & HORIZONTAL SCALE (FEET)



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



Civil & Environmental Consultants, Inc.

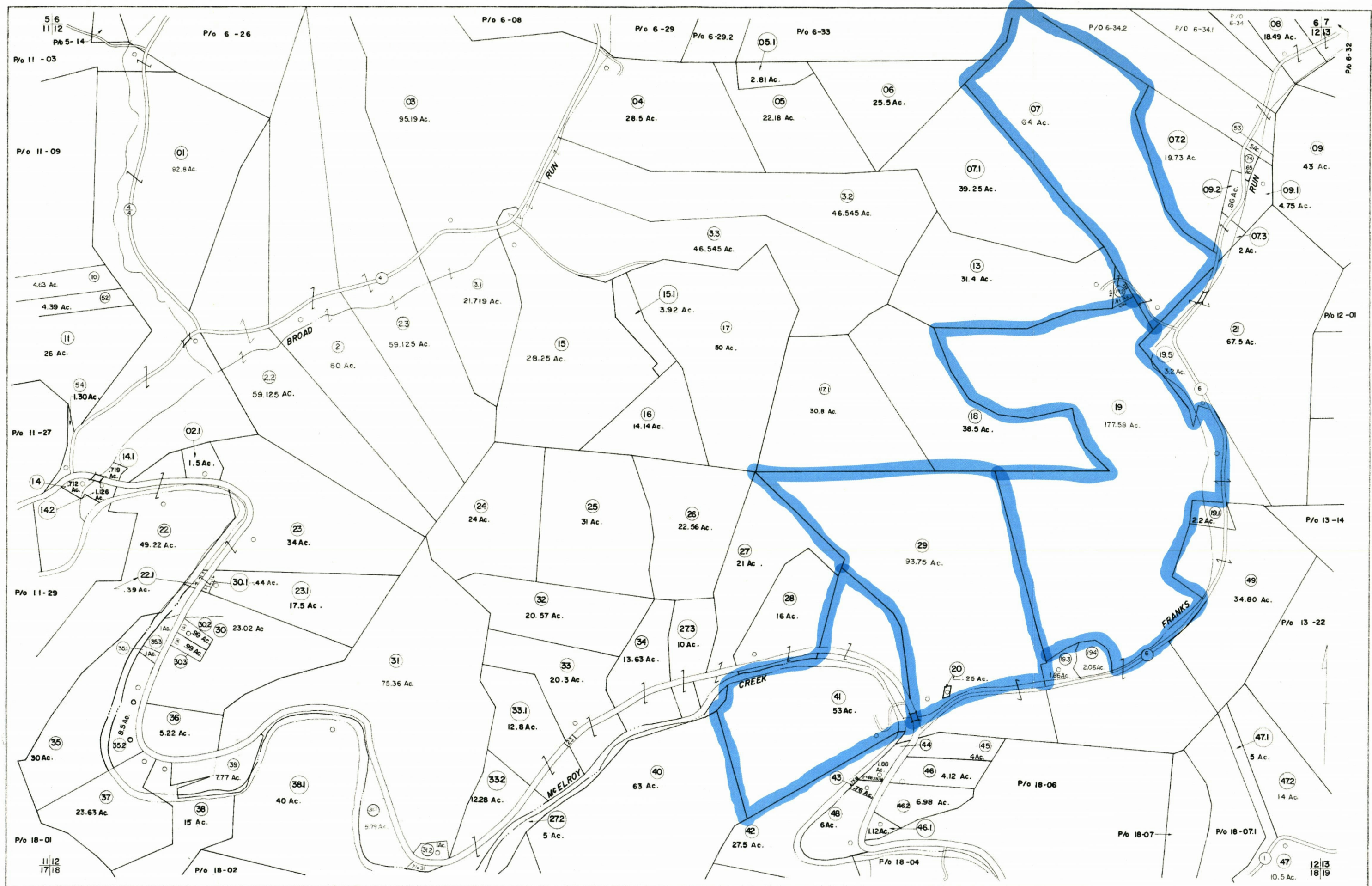
www.cecinc.com

MARKWEST LIBERTY MIDSTREAM
& RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSINGS #32-35: WETLAND AU (PEM), UNT-104 (PER),
WETLAND AT (PEM), & UNT-103 (INT)

DRAWN BY: LKC	CHECKED BY: ARG	APPROVED BY: *JK	FIGURE NO.: 3DD
DATE: NOVEMBER 2017	DWG SCALE: AS SHOWN	PROJECT NO: 171-778-0003	

P:\2017\171-778\CADD\DWG\EC01-FIG-3-06.dwg(32-35) LS:(2/28/2018 - blomiczek) - LP: 2/28/2018 2:22 PM



FOR TAX PURPOSES ONLY

Prepared by
L. ROBERT KIMBALL
Consulting Engineer

Legend	
Property line	Original lot line
Edge of pavement or roadway	Dead lot number in parenthesis
Corporation line	Parcel or index number in box
District line	Improvement
County line	Railroad

Revisions	
1 REVISED 3/24/64	2 Revised to 2-1-68
3 11/20/75 P/W	4 Revised to 7-1-89
5 8/76	6 OGIS 12-27-90
7 REVISED 7-91 T. Gross	8 OGIS 10-23-91
9 7-7-83	10 OGIS 12-8-92
10 2-1-88	11 OGIS 2-95
11 2-1-88	12

STATE OF WEST VIRGINIA
DODDRIDGE COUNTY
Office of Assessor

McCLELLAN DISTRICT
SHEET 12

Date and Description of map

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 16 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 6		
Decimal Latitude/Longitude: N 39.414506°, E -80.635547°		
DMS Latitude/Longitude: 39° 24 52.22" N, -80° 38' 07.97" E		
District: McClellan	Map: 6	Parcel: 34.2
Land Book Description:		
Deed Book Reference: DBV 394, PG 347		
Tax Map Reference: Tax Map 6		
Existing Buildings/Use of Property: Existing Stream – UNT-106, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 16 of 24

Property Owner Data:		
Name of Primary Owner (PO): MarkWest Liberty Midstream Resources LLC		
PO Address: 1515 Arapahoe St – Tower 1 Suite 1600		
City: Denver	State: CO	Zip: 80202
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): MarkWest Liberty Midstream Resources LLC		
PO Address: 1515 Arapahoe St – Tower 1 Suite 1600		
City: Denver	State: CO	Zip: 80202
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



NORTH

PROPOSED COFFERDAM (TYP.)

UNT-106 (PER)

CROSSING #30
UNT-106 (PER)

PROPOSED TRENCH
BREAKER (TYP.)

PROPOSED ORANGE
CONSTRUCTION FENCE
(TYP.)

PROPOSED SUPER
SILT FENCE (TYP.)

LIMIT OF DISTURBANCE

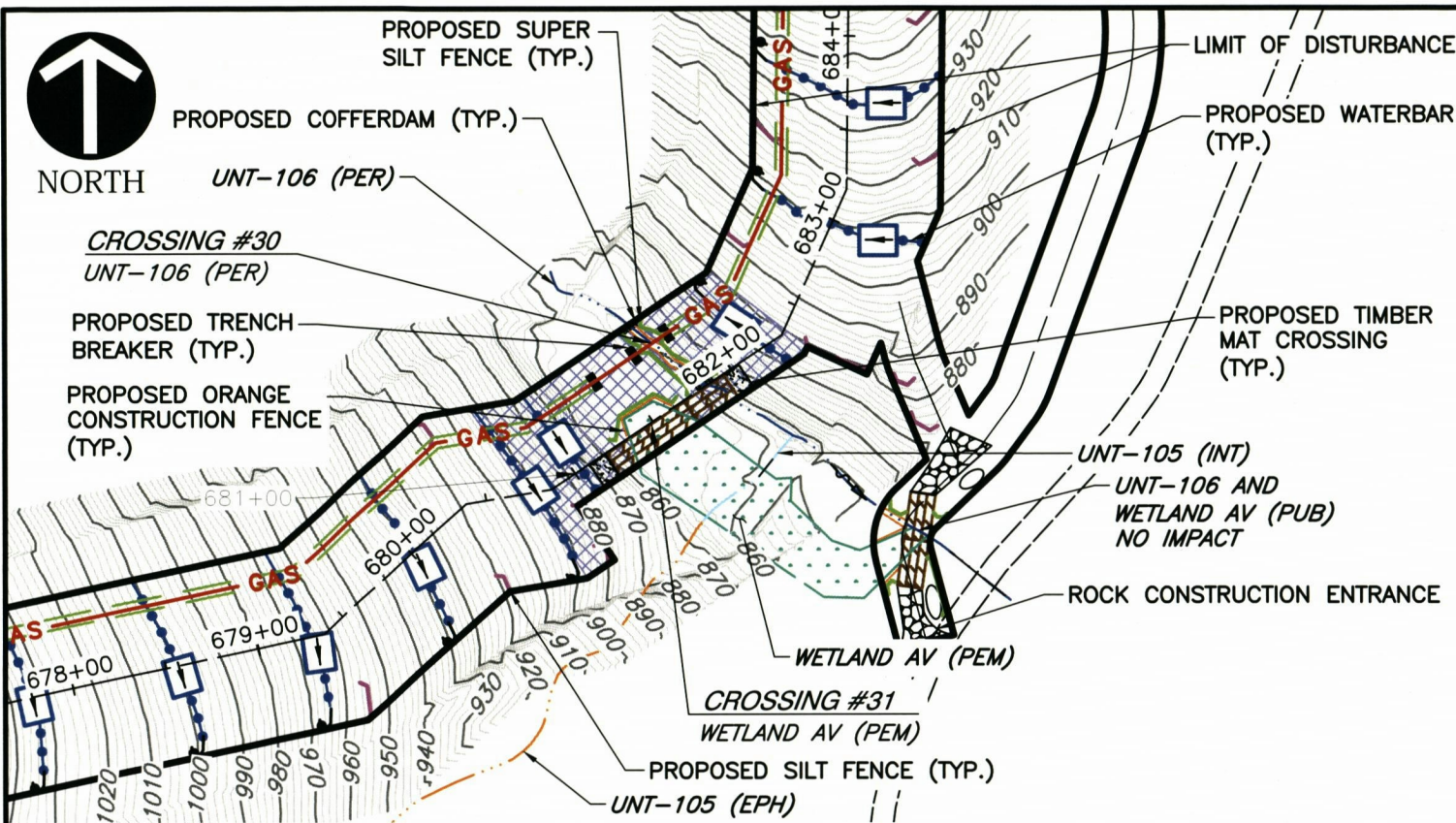
PROPOSED WATERBAR
(TYP.)

PROPOSED TIMBER
MAT CROSSING
(TYP.)

UNT-105 (INT)

UNT-106 AND
WETLAND AV (PUB)
NO IMPACT

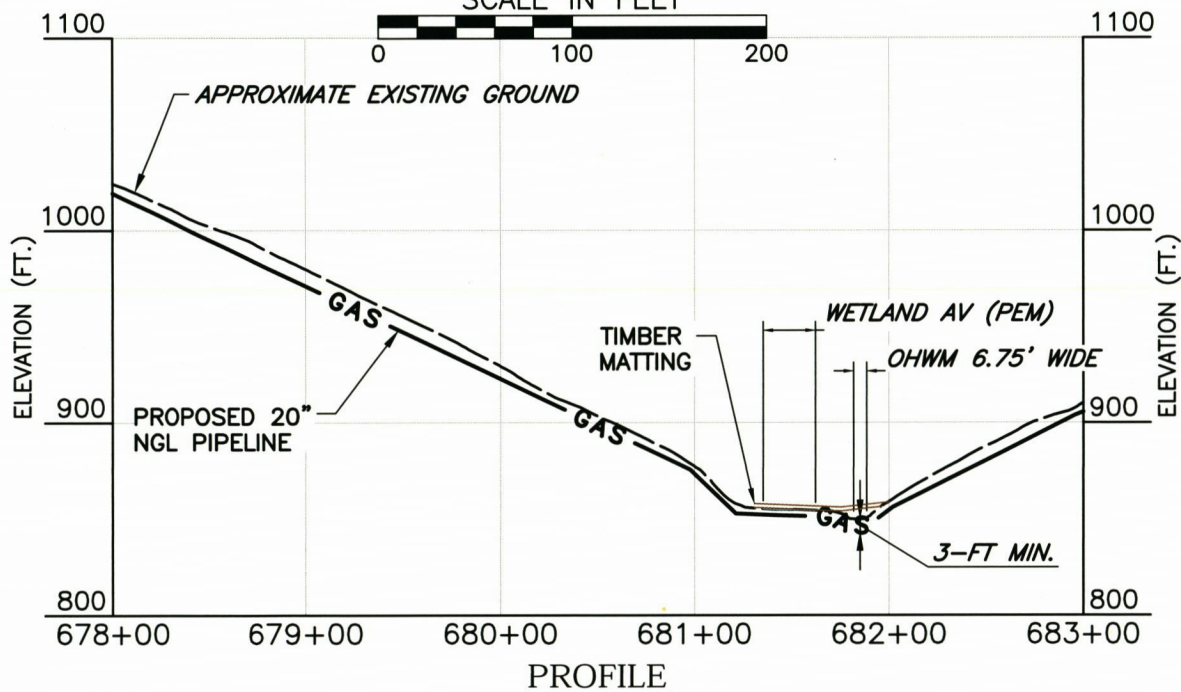
ROCK CONSTRUCTION ENTRANCE



CROSSING #31
WETLAND AV (PEM)

PROPOSED SILT FENCE (TYP.)
UNT-105 (EPH)

PLAN VIEW
SCALE IN FEET



PROFILE

VERTICAL & HORIZONTAL SCALE (FEET)



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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MARKWEST LIBERTY MIDSTREAM
& RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSINGS #30 & 31
UNT-106 (PER) & WETLAND AV (PEM)

DRAWN BY: LKC	CHECKED BY: ARG	APPROVED BY: *JK	FIGURE NO.:
DATE: NOVEMBER 2017	DWG SCALE: AS SHOWN	PROJECT NO: 171-778-0003	3CC

P: 2017 171-778 - CADD \Dwg\EC01\71778-EC01-FIG-3-05.dwg(30 & 31) LS:(2/28/2018 - blomiczek) - LP: 2/28/2018 2:39 PM

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 17 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 6		
Decimal Latitude/Longitude: N 39.418961°, E -80.636661°		
DMS Latitude/Longitude: 39° 25' 08.26" N, -80° 38' 11.98" E		
District: McClellan	Map: 6	Parcel: 34
Land Book Description:		
Deed Book Reference: DBV 394, PG 342		
Tax Map Reference: Tax Map 6		
Existing Buildings/Use of Property: Existing Stream – UNT-36, and UNT-37, Existing Woods, Existing Woods		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
Is the development in the floodway?		Is the development in the floodplain?	
<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 17 of 24

