



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
 DEP15052

PAGE
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF
 CHUCK BOWMAN
 304-558-2157

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

SHIP TO

ENVIRONMENTAL PROTECTION
 DEPARTMENT OF
 OFFICE OF AML&R
 601 57TH STREET SE
 CHARLESTON, WV
 25304 304-926-0499

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
06/15/2010				

BID OPENING DATE: 06/29/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
***** ADDENDUM NO. 1 *****						
ADDENDUM ISSUED FOR THE ISLAND CREEK #18 MINE COMPLEX PROJECT TO DISTRIBUTE THE PRE-BID SIGN-IN SHEETS, THE Q/A, REVISED DRAWINGS & SPECS, AND BID SCHEDULE AS A RESULT OF THE MANDATORY PRE-BID MEETING OF 05/25/2010.						
BID OPENING DATE AND TIME ARE EXTENDED TO 06/29/2010 AT 1:30 PM.						
***** NO OTHER CHANGES *****						
0001	1	JB		962-73		
RECLAMATION: RESTORATION OF LAND & OTHER PROPERTIES						
***** THIS IS THE END OF RFQ DEP15052 ***** TOTAL: _____						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
5. Payment may only be made after the delivery and acceptance of goods or services.
6. Interest may be paid for late payment in accordance with the *West Virginia Code*.
7. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at www.state.wv.us/admin/purchase/vrc/hipaa.htm and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).

MANDATORY PRE-BID SIGN-IN ATTENDANCE SHEET

PRINT LEGIBLY

RFQ # : 15052 Bid Date: 6-22-2010
Project: Island Creek #18 Mine Complex Pre-Bid Date: 5-25-2010

Name : DAVID H. BOWMAN
Company: GREEN MOUNTAIN CO
Address: 511 50th Street
Chas WV
25304
Phone #: 304 925 0253
Fax #: 925 9230
Email : Jody.Mayer@OL.com

Name : GEORGE FRESHOUR
Company: EAGLE EXCAVATION INC.
Address: P.O. Box 218
KENNA WV
25248
Phone#: (304) 372-4378
Fax #: (304) 372-4378
Email : None

Name : CHRIS HARMAN
Company: Selco Construction
Address: Pineville WVA.

Phone #: 304-732-7679
Fax #: 732-7660
Email : WWW.SelcoConstruction.com

Name : BRAD WISEMAN
Company: WISEMAN EXCAVATING
Address: RTI BOX 190 LIBERTY WV
25124

Phone#: 304-586 3736
Fax #: 304-586-3789
Email :

Name : David Owens
Company: SELCO CONSTRUCTION
Address: Pineville, WVA.

Phone #: 304-732-7679
Fax #: 304-732-7660
Email :

Name : Dale Thexton
Company: Thexton Cont Inc
Address: PO Box 13279
Charleston WV 25360

Phone#: 304 984 2299
Fax #: 304 984 2334
Email :

Name : Pineville Mining
Company: Wink Hook
Address: PO Box 1290
Pineville WVA
24874
Phone #: 304 732 8303
Fax #: 304 732 7855
Email :

Name : John Kelly Tim Cort
Company: E.L. Robinson
Address: 5088 Washington St (West)
CROSS LANE WV 25213

Phone#: 304-776-7473
Fax #: 304-776-6426
Email : tim@elrobinc.com

MANDATORY PRE-BID SIGN-IN ATTENDANCE SHEET

PRINT LEGIBLY

RFQ # : 15052
 Project: Island Creek #18 Mine Complex

Bid Date: 6-22-2010
 Pre-Bid Date: 5-25-2010

Name : Mick Jones
 Company: Bonmont Const.
 Address: PO box 10
Pocahontas WV 25164
 Phone # : 304 548 7004
 Fax # : 304 548 7133
 Email : bonmontconst@yahoo.com

Name : Brian Hoard
 Company: Breakaway Const
 Address: 1075 Old Turnpike Rd
Sutton WV 26601
 Phone# : 304-765-5317
 Fax # : 304-765-5317
 Email : _____

Name : Gary Long
 Company: McCart & Son Const.
 Address: 2790 Centralia Rd
Sutton WV 26601
 Phone # : 304 765-5288
 Fax # : 304 765-5293
 Email : _____

Name : Mike Carpenter
 Company: Carpenter Reclamation, Inc
 Address: P.O. Box 13015
Sissonville, WV 25360
 Phone# : (304) 984-1115
 Fax # : (304) 984-2770
 Email : Rcarpen127@aol.com

Name : ANN WARD WELLS
 Company: EASTERN ARROW
 Address: PO BOX 4108
CHARLESTON WV
25361
 Phone # : 304-414-0255
 Fax # : 0256
 Email : _____

Name : Robert Barnes
 Company: Barnes EXC. INC.
 Address: P.O. BOX 13384
Sissonville
WV. 25360
 Phone# : 304-984-1725
 Fax # : 304-984-0074
 Email : _____

Name : LES BOLEN
 Company: ASPEN CORP
 Address: 2400 RITTER DR
Daniels WV 25832
 Phone # : 304 763 4573
 Fax # : 304 763 4591
 Email : lboelen@aspengolf.com

Name : NANCY ROBERTS
 Company: OSM
 Address: 1027 Virginia St E
Chas WV 25301
 Phone# : 304 347-7162 ext 3043
 Fax # : _____
 Email : nroberts@osmre.gov

RFQ 15052
Island Creek #18 Mine Complex
Addendum #1

Item 1: The Contractor will have 90 days from the date of the Notice-to-Proceed to complete construction activities on the project. The \$250 per day liquidation damage clause will be in effect after the 90 days. However, the total performance period will be 365 days from the date of the Notice-to-Proceed for invoicing purposes.

Item 2: Contractor's Bid Sheet has been revised. Item 9.2 has changed to read, "1600 LF – Super Silt Fence (per linear foot)", revised schedule included.

The following items have been added to the revised Bid Schedule which is included with this Addendum 1.

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
9.3	100 LF	Straw Bales (per linear foot)
9.4	1 EA	Stone Check Dam (per each)
9.5	1 LS	Stabilized Construction Entrance (per lump sum)
11.1	LS	Gabion Wall (per lump Sum)

Item 3: Q) What is the purpose of using durable limestone for ditches?

A) To improve the quality of the water.

Item 4: Q) (Sheet 3) Will the concrete block building between mine seals #1-4 and #1-5 be demolished?

A) No, the block building will not be demolished.

Item 5: Q) How will the Type III Underdrain "C" be paid for? (Sheet 6)

A) As stated in Section 6.4.7 and 6.5.7 the Type III underdrain will be paid on a "per linear foot" basis which shall include all associated cost including concrete as listed in Section 6.4.7.

Item 6: C) The regraded refuse pile will be covered with a 12-inch thick layer of topsoil. (Sect 8.1)

Item 7: C) The access road will not be cut into the side of the hill below the house but as shown on the plans (Sheet 3). Trees may need to be removed.

Item 8: Q) What is the depth of the Type II underdrain "B" structure ?

A) The depth will be as shown on Sheet 16 – Type II underdrain "B" profile.

Item 9: Q) Can excess material from the underdrains be placed in the refuse area on Site 1?

