

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 #: 16-428

Date Approved: AUGUST 21, 2016

Expires: AUGUST 21, 2017

**Issued to: MARKWEST LIBERTY
MIDTREAM & RESOURCES, LLC**

**POC: RICHARD LOWRY
(724) 416-0520**

**Company Address: 1515 ARAPAHOE ST, TOWER 1, SUITE 1600
DENVER, CO 80202**

Project Address: 218 SWISHER LANE, WEST UNION, WV 26456

Firm:

Lat/Long: 39.277531, -80.686432

Purpose of development: CONSTRUCTION OF GRAVEL PARKING LOT

Issued by: George C. Eidel, Doddridge County FPM (or designee)

Date:

8/21/2016

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

122660

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

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

PNC BANK, N.A.
Pittsburgh, PA



8-9/430

CHECK DATE 7/22/2016

PAY Five Hundred and 00/100 Dollars

TO Doddridge County Commission

AMOUNT 500.00

COPY

COPY


AUTHORIZED SIGNATURE

Security features. Details on back.

⑈ 122660 ⑈ ⑆043000096⑆ 0002272405⑈

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

122660

Check Date: 7/22/2016

| Invoice Number | Date | Voucher | Amount | Discounts | Previous Pay | Net Amount |
|-----------------------------|-----------|--------------|--------|-----------|--------------|------------|
| 07202016 | 7/20/2016 | 000000276648 | 500.00 | | | 500.00 |
| Doddridge County Commission | | | TOTAL | | | 500.00 |
| - Operating Account | 44 | 11261 | | | | |

COPY

COPY



Check Date: 7/22/2016

| Invoice Number | Date | Voucher | Amount | Discounts | Previous Pay | Net Amount |
|-----------------------------|-----------|--------------|--------|-----------|--------------|------------|
| 07202016 | 7/20/2016 | 000000276648 | 500.00 | | | 500.00 |
| Doddridge County Commission | | | TOTAL | 500.00 | | 500.00 |
| - Operating Account | 44 | 11261 | | | | |

16-428

Doddridge County, West Virginia

RECEIPT NO: 7416

DATE: 2016/07/27

FROM: CIVIL & ENVIRONMENTAL CONSULTANTS AMOUNT: \$ 500.00

FIVE HUNDRED DOLLARS AND 00 CENTS

FOR: #16-428

00000122660 FP-BUILDING PERMITS

020-318 TOTAL: \$500.00

MICHAEL HEADLEY
SHERIFF & TREASURER

MEC
CLERK

Customer Copy





Doddridge County Floodplain Permits

(Week of August 1, 2016)

Please take notice that on the **22 day of July, 2016, MarkWest Liberty Midstream & Resources, LLC** filed an application for a Floodplain Permit (**#16-428**) to develop land located at or about **218 Swisher Lane, 39.277531, -80.686432**. The Application is on file with the Clerk of the County Court and may be inspected or copied during regular business hours. Any interested persons who desire to comment shall present the same in writing by **August 21, 2016** (20 calendar days after the announcement at the regularly scheduled Doddridge County Commission Meeting) delivered to the Clerk of the County Court at 108 Court Street Ste. 1, West Union, WV 26456. **This project is a gravel parking lot.**



July 21, 2016

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

Dear Mr. Eidel:

JUL22 16 1:06PM

Subject: Floodplain Development Permit Application
Commercial/Industrial Floodplain Development Permit
Sherwood Facility Gravel Parking Area
Doddridge County, West Virginia
CEC Project 110-811.5026

On behalf of MarkWest Liberty Midstream & Resources, LLC, Civil & Environmental Consultants, Inc. (CEC) is submitting a Commercial/Industrial Floodplain Development Permit associated with the Sherwood Gas Processing Plant, located in Doddridge County, West Virginia. The permit application is for the construction of a gravel parking lot to be installed at existing grade. Please find enclosed the following:

- Permit Application Fee in the amount of \$500 (122660); and
- A copy of the Doddridge County Floodplain Development Permit Application

Should you have any questions or require additional information, do not hesitate to contact us at 412-429-2324.

Very truly yours,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

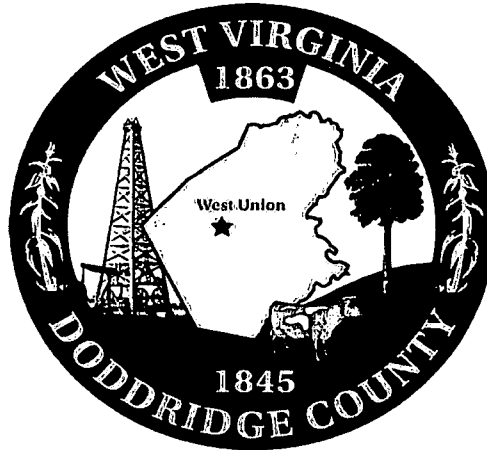
Brian R. Tomiczek,
Staff Consultant

Edward J. Fink, P.E., CPESC, CPSWQ
Project Manager

Enclosures

cc: Richard Lowry, MarkWest Liberty Midstream & Resources, LLC

110-811.5026-L-Floodplain Permit-7-21-16/P



| | |
|------------------|-----------------------------------|
| Permit# | <u>16-428</u> |
| Project Name: | <u>gravel parking lot</u> |
| Permittees Name: | <u>MarkWest</u> <u>Liberty</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. Development shall not be used or occupied until a Certificate of Compliance is issued.
5. The permit will expire if no work is commenced within six months of issuance.
6. Applicant is hereby informed that other permits may be required to fulfill local, state, and federal requirements.
7. Applicant hereby gives consent to the Floodplain Administrator/Manager or his/her representative to make inspections to verify compliance.
8. I THE APPLICANT CERTIFY THAT ALL STATEMENTS HEREIN AND IN ATTACHMENTS TO THIS APPLICATION ARE, TO THE BEST OF MY KNOWLEDGE, TRUE AND ACCURATE.