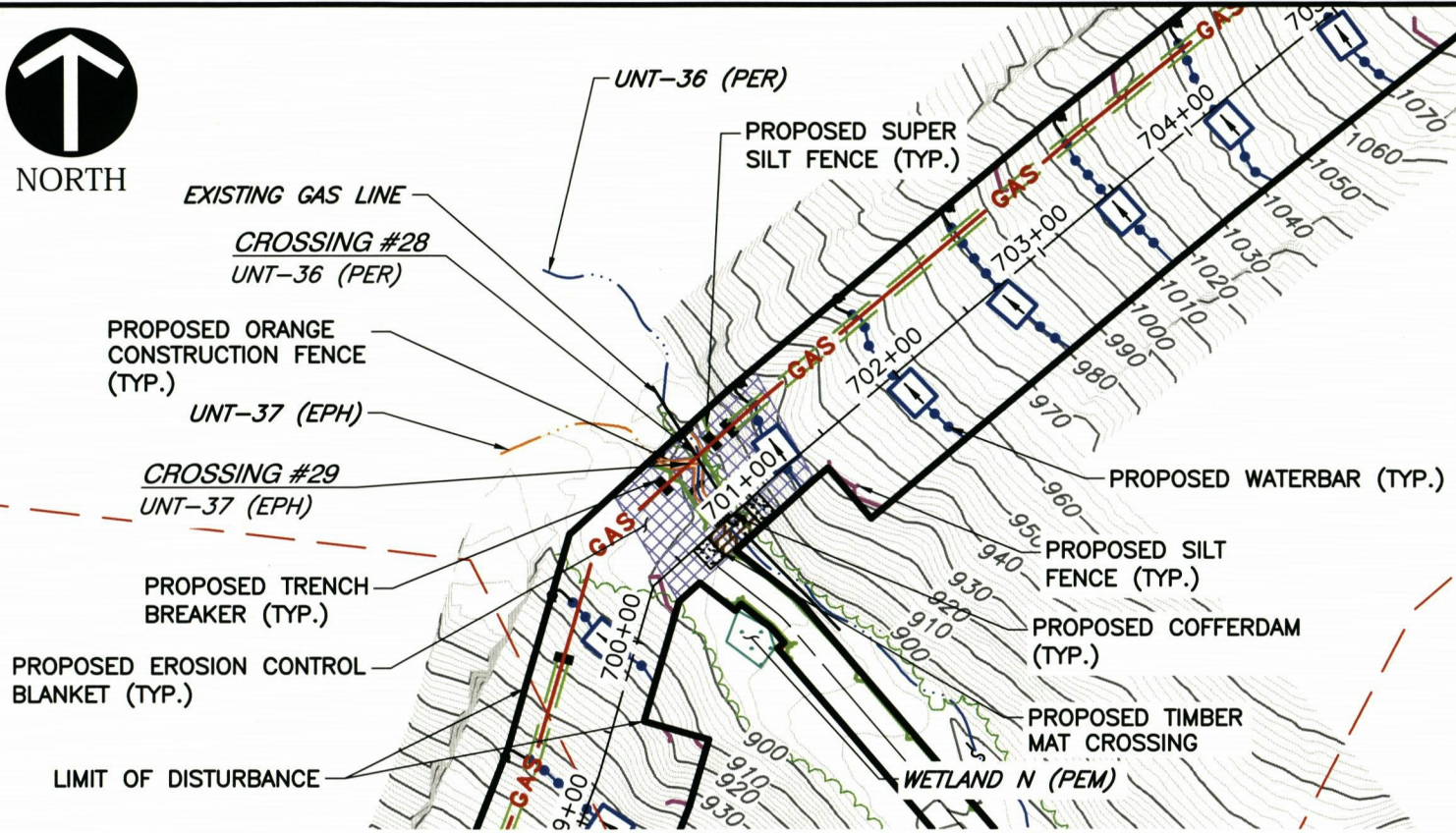
Property Owner Data:		
Name of Primary Owner (PO): MarkWest Liberty Midstream Resources LLC		
PO Address: 1515 Arapahoe St – Tower 1 Suite 1600		
City: Denver	State: CO	Zip: 80202
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): MarkWest Liberty Resources LLC		
PO Address: 1515 Arapahoe St – Tower 1 Suite 1600		
City: Denver	State: CO	Zip: 80202
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

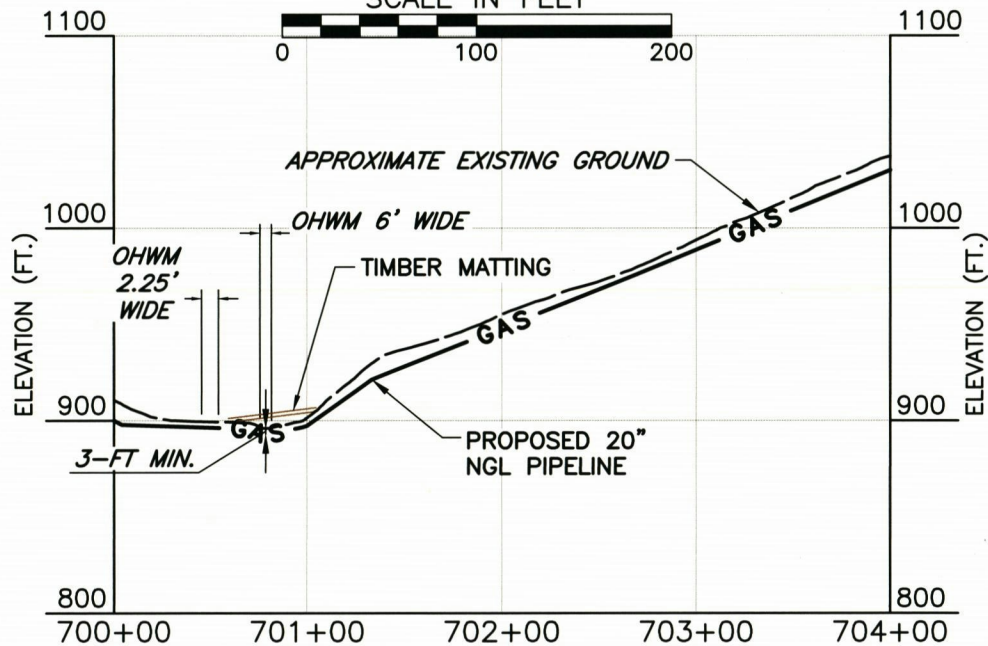
Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



NORTH



PLAN VIEW
SCALE IN FEET



PROFILE



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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MARKWEST LIBERTY MIDSTREAM & RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSINGS #28 & 29
UNT-36 (PER) & UNT-37 (EPH)

DRAWN BY: LKC	CHECKED BY: ARG	APPROVED BY: *JK	FIGURE NO.:
DATE: NOVEMBER 2017	DWG SCALE: AS SHOWN	PROJECT NO: 171-778-0003	3BB

P: 2017 171-778 - CADD \Dwg\EC01\71778-EC01-FIG-3-05.dwg{28 & 29} LS:(2/28/2018 - btomiczek) - LP: 2/28/2018 2:37 PM

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 18 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 6		
Decimal Latitude/Longitude: N 39.421550°, E -80.632622°		
DMS Latitude/Longitude: 39° 25' 17.58" N, -80° 37' 57.44" E		
District: McClellan	Map: 6	Parcel: 32.1
Land Book Description:		
Deed Book Reference: DBV WB19, PG 660		
Tax Map Reference: Tax Map 6		
Existing Buildings/Use of Property: Existing Stream – UNT-38, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: <u> 18 </u> of <u> 24 </u>
--

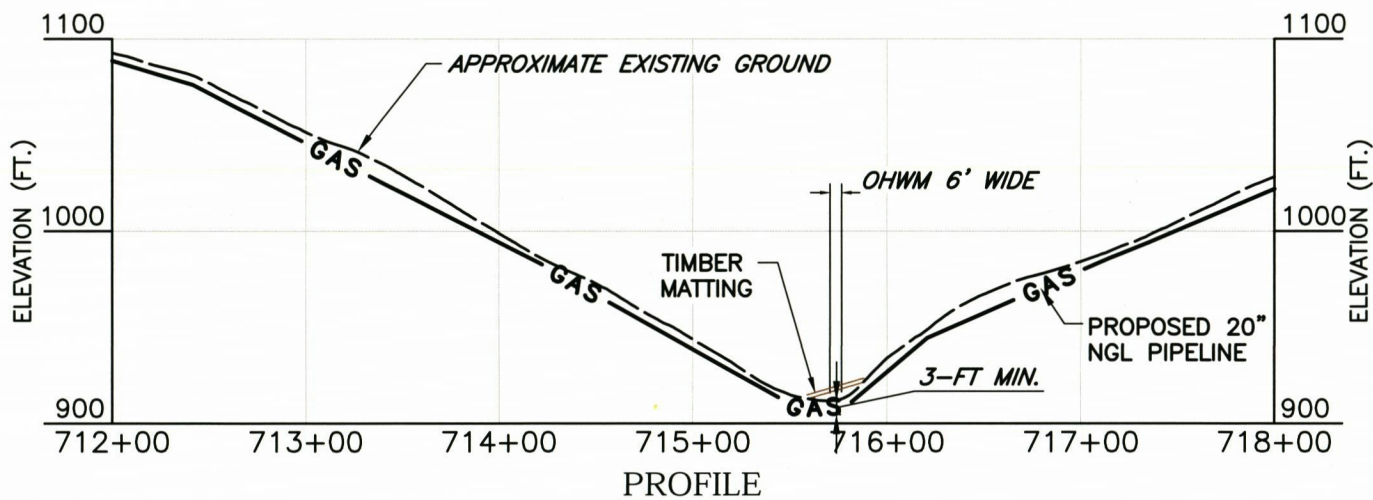
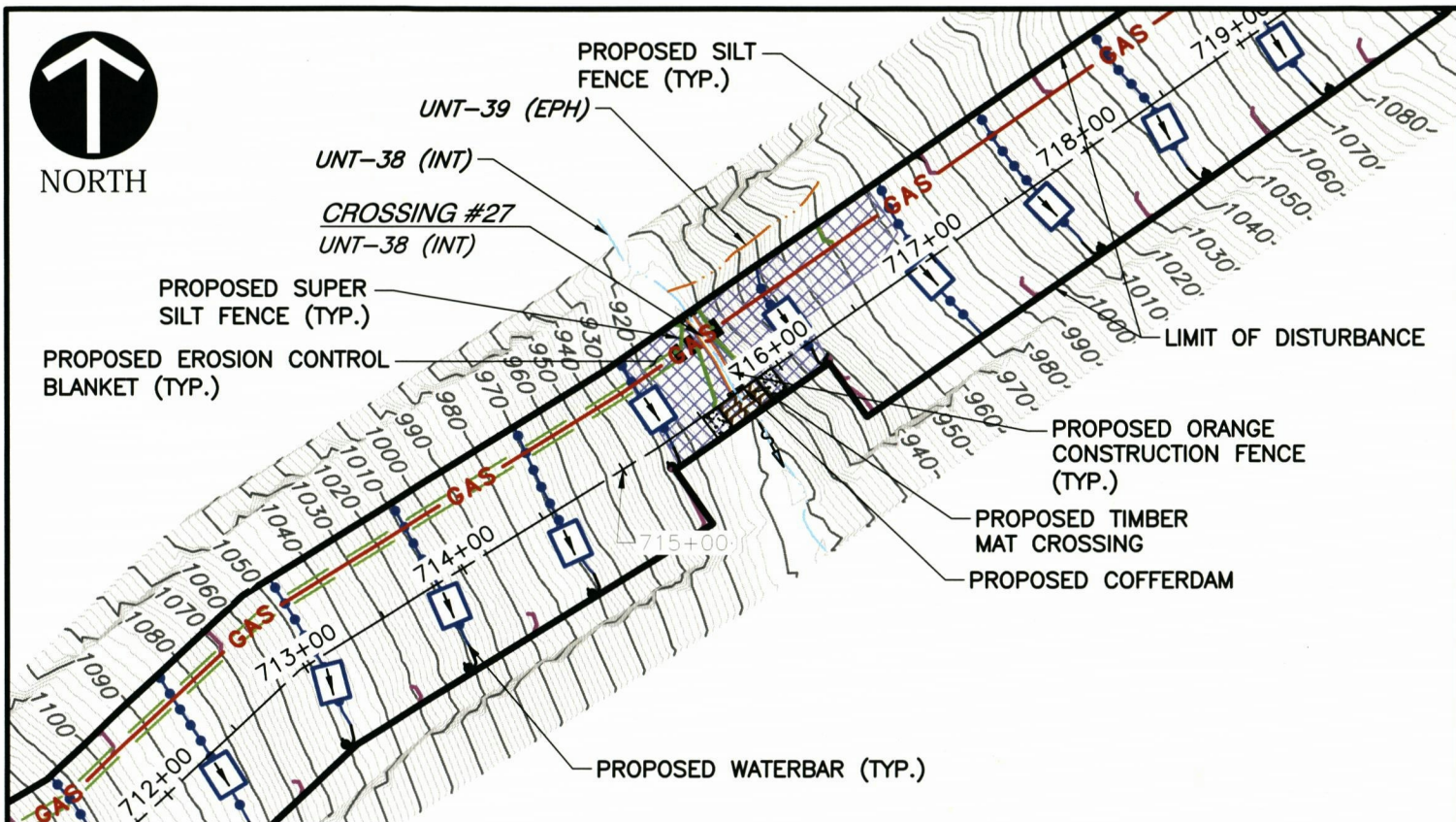
Property Owner Data:		
Name of Primary Owner (PO): Knight Phyllis M		
PO Address: 235 Blue Point Pkwy		
City: Fayetteville	State: GA	Zip: 30215
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Knight Phyllis M		
PO Address: 235 Blue Point Pkwy		
City: Fayetteville	State: GA	Zip: 30215
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



