

WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

**OFFICE OF ABANDONED MINE LANDS
AND RECLAMATION**

COUNTY
OF
LOGAN

NAME OF PROJECT
CONLEY BRANCH (WHITT) LANDSLIDE

N O T I C E

ALL PAPERS BOUND WITH OR ATTACHED TO
THE BID FORM ARE A NECESSARY PART
THEREOF AND MUST NOT BE DETACHED

PROJECT SPECIFICATION BOOK

INDEX

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ARTICLE I - DEFINITIONS

ARTICLE I - DEFINITIONS

- 1.0 "Bidder" refers to the person, firm, or company offering to furnish the work called for by the specifications herein.**
- 2.0 "Chief" shall mean the Chief of the West Virginia Department of Environmental Protection's, Office of Abandoned Mine Lands & Reclamation.**
- 3.0 "Construction Administrator" refers to the head of the Construction Group of the Office of Abandoned Mine Lands & Reclamation of the West Virginia Department of Environmental Protection.**
- 4.0 "Construction Supervisor" refers to the regional supervisor of the West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands & Reclamation Construction Inspectors.**
- 5.0 "Contract" refers to a purchase order placed by the West Virginia Department of Administration on behalf of the Department of Environmental Protection and accepted by the Contractor together with these specifications and all other documents incorporated therein by reference.**
- 6.0 "Contract Documents" consist of all of the articles, sections, and attachments to the contract, including Information for Bidders, General Conditions, General Requirements, Special Conditions, drawings, specifications, all addenda issued prior to execution of the contract, and change orders and other written modifications issued after execution of the contract and executed by both parties to the contract.**
- 7.0 "Contractor" refers to the person, firm or company contracting with the West Virginia Department of Environmental Protection to furnish the work called for in the contract.**
- 8.0 "Director" refers to the Director of the West Virginia Department of Environmental Protection.**
- 9.0 "DEP" means the West Virginia Department of Environmental Protection.**
- 10.0 "Engineer" shall mean the representative of the Office of Abandoned Mine Lands & Reclamation's Engineering Section or the Architect/Engineering consulting firm, whichever designed the project.**
- 11.0 "Inspector" shall refer to DEP's Inspector, who monitors all construction operations at the project site.**
- 12.0 "Project" shall mean the Abandoned Mine Lands Project described and referred to by the specifications herein.**
- 13.0 "Sub-contractor" refers to the person, firm or company contracting directly with the Contractor and not with DEP to furnish the Contractor with any portion of the work called for by the contract.**

ARTICLE I - DEFINITIONS

- 14.0 "Work" shall be understood to mean and include any and all of the labor, supervision, services, materials, machinery, equipment, tools, supplies and facilities called for by and required to complete the contract.**

ARTICLE II - BIDDING INFORMATION

***Section has been deleted from specifications.**

ARTICLE III - GENERAL CONDITIONS

ARTICLE III - GENERAL CONDITIONS

Sections Included:

- 1.0 Enumeration of Contract Documents**
- 2.0 Correlation of Documents**
- 3.0 Examination of Premises**
- 4.0 Materials & Workmanship**
- 5.0 Guarantee & Maintenance**
- 6.0 Supervision & Construction Procedures**
- 7.0 Permits, Laws, Regulations, & Rights of Entry**
- 8.0 Safety Requirements**
- 9.0 Protection of Persons & Property**
- 10.0 Insurance & Worker's Compensation**
- 11.0 Labor Laws, Ordinances, Wages & Other Conditions**
- 12.0 Subcontractors**
- 13.0 Time**
- 14.0 Payments & Completion**
- 15.0 Surety Bonds**
- 16.0 Changes in the Work**
- 17.0 Uncovering & Correction of Work**
- 18.0 Assignment of Contract**

ARTICLE III - GENERAL CONDITIONS

1.0 ENUMERATION OF CONTRACT DOCUMENTS

1.1 Drawings

Construction drawings (21 sheets) for the reclamation of the project as prepared by for the West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands and Reclamation, 601 57th Street, SE, Charleston, West Virginia 25304-2345, Telephone (304) 926-0485.

1.2 Specifications

See Index

1.3 Addenda

No. _____	Date _____
No. _____	Date _____
No. _____	Date _____
No. _____	Date _____

2.0 CORRELATION OF DOCUMENTS

- 2.1** The intent of the contract documents is to include all labor, materials, equipment, operations and transportation necessary for the proper execution and completion of the work. The contract documents are complementary and what is required by one is required by all.
- 2.2** The Contractor shall carefully study and compare the contract documents and shall at once report to DEP any error, inconsistency or omission it may discover. Contractor shall not proceed with the work affected by such error, inconsistency, or omission until resolved to the satisfaction of itself and DEP.
- 2.3** The drawings and specifications are correlative and shall be accepted and used as a whole and not separately. Should any item be omitted from the drawings and be included in the specifications, and be required to complete the work under the contract, it shall be executed as if shown on both and contained in both; except that it is not intended that items or work not applicable or required be provided unless it is consistent therewith and reasonably inferable therefrom as being necessary to produce the intended results.
- 2.4** In case of disagreement or conflict between drawings and specifications, or inconsistencies, errors, or if omissions be discovered in the drawings and specifications, or if in any part the meaning of either or both shall be considered obscure or uncertain, the Director or his/her authorized