APPLICANT'S SIGNATURE _____

DATE 7/21/16

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: 1515 Arapahoe Street, Tower 1, Suite 1600 | | |
| City: Denver | State: CO | Zip: 80202 |
| 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: richard.lowry@markwest.com | | |
| Corporate FEIN: 30-0528059 | Corporate DUNS: | |
| Corporate Website: | | |
| Local Mailing Address: 218 Swisher Lane | | |
| City: West Union | State: WV | Zip: 26456 |
| Local Project Manager (PM): Kevin Sturgill | | |
| Local PM Primary Phone: (304) 782-2814 | | |
| Local PM Secondary Phone: (304) 288-6312 | | |
| Local PM Primary Email: ksturgill@markwest.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: richard.lowry@markwest.com | | |

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)

Gravel parking lot

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 1

| | | |
|--|----------------|-------------------|
| Site/Property Information: | | |
| Legal Description: See Attachment | | |
| | | |
| Physical Address/911 Address: 218 Swisher Lane | | |
| Decimal Latitude/Longitude: 39.277531, -80.686432 | | |
| DMS Latitude/Longitude: 39° 16' 39.11" N, -80° 41' 11.16" E | | |
| District: Grant | Map: 19 | Parcel: 31 |
| Land Book Description: | | |
| | | |
| Deed Book Reference: D.B.V. 346, PG. 457 | | |
| | | |
| Tax Map Reference: Sheet 19, Lot 32 | | |
| | | |
| Existing Buildings/Use of Property: Farmland | | |
| | | |

| | | | |
|--|----------------|---|----------------|
| 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 1

| Property Owner Data: | | |
|---|-----------|------------|
| Name of Primary Owner (PO): MarkWest Liberty Midstream & Resources, LLC | | |
| PO Address: 218 Swisher Lane | | |
| City: West Union | State: WV | Zip: 26456 |
| PO Primary Phone: (304) 782-2814 | | |
| PO Secondary Phone: (304) 288-6312 | | |
| PO Primary Email: k.sturgill@markwest.com | | |

| Surface Rights Owner Data: | | |
|---|-----------|------------|
| Name of Primary Owner (PO): MarkWest Liberty Midstream & Resources, LLC | | |
| PO Address: 218 Swisher Lane | | |
| City: West Union | State: WV | Zip: 26456 |
| PO Primary Phone: (304) 782-2814 | | |
| PO Secondary Phone: (304) 288-6312 | | |
| PO Primary Email: k.sturgill@markwest.com | | |

| 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: | | |

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: Wolfe's Excavating | | |
| C/SC WV License Number: WV043545 | | |
| C/SC FEIN: | C/SC DUNS: | |
| Local C/SC Point of Contact (POC): Jason Manning | | |
| Local C/SC POC Title: Project Manager | | |
| C/SC Mailing Address: 70 Columbia Blvd. | | |
| City: Clarksburg | State: WV | Zip-Code: 26301 |
| Local C/SC Office Phone: (304) 842-9050 | | |
| Local C/SC POC Phone: (304) 669-6523 | | |
| Local C/SC POC E-Mail: jmanning@wolfesexc@gmail.com | | |

| Engineer Firm Information: | | |
|--|---------------------------------|-----------------|
| Engineer Firm Name: Civil & Environmental Consultants, Inc. | | |
| Engineer WV License Number: 18669 | | |
| Engineer Firm FEIN: 25-1599565 | Engineer Firm DUNS: 36-160-9878 | |
| Engineer Firm Primary Point of Contact (POC): Edward Fink, P.E., CPESC | | |
| Engineer Firm Primary POC Title: Project Manager | | |
| 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) 249-1554 | | |
| Engineer Firm Primary POC E-Mail: efink@cecinc.com | | |

Adjacent and/or Affected Landowners Data

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

| Adjacent Property Owner Data: Upstream | | |
|--|--------|------|
| Name of Primary Owner (PO): N/A | | |
| Physical Address: | | |
| City: | State: | Zip: |
| PO Primary Phone: | | |
| PO Secondary Phone: | | |
| PO Primary Email: | | |

| Adjacent Property Owner Data: Upstream | | |
|--|--------|------|
| Name of Primary Owner (PO): N/A | | |
| Physical Address: | | |
| City: | State: | Zip: |
| PO Primary Phone: | | |
| PO Secondary Phone: | | |
| PO Primary Email: | | |

| Adjacent Property Owner Data: Downstream | | |
|--|--------|------|
| Name of Primary Owner (PO): N/A | | |
| Physical Address: | | |
| City: | State: | Zip: |
| PO Primary Phone: | | |
| PO Secondary Phone: | | |
| PO Primary Email: | | |

| Adjacent Property Owner Data: Downstream | | |
|--|--------|------|
| Name of Primary Owner (PO): N/A | | |
| Physical Address: | | |
| City: | State: | Zip: |
| PO Primary Phone: | | |
| PO Secondary Phone: | | |
| PO Primary Email: | | |

Site Plan

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

A SITE PLAN MUST CONTAIN THE FOLLOWING INFORMATION:

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

Applicant

Please read print name, sign and date below:

- I certify that I am authorized to submit this application for the primary project developer.
- I certify that the information included in this application is to the best of my knowledge true and complete.
- I certify that all required Federal, State, and local permits required by law and/or ordinance for the above described development of this project have been properly attained, are current and valid, and must be presented with this application before a Doddridge County Floodplain Permit may be issued.
- I understand that if in the course of the development project additional permits become required that were not needed during the initial proposal, the primary developer must notify the Doddridge County Floodplain Manager within 48 hours of such need, and that a "Stop Work" order may be issued for all project work directly impacting the floodplain or floodway, until such time the required additional permits are acquired.
- I understand that once the floodplain permit is submitted, the application will be entered into official public record at the next regularly scheduled Doddridge County Commission meeting after the date of submittal.
- I understand that from the date of submittal of the fully completed permit application, the Doddridge County Floodplain Manager has ninety (90) days to make a determination to either grant or deny said permit application. During this approval period, the Doddridge County Floodplain Manager may, at his or her discretion, conduct a review and/or additional study of provided documentation by means of an independent engineering firm. All costs associated with said review and/or study must be reimbursed to the County before issuance of approved permit.
- I understand that during the approval period, the Doddridge County Floodplain Manager of designee may at his or her discretion conduct site visits and document conditions of proposed development pursuant to the permit application.
- I understand that once the Floodplain Permit is granted, the permit will be entered into official public record at the next scheduled Doddridge County Commission meeting after the date of issuance. 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. A Certificate of Compliance is required upon substantial completion of the project.**
- 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 Wirt County Floodplain Manager and that I must stop all construction immediately until discrepancies of actual work vs. proposed work is resolved.

Applicant Signature: _____

Date: _____

Applicant Printed Name: Richard Lowry

**DESCRIPTION OF
192.676 ACRES TO BE ACQUIRED
GRANT DISTRICT, COUNTY OF DODDRIDGE,
STATE OF WEST VIRGINIA**

All that certain 257.495 acre tract of land situate in Grant District, County of Doddridge, State of West Virginia, on the waters of Buckeye Creek, being part of land now or formerly Dennis H. Powell (second & fourth tracts) as recorded in Deed Book Volume 200, Page 532, being more particularly bounded and described as follows:

BEGINNING AT A POINT on an existing stone at the Westerly corner of property of now or formerly Dennis H. Powell (fourth tract), recorded in Deed Book Volume 200, Page 532, said stone also being on the Easterly line of property of now or formerly Howard J. Rivers, recorded in Deed Book Volume 249, Page 356; thence along the northerly line of property of now or formerly Howard J. Rivers the following four (4) courses and distances, viz: North 33°17'31" East, 264.13' to a capped rebar set; thence North 57°54'19" West, 102.11' to a capped rebar set; thence North 52°54'19" West, 145.20' to a capped rebar set; thence North 73°24'19" West, 225.37' to a capped rebar set on the southerly line of property of now or formerly Dennis H. Powell; thence through the property of now or formerly Dennis H. Powell the following eight (8) courses and distances, viz: North 15°49'45" East, 2304.02' to a capped rebar set; thence North 02°42'33" West, 647.27' to a capped rebar set; thence North 88°57'32" East, 57.52' to a capped rebar set; thence North 76°26'19" East, 311.96' to a capped rebar set; thence South 88°02'36" East, 122.42' to a capped rebar set; thence South 75°10'25" East, 224.21' to a capped rebar set; thence North 89°02'55" East, 192.57' to a capped rebar set; thence North 25°07'41" East, 537.92' to a capped rebar set on the southerly right of way line of The State of West Virginia, West Virginia Railroad Maintenance Authority, as recorded in Deed Book Volume 216, Page 166; thence along the southerly right of way line of The State of West Virginia, West Virginia Railroad Maintenance Authority the following six (6) courses and distances, viz: South 20°36'12" East, 77.00' to a capped rebar set; thence North 67°29'54" East, 34.97' to a capped rebar set; thence North 65°43'48" East, 111.00' to a capped rebar set; thence North 59°34'48" East, 111.00' to a capped rebar set; thence North 55°33'48" East, 40.27' to a capped rebar set; thence North 77°19'37" East, 743.13' to a capped rebar set at the northwest corner of property of now or formerly Billy D. Carroll, as recorded in Deed Book Volume 140, Page 190; thence along the Westerly line of property of now or formerly Billy D. Carroll the following eleven (11) courses and distances, viz: South 14°30'56" East, 715.45' to a point; thence South 34°26'09" East, 107.25' to a point; thence South 24°26'09" East, 396.00' to a point; thence South 16°26'09" East, 198.00' to a point; thence South 05°33'51" West, 226.88' to a point; thence South 06°56'09" East, 247.50' to a point; thence South 11°33'51" West, 276.37' to a point; thence South 05°03'51" West, 478.50' to a point; thence South 04°26'09" East, 330.00' to a point; thence South 03°33'51" West, 222.75' to a point; thence South 09°26'09" East, 330.00' to a point on the northerly line of property of now or formerly Glenn R. Long, as recorded in Deed Volume 230, Page 493; thence along the northerly line of property of now or formerly Glenn R. Long South 89°33'51" West, 148.50' to a capped rebar set at the northeast corner of property of

now or formerly Jeremy M. Sutton, as recorded in Deed Book Volume 266, Page 374; thence along the northerly line of property of now or formerly Jeremy M. Sutton the following eleven (11) courses and distances, viz: South 65°24'18" West, 141.35' to a capped rebar set; thence South 35°50'50" West, 189.75' to a capped rebar set; thence South 31°05'50" West, 165.00' to a capped rebar set; thence South 18°20'50" West, 181.50' to a capped rebar set; thence South 17°50'50" West, 148.50' to a capped rebar set; thence South 25°20'50" West, 148.50' to a capped rebar set; thence South 41°50'50" West, 107.25' to a capped rebar set; thence South 41°50'50" West, 152.63' to a capped rebar set; thence South 33°50'50" West, 297.00' to a capped rebar set; thence South 55°50'50" West, 202.13' to a capped rebar set; thence South 21°39'10" East, 123.75' to a capped rebar set at a northeasterly corner of property of now or formerly Howard J. Rivers; thence along the northerly line of property of now or formerly Howard J. Rivers the following two (2) courses and distances, viz: South 49°50'50" West, 621.33' to a capped rebar set; thence North 45°57'17" West, 1837.63' to an existing stone at the place of beginning.