NORTH



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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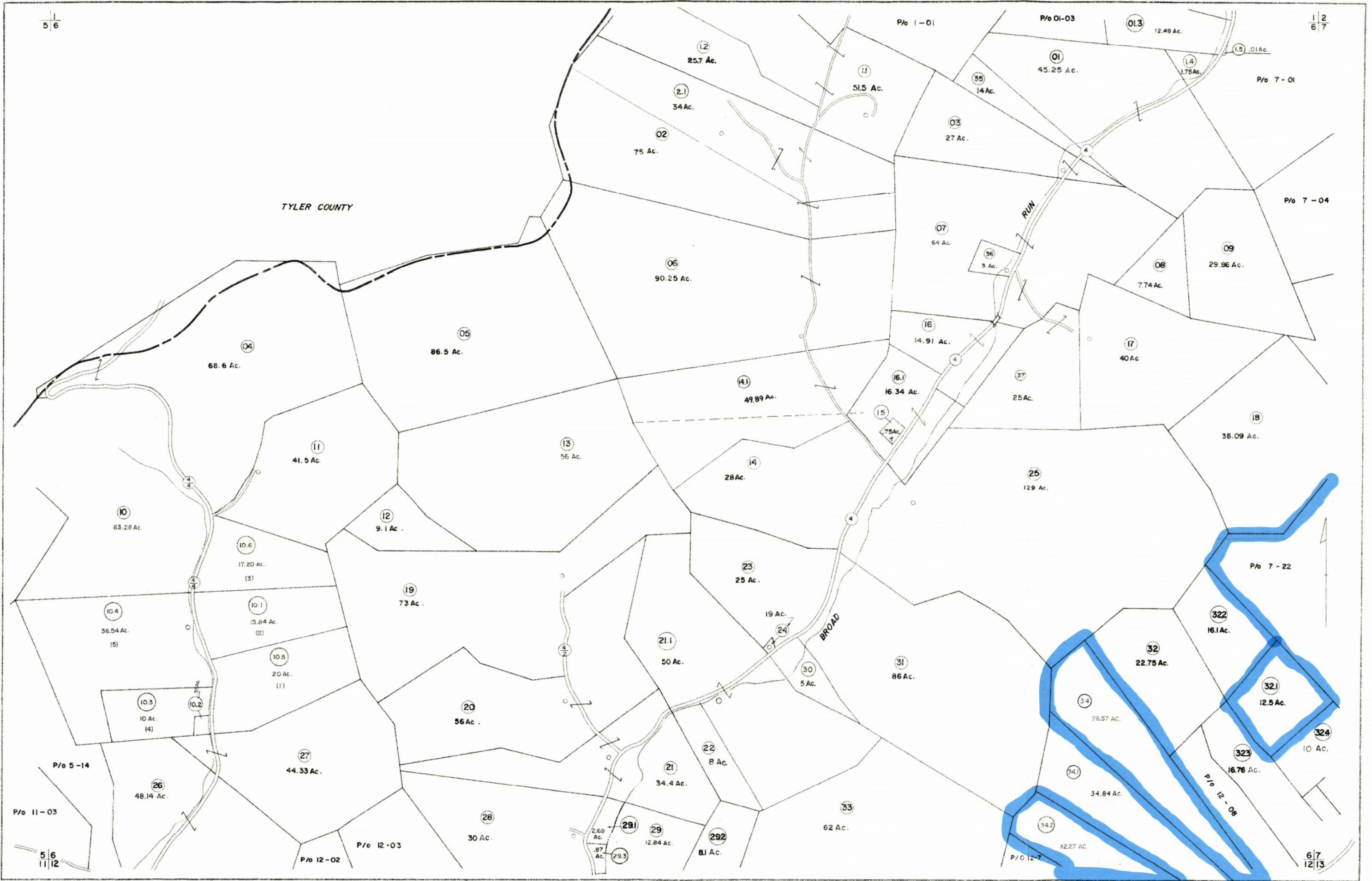
www.cecinc.com

MARKWEST LIBERTY MIDSTREAM & RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSING #27
UNT-38 (INT)

DRAWN BY: LKC	CHECKED BY: ARG	APPROVED BY: *JK	FIGURE NO.:
DATE: NOVEMBER 2017	DWG SCALE: AS SHOWN	PROJECT NO: 171-778-0003	3AA

P:\2017\171-778-CADD\DWG\EC01\71778-EC01-FIG-3-05.dwg(27) LS:(2/28/2018 - btomiczek) - LP: 2/28/2018 2:35 PM



FOR TAX PURPOSES ONLY

Prepared by
L. ROBERT KIMBALL
Consulting Engineer

Legend	
Property line	Original lot line
Edge of pavement or road	Dead lot number in circles
Corporation line	Parcel or index number in circles
District line	Improvement
County line	Railroad

Revisions			
1	REVISED 3/24/64		
2	8-76	PW	OGIS 12-26-90
3	REVISION 12/9/76	T.G.	OGIS 12-8-92
4	12-7-80	M/S	OGIS 2-95
5	REVISED 7-81	T. Gross	OGIS 1-23-96
6	GEN. P.O. 7-02	MEN	OGIS 1-23-96

STATE OF WEST VIRGINIA
DODDRIDGE COUNTY
Office of Assessor

McCLELLAN DISTRICT
SHEET 06

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 19 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 6		
Decimal Latitude/Longitude: N 39.423356°, E -80.627139°		
DMS Latitude/Longitude: 39° 25' 24.08" N, -80° 37' 37.70" E		
District: McClellan	Map: 7	Parcel: 22.0.1
Land Book Description:		
Deed Book Reference: DBV WB33, PG 59		
Tax Map Reference: Tax Map 7		
Existing Buildings/Use of Property: Existing Stream – UNT-40, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 19 of 24

Property Owner Data:		
Name of Primary Owner (PO): Spencer Dennis Eugene		
PO Address: 1469 S 7 th St		
City: Las Vegas	State: NV	Zip: 89104
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Spencer Dennis Eugene		
PO Address: 1469 S 7 th St		
City: Las Vegas	State: NV	Zip: 89104
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



NORTH

PROPOSED ORANGE CONSTRUCTION FENCE (TYP.)

CROSSING #26
UNT-40 (PER)

EROSION CONTROL BLANKET (TYP.)

UNT-9B (EPH)

UNT-41 (EPH)

PROPOSED SILT FENCE (TYP.)

PROPOSED WATERBAR (TYP.)

LIMIT OF DISTURBANCE

PROPOSED SUPER SILT FENCE (TYP.)

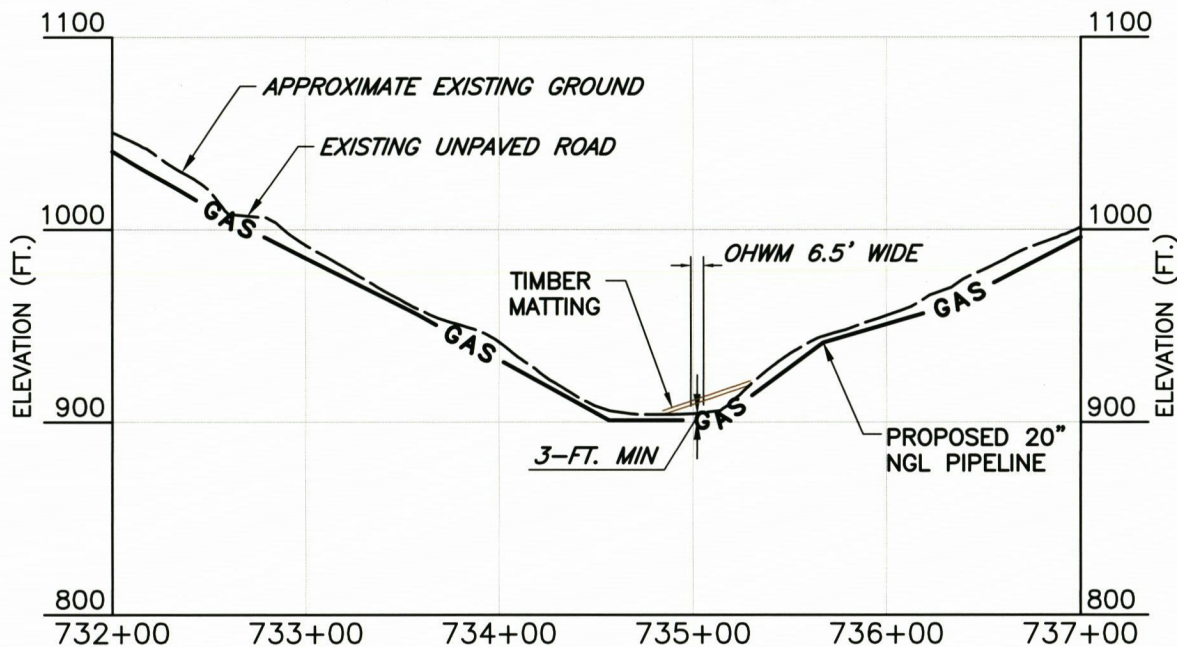
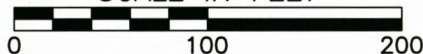
PROPOSED TIMBER MAT CROSSING

PROPOSED COFFERDAM (TYP.)

UNT-40 (PER)

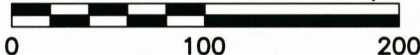
EXISTING UNPAVED ROAD

PLAN VIEW
SCALE IN FEET



PROFILE

VERTICAL & HORIZONTAL SCALE (FEET)



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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& RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSING #26
UNT-40 (PER)

DRAWN BY:

LKC

CHECKED BY:

ARG

APPROVED BY:

*JK

FIGURE NO.:

DATE:

NOVEMBER 2017

DWG SCALE:

AS SHOWN

PROJECT NO.:

171-778-0003

3Z

P:\2017\171-778-0003\CADD\DWG\EC01\771778-EC01-FIG-3-05.dwg{26} LS:(2/28/2018 - btomiczek) - LP: 2/28/2018 2:34 PM

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 20 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 6		
Decimal Latitude/Longitude: N 39.423869°, E -80.621658°		
DMS Latitude/Longitude: 39° 25' 25.93" N, -80° 37' 17.97" E		
District: McClellan	Map: 7	Parcel: 24
Land Book Description:		
Deed Book Reference: DBV WB37, PG 674		
Tax Map Reference: Tax Map 7		
Existing Buildings/Use of Property: Existing Stream – Franks Run, and UNT-42, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

Property Owner Data:

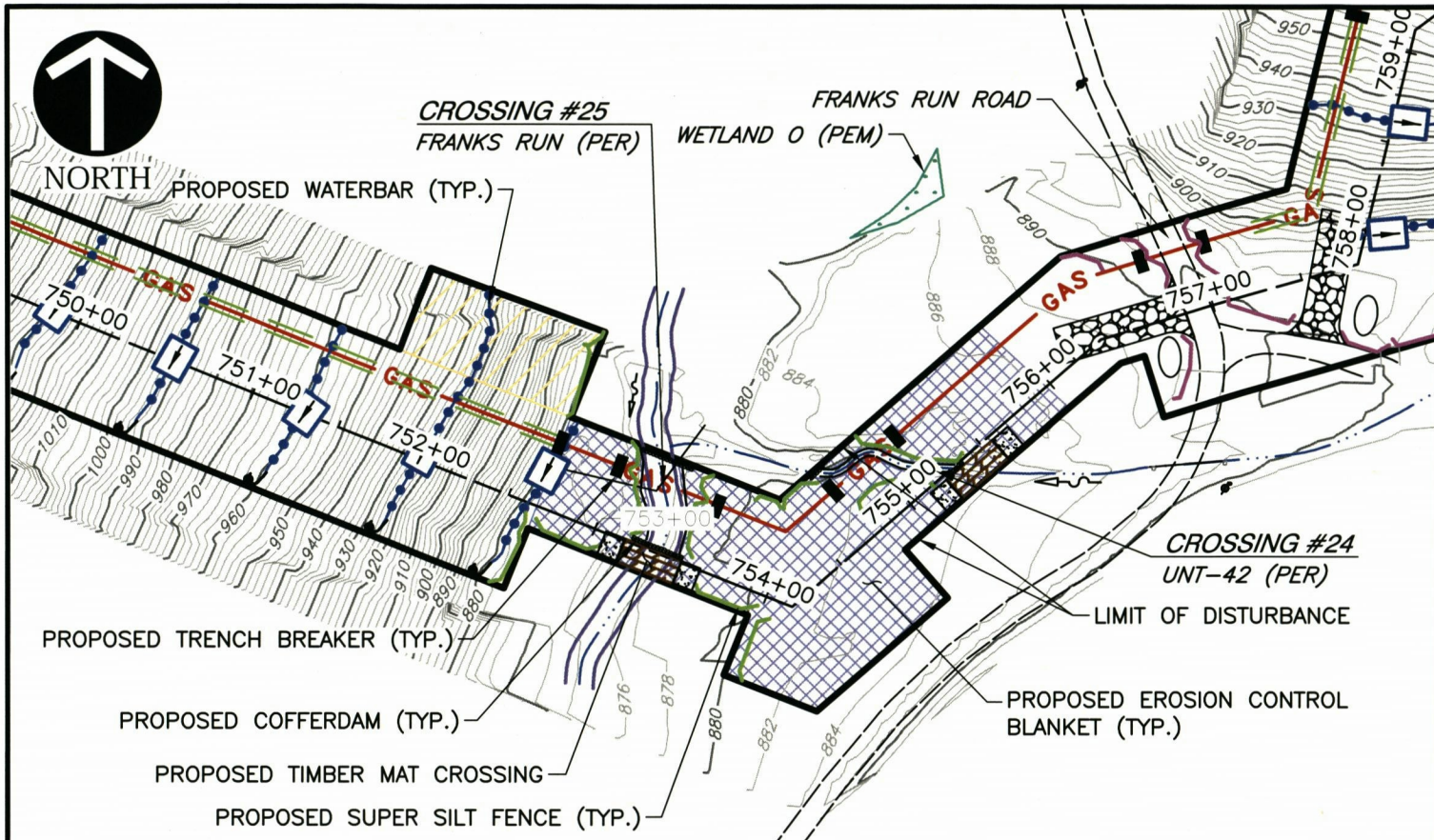
Please provide data on current site/property landowner(s), both surface and mineral rights (as applicable). Use additional copies of this page as needed. Designate each page in relation to each property listed above.

Property Designation: 20 of 24

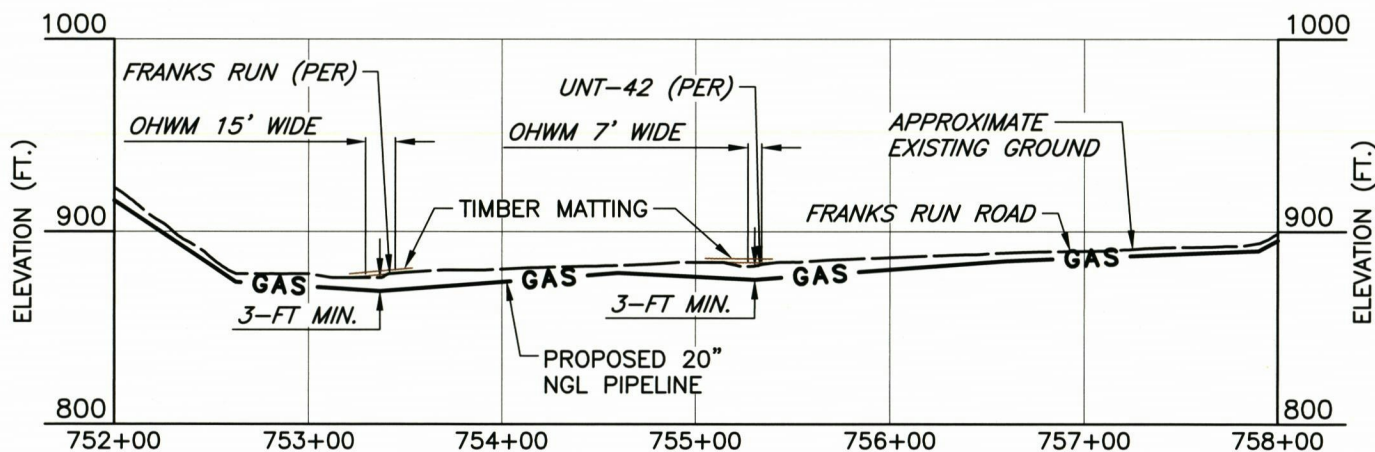
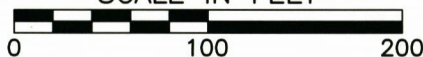
Property Owner Data:		
Name of Primary Owner (PO): Coffindaffer Mark J & Diana Coffindaffer Esteve		
PO Address: 77 President Dr		
City: Lost Creek	State: WV	Zip: 26385
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Coffindaffer Mark J & Diana Coffindaffer Esteve		
PO Address: 77 President Dr		
City: Lost Creek	State: WV	Zip: 26385
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

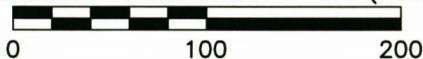


PLAN VIEW
SCALE IN FEET



PROFILE

VERTICAL & HORIZONTAL SCALE (FEET)



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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& RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSINGS #24 -25
UNT-42 (PER) & FRANKS RUN (PER)

DRAWN BY:	LKC	CHECKED BY:	ARG	APPROVED BY:	*JK	FIGURE NO.:
DATE:	NOVEMBER 2017	DWG SCALE:	AS SHOWN	PROJECT NO.:	171-778-0003	

3F

P:\2017\171-778-0003\CADD\DWG\EC01\171-778-0003-FIG-3-02.dwg - 25 LS:(2/28/2018 - 1:39 PM) - btomiczek - Lp: 2/28/2018 1:39 PM

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 21 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 6		
Decimal Latitude/Longitude: N 39.431633°, E -80.618214°		
DMS Latitude/Longitude: 39° 25' 53.88" N, -80° 37' 05.57" E		
District: McClellan	Map: 7	Parcel: 15.1
Land Book Description:		
Deed Book Reference: DBV 279, PG 55		
Tax Map Reference: Tax Map 7		
Existing Buildings/Use of Property: Existing Stream – UNT-133, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 21 of 24

Property Owner Data:		
Name of Primary Owner (PO): Stonebreaker Everett ET AL		
PO Address: 546 Jack Run Rd		
City: Lumberport	State: WV	Zip: 26386
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Stonebreaker Everett ET AL		
PO Address: 546 Jack Run Rd		
City: Lumberport	State: WV	Zip: 26386
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



NORTH

UNT-133 (INT)

EROSION CONTROL BLANKET (TYP.)