ARTICLE III - GENERAL CONDITIONS

representative shall be immediately notified thereof. No work so affected by such circumstances shall proceed until the Director or his/her authorized representative renders a decision and/or interpretation thereon. Large scale drawing details shall take precedence over drawings of lesser scale. Words and abbreviations which have well known technical or trade meanings are used in the contract documents in accordance with such recognized meanings.

3.0 EXAMINATION OF PREMISES

- 3.1** Before submitting proposals for the work, each bidder will be held to have examined the premises and satisfied itself as to the existing conditions under which it will be obliged to operate, or that will in any manner affect the work under the contract. Bidders shall have become familiar with the drawings and specifications and have compared them with existent conditions.
- 3.2** By executing the contract, Contractor represents that it has visited the site, familiarized itself with the local conditions under which the work is to be performed, and correlated its observations with the contract documents. No allowance will subsequently be made by reason of neglect or error on the part of the Contractor for failing to inform itself of the requirements and conditions contained herein.

4.0 MATERIALS & WORKMANSHIP

- 4.1** All installed materials and equipment shall be new, and all materials, equipment, and workmanship shall be of kind and type specified, and in all cases, be of good quality. Contractor shall, if required, furnish satisfactory evidence as to kind and quality of its materials, equipment and workmanship.
- 4.2** The Contractor shall provide and pay for all labor, materials, equipment operations, tools, construction equipment, and machinery, transportation, water, heat, utilities, and other facilities and services necessary for the proper execution and completion of the work. The Contractor at all times shall supply sufficient skilled and other labor necessary to adequately fulfill the requirements of the drawings and specifications, and provide for expeditious and practicable execution of the work to its completion.
- 4.3** The installation or application of all devices and materials shall be in accordance with the manufacturer's installation application data, shop drawings and instructions, unless otherwise provided herein.

5.0 GUARANTEE & MAINTENANCE

- 5.1** The materials and workmanship affected by the Contractor are subject to the guarantee established by custom of the respective trades. In the absence

ARTICLE III - GENERAL CONDITIONS

of a trade guarantee custom or a special guarantee provision, the work, both as to the materials and workmanship, shall upon acceptance of final payment by the Contractor be considered guaranteed by the Contractor for one (1) year from the date of the acceptance of the work. Neither the final acceptance nor the final payment shall relieve the Contractor of responsibility for negligence or faulty materials, and for defects appearing within the guarantee period shall be remedied at the expense of the Contractor upon written notice.

- 5.2** During the one-year guarantee period, the Contractor will maintain the project to the conditions existing at the date of the acceptance of the work. Any failures due to the negligence or workmanship of the Contractor in any of the work which develop during the guarantee period shall be corrected by the Contractor at its expense.
- 5.3** The one-year guarantee period shall not be construed as being an extension of the performance time allotted for work under the contract.
- 5.4** Guarantees concerning revegetation may be further defined in the technical specifications contained herein.

6.0 SUPERVISION & CONSTRUCTION PROCEDURES

- 6.1** The Contractor shall supervise and direct the work, using its best skill and attention. It shall be responsible for all construction means, methods, techniques, and procedures, coordinating all portions of the work, and for cooperating with appropriate DEP personnel and with other contractors in every way possible.
- 6.2** The Contractor shall be responsible to DEP for the acts and omissions of its employees, its subcontractors and their agents or employees, and other persons performing any of the work under a contract with the Contractor.
- 6.3** The Contractor will be supplied with five (5) copies of the plans and specifications. It shall have available on the work site at all times one (1) copy of said plans and specifications. Additional copies of plans and specifications may be obtained by the Contractor for the cost of reproduction.

7.0 PERMITS, LAWS, REGULATIONS, & RIGHTS OF ENTRY

- 7.1** As indicated in Section 13 of the Special Provisions, the WVDEP-AML has obtained a Construction Storm Water General Permit for this project from WVDEP Division of Water and Waste Management (WVDEP DWWM). The registration for this reclamation project will be modified to include the Contractor as Co-Applicant #1, with the WVDEP-AML being Co-Applicant #2. As such, the Contractor shall assume responsibility for compliance with the terms and conditions of the permit and any future correspondence such as registration renewal invoices, inspection reports, and notices of violation shall be forwarded to the Contractor. Upon award of the contract, the Contractor shall complete a Co-Applicant #1 signature page and submit the completed form to WVDEP-AML prior to scheduling a Pre-Construction Conference.