Contains: 11,216,484.16 Sq. Ft. or 257.495 Acres.

Bearing basis is the West Virginia State Plane North Zone Grid, NAD 1983.

SHERWOOD GAS PLANT
CEC Project #: 110-811.5026
Construction Bid Form

Prepared By: Civil & Environmental Consultants, Inc. (CEC)
 Prepared For: MarkWest Liberty Midstream & Resources, LLC

Prepared by: BRT
 Date: 7/20/2016

Checked by: AG
 Date: 20-July-2016

| BASE BID | | | | | | |
|-------------|--|-------------------------------------|----------|----------|------------|-----------------|
| Item Number | Item Description | | Quantity | Unit | Unit Cost | Item Total Cost |
| 1 | Excavation (Unclassified Excavation) | | | | | |
| | 1.1 | Earthwork | 4,115.0 | CY | \$5.00 | \$20,575.00 |
| 2 | Erosion & Sediment Control Phase | | | | | |
| | 2.4 | Erosion and Sediment Maintenance | 1 | Lump Sum | \$7,500.00 | \$7,500.00 |
| 3 | Gravel Parking Area Construction Phase | | | | | |
| | 3.1 | Gravel Parking Lot with Underdrains | 4,115.0 | CY | \$12.50 | \$51,437.50 |

| | |
|----------------------------|--------------------|
| Total Base Bid Cost | \$79,512.50 |
|----------------------------|--------------------|