PROPOSED ROCK CONSTRUCTION ENTRANCE (TYP.)

PROPOSED SUPER SILT FENCE (TYP.)

PROPOSED ORANGE CONSTRUCTION FENCE (TYP.)

CROSSING #23
UNT-133 (INT)

PROPOSED TRENCH BREAKER (TYP.)

PROPOSED COFFERDAM (TYP.)

PROPOSED WATERBAR (TYP.)

PROPOSED TIMBER MAT CROSSING

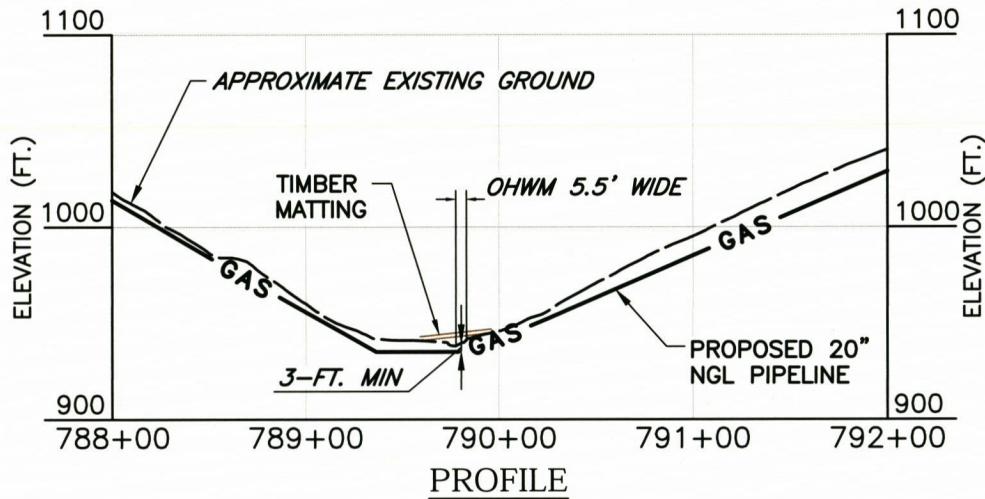
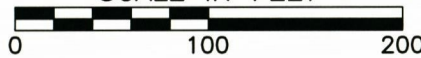
EXISTING STRUCTURE

PROPOSED SILT FENCE (TYP.)

UNT-132 (EPH)

LIMIT OF DISTURBANCE

PLAN VIEW
SCALE IN FEET



VERTICAL & HORIZONTAL SCALE (FEET)



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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& RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSING #23
UNT-133 (INT)

DRAWN BY:	LKC	CHECKED BY:	ARG	APPROVED BY:	*JK	FIGURE NO.:
DATE:	NOVEMBER 2017	DWG SCALE:	AS SHOWN	PROJECT NO.:	171-778-0003	

3Y

P:\2017\171-778-CADD\DWG\EC01\171778-EC01-FIG-3-05.dwg{23} LS(2/28/2018 - btomiczek) - LP: 2/28/2018 2:32 PM

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 22 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 6		
Decimal Latitude/Longitude: N 39.434025°, E -80.614964°		
DMS Latitude/Longitude: 39° 26' 02.49" N, -80° 36' 53.87" E		
District: McClellan	Map: 7	Parcel: 6
Land Book Description:		
Deed Book Reference: DBV 303, PG 196		
Tax Map Reference: Tax Map 7		
Existing Buildings/Use of Property: Existing Stream – UNT-44, and UNT-136, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the development in the floodplain? <input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

Property Owner Data:

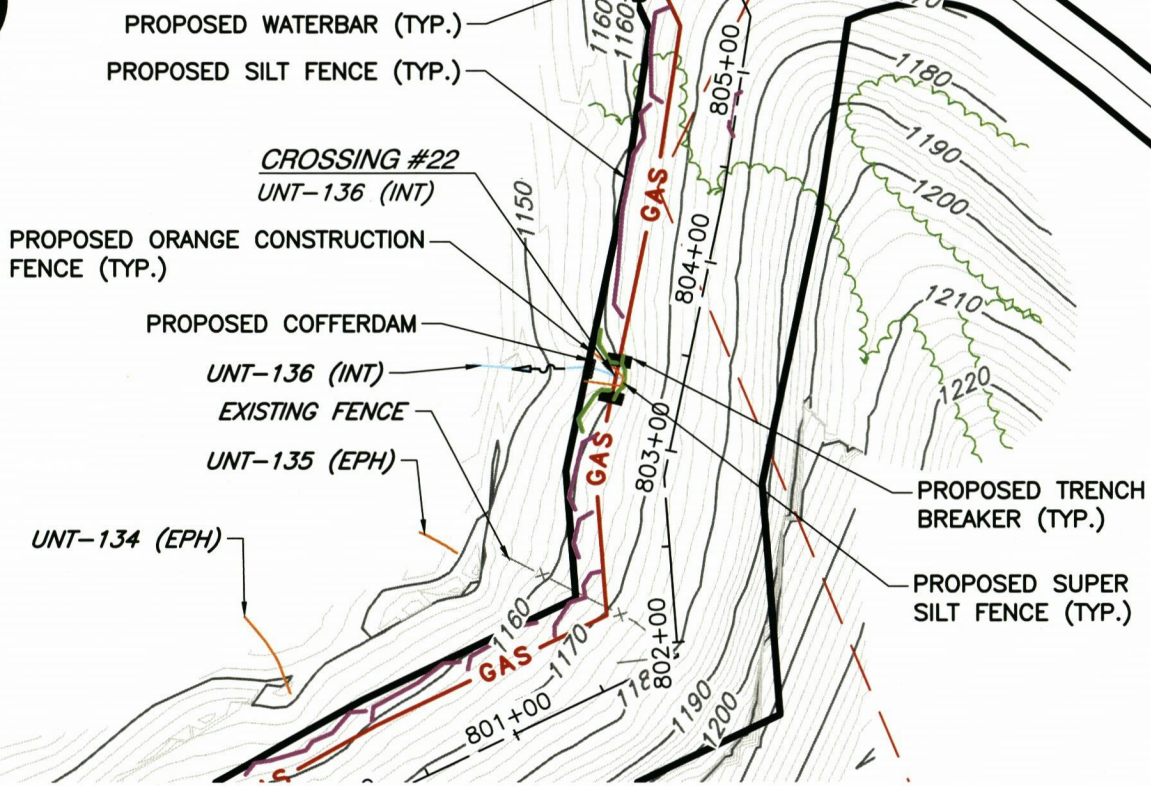
Please provide data on current site/property landowner(s), both surface and mineral rights (as applicable). Use additional copies of this page as needed. Designate each page in relation to each property listed above.

Property Designation: 22 of 24

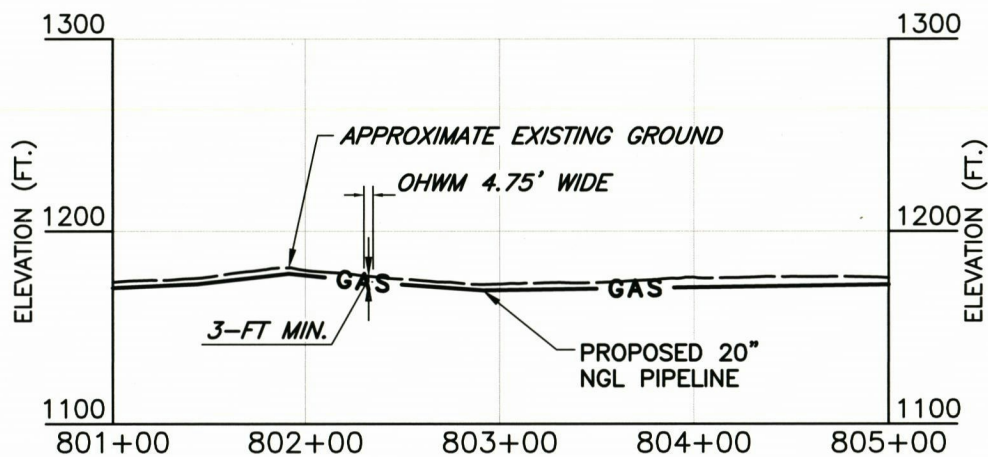
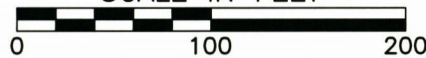
Property Owner Data:		
Name of Primary Owner (PO): Starkey Lewis C		
PO Address: 9852 Konrad Kohl Rd NW		
City: Bolivar	State: OH	Zip: 44612
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Starkey Lewis C		
PO Address: 9852 Konrad Kohl Rd NW		
City: Bolivar	State: OH	Zip: 44612
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

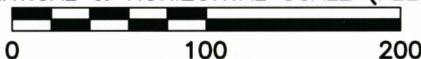


PLAN VIEW
 SCALE IN FEET



PROFILE

VERTICAL & HORIZONTAL SCALE (FEET)



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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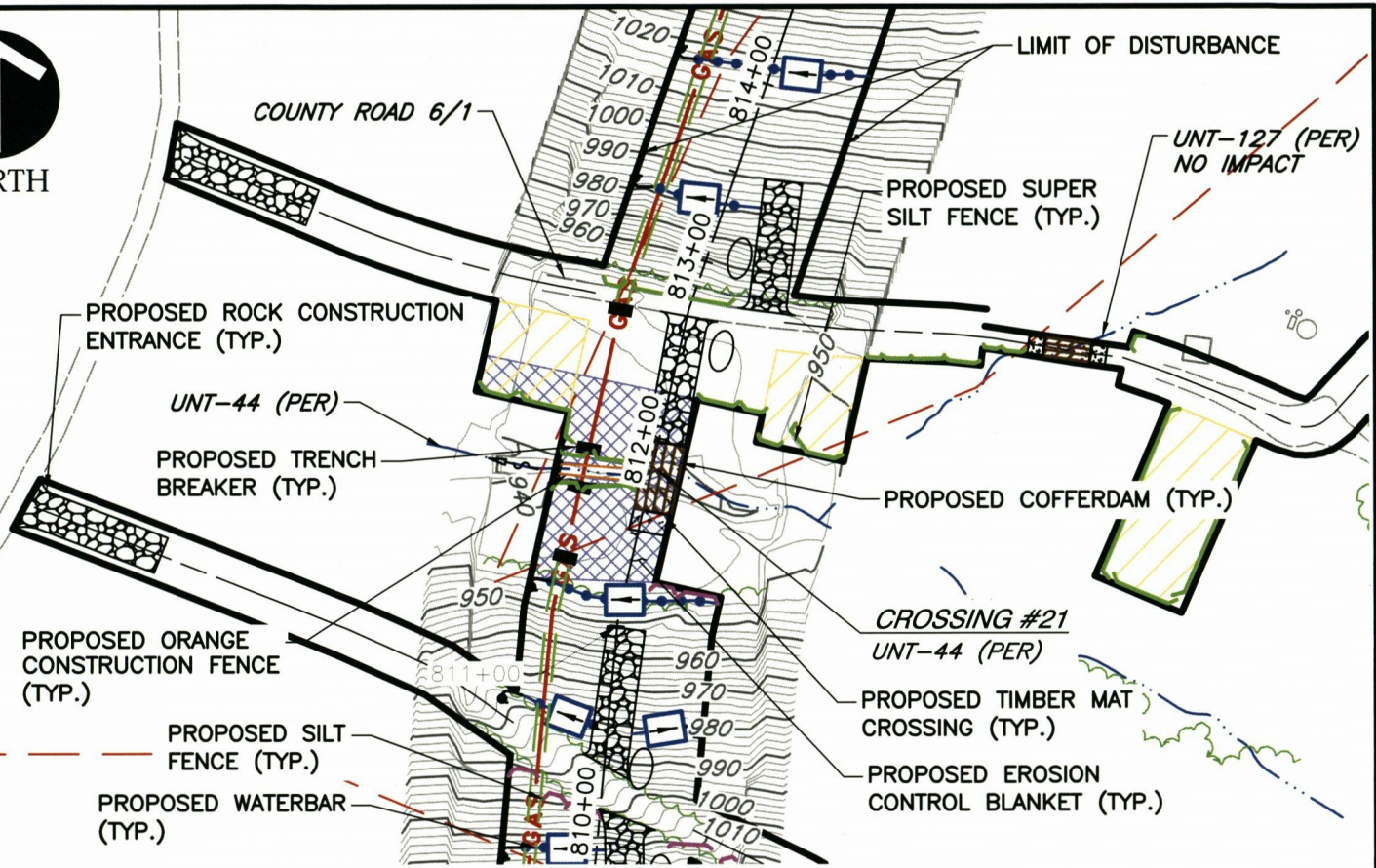
MARKWEST LIBERTY MIDSTREAM
 & RESOURCES, LLC
 SHERWOOD TO MOBLEY PIPELINE PROJECT
 DODDRIDGE COUNTY, WEST VIRGINIA

CROSSING #22
 UNT-136 (INT)