A) Yes

- Item 10: Q) Will trees need to be replaced at the end of concrete driveway adjacent to underdrain "C"?
- A) Yes, if they are removed.
- Item 11: C) The pre-construction conference will be scheduled within twenty one (21) calendar days of the purchase order date. Not the 365 calendar days as listed in Article II, Section 8.0.
- Item 12: Q) How many mine seals are to be closed?
- A) Five (5) mine portals are to be wet sealed, one (1) mine portal is to be provided with a bat gate mine seal.
- Item 13: Q) Where will soil be obtained for this site?
- A) Sheet 3 shows the potential soil borrow area. There is an existing waterline located in this area which will need to be located.
- Item 14: C) Sheet 6 – No concrete work on the driveway is anticipated in order to install the Type II underdrain "B" which runs adjacent to the concrete driveway.
- Item 15: C) The complete technical specification "9.0 Sediment Control" will be omitted from the original specifications and replaced with a new section "9.0 Sediment control" which will include "Vegetative Practices". These specs are included with the addendum.
- Item 16: C) The complete technical specification "10.0 Revegetation" will be omitted from the original specifications and replaced with a new section "10.0 Revegetation". These specs are included with the addendum.
- Item 17: C) Five of the construction drawings have been revised. These include the Cover Sheet, Sh. 3, Sh. 6, Sh. D-4 and Sh. D-6. The five revised sheets are included with this addendum.
- Item 18: A new section will be added to the Technical Specification.

" 11.0 Gabion Baskets "

This section is included with this Addendum.

Contractor's Bid Sheet

Vendors Name: _____

The DEP reserves the right to request additional information and supporting documentation regarding unit prices when the unit price appears to be unreasonable.

ITEM NO.	QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
1.1	LS	Mobilization & Demobilization (Lump Sum) (Cannot exceed 10% of the Total Amount Bid)	LS	\$
2.1	LS	Construction Layout (Lump Sum) (Cannot exceed 5% of the Total Amount Bid)	LS	\$
3.1	LS	Quality Control (Lump Sum) (Cannot exceed 3% of the Total Amount Bid)	LS	\$
4.1	LS	Clearing and Grubbing (Lump Sum) (Cannot exceed 5% of the Total Amount Bid)	LS	\$
5.1	5200 CY	Unclassified Excavation (Per Cubic Yard)	\$	\$
6.1	220 LF	Type I Ditch (Per Linear Foot)	\$	\$
6.2	245 LF	Type II Ditch (Per Linear Foot)	\$	\$
6.3	335 LF	Type III Ditch (Per Linear Foot)	\$	\$
6.4	230 LF	Type I Underdrain (Per Linear Foot)	\$	\$
6.5	20 LF	Type I Conveyance Pipe (Per Linear Foot)	\$	\$
6.6	129 LF	Type II Underdrain (Per Linear Foot)	\$	\$
6.7	141 LF	Type III Underdrain (Per Linear Foot)	\$	\$
6.8	670 LF	Mine Seal Conveyance Pipe (Per Linear Foot)	\$	\$
6.9	5 EA	Wet Mine Seals (Per Each)	\$	\$
6.10	1 EA	Bat Gate Mine Seal (Per Each)	\$	\$
6.11	10 BAG	Acid Mine Drainage Treatment (Per 50 lb. Bag)	\$	\$
6.12	170 LF	Riprap Toe Protection (Per Linear Foot)	\$	\$
6.13	2000 SY	Erosion Control Matting (Per Square Yard)	\$	\$
6.14	90 LF	Pipe Culvert (Per Linear Foot)	\$	\$
6.15	2 EA	Drop Inlet (Per Each)	\$	\$
6.16	2 EA	Splash Pads (Per Each)	\$	\$
8.1	2 ACRES	Soil Cover (Per Acre)	\$	\$
9.1	900 LF	Silt Fence (Per Linear Foot)	\$	\$
9.2	1,600 LF	Super Silt Fence (Per Linear Foot)	\$	\$
9.3	100 LF	Straw Bales (Per Linear Foot)	\$	\$
9.4	1 EA	Stone Check Dam (Per Each)	\$	\$
9.5	1 LS	Stabilized Construction Entrance (Per Lump Sum)	\$	\$
10.1	4 ACRES	Revegetation (Per Acre)	\$	\$
11.1	LS	Gabion Wall (Per Lump Sum)	\$	\$
		TOTAL		\$
		TOTAL		\$

9.0 SEDIMENT CONTROL

9.1 Description

This item shall consist of furnishing all materials, equipment, labor and incidentals necessary for the installation of Silt Fence and Super Silt Fence as designated in the Drawings. Sediment control shall be installed about the perimeter of disturbed areas prior to any construction activities. Sediment control shall be placed on regraded outslope areas concurrent with construction and prior to revegetation. Installation locations are shown in the Drawings. Additional locations may be added at discretion of the WVDEP. **Straw bales may not be used for sediment control, but may be used for erosion control as a substitute for silt fence as approved by the WVDEP.** Silt Fence and Super Silt Fence materials, installation, and maintenance shall be in accordance with the Erosion and Sediment Control Best Management Practice Manual, West Virginia Department of Environmental Protection, Division of Water and Waste Management, dated 2006.

9.2 Materials

9.2.1 Silt Fence

Silt fencing shall meet all applicable requirements of the West Virginia DOT DOH Specifications.

Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of 6 months expected usable construction life at a temperature range of 0 to 120 degrees Fahrenheit.

If wooden stakes are utilized for silt fence construction, they must be a minimum of 2" x 2" when oak is used and 2" x 4" when pine is used. Wooden stakes should have a minimum length of 5 feet.

If steel posts (standard "U" or "T" section) are utilized for fence construction, they must have a minimum weight of 1.33 pounds per linear foot and should have a minimum length of 5 feet.

9.2.2 Super Silt Fence

Fencing shall be 48 inches in height and constructed in accordance with the WV DOT, Division of Highways specification for Chain Link Fencing. The DOT specification for a 6-foot fence shall be used, substituting 48-inch fabric and 6 foot length posts. The filter fabric shall meet the requirements of 715.11.5/AASHTO M 288, Section 7, Class 1.

9.2.3 Straw Bales (Erosion Control Only)

Standard straw bales tied with either wire or nylon string if available. These types of ties will not deteriorate rapidly and insure a longer life. If ordinary baler twine is used, the bales shall be placed so that the twine is not in contact with the ground.

9.2.4 Stone Check Dams

Stone check dams shall be constructed at the locations indicated on the plans or as approved by the WVDEP representative. The dams shall meet the following standards.

- a. Rock rip-rap used for construction of the stone check dam shall be the same quality and gradation as the rip-rap specified in Section 6.2.2
- b. The dam will be keyed into the side slopes and bottom of the channel a minimum of 2 feet. Minimum key width will be 3 feet.
- c. Upstream and downstream slopes will be 3 horizontal to 1 vertical or flatter.
- d. A weir 2 feet wide by one foot deep will be constructed across the center of the dam.

The maximum height will be 4 feet from the lowest point along the centerline of the dam to the crest of the weir

5.2.5 Stabilized Construction Entrance

Stone used for construction of the Stabilized Construction Entrance shall be the same quality and gradation as the Stone specified in Section 6.2.5

9.3 Installation

9.3.1 Silt Fence

The height of a silt fence shall be a minimum of 16 inches above the original ground surface and shall not exceed 34 inches above ground elevation.