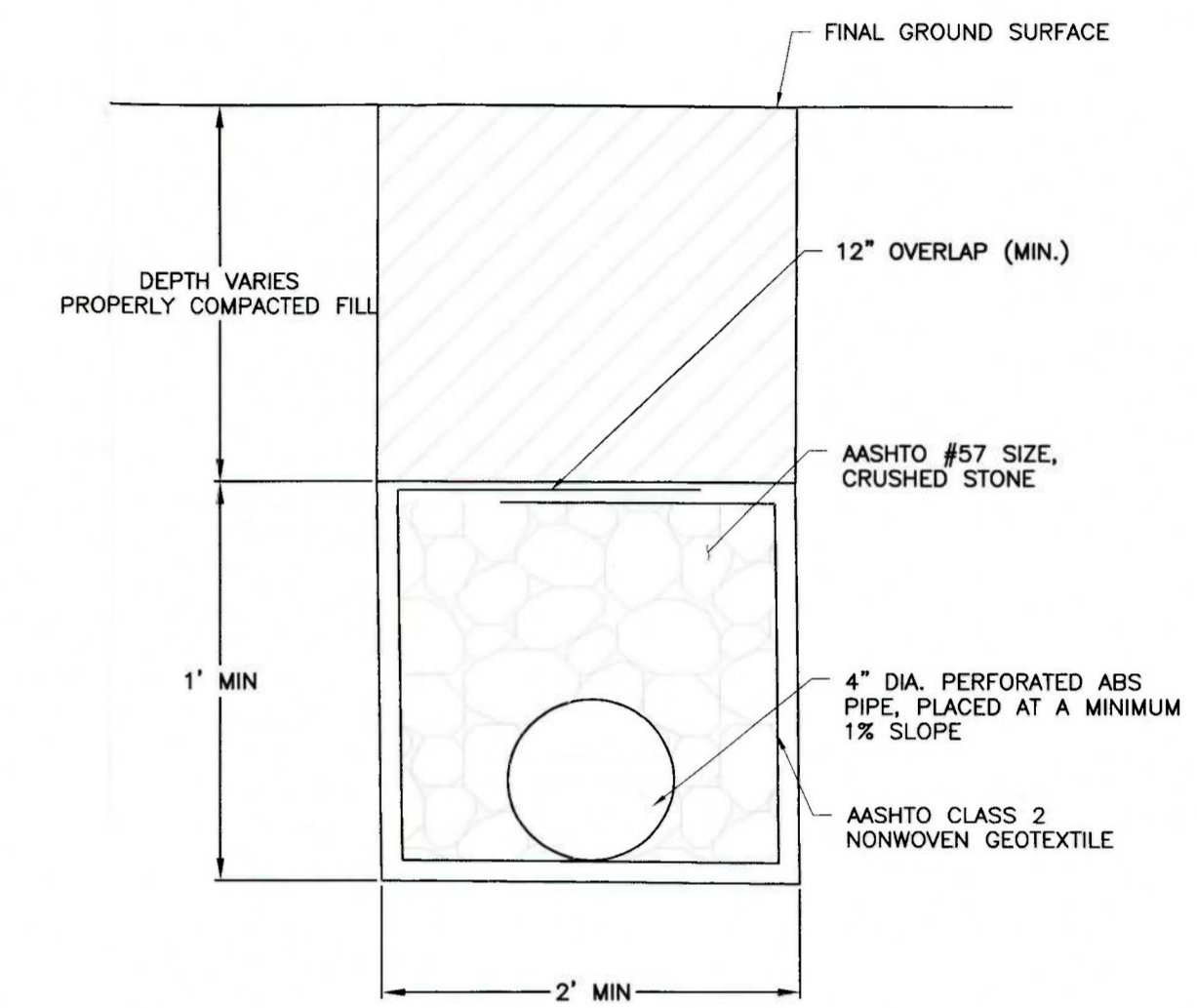


EROSION AND SEDIMENTATION CONTROL CONSTRUCTION SEQUENCE

- THE FOLLOWING IS A GENERALIZED CONSTRUCTION SEQUENCE FOR THE PROJECT. THIS CONSTRUCTION SEQUENCE WAS DEVELOPED TO PROVIDE THE NECESSARY EROSION AND SEDIMENTATION CONTROL PROTECTION THROUGHOUT EARTHMOVING ACTIVITIES. THE CONTRACTOR SHALL PERFORM ALL NECESSARY ACTIVITIES FOR PROPER AND COMPLETE EXECUTION OF THIS PLAN, WHETHER SPECIFICALLY MENTIONED OR NOT, AND MAY BE REQUIRED TO ALTER CONTROLS BASED ON EFFECTIVENESS OF CONTROLS OR DIFFERING CONDITIONS THAT ARE ENCOUNTERED DURING CONSTRUCTION OF THE PROJECT.
- CONTACT MISS UTILITY OF WEST VIRGINIA AT (800)-245-4848 AND THE APPROPRIATE UTILITY COMPANIES AT LEAST THREE (3) DAYS PRIOR TO THE INITIATION OF ANY CONSTRUCTION ACTIVITY.
 - INSTALL THE ROCK CONSTRUCTION ENTRANCE, COMPOST FILTER SOCK AND ORANGE CONSTRUCTION FENCE AT THE LOCATIONS SHOWN ON THE PLAN AND IN ACCORDANCE WITH THE STANDARD DETAILS. A STONE STOCKPILE SHOULD BE KEPT AVAILABLE ON SITE FOR DRESSING THE ENTRANCES AS NEEDED.
 - STRIP EXISTING VEGETATION AND DISPOSE AS DIRECTED BY MARKWEST.
 - EXCAVATE TO SUBGRADE. MATERIAL TO BE STOCKPILED ON SITE AS DIRECTED BY MARKWEST.
 - PLACED GRAVEL IN THE LOCATION SHOWN ON THE PLAN AND IN ACCORDANCE WITH THE STANDARD DETAIL. SEED AND MULCH ANY REMAINING DISTURBED AREA NOT RECEIVING GRAVEL.
 - AFTER 70% UNIFORM VEGETATIVE COVER HAS BEEN ACHIEVED AND PROPOSED GRAVEL SURFACES HAVE BEEN INSTALLED, REMOVE EROSION AND SEDIMENTATION CONTROL BMPs. DISTURBANCE ASSOCIATED WITH THE REMOVAL OF EROSION AND SEDIMENTATION CONTROL BMPs SHALL BE STABILIZED PROMPTLY FOLLOWING BMP REMOVAL.

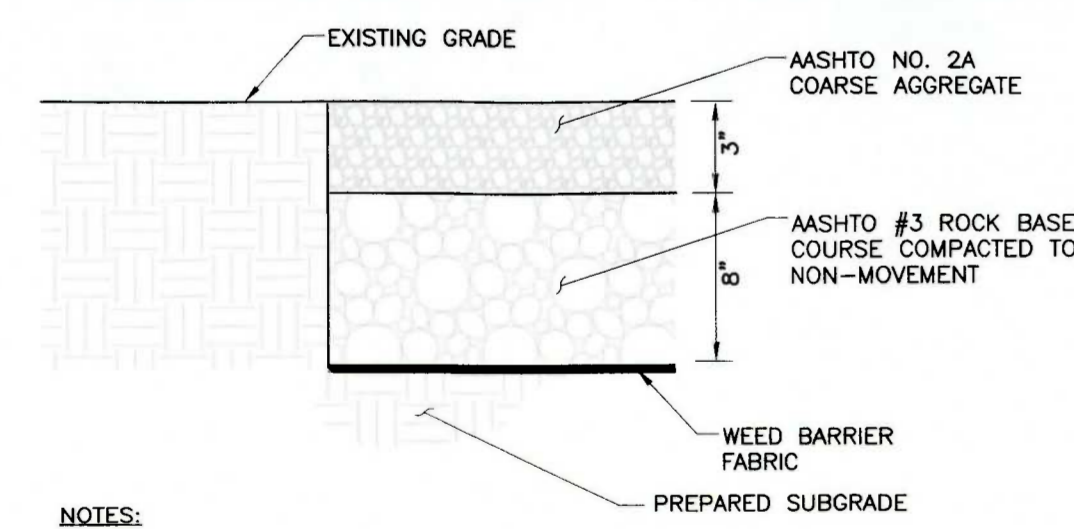
LEGEND

| | |
|--|--|
| | EXISTING INDEX CONTOUR |
| | EXISTING INTERMEDIATE CONTOUR |
| | PROPOSED GRAVEL |
| | PREVIOUSLY APPROVED LIMIT OF DISTURBANCE |
| | PROPOSED COMPOST FILTER SOCK |
| | PROPOSED ORANGE CONSTRUCTION FENCE |
| | PROPOSED ROCK CONSTRUCTION ENTRANCE |
| | PROPOSED UNDERDRAIN |
| | EXISTING STREAM |
| | EXISTING WETLAND |