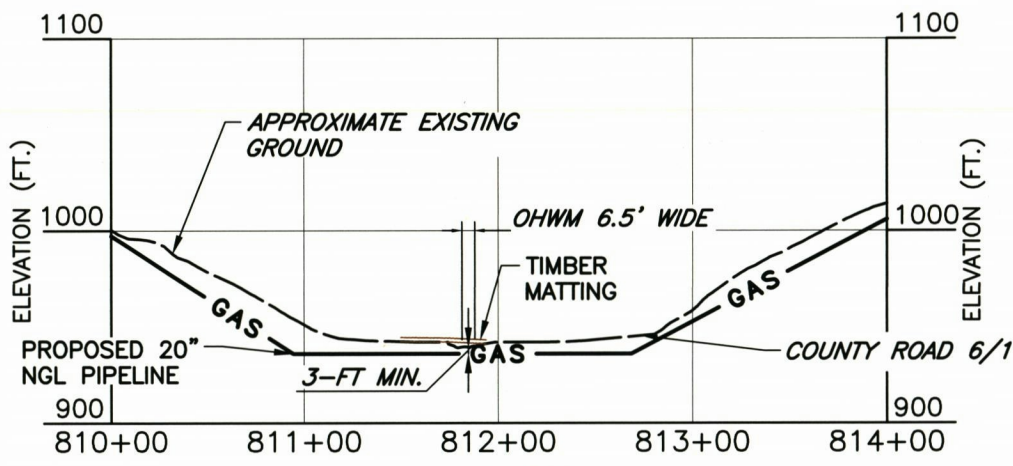
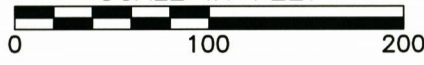
DRAWN BY: LKC	CHECKED BY: ARG	APPROVED BY: *JK	FIGURE NO.:
DATE: NOVEMBER 2017	DWG SCALE: AS SHOWN	PROJECT NO: 171-778-0003	

3X

F:\2017\171-778\CADD\DWG\ECO1\171778-ECO1-FIG-3-05.dwg{22} LS:(2/28/2018 - btomiczek) - LP: 2/28/2018 2:30 PM



PLAN VIEW
SCALE IN FEET



PROFILE



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



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MARKWEST LIBERTY MIDSTREAM
& RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSING #21
UNT-44 (PER)

DRAWN BY:	LKC	CHECKED BY:	ARG	APPROVED BY:	*JK	FIGURE NO.:	3W
DATE:	NOVEMBER 2017	DWG SCALE:	AS SHOWN	PROJECT NO.:	171-778-0003		

P:\2017\171-778-CADD\DWG\EC01\171778-EC01-FIG-3-04.dwg{21} LS:(2/28/2018 - btomiczek) - LP: 2/28/2018 2:51 PM

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 23 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 12		
Decimal Latitude/Longitude: N 39.438633°, E -80.602825°		
DMS Latitude/Longitude: 39° 26' 19.08" N, -80° 36' 10.17" E		
District: McClellan	Map: 7	Parcel: 7
Land Book Description:		
Deed Book Reference: DBV 259, PG 522		
Tax Map Reference: Tax Map 7		
Existing Buildings/Use of Property: Existing Stream – UNT-21, Existing Woods, Existing Meadow		

Floodplain Location Data: (to be completed by Floodplain Manager or designee)			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
Is the development in the floodway?		Is the development in the floodplain?	
<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 23 of 24

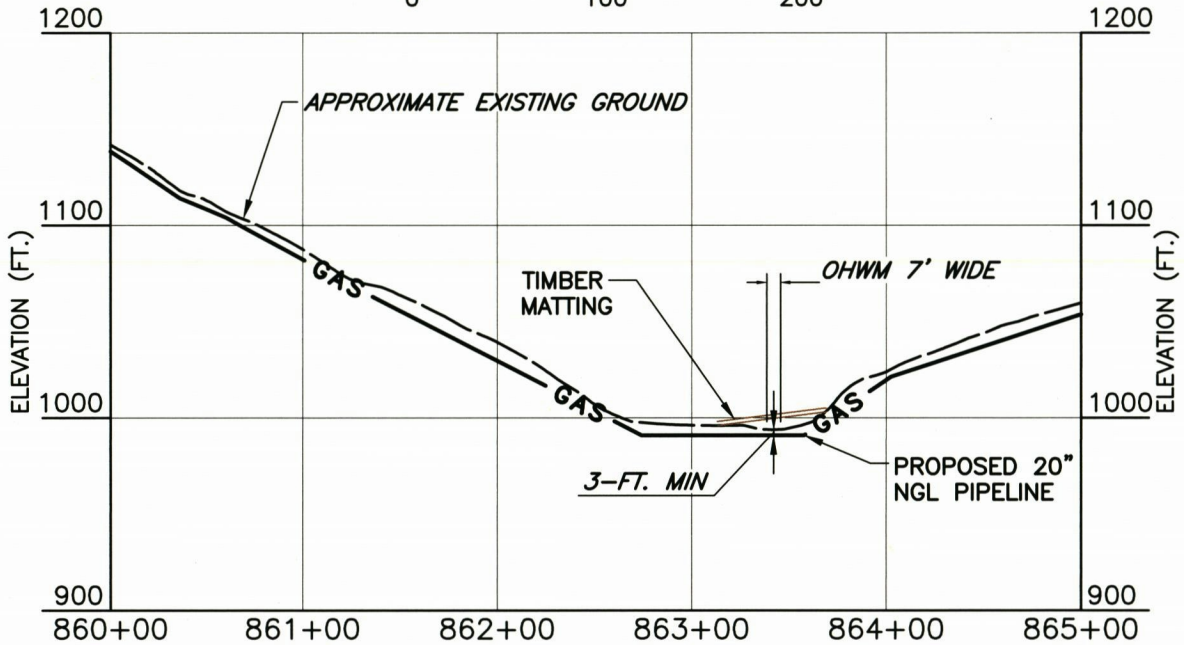
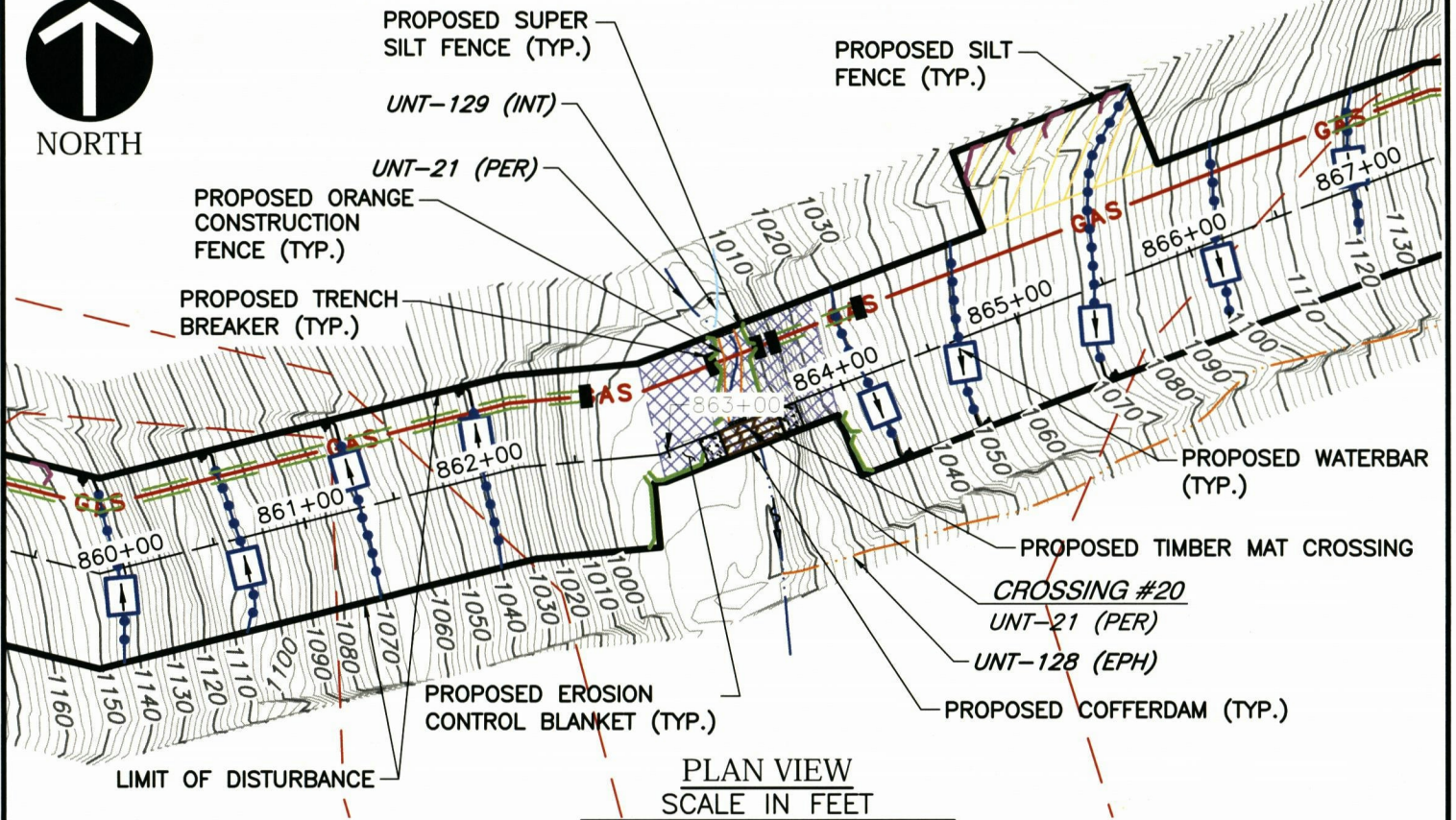
Property Owner Data:		
Name of Primary Owner (PO): Coastal Forest Resources DBA		
PO Address: P.O. Box 709		
City: Buckhannon	State: WV	Zip: 26201
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Coastal Forest Resources DBA		
PO Address: P.O. Box 709		
City: Buckhannon	State: WV	Zip: 26201
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



NORTH



PROFILE
VERTICAL & HORIZONTAL SCALE (FEET)



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



Civil & Environmental Consultants, Inc.

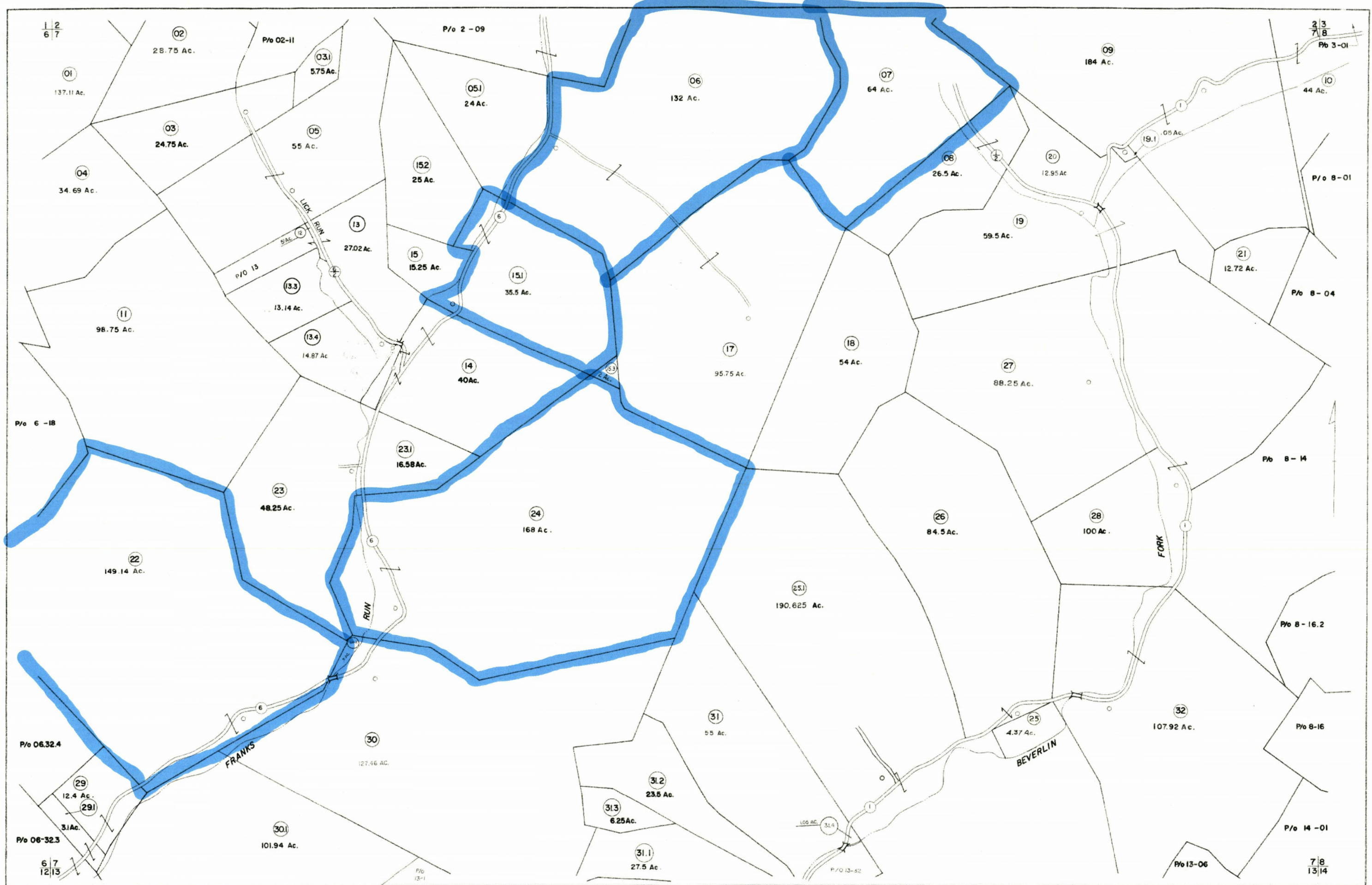
www.cecinc.com

MARKWEST LIBERTY MIDSTREAM
& RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSING #20
UNT-21 (PER)

DRAWN BY:	LKC	CHECKED BY:	ARG	APPROVED BY:	*JK	FIGURE NO.:	3V
DATE:	NOVEMBER 2017	DWG SCALE:	AS SHOWN	PROJECT NO:	171-778-0003		

F:\2017\171-778\CADD\DWG\ECO1\171778-EC01-FIG-3-04.dwg;20 LP: 2/28/2018 4:31 PM



FOR TAX PURPOSES ONLY

Prepared by
L. ROBERT KIMBALL
Consulting Engineer

Legend	
Property line	Original lot line
Edge of pavement or roadway	Dead lot number in inches
Corporation line	Parcel or index number in inch
District line	Improvement
County line	Railroad

Revisions			
1	REVISED 3/24/64	OGIS	2-95
2	1/20/72	SLS INC	2/21/00 JAW
3	3-21-82	MCS	5/5/03
4	REVISED 7-81	T. Gross	4/6/07
5	REV TO 7-83	MEN	
6	Revised 6/7/89	P&R	

STATE OF WEST VIRGINIA
DODDRIDGE COUNTY
Office of Assessor

McCLELLAN DISTRICT
SHEET 07

Date: Aerial Photography: APRIL 1962 Date: Map: SEPT 1968

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 24 of 24

Site/Property Information:		
Legal Description: See Tax Parcel Map for Location		
Physical Address/911 Address: County Route 1		
Decimal Latitude/Longitude: N 39.444828°, E -80.585958°		
DMS Latitude/Longitude: 39° 26' 41.38" N, -80° 35' 09.45" E		
District: McClellan	Map: 3	Parcel: 2
Land Book Description:		
Deed Book Reference: DBV 177, PG 38		
Tax Map Reference: Tax Map 3		
Existing Buildings/Use of Property: , Existing Stream – UNT-81, Existing Woods, Existing		

Floodplain Location Data: <i>(to be completed by Floodplain Manager or designee)</i>			
Community:	Number:	Panel:	Suffix:
Location (Lat/Long):		Approximate Elevation:	
		Estimated BFE:	
Is the development in the floodway?		Is the development in the floodplain?	
<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No Zone: _____	
Notes:			

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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: 24 of 24

Property Owner Data:		
Name of Primary Owner (PO): Minor Garland E ET AL		
PO Address: 112 Orchard Ln		
City: Wellsburg	State: WV	Zip: 26070
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Surface Rights Owner Data:		
Name of Primary Owner (PO): Minor Garland E ET AL		
PO Address: 112 Orchard Ln		
City: Wellsburg	State: WV	Zip: 26070
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		

Mineral Rights Owner Data: (As Applicable)		
Name of Primary Owner (PO): N/A		
PO Address:		
City:	State:	Zip:
PO Primary Phone:		
PO Secondary Phone:		
PO Primary Email:		



NORTH

PROPOSED EROSION CONTROL
BLANKET (TYP.)