The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are unavoidable, the silt fence shall be spliced together only at a support post, by twisting the last post of each run around each other, and securely sealed.

A trench shall be excavated approximately 4 inches wide and 4 inches deep on the upslope side of the proposed location of the measure.

The filter fabric shall be fastened securely to the upslope side of the posts using one inch long (minimum) heavy-duty wire staples or wire ties and eight inches of the fabric shall be extended into the trench. The fabric shall not be stapled to existing trees. The most common type of silt fence has the stakes attached to the fabric at the factory.

The 4-inch by 4-inch trench shall be backfilled and the soil compacted over the filter fabric.

Silt fence shall be removed when it has served its useful purpose, but not before the upslope area has been permanently stabilized.

Turn the end of a run of silt fence slightly uphill to prevent runoff from going around the end.

9.3.2 Super Silt Fence

The poles do not need to be set in concrete.

Chain link fence shall be fastened securely to the fence posts with wire ties or staples.

Geotextile fabric shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.

Geotextile fabric shall be embedded a minimum of 12" into the ground.

When two sections of geotextile fabric adjoin each other, they shall be overlapped by 6" and folded.

Metal posts as specified by DOH can be replaced by pressure-treated 4" x 4" posts.

9.3.3 Straw Bales (Erosion Control Only)

All bales shall be placed on the contour with ends tightly abutting the adjacent bales.

All bales shall be embedded in the soil with a minimum of 4 inches or bales covered with a fiber mat, with earth tamped on the upstream side to prevent piping.

Bales shall be securely anchored in place by stakes driven through the bales. The first stake in each bale shall be driven toward the previously laid bale to force bales together.

9.4 Maintenance

9.4.1 Silt Fence

Silt fences shall be inspected immediately after each rainfall of 0.5 inch or greater and at least daily during prolonged rainfall at a minimum once every seven days. Any required repairs or maintenance shall be made immediately.

Close attention shall be paid to the repair of damaged silt fence resulting from end runs and undercutting. If the fence is not installed on the contour (perpendicular to the flow of water) both of these conditions can occur.

Should the fabric on a silt fence decompose or become ineffective prior to the end of the expected usable life and the barrier still is necessary, the fabric shall be replaced promptly.

Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately one-half the height of the barrier.

If any section of silt fence is knocked down during a rain event (because it was installed in an area of concentrated flow) then other measures such as a sediment trap and diversion or super silt fence must be installed.

9.4.2 Super Silt Fence

Super Silt fences shall be inspected immediately after each rainfall, daily during prolonged rainfall and once a week during dry periods. Any required repairs shall be made immediately.

Close attention shall be paid to the repair of damaged Super Silt Fence resulting from end runs and undercutting. If the fence is not installed perpendicular to the flow of water, these conditions will occur.

Should the fabric on a Super Silt Fence decompose or become ineffective, the fabric shall be promptly replaced.

Sediment deposits shall be removed when deposits reach approximately one-half the height of the barrier.

9.4.3 Straw Bales (Erosion Control Only)

An inspection should be made after rainfall and repairs or replacements made promptly as needed. Bales and stakes shall be removed when adequate vegetation has been established.

9.5 Method of Measurement

9.5.1 Silt Fence

Silt Fence measurement shall be performed to the nearest linear foot of Silt Fence placed in conformance with specifications and accepted by the WVDEP. Only that Silt Fence which is illustrated in the Drawings shall be included for measurement. Any additional Silt Fence installed by the Contractor to meet any applicable State or Federal Law or Regulation shall be the Contractor's sole responsibility and all costs pursuant thereto shall be borne fully by the Contractor. Any Silt Fence which is not illustrated in the Drawings that the Contractor may install to protect streams or for other purposes shall not be included for measurement and shall be the sole responsibility of the Contractor. However, any Silt Fence approved by the WVDEP prior to placement shall be included for measurement.

9.5.2 Super Silt Fence

Super Silt Fence measurement shall be performed to the nearest linear foot of Super Silt Fence placed in conformance with specifications and accepted by the WVDEP. Only that Super Silt Fence which is illustrated in the Drawings shall be included for measurement. Any additional Super Silt Fence installed by the Contractor to meet any applicable State or Federal Law or Regulation shall be the Contractor's sole responsibility and all costs pursuant thereto shall be borne fully by the Contractor. Any Super Silt Fence which is

not illustrated in the Drawings that the Contractor may install to protect streams or for other purposes shall not be included for measurement and shall be the sole responsibility of the Contractor. However, any Super Silt Fence approved by the WVDEP prior to placement shall be included for measurement.

9.5.3 Straw Bales

Straw Bales measurement shall be performed to the nearest linear foot of Straw Bales placed in conformance with specifications and accepted by the WVDEP. Only that Straw Bales which is illustrated in the Drawings shall be included for measurement. Any additional Straw Bales installed by the Contractor to meet any applicable State or Federal Law or Regulation shall be the Contractor's sole responsibility and all costs pursuant thereto shall be borne fully by the Contractor. Any Straw Bales which is not illustrated in the Drawings that the Contractor may install to protect streams or for other purposes shall not be included for measurement and shall be the sole responsibility of the Contractor. However, any Straw Bales approved by the WVDEP prior to placement shall be included for measurement.

9.5.4 Stone Check Dams: This item shall measured for at the bid unit price per each structure constructed and accepted by the engineer. Payment shall constitute full compensation for all materials, labor, equipment and incidentals necessary to complete the work. Payment shall constitute full compensation for any required maintenance, sediment removal and disposal.

9.5.5 Stabilized Construction Entrance: The method of measurement for Stabilized Construction Entrance will be on a lump sum basis.

9.6 Basis of Payment

9.6.1 Silt Fence

This item shall be paid at the bid unit price per linear foot of Silt Fence placed and accepted by the WVDEP. Payment shall constitute full compensation for all materials, labor, equipment and incidentals necessary to perform the work. Additionally, payment shall constitute full compensation for any required maintenance, sediment removal and disposal of installed Silt Fence.

9.6.2 Super Silt Fence

This item shall be paid at the bid unit price per linear foot of Super Silt Fence placed and accepted by the WVDEP. Payment shall constitute full compensation for all materials, labor, equipment and incidentals necessary to perform the work. Additionally, payment shall constitute full compensation for any required maintenance, sediment removal and disposal of installed Super Silt Fence.

9.6.3 Straw Bales

This item shall be paid at the bid unit price per linear foot of Straw Bales placed and accepted by the WVDEP. Payment shall constitute full compensation for all materials, labor, equipment and incidentals necessary to perform the work. Additionally, payment

shall constitute full compensation for any required maintenance, sediment removal and disposal of installed Straw Bales.

- 9.6.4 **Stone Check Dams:** This item shall be paid for at the bid unit price per each structure constructed and accepted by the engineer. Payment shall constitute full compensation for all materials, labor, equipment and incidentals necessary to complete the work. Payment shall constitute full compensation for any required maintenance, sediment removal and disposal.
- 9.6.5 **Stabilized Construction Entrance:** The quantity of work done will be paid at the bid lump sum price for this item, which price and payment shall be full compensation for doing all the work herein prescribed in a workmanlike and acceptable manner; including the furnishing of all labor, materials, tools, equipment, supplies and incidentals necessary to complete the work.