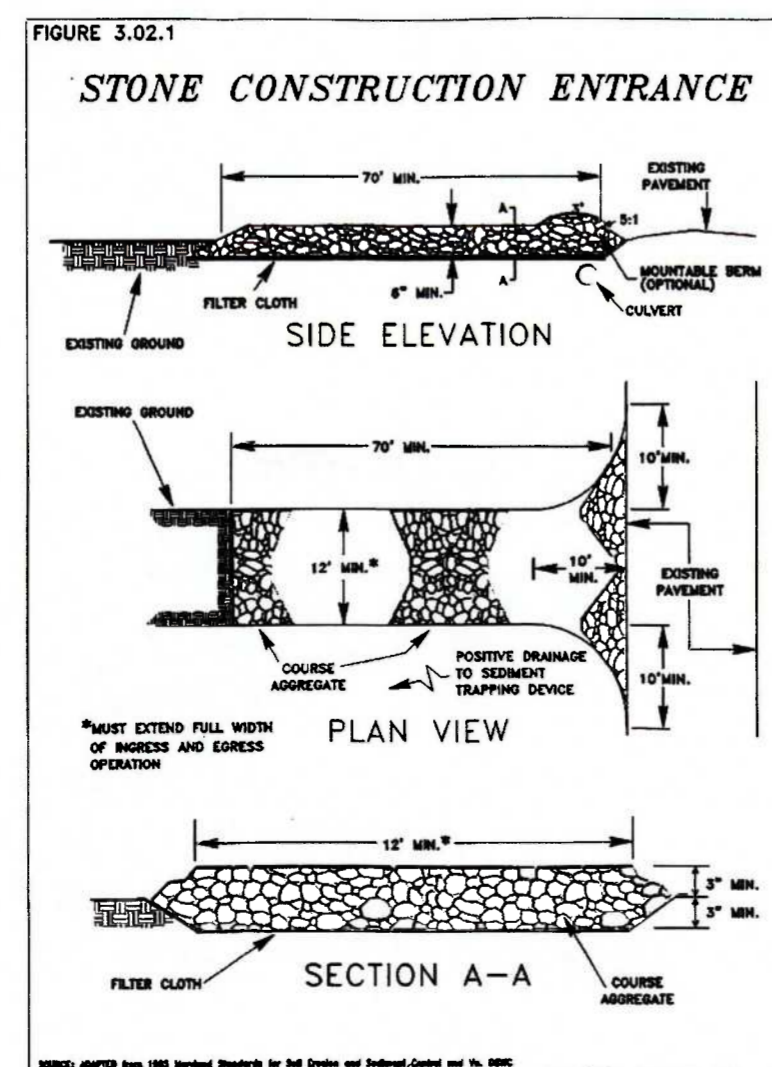
NOTE:
INSTALL SUBSURFACE DRAINS AT SPRING/SEEP LOCATIONS AND AS NECESSARY DURING CONSTRUCTION. TIE SUBSURFACE DRAINS INTO SITE FILL KEY DRAINS OR OUTLET BEYOND LIMITS OF NEW FILL.