CROSSING #18
WETLAND AZ (PEM)

CROSSING #19
UNT-81 (PER)

PROPOSED COFFERDAM (TYP.)

PROPOSED TRENCH BREAKER (TYP.)

920+00

LIMIT OF DISTURBANCE

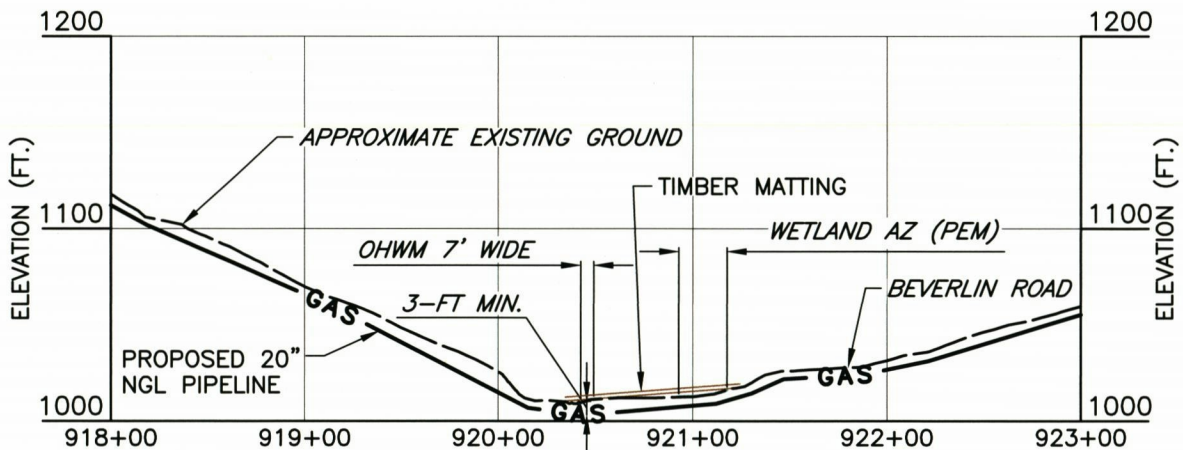
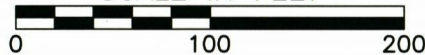
PROPOSED WATERBAR (TYP.)

BEVERLIN ROAD

PROPOSED TIMBER MAT CROSSING

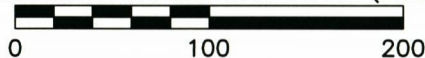
PROPOSED SUPER SILT FENCE (TYP.)

PLAN VIEW
SCALE IN FEET



PROFILE

VERTICAL & HORIZONTAL SCALE (FEET)



NOTE: SEE FIGURE 3 FOR LEGEND, NOTES AND REFERENCES.

*HAND SIGNATURE ON FILE



Civil & Environmental Consultants, Inc.

www.cecinc.com

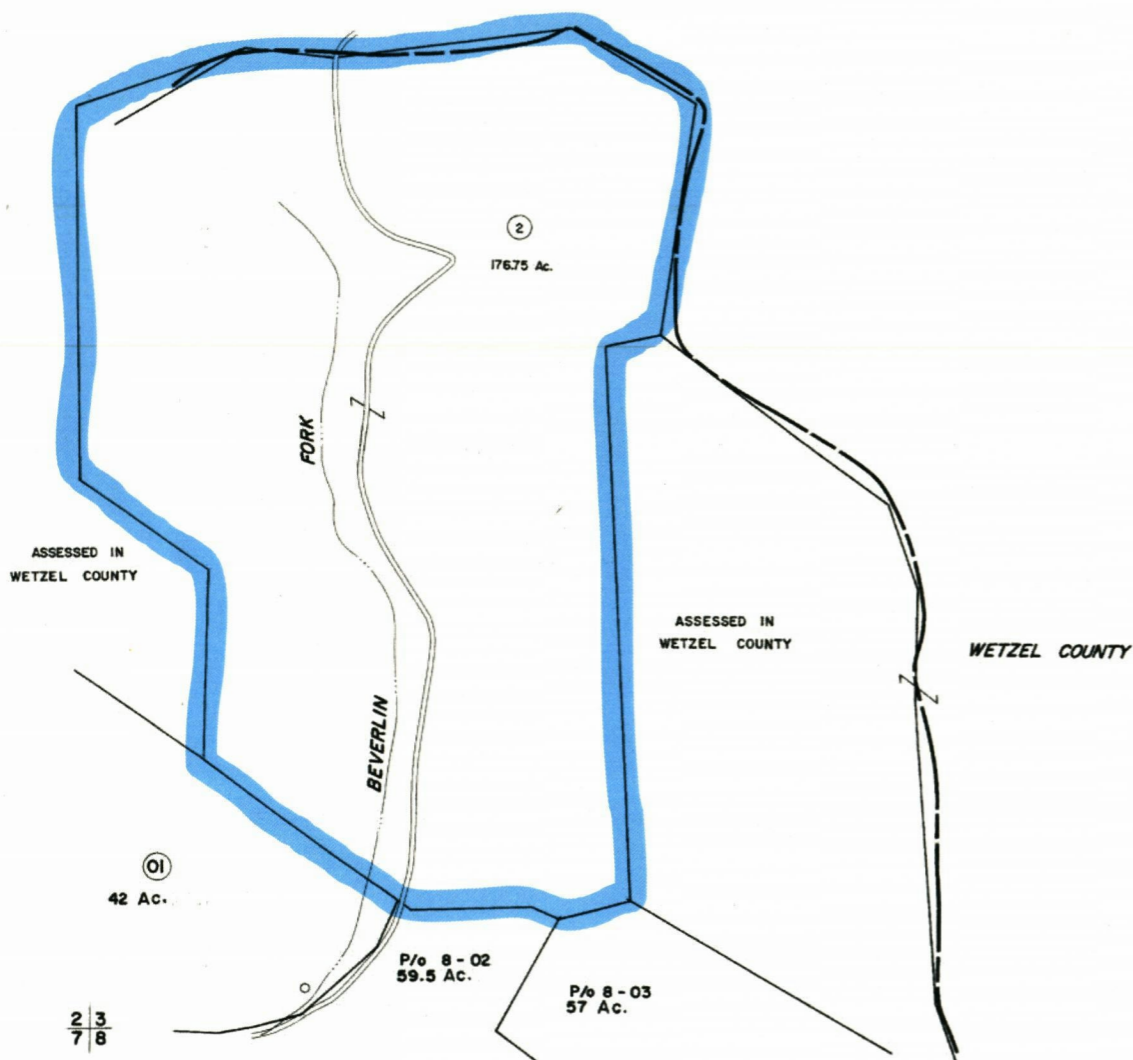
MARKWEST LIBERTY MIDSTREAM
& RESOURCES, LLC
SHERWOOD TO MOBLEY PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

CROSSINGS #18 - 19
WETLAND AZ (PEM) & UNT-81 (PER)

DRAWN BY: LKC	CHECKED BY: ARG	APPROVED BY: *JK	FIGURE NO.:
DATE: NOVEMBER 2017	DWG SCALE: AS SHOWN	PROJECT NO: 171-778-0003	3E

P:\2017\171-778-CADD\DWG\EC01-FIG-3-01.dwg - 19\LS(2/28/2018 - b1omiczek) - LP: 2/28/2018 2:55 PM

WETZEL COUNTY



FOR TAX PURPOSES ONLY

Prepared by
L. ROBERT KIMBALL
Consulting Engineer

Legend	
Property line	Original lot line
Edge of pavement or roadway	Deed lot number in parentheses
Corporation line	Parcel or index number in circle
District line	Improvement
County line	Railroad

Revisions	
1	REVISED 7-81 T. Groves
2	OGIS 12-21-90 JB
3	
4	
5	
6	

STATE OF WEST VIRGINIA
DODDRIDGE COUNTY
Office of Assessor

McCLELLAN DISTRICT
SHEET 03

Doddridge County Commercial/Industrial
Floodplain Development Permit Application

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 of 1

Contractor/Sub-Contractor (C/SC) Information:		
C/SC Company Name: TO BE DETERMINED		
C/SC WV License Number:		
C/SC FEIN:	C/SC DUNS:	
Local C/SC Point of Contact (POC):		
Local C/SC POC Title:		
C/SC Mailing Address:		
City:	State:	Zip-Code:
Local C/SC Office Phone:		
Local C/SC POC Phone:		
Local C/SC POC E-Mail:		

Engineer Firm Information:		
Engineer Firm Name: Civil & Environmental Consultants, Inc.		
Engineer WV License Number:		
Engineer Firm FEIN: 25-1599565	Engineer Firm DUNS: 36-160-9878	
Engineer Firm Primary Point of Contact (POC): Richard P. Celender		
Engineer Firm Primary POC Title: Vice President		
Engineer Firm Mailing Address: 333 Baldwin Road		
City: Pittsburgh	State: PA	Zip-Code: 15205
Engineer Firm Office Phone: (412) 429-2324		
Engineer Firm Primary POC Phone: (412) 249-2309		
Engineer Firm Primary POC E-Mail: rcelender@cecinc.com		

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 been 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 or 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: _____



Date: April 13, 2020

Agent for Landowner

Applicant Printed Name: Richard P. Celender

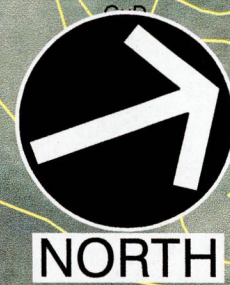
Sherwood to Mobley - Doddridge County, WV

Opinion of Probable Construction Costs - Construction in the Floodplain

Project #: 171-778

4/1/2020

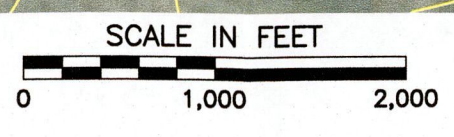
Item	Total Cost
R/W Repairs/Maintenance	\$412,500



NORTH



MATCHLINE
SEE SHEET 5

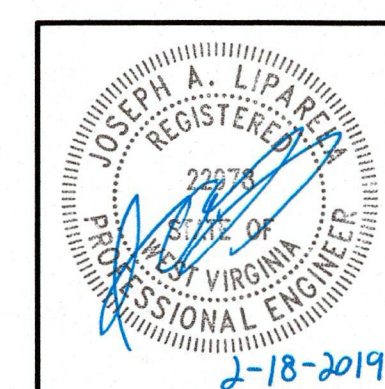


LEGEND	
	PROPOSED NGL PIPELINE
	EXISTING ROAD
	ACCESS ROAD
	PLAN SHEET REFERENCE
	SOIL TYPE
	SOIL TYPE BOUNDARY
	REVISED PLAN SHEET REFERENCE

NOTES

- CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
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REFERENCE
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NO.	DATE	DESCRIPTION
1	2/7/2018	REVISED PER AECOM COMMENTS
2	3/1/2018	PROPERTY LINES LOCATED
3	3/1/2018	REVISED LOD FOR LANDSLIDE REPAIRS AND CROSSINGS
4	2/1/2019	REVISED LOD FOR LANDSLIDE REPAIRS AND CROSSINGS

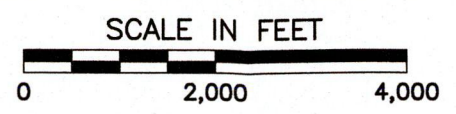
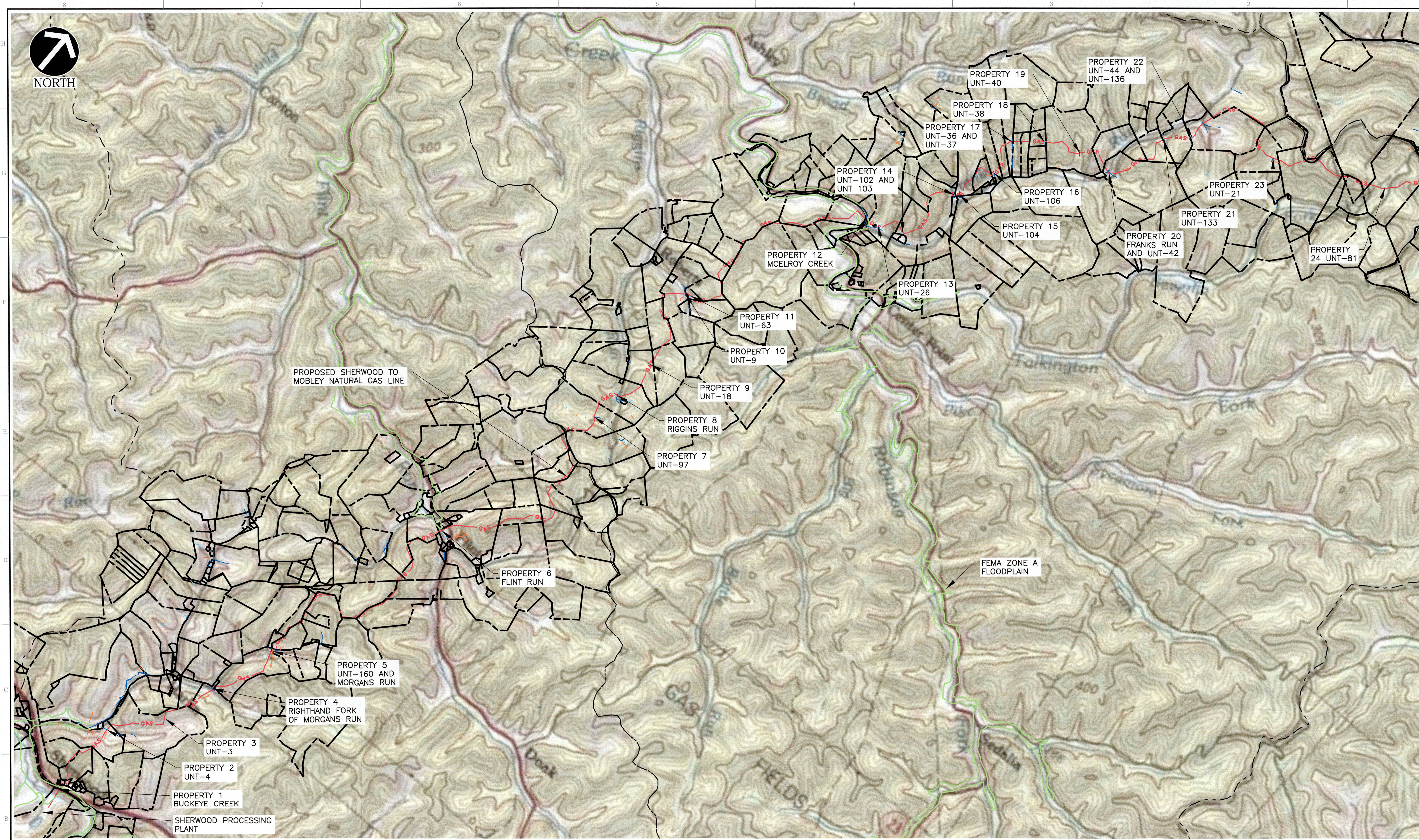
C&E
Civil & Environmental Consultants, Inc.
333 Baldwin Road - Pittsburgh, PA 15205
412-429-2324 - 800-365-2324
www.candec.com

MARKWEST LIBERTY MIDSTREAM & RESOURCES TO MOBLEY SHERWOOD TO MOBLEY DODDRIDGE AND WETZEL COUNTIES, WEST VIRGINIA

SOILS MAP OVERALL PLANS

DRAWING NO.: **C003**
SHEET 4 OF 85

DATE: 11/30/2017
DRAWN BY: LKC/KLP
DWG SCALE: 1" = 1,000'
CHECKED BY: JAL/TGJ/ARG
PROJECT NO.: 171-778
APPROVED BY: HMD SIGNATURE ON FILE *RPC



LEGEND

	PROPOSED NGL PIPELINE
	EXISTING ROAD
	ACCESS ROAD
	FEMA ZONE A FLOODPLAIN

NOTES

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REFERENCE
 USGS TOPOGRAPHIC MAP/ ARCGIS MAP SERVICE: [HTTP://GTO.ARCGISONLINE.COM/MAPS/USA_TOPO_MAPS](http://gto.arcgisonline.com/maps/usa_topo_maps),
 ACCESSED 10/16/2017.