9.7 Pay Item

Item 9.1, "Silt Fence", per linear foot.

Item 9.2, "Super Silt Fence", per linear foot.

Item 9.3, "Straw Bales", per linear foot.

Item 9.4 "Stone Check Dams", Per Each

Item 9.5 "Stabilized Construction Entrance", Per Lump Sum

VEGETATIVE PRACTICES

Except as noted below, stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than seven days after the construction activity in that portion of the site has permanently ceased.

- Where the initiation of stabilization measures by the fourth day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as conditions allow.
- Where construction activity will resume on a portion of the site within 21 days from when activities ceased, (e.g., the total time period that construction activity is temporarily halted is less than 21 days) then stabilization measures do not have to be initiated on that portion of the site by the seventh day after construction activities have temporarily ceased.

Areas where the seed has failed to germinate adequately (uniform perennial vegetative cover with a density of 70%) within 30 days after seeding and mulching must be reseeded immediately, or as soon as weather conditions allow.

Diversions must be stabilized prior to becoming functional.

MAINTENANCE & INSPECTION

At a minimum, all erosion and sediment controls on the site will be inspected at least once every seven calendar days and within 24 hours after any storm event of greater than 0.5 inches of rain per 24-hour period.

All controls should be cleaned out when sediment reaches one half the sediment capacity of that control.

Inspection and maintenance records must be kept onsite.

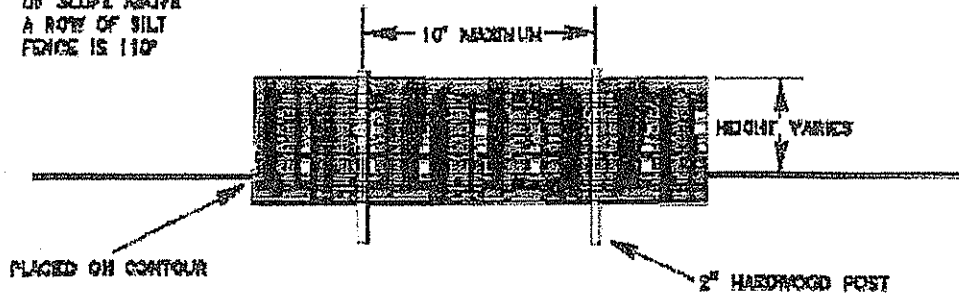
EROSION & SEDIMENT CONTROL CONSTRUCTION SEQUENCE

1. Install stabilized construction entrance as shown on site plans.
2. Install perimeter sediment control devices as shown on site plans.
3. Clear and grub site.
4. Provide sediment control for any topsoil stockpiles.
5. Commence rough grading of site. Continue to maintain and inspect all erosion and sediment controls.
6. Install additional erosion and sediment controls as shown on site plans.
7. Fine grade site.
8. Permanently seed and mulch all disturbed areas within 7 days of reaching final grade.
9. Upon completion of project including adequate stabilization, remove all remaining erosion and sediment controls.

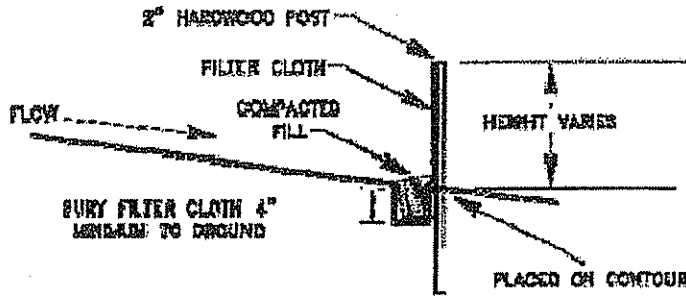
FIGURE 3.27.2

SILT FENCE

NOTE:
THE MAXIMUM LENGTH
OF SLOPE ABOVE
A ROW OF SILT
FENCE IS 110'



FRONT ELEVATION



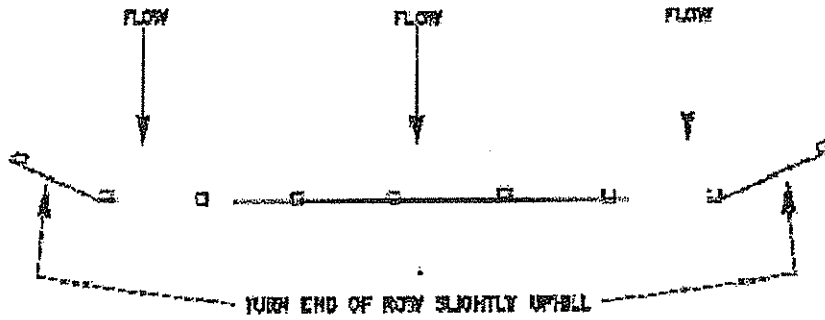
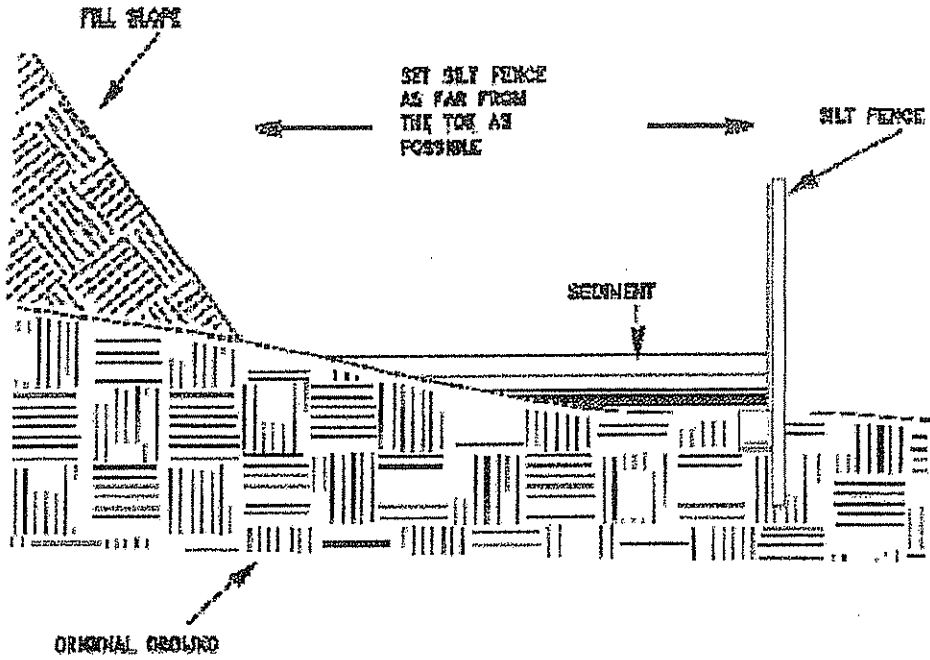
SIDE ELEVATION