**DETAIL 5
TYPICAL UNDERDRAIN
NOT TO SCALE**

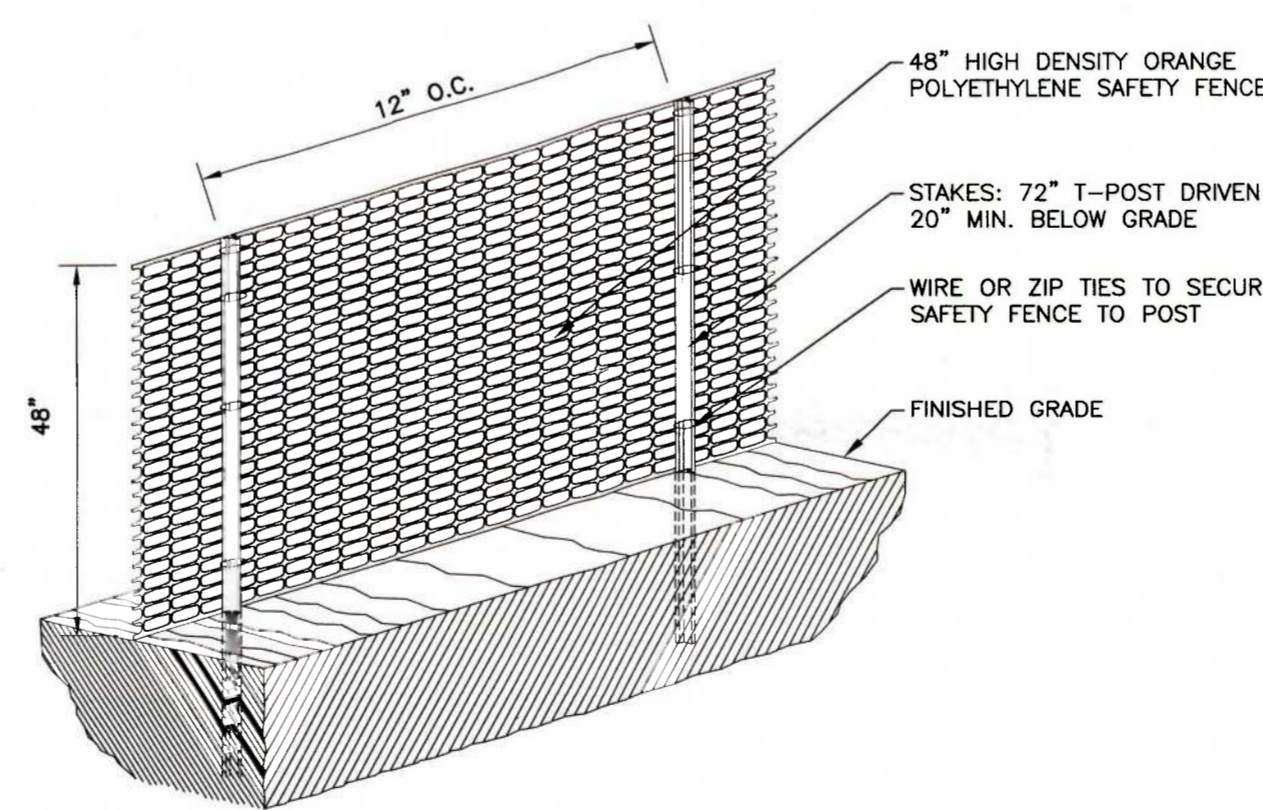


- NOTES:**
PRIOR TO PLACEMENT OF AGGREGATE, THE SUBGRADE SHALL BE PREPARED AS FOLLOWS:
- SUBGRADE SHALL BE PROOFROLLED AND COMPACTED TO AT LEAST 95% OF ITS MAXIMUM DRY DENSITY AND WITHIN ± 3% OF ITS OPTIMUM MOISTURE CONTENT, AS DETERMINED BY ASTM D1557 (MODIFIED PROCTOR). ANY SOFT AREAS SHALL BE OVEREXCAVATED TO A FIRM AND COMPETENT MATERIAL AND BACKFILLED AS DESCRIBED IN NOTE 2.
 - AFTER COMPACTION, THE SUBGRADE SHALL PROVIDE A FIRM UNYIELDING FOUNDATION WITH NO SUDDEN, SHARP OR ABRUPT CHANGES OR BREAKS IN GRADES. NO STANDING WATER OR EXCESS MOISTURE SHALL BE PRESENT. ALL SOFT AND YIELDING AREAS SHALL BE REWORKED BY OVEREXCAVATING TO A FIRM AND COMPETENT MATERIAL.
 - THE SUBGRADE SHALL BE GRADED AND SHAPED AS REQUIRED TO CONSTRUCT THE AGGREGATE BASE COURSE IN CONFORMANCE WITH THE GRADES, LINES AND THICKNESSES SHOWN ON THE DRAWINGS.

**DETAIL 1
GRAVEL PAD
NOT TO SCALE**

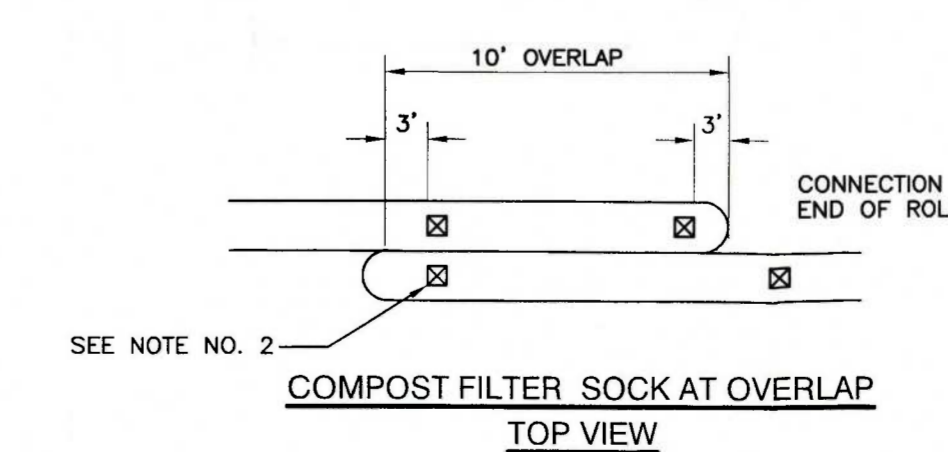
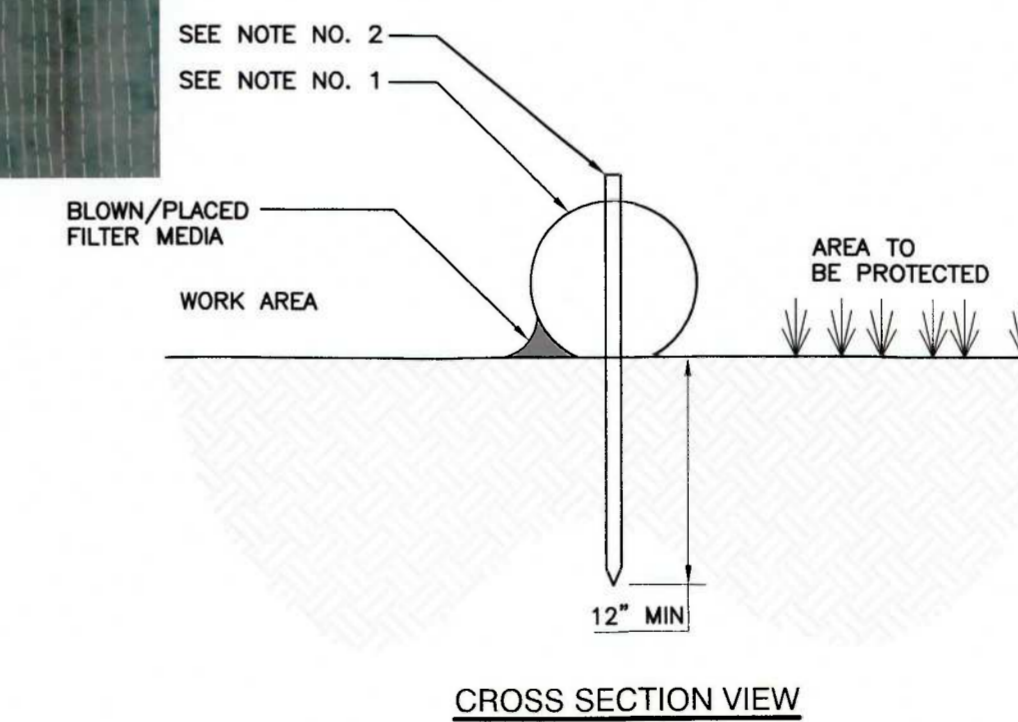