NO.	DATE	DESCRIPTION

REVISION RECORD

CEC
 Civil & Environmental Consultants, Inc.
 www.cecinc.com

MARKWEST LIBERTY MIDSTREAM & RESOURCE, LLC
 SHERWOOD TO MOBLEY
 DODDRIDGE AND WETZEL COUNTIES,
 WEST VIRGINIA

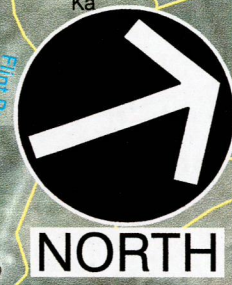
USGS OVERALL PLANS

DRAWING NO.: **SP01**

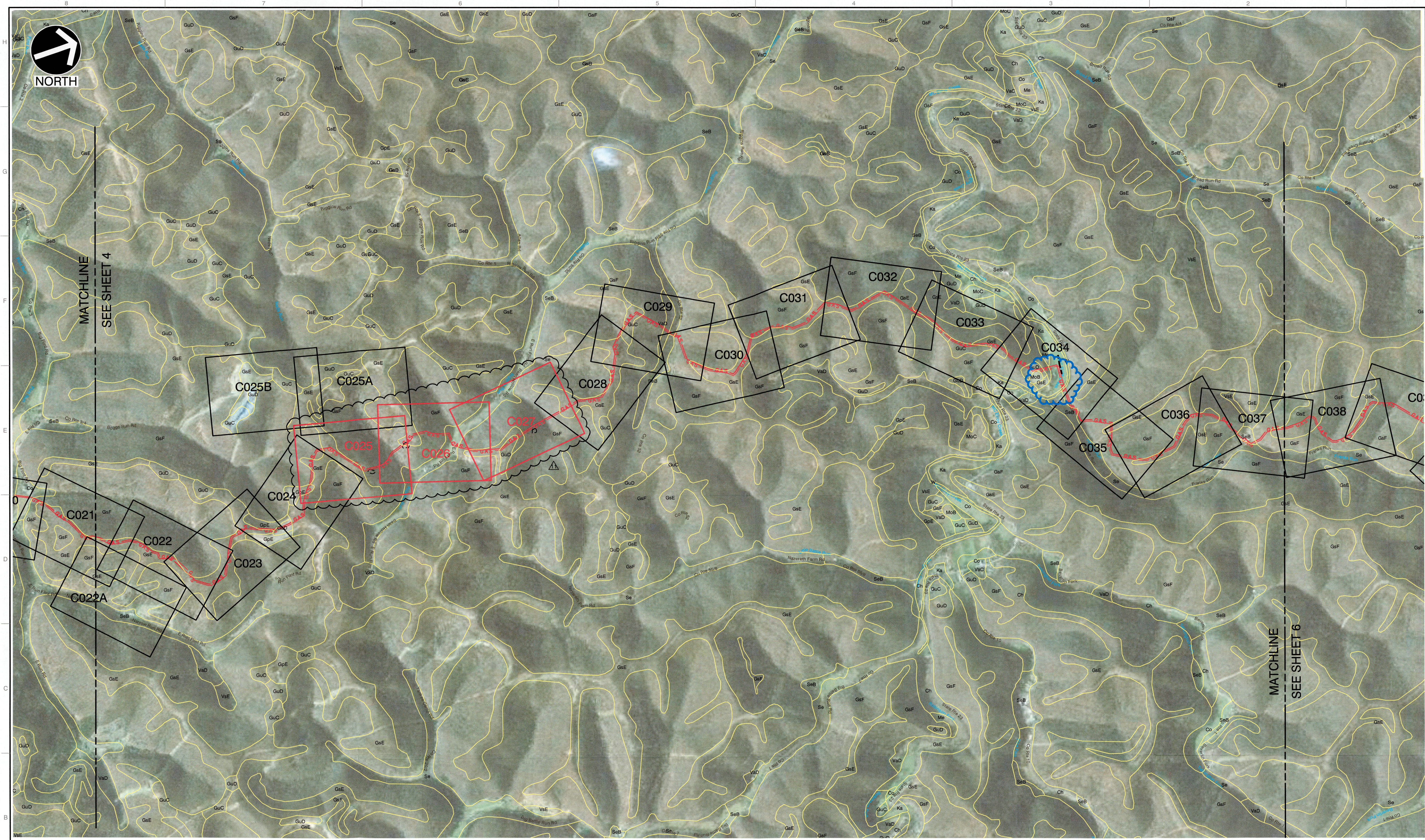
SHEET 1 OF 1

DATE: 11/30/2017
 DRAWN BY: LAC/KLP
 DWG SCALE: AS SHOWN
 CHECKED BY: ARG
 PROJECT NO.: 17-178
 APPROVED BY: **SHAWN R. GULLY** *R.C.

P:\2017\17-178-000\DWG\CONV\17178-001-SPO1.dwg [6/16/2017 12:14:20 PM] - LP: 12/4/2017 8:07 AM

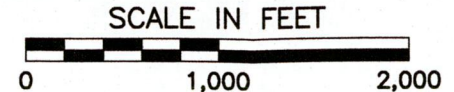


NORTH



MATCHLINE
SEE SHEET 4

MATCHLINE
SEE SHEET 6



LEGEND

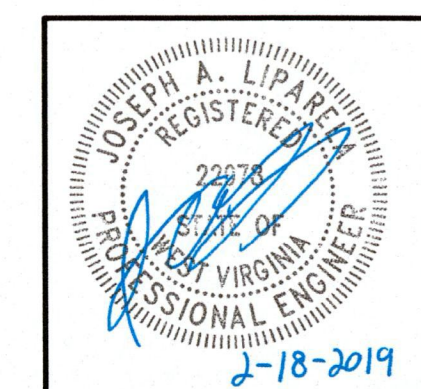
	PROPOSED NGL PIPELINE
	EXISTING ROAD
	ACCESS ROAD
	PLAN SHEET REFERENCE
	SOIL TYPE
	SOIL TYPE BOUNDARY
	REVISED PLAN SHEET REFERENCE

NOTES

- CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
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REFERENCE

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REVISION RECORD

NO	DATE	DESCRIPTION
1	2/7/2019	REVISED PER WSPR COMMENTS
4	9/1/2019	PROPERTY LINES UPDATED
10	8/1/2019	REVISED PER WSPR COMMENTS DATED 7/1/2019
11	2/1/2019	REVISED LOD FOR LANDSCAPE REPAIRS

C&E

Civil & Environmental Consultants, Inc.
333 Baldwin Road - Pittsburgh, PA 15205
412-425-2324 - 800-365-2324
www.candecinc.com

MARKWEST LIBERTY MIDSTREAM & RESOURCES, LLC
SHERWOOD TO MOBLEY
DODDRIDGE AND WETZEL COUNTIES,
WEST VIRGINIA

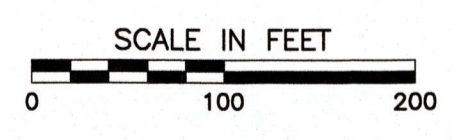
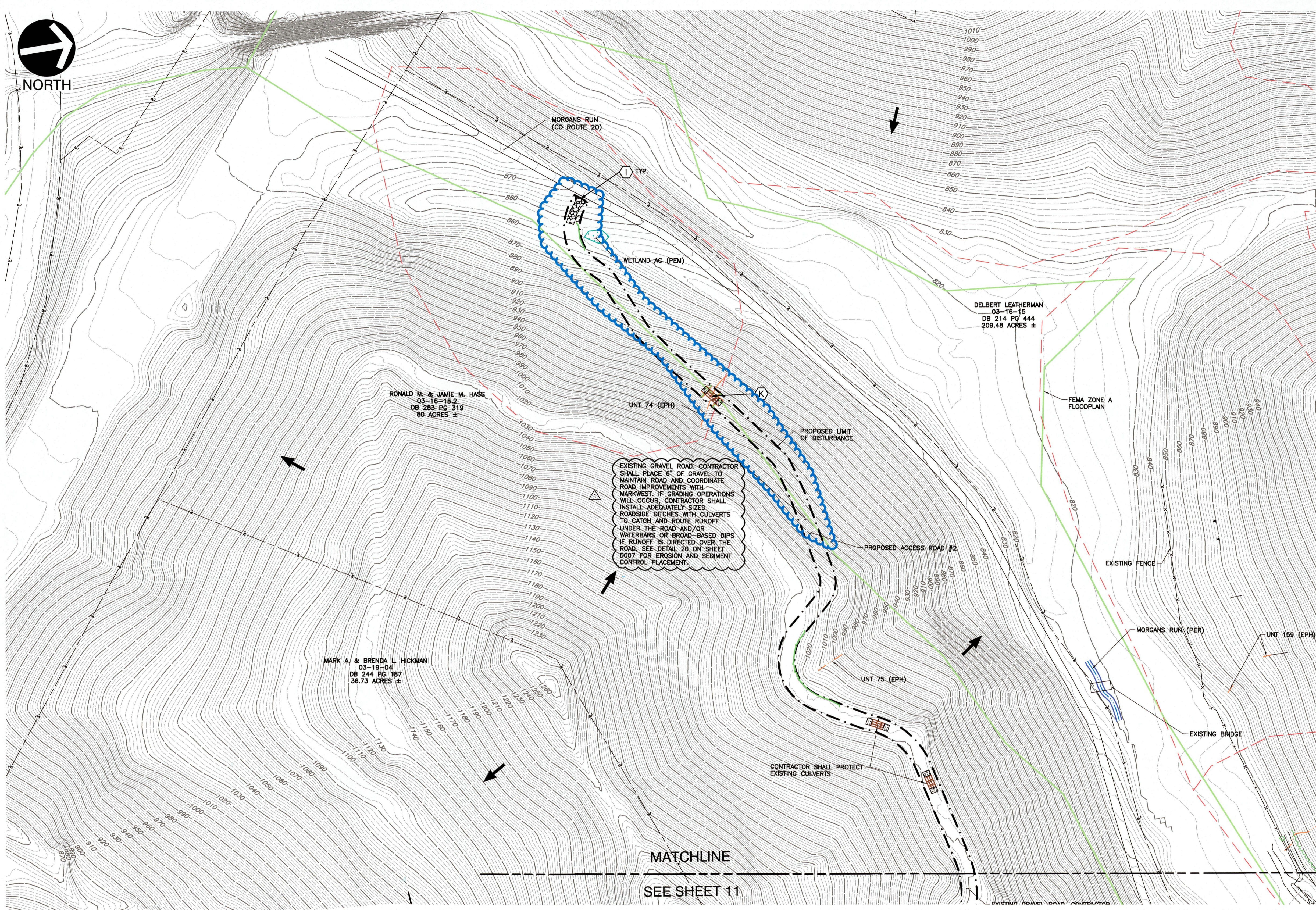
SOILS MAP OVERALL PLANS

DRAWING NO. **C004**
SHEET 5 OF 85

DATE: 11/30/2017 DRAWN BY: LKC/KLP
DWG SCALE: 1" = 1,000' CHECKED BY: JAL/TGJ/ARG
PROJECT NO.: 171-778
APPROVED BY: **HAND SIGNATURE ON FILE** *RPPC



NORTH



LEGEND

1,300	EXISTING INDEX CONTOUR
---	EXISTING INTERMEDIATE CONTOUR
---	EXISTING PERENNIAL STREAM
---	EXISTING INTERMITTENT STREAM
---	EXISTING EPHEMERAL STREAM
---	EXISTING APPROXIMATE LAKE/POND BOUNDARY
---	STREAM FLOW DIRECTION
(EPH)	EPHEMERAL STREAM
(INT)	INTERMITTENT STREAM
(PER)	PERENNIAL STREAM
---	EXISTING FEMA ZONE A FLOODPLAIN
---	EXISTING PEM WETLAND
---	EXISTING PUB WETLAND
ST	EXISTING STORM PIPE
---	EXISTING TREELINE
---	EXISTING FENCE
OH-W	EXISTING OVERHEAD ELECTRIC
G	EXISTING GAS LINE
W	EXISTING WATER LINE
---	EXISTING DITCH
---	EXISTING UNPAVED ROADS
---	EXISTING PAVED ROADS
---	EXISTING POWER POLE
---	EXISTING GAS WELL
---	EXISTING UTILITY STRUCTURE
---	EXISTING SILT FENCE
---	EXISTING TOP-OF-BANK
---	EXISTING PROPERTY LINE
---	EXISTING COUNTY/ TOWNSHIP LINE
---	LIMITS OF HISTORIC LANDSLIDES
---	EXISTING SLOPES BETWEEN 3:1 TO 2:1
---	EXISTING SLOPES OF 2:1 AND GREATER
---	PROPOSED LIMIT OF DISTURBANCE
---	PROPOSED PIPELINE
---	PROPOSED ACCESS ROAD
---	PROPOSED WORKSPACE
---	PROPOSED PIPELINE
---	PROPOSED WATERBAR WITH J-HOOK
---	PROPOSED SILT FENCE
---	PROPOSED SUPER SILT FENCE
---	PROPOSED FLEXTERRA HYDROSEED
---	PROPOSED EROSION CONTROL BLANKET
---	PROPOSED ROCK CONSTRUCTION ENTRANCE AND STONE STOCKPILE
---	PROPOSED TRENCH BREAKER
---	PROPOSED TIMBER MATTING
---	PROPOSED COFFERDAM
---	PROPOSED CONSTRUCTION FENCE
---	DRAINAGE ARROW
---	PROPOSED TRENCH DRAIN
---	PROPOSED SLOPE INTERRUPT

- NOTES**
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 - CONTRACTOR SHALL SAW CUT ALL EXISTING ASPHALT DRIVEWAYS AND REPLACE WITH THE EXISTING PAVEMENT SECTION.
 - ALL ROAD CROSSINGS SHALL BE IN ACCORDANCE WITH THE PERMITS PREPARED BY CEC.
 - CONTRACTOR SHALL PROTECT ALL EXISTING CULVERTS DURING CONSTRUCTION.
 - LIMITS OF HISTORIC LANDSLIDE AREAS AND COVES UNDERLAIN BY CLAY OBTAINED FROM USGS OPEN-FILE #78-1056/1057 LANDSLIDES AND RELATED FEATURES QUADRANGLE MAPS, DIGITIZED BY CEC.
 - SEE SHEET C001 FOR REFERENCES AND ONE-CALL NUMBERS.