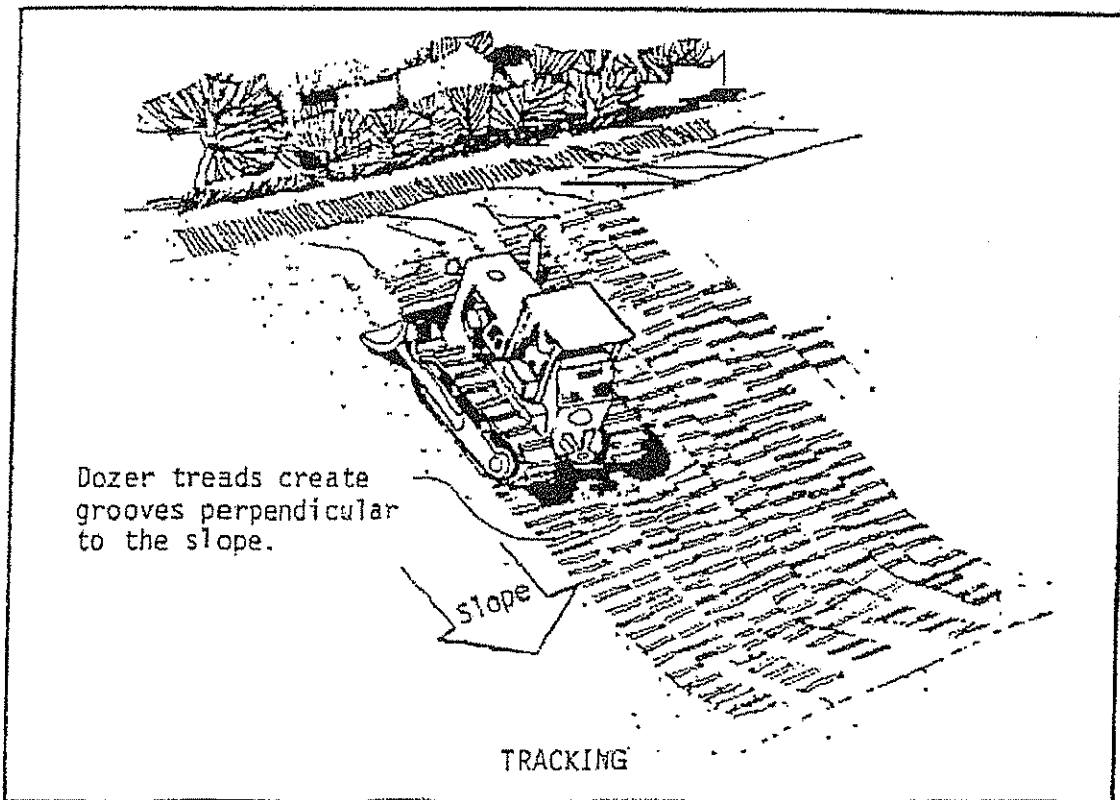
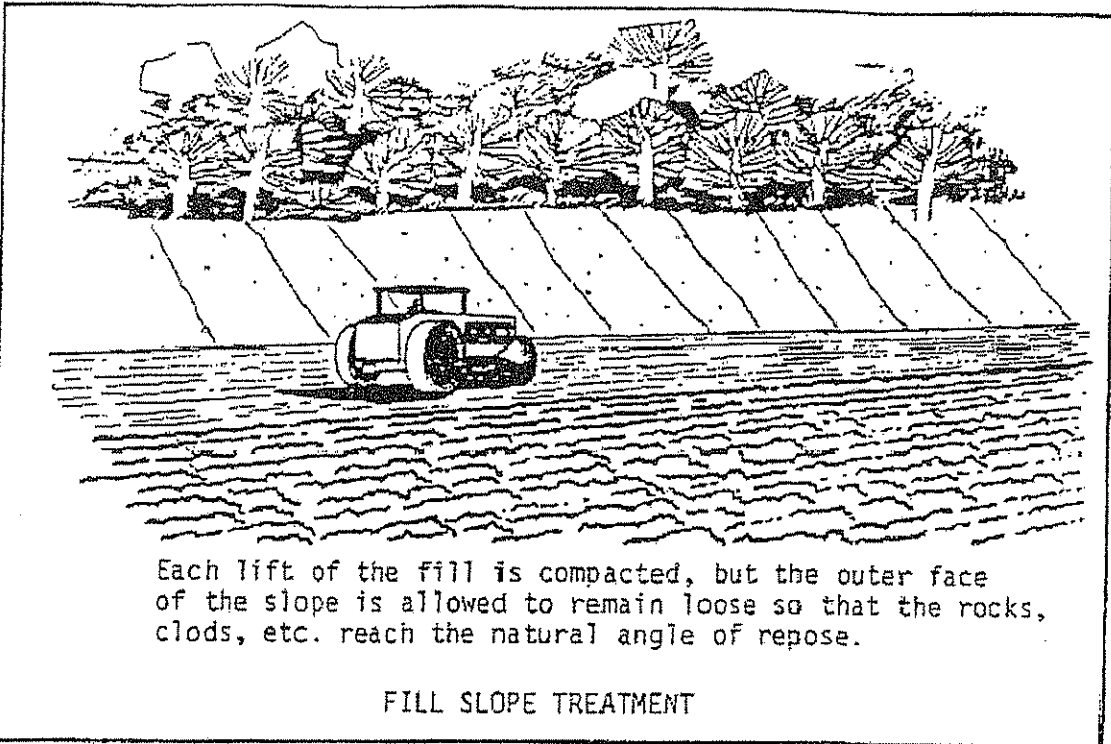