**DETAIL 2
ROCK CONSTRUCTION ENTRANCE/EXIT
NOT TO SCALE**

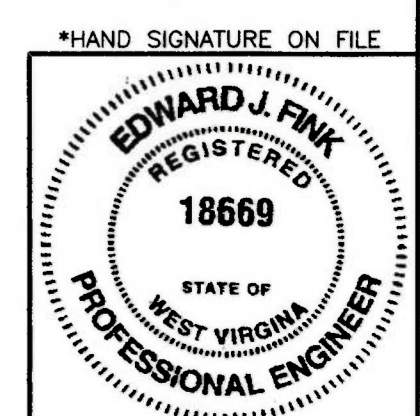
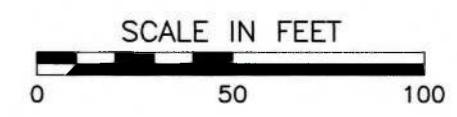
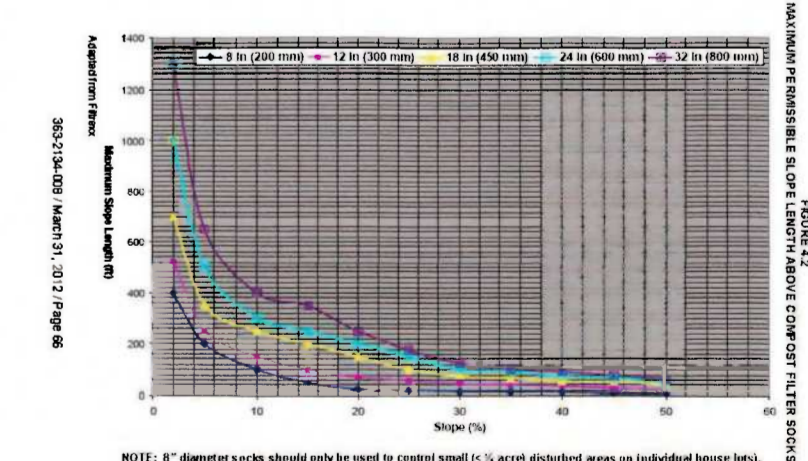


- NOTES:**
- ALL SENSITIVE AREAS SHALL BE PROTECTED AS PER PLAN.
 - SAFETY FENCE SHOULD BE FASTENED SECURELY TO THE T-POSTS.
 - THE FENCING MUST REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION; ANY CHANGE OF THE PROTECTIVE FENCING MUST BE APPROVED.

**DETAIL 3
ORANGE CONSTRUCTION FENCE
NOT TO SCALE**



- NOTES:**
- ALL MATERIAL TO MEET FILTREX SPECIFICATIONS.
 - STAKES SHALL BE INSTALLED THROUGH THE MIDDLE OF THE COMPOST FILTER SOCK ON 10 FOOT CENTERS, USING 2-INCH BY 2-INCH WOODEN STAKES.
 - COMPOST MATERIAL TO BE DISPERSED ON SITE AS DETERMINED BY ENGINEER.
- COMPOST FILTER SOCK SIZING TABLE**
- DETAIL 4
COMPOST FILTER SOCK
NOT TO SCALE**



- REFERENCE**
- EXISTING CONTOURS DERIVED FROM A BARE-EARTH DIGITAL ELEVATION MODEL CONSTRUCTED FROM UNMANNED AERIAL SYSTEM (UAS) RECORDED ELEVATION POINTS. TOPOGRAPHIC CONTOURS MAPPED AT AN INTERVAL OF 2 FEET; DATED MARCH 23, 2016.
 - AERIAL PHOTOGRAPHY GENERATED FROM UAS RECORDED DATA, IMAGERY DATED MARCH 23, 2016.
 - WETLAND AND STREAM DELINEATION COMPLETED BY CEO ON JUNE 21, 2016.

REVISION RECORD

| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |
| | | |
| | | |

CEC
Civil & Environmental Consultants, Inc.
333 Baldwin Road • Pittsburgh, PA 15205
412-429-2324 • 800-365-2324
www.cecinc.com

MARKWEST LIBERTY MIDSTREAM & RESOURCES, LLC.
SHERWOOD FACILITY
DODDRIDGE COUNTY, WEST VIRGINIA

PROPOSED GRAVEL PARKING LOT PLAN

DATE: JUNE 28, 2016 DRAWN BY: ARG
DWG SCALE: 1"=50' CHECKED BY: TEJP
PROJECT NO.: 110-811.5026
APPROVED BY: RPC

DRAWING NO.: **SP01**

P:\2017\110-811.5026\DWG\110-811.5026-001-SP01.dwg(SPO1) LS(7/21/2016 8:47 AM - AutoCAD) - LP: 7/21/2016 8:47 AM