SITE RESTORATION

SITE RESTORATION SHALL COMMENCE PROMPTLY AFTER COMPLETION OF EACH PIPELINE SECTION. FOR SITE RESTORATION, THE ENTIRE RIGHT OF WAY SHALL BE SEEDED IN ACCORDANCE WITH DETAIL 18, SHOWN ON SHEET D008. DURING SITE RESTORATION, ALL TEMPORARY CONTROLS SHALL BE REMOVED AND THE GRADES SHALL BE RETURNED TO THE EXISTING CONDITION GRADES. THE PERMANENT WATERBARS SHALL REMAIN AS PART OF SITE RESTORATION PLAN.

- KEY NOTES**
- FURNISH AND INSTALL PRIORITY 1 SILT SAVER SILT FENCE PER DETAIL 9, SHEET D005 OR 18" COMPOST FILTER SOCK PER DETAIL 2, SHEET D004. (TYPICAL). CONTRACTOR TO COORDINATE BMP SELECTION WITH OWNER.
 - FURNISH AND INSTALL SUPER SILT FENCE PER DETAIL 9, SHEET D005 OR 24" COMPOST FILTER SOCK PER DETAIL 2, SHEET D004. (TYPICAL). CONTRACTOR TO COORDINATE BMP SELECTION WITH OWNER.
 - INSTALL WATERBAR PER DETAIL 10, SHEET D005. (TYPICAL)
 - FURNISH AND INSTALL TRENCH BREAKER PER DETAIL 3, SHEET D004. (TYPICAL)
 - APPLY FLEXTERRA HYDROSEED PER DETAIL 8A, SHEET D005.
 - FURNISH AND INSTALL EROSION CONTROL BLANKET PER DETAIL 7 AND DETAIL 8, SHEET D005.
 - CONSTRUCT TEMPORARY UPSLOPE DIVERSION WITH CROSS CONVEYANCE PER DETAIL 12, SHEET D006 - TO BE FIELD LOCATED.
 - CONSTRUCT ORANGE CONSTRUCTION FENCE PER DETAIL 37, SHEET D010.
 - FURNISH AND INSTALL ROCK CONSTRUCTION ENTRANCE/EXIT WITH ROCK STOCKPILE PER DETAIL 1, SHEET D004. (TYPICAL)
 - CONSTRUCT PIPELINE AND EQUIPMENT CROSSING OF ROAD PER DETAIL 14, SHEET D006.
 - CONSTRUCT TEMPORARY EQUIPMENT CROSSING OF STREAM PER DETAIL 19, SHEET D007.
 - CONSTRUCT PIPELINE AND EQUIPMENT CROSSING OF STREAM AND STREAM RESTORATION PER DETAIL 11, AND DETAIL 15, ON D006.
 - CONSTRUCT TEMPORARY EQUIPMENT CROSSING OF WETLAND PER DETAIL 17, SHEET D007.
 - CONSTRUCT PIPELINE AND EQUIPMENT CROSSING OF WETLAND PER DETAIL 16, SHEET D007.
 - FURNISH AND INSTALL DRAINED TRENCH PLUG PER DETAIL 21, SHEET D008.
 - FURNISH AND INSTALL SLOPE TOE TRENCH DRAIN OUTLET PER DETAIL 22, SHEET D008.
 - FURNISH AND INSTALL TRENCH DRAIN PER DETAIL 23, SHEET D008.
 - FURNISH AND INSTALL WATERBAR TRENCH DRAIN OUTLET PER DETAIL 24, SHEET D008.
 - FURNISH AND INSTALL SIDE SLOPE TRENCH DRAIN PER DETAIL 26, SHEET D009.
 - PIPE TRENCH SHALL BE BACKFILLED PER DETAIL 30, SHEET D009 USING CEMENT SOIL BACKFILL.
 - FURNISH AND INSTALL SLOPE INTERRUPTER PER DETAIL 31, SHEET D009.

REVISION RECORD

NO.	DATE	DESCRIPTION
1	07/20/18	REVISED PER WWP COMMENTS

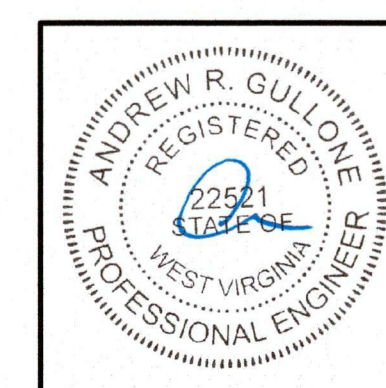
C&E
Civil & Environmental Consultants, Inc.
333 Baldwin Road - Pittsburgh, PA 15205
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MARKWEST LIBERTY MIDSTREAM & RESOURCES, LLC
SHERWOOD TO MOBLEY
DODDRIDGE AND WETZEL COUNTIES,
WEST VIRGINIA

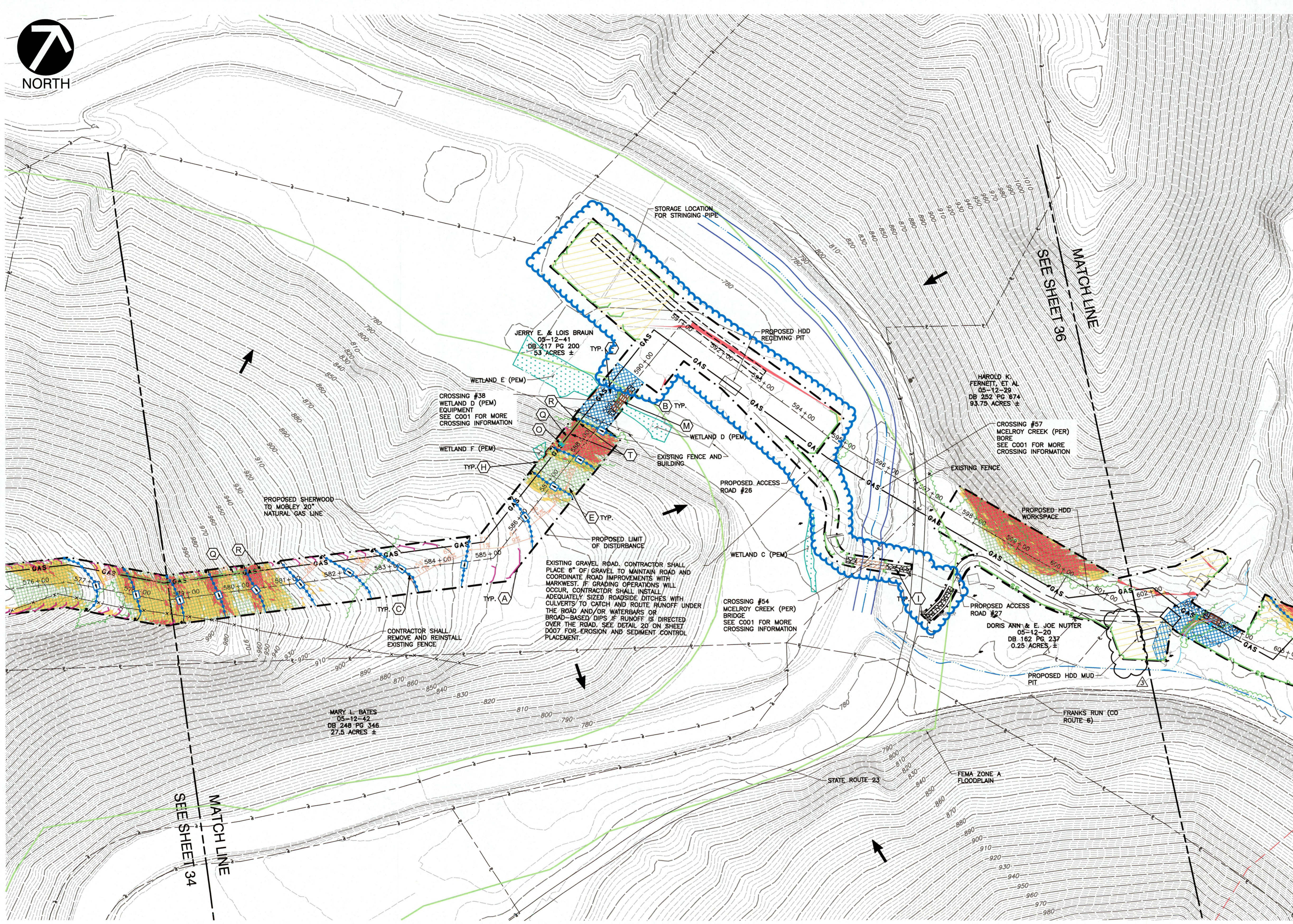
EROSION AND SEDIMENTATION CONTROL PLAN

DRAWING NO.: **C010A**
SHEET 11A OF 85

DATE: 11/30/2017
DRAWN BY: LKC/KLP
DWG SCALE: 1" = 100'
CHECKED BY: ARG
PROJECT NO.: 171-178
APPROVED BY: IHW
SIGNATURE ON FILE



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LEGEND

	EXISTING INDEX CONTOUR
	EXISTING INTERMEDIATE CONTOUR
	EXISTING PERENNIAL STREAM
	EXISTING INTERMITTENT STREAM
	EXISTING EPHEMERAL STREAM
	EXISTING APPROXIMATE LAKE/POND BOUNDARY
	STREAM FLOW DIRECTION
	EPHEMERAL STREAM (EPH)
	INTERMITTENT STREAM (INT)
	PERENNIAL STREAM (PER)
	EXISTING FEMA ZONE A FLOODPLAIN
	EXISTING PEM WETLAND
	EXISTING PUB WETLAND
	EXISTING STORM PIPE (ST)
	EXISTING TREELINE
	EXISTING FENCE
	EXISTING OVERHEAD ELECTRIC (OH-W)
	EXISTING GAS LINE (G)
	EXISTING WATER LINE (W)
	EXISTING DITCH
	EXISTING UNPAVED ROADS
	EXISTING PAVED ROADS
	EXISTING POWER POLE
	EXISTING GAS WELL
	EXISTING UTILITY STRUCTURE
	EXISTING SILT FENCE (SF)
	EXISTING TOP-OF-BANK
	EXISTING PROPERTY LINE
	EXISTING COUNTY/TOWNSHIP LINE
	LIMITS OF HISTORIC LANDSLIDES
	EXISTING SLOPES BETWEEN 3:1 TO 2:1
	EXISTING SLOPES OF 2:1 AND GREATER
	PROPOSED LIMIT OF DISTURBANCE
	PROPOSED PIPELINE (GAS)
	PROPOSED ACCESS ROAD
	PROPOSED WORKSPACE
	PROPOSED PIPELINE
	PROPOSED WATERBAR WITH J-HOOK
	PROPOSED SILT FENCE (SF)
	PROPOSED SUPER SILT FENCE (SS)
	PROPOSED FLEXTERRA HYDROSEED
	PROPOSED EROSION CONTROL BLANKET
	PROPOSED ROCK CONSTRUCTION ENTRANCE AND STONE STOCKPILE
	PROPOSED TRENCH BREAKER
	PROPOSED TIMBER MATTING
	PROPOSED COFFERDAM
	PROPOSED CONSTRUCTION FENCE
	DRAINAGE ARROW
	PROPOSED TRENCH DRAIN
	PROPOSED SLOPE INTERRUPTER

REVISION RECORD

NO.	DATE	DESCRIPTION
1	07/20/14	REVISED PER ADEP COMMENTS
2	01/14/2015	REVISED PER ADEP COMMENTS
3	02/20/2015	REVISED PER ADEP COMMENTS

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MARKWEST LIBERTY MIDSTREAM & RESOURCES, LLC
SHERWOOD TO MOBLEY
DODDRIDGE AND WETZEL COUNTIES,
WEST VIRGINIA

EROSION AND SEDIMENTATION CONTROL PLAN

DRAWING NO. **C034**

SHEET 35 OF 85

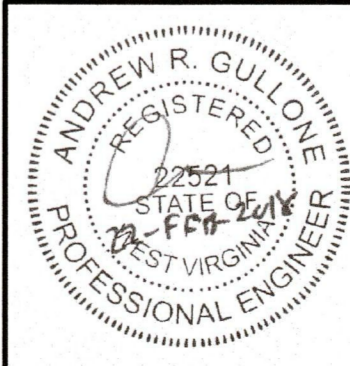
DATE: 11/30/2017
 DRAWN BY: LKC/KLP
 DWG SCALE: 1" = 100'
 CHECKED BY: 171-778
 APPROVED BY: **IHW** SIGNATURE ON FILE

- NOTES**
- CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
 - CIVIL & ENVIRONMENTAL CONSULTANTS INC. (CEC) DOES NOT GUARANTEE THAT THE SURVEY OR MAPPING INCLUDED IN THESE PLANS DEPICTS COMPLETE OR CONCLUSIVE SUBSURFACE INFORMATION NOR DOES IT REFLECT A COMPLETED BOUNDARY SURVEY. CONTRACTOR IS REQUIRED TO CONTACT THE CORRESPONDING STATE ONE CALL SYSTEM PRIOR TO PERFORMING ANY EXCAVATIONS.
 - CONTRACTOR SHALL SAW CUT ALL EXISTING ASPHALT DRIVEWAYS AND REPLACE WITH THE EXISTING PAVEMENT SECTION.
 - ALL ROAD CROSSINGS SHALL BE IN ACCORDANCE WITH THE PERMITS PREPARED BY CEC.
 - CONTRACTOR SHALL PROTECT ALL EXISTING CULVERTS DURING CONSTRUCTION.
 - LIMITS OF HISTORIC LANDSLIDE AREAS AND COVES UNDERLAIN BY CLAY OBTAINED FROM USGS OPEN-FILE #78-1056/1057 LANDSLIDES AND RELATED FEATURES QUADRANGLE MAPS, DIGITIZED BY CEC.
 - SEE SHEET C001 FOR REFERENCES AND ONE-CALL NUMBERS.

SITE RESTORATION

SITE RESTORATION SHALL COMMENCE PROMPTLY AFTER COMPLETION OF EACH PIPELINE SECTION. FOR SITE RESTORATION, THE ENTIRE RIGHT OF WAY SHALL BE SEEDDED IN ACCORDANCE WITH DETAIL 18, SHOWN ON SHEET D006. DURING SITE RESTORATION, ALL TEMPORARY CONTROLS SHALL BE REMOVED AND THE GRADES SHALL BE RETURNED TO THE EXISTING CONDITION GRADES. THE PERMANENT WATERBARS SHALL REMAIN AS PART OF SITE RESTORATION PLAN.

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