TOP VIEW

FIGURE 3.27.1

PLACEMENT OF SILT FENCE





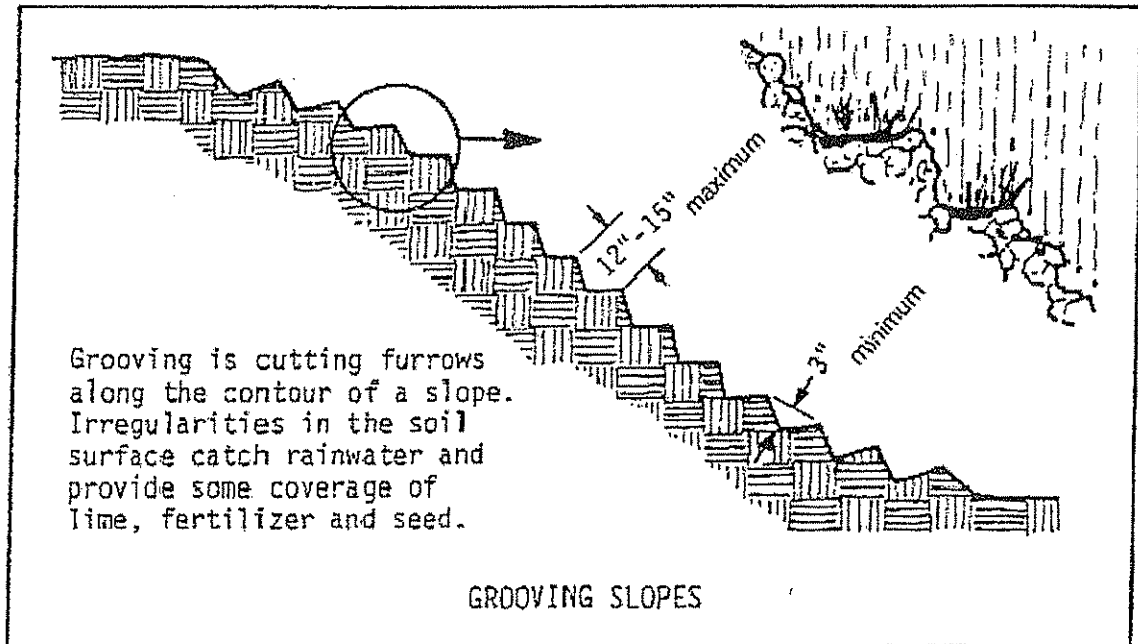
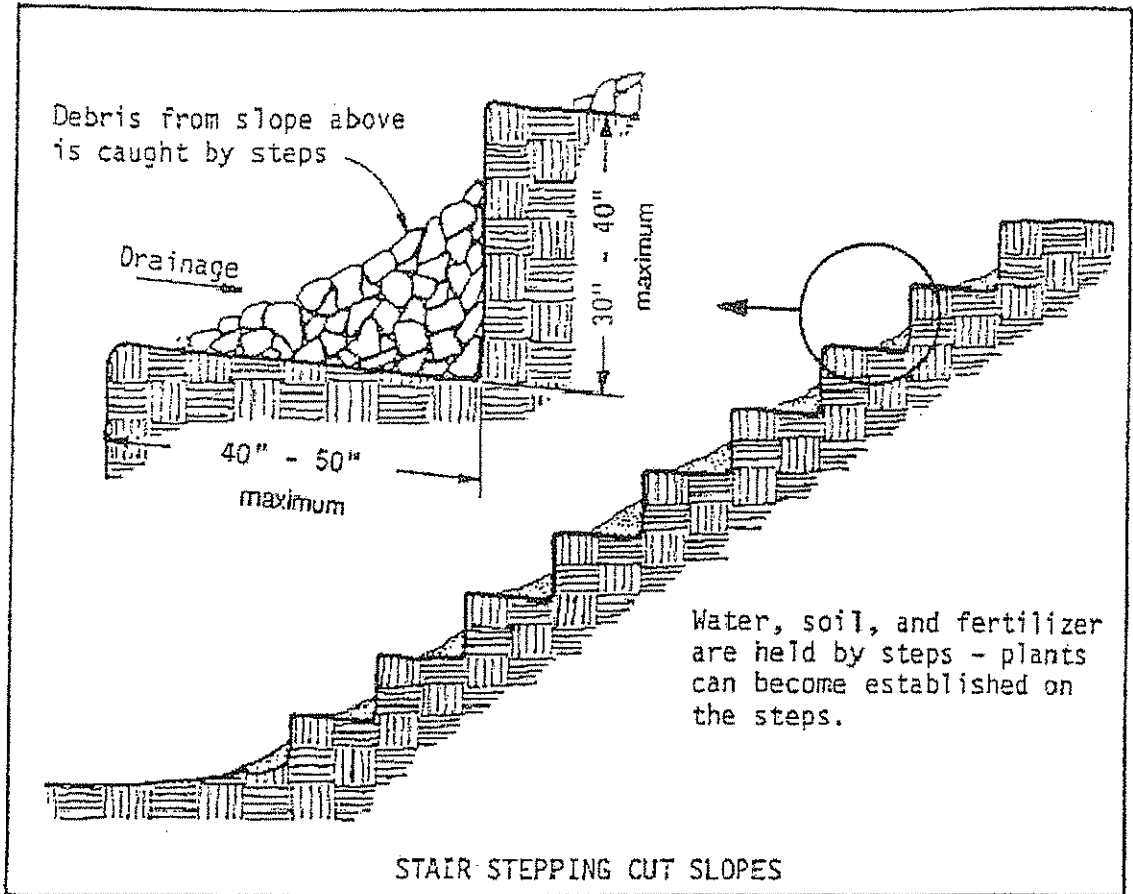
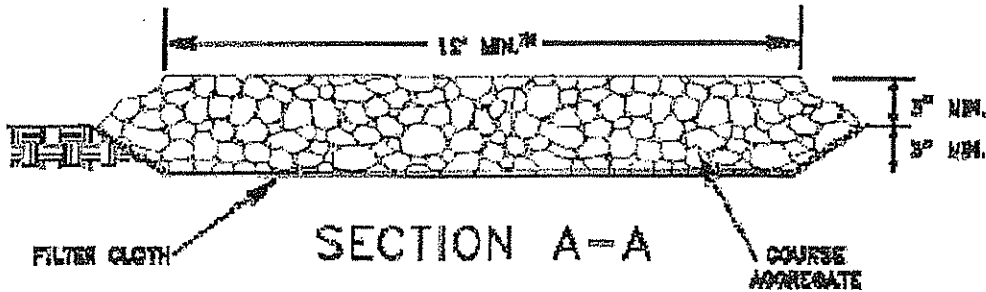
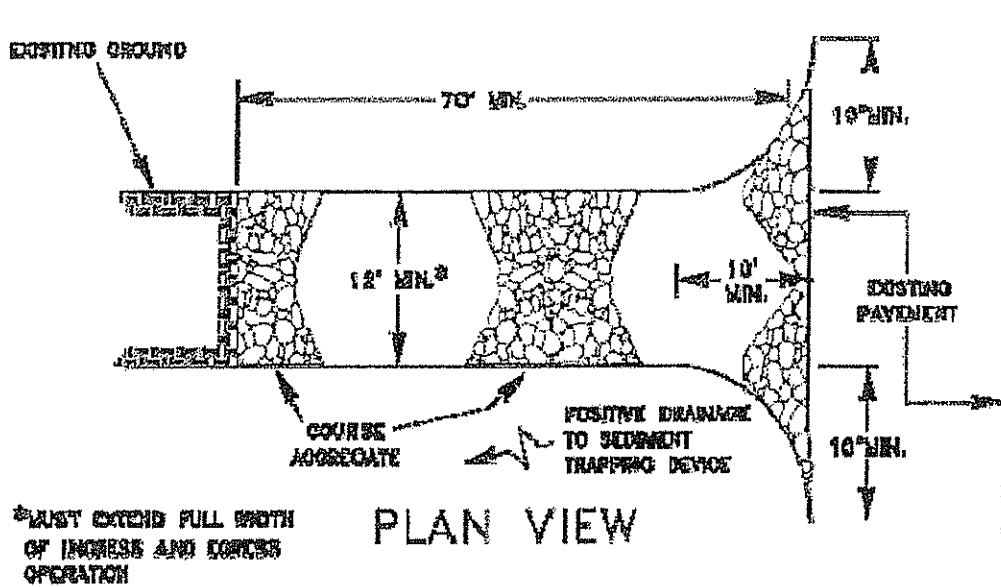
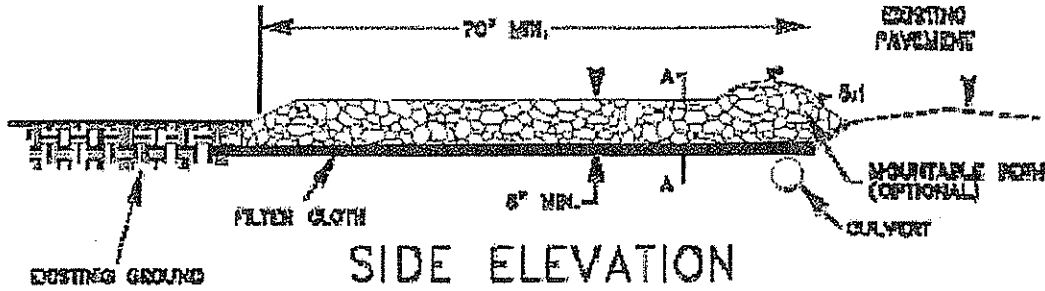


FIGURE 3.02.1

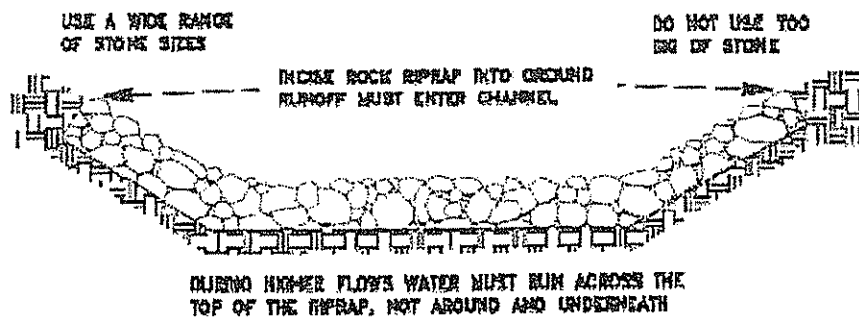
STONE CONSTRUCTION ENTRANCE



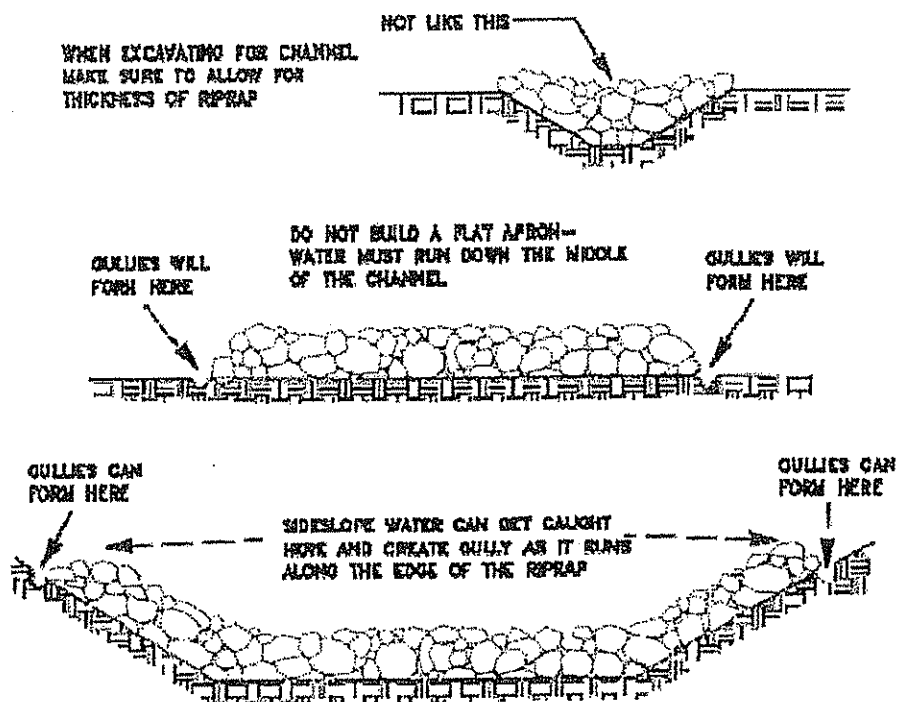
NOTE: REFER to 1993 Imperial Standards for Soil Erosion and Sediment Control and No. 8888

FIGURE 3.15.3

RIPRAP DIVERSION



COMMON PROBLEMS



10.0 REVEGETATION

10.1 Description

This work shall cover all operations incidental to the establishment of vegetation within the limits of construction as shown on the Construction Drawings and any other areas as approved by the WVDEP. This work also includes the furnishing and the application of fertilizer, agricultural limestone and mulch and the furnishing and sowing of seed, all in accordance with these Specifications and as designated herein.

No areas outside the limits of construction shall be disturbed without prior approval from the WVDEP in order to ensure that Right of Entry has been obtained.

Any areas outside the limits of construction, disturbed by the Contractor shall be revegetated by the Contractor at no expense to the WVDEP.

10.2 Materials

10.2.1 Fertilizer

The commercial fertilizer to be used shall consist of a 10-20-10 grade of uniform composition and furnished in standard containers. These containers, in accordance with applicable state and federal laws, must be clearly marked with the following information:

- a. Weight
- b. Name of Plant Nutrients
- c. Guaranteed Nutrients Percentages

Fertilizer rates shall be formulated from soil test results. In the absence of soil testing a rate of 1,000 lbs/acre will serve as a preferred minimum. Fertilizer shall be applied immediately to all areas reaching final grade by one of the two following methods:

- a. Apply and incorporate fertilizer during seedbed preparation.
- b. Apply fertilizer in hydroseeding mixture following seedbed preparation

10.2.2 Limestone

The lime to be used will be agricultural grade pulverized limestone containing not less than 75% total carbonates. Fineness will be such that not less than 75% will pass through a #100 sieve and 100% will pass through a #10 sieve.

Lime rates shall be at a rate of 4 tons/acre. If soil testing is performed and indicates additional lime is required, the contractor shall increase the rate of lime only after the approval of the engineer.

Lime should be thoroughly mixed into the top six (6) inches of soil.

10.2.3 Seed Mixtures

The variety of grass and legume seed furnished for the project shall bear a tag, in accordance with applicable state and federal laws, with the following information listed:

1. Lot Number
2. Seed Producers Name
3. Percent Purity
4. Percent Germination
5. Date of Germination Testing
6. Weed Seed Content (should be <0.25% by weight)

All leguminous seed shall be inoculated with the specified strain of rhizobia which shall be a pure culture of bacteria selected for maximum vitality. No rhizobia shall be used which has passed the expiration date on each package. The inoculant shall be applied at five times the recommended rate except when used in a hydroseeding mixture when the rate will be ten times the recommended rate.

10.2.4 Temporary Seed Mixtures

All stockpiles and other disturbed areas which will require further disturbance in which the additional disturbance will be delayed for a period of three (3) weeks or longer shall be vegetated according to the following guidelines:

Variety of Seed	Spring 3/15-5/31	Summer 5/31-8/15	Fall 8/15-10/15	Winter 10/15-11/15
	Lbs/acre			
Annual Ryegrass (Lolium multiflorum)	40		40	
German/Foxtail Millet* (Setaria italica)		40		
Winter Rye/ Cereal Rye (Secale Cereale)				170

*DO Not Use Japanese Millet

All areas to be temporarily seeded which are to be redisturbed shall be fertilized with 500 lbs/acre of 10-20-10. All areas reaching final grade to be temporarily seeded shall be fertilized according to Section 10.2.1. Lime shall be applied according to Section 10.2.2 and mulch according to Section 10.2.7.

10.2.5 Permanent Seed Mixtures

Permanent vegetation shall be established on all areas reaching final grade or other areas not likely to be destroyed by further construction activities. Any areas that reach final grade between June 15 – August 15 shall be seeded with the appropriate temporary seed mixture according to Section 10.2.4. These areas shall then be reseeded with a permanent seed mixture, without Annual Ryegrass, during the next defined seeding period according to this section. The actual date of permanent seeding will require the WVDEP's approval.

Variety of Seed	Spring 3/1-6/15	Fall 8/15 – 2/28
	Lbs./acre (1)	
Orchardgrass (<i>Dactylis glomerata</i>)	30	30
Birdsfoot Trefoil (2) (<i>Lotus corniculatus</i>)	15	15
Red Clover (<i>Trifolium pratense</i>)	10	10
Annual Ryegrass (<i>Lolium multiflorum</i>)	25	25
Spring Oats	35	0
Or		
Winter Wheat	0	90

1. Seed-rate suggested is for Pure Live Seed (PLS) in lbs/acre.
2. Herbaceous legumes must be treated with the appropriate bacterium before seeding. On areas which are steeply sloping (Steeper than 1.7:1) or slide prone substitute Crownvetch (*Coronilla varia*) at 20 lbs./acre for Birdsfoot Trefoil.

10.2.6 Lawn Seed Mixture

Existing lawn/mowed areas disturbed during construction shall be reseeded using the following mix.

Rate	Seed	Minimum	Specifications
Lb/1000 sq. ft.	Variety	% Purity	%Total Germination
0.45	Red Fescue (Pennlawn)	98	85
0.90	Kentucky Bluegrass	85	75
0.70	Merion Bluegrass	90	75
0.20	Annual Ryegrass*	95	85

*Use Annual ryegrass only in mixtures seeded after August 1 and May 15.

10.2.7 Mulch Material

Straw

Straw mulch shall include baled wheat or oats straw or baled grass hay. Straw mulch shall be dry and reasonably free of weed seeds, sticks or other foreign material. Straw mulch shall be applied at a rate of 2 tons/acre. The straw mulch shall be anchored with 100 gallons/acre asphalt emulsion or 750 lbs/acre wood cellulose fiber. No grass hay should be used for mulch on the existing lawn/mowed areas.

Wood Cellulose Fiber

Wood cellulose fiber may be used only on slopes steeper than 2:1. Wood cellulose fiber mulch should not be used alone during the dry summer months or for late fall mulch cover. The rate of application shall be 1,500 lbs/acre. A mulch for use with the hydraulic application of seed, fertilizer and lime shall consist of wood cellulose fiber. It shall be processed in such a manner that it will contain no growth or germination inhibiting factors and shall be dyed green. It shall be manufactured in such a manner that (1) after addition and agitation in slurry tanks with fertilizers, lime, seeds, and water, the fibers in the material will become

uniformly suspended to form a homogeneous slurry and (2) the material, when hydraulically sprayed on the ground, will form a blotter-like ground cover impregnated uniformly with seed, will allow rainfall to percolate to the underlying soil.

The wood cellulose fiber shall be supplied in packages having a gross weight not to exceed 100 pounds. Weight specifications of this material from suppliers, and for all applications, shall refer only to air dry weight of the fiber material. Air dry weight is based on the normal weight standard of the Technical Association of the Pulp and Paper Industry for Wood Cellulose and is considered equivalent to 10 percent moisture. Each package of the cellulose fiber shall be marked by the manufacturer to show the air dry weight content.

10.2.8 Water

Water shall be reasonably free of injurious and other toxic substances harmful to plant life. The source of water is subject to the approval of the WVDEP.

10.2.9 Direct Seeding:

All areas which are to be seeded directly on to coal refuse material shall utilize these specifications Sections 6.0 to 6.6 with the following changes incorporated:

- a. Section 10.2.1, Fertilizer - increase fertilizer rate to 1,500 lbs./acre of 10-20-10.
- b. Section 10.2.7, Mulch - increase mulch rate to 3 tons/ acre of straw or hay mulch.

10.3 Construction Methods

All revegetation activities shall be conducted immediately following completion of final grade so as to utilize the fine soil material as a seedbed before this material is lost via subsequent rainfall.

On sites where appropriate equipment can operate the seedbed shall be prepared by breaking up surface crusts and loosening the soil material to a minimum of six (6) inches. Discing, harrowing, cultipacking or other acceptable tillage operations may be used to prepare the seedbed. On sites where appropriate equipment cannot operate, the seedbed shall be prepared by "tracking in" with a dozer or scarifying by other approved methods. Rocks larger than six (6) inches in diameter, trash, weeds and other debris that will interfere with seeding or maintenance shall be removed or disposed of as approved by the WVDEP. Seedbed preparation shall be suspended when soil moisture conditions are not suitable for the preparation of a satisfactory seedbed as determined by WVDEP. All yard/mowed areas shall be hand raked with all rocks 2" diameter and larger removed.

Second and third step seeding shall be considered part of the contract if completed before the final inspection or considered warranty if completed after the final inspection.

10.4 Method of Measurement

The method of measurement for revegetation will be to the acre field measured and rounded to the nearest whole acre. Payment to include all temporary seeding, lime, fertilizer, seed and mulch for the first seeding only. Subsequent seeding will not be measured or paid for but will be considered incidental to initial seeding.

The Contractor shall be paid only for those areas disturbed and revegetated during operations necessary for completion of the work. The quantity shall not include areas disturbed for storage facilities and staging areas unless prior approval was obtained from the WVDEP. No payment shall be made for any seeding conducted after the final inspection; this work is considered warranty.

10.5 Basis of Payment

The quantities of work done will be paid at the contract unit price bid as listed below, which price and payment shall be full compensation for doing all the work herein prescribed in a workmanlike and acceptable manner; including the furnishing of all labor, materials, tools, equipment, supplies, and incidentals necessary to complete the work.

No payment will be made for seeding after the initial seeding. All work done after initial seeding will be done as maintenance of a completed phase of work or as warranty work after the final inspection.

10.6 Pay Items

Item 10.1 "Revegetation", per acre

11.0 Gabion Baskets

11.1 Description

The Contractors shall excavate the small landslide and construct the proposed Gabion wall. The Wall will consist of a single row of 3' x 3' x 6' Gabion Baskets with a total length of the 36 feet. The excavate slide area will be backfilled with riprap materials as shown on drawing D-6 and covered with 6" of soil.

11.2 Material

Material requirements shall conform to as indicated on drawing D-6 "Gabion Wall Details". Rock fill for gabion baskets shall conform to the requirement of WVDOT Type D Riprap. The rock fill shown on the details shall consist of WVDOT Type D Riprap.

11.3 Method of Measurement

The method of measurement for the "Gabion Baskets" shall be per Lump Sum. This item includes all excavation and disposal of slide materials, the Gabion Baskets, the Rip Rap materials for fill of Gabions and the backfill of the slope area, Soil cover, gravel base, labor and equipment for a satisfactory installation.

11.4 Basis Of Payment

The basis of payment for this item shall be on a Lump Sum basis

11.5 Pay Items

Item 11.1, "Gabion Basket", Lump Sum