Upon receipt of the completed form, WVDEP-AML will request the WVDEP DWWM to modify the existing NPDES registration for this project to make the Contractor the Co-Applicant #1 to the permit.

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The WVDEP DWWM will notify the Contractor and WVDEP-AML when the successful transfer of registration under WV/NPDES Storm Water Construction General Permit (No.WV0115924) is completed. A Notice to Proceed will not be issued until the successful transfer of registration has been completed. Once the transfer has been completed, the Contractor shall be responsible for any and all fees, violations and fines assessed against the project that are a result of the Contractor's negligence, carelessness, or failure to install permanent controls as part of the work as scheduled.

The Contractor shall apply for a Notice of Termination (NOT) from WVDEP DWWM via the Construction Storm Water website <http://www.dep.wv.gov/Programs/stormwater/csw/Documents/Construction> upon completion of construction activities at the site. The NOT shall be issued by WVDEP DWWM upon completion of the project. The Contractor will continue to be bound by the terms and conditions of the permit until the NOT has been approved by WVDEP DWWM. Once the project is complete, the Contractor will still bear responsibility for the NPDES registration until a NOT is received from the WVDEP DWWM.

- 7.2 The Contractor shall comply with all laws, ordinances, rules, orders and regulations relating to the performance of the work, the protection of adjacent property, the maintaining of passageways, guard fences, or other protective facilities.
- 7.3 All applicable Federal and State laws and regulations, municipal ordinances, and the rules and regulations of all public authorities having jurisdiction over construction of the project shall apply to the contract throughout, and are incorporated herein by reference.
- 7.4 DEP shall be responsible for obtaining all construction rights of entry for the project unless otherwise provided for in the Construction Specifications.
- 7.5 The Contractor agrees to indemnify and hold harmless the DEP from all liability and/or damages resulting from the Contractor's use of property for which the Contractor was to obtain rights of entry for borrow, disposal, access or other purposes. Said indemnification shall include, but is not limited to, liability and damages resulting from the Contractor's failure to obtain any or not all the right of entry; failure to utilize appropriate language in the right of entry agreements; or failure to obtain the permission and signatures of all persons or entities holding a legal interest in the subject property(ies) covered by the rights of entry.
- 7.6 All right of entry agreements the Contractor obtains for borrow, disposal, access or other purposes for this project shall include a provision requiring the property owner to indemnify and hold harmless the DEP for the Contractor's actions and any injury or damages whatsoever resulting from the Contractor's use of the property.



Co-Applicant #1 Signature Page

Co-Applicant#1: _____

New and/or Modification of NPDES Storm Water of Construction Project

Name: _____

BY COMPLETING AND SUBMITTING THIS APPLICATION, I HAVE REVIEWED AND UNDERSTAND AND AGREE TO THE TERMS AND CONDITIONS OF THE GENERAL PERMIT ISSUED ON DECEMBER 05, 2012. I UNDERSTAND THAT PROVISIONS OF THE PERMIT ARE ENFORCEABLE BY LAW, VIOLATION OF ANY TERM AND CONDITION OF THE GENERAL PERMIT AND /OR OTHER APPLICABLE LAW OR REGULATIONS CAN LEAD TO ENFORCEMENT ACTION.

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED ON THIS FORM AND ALL ATTACHMENTS AND THAT, BASED ON MY INQUIRING OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

(CO- APPLICANT #1 SIGNATURE)

DATE

Print Name: _____

Print Title: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone Number: (____) _____ - _____

Email: _____

FEIN: _____

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8.0 SAFETY REQUIREMENTS

- 8.1** Particular attention is directed to the "West Virginia Safety Code for Building Construction" as published by the West Virginia Department of Labor. Observance of and compliance with said laws, regulations and codes shall be solely with and without qualification the responsibility of the Contractor.
- 8.2** The Contractor, subcontractors, other contractors and all employees and workers shall comply with the provisions of the Occupational Safety and Health Act of 1970, Public Law 91-596. The Contractor shall be held liable to DEP for any health and safety infractions, on the Contractor's part, which cause DEP to receive a citation and/or fine from any local, State or Federal agency. Actual costs involved will be paid by the Contractor to the satisfaction of DEP.

9.0 PROTECTION OF PERSONS & PROPERTY

- 9.1** The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work.
- 9.2** Safety of Persons and Property: The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection, preventing damage, injury, or loss to:
- (a)** All employees on the work, and all other persons who may be affected thereby;
 - (b)** All the work and all materials and equipment to be incorporated therein, whether in storage on or off the site, under the care, custody or control of the Contractor, or any of its subcontractors or their employees or subcontractors; and
 - (c)** Other property on the site or adjacent thereto, including, but not limited to, paving, roadways, structures, utilities and permanent property boundaries, monuments or markers not designated for removal, or relocation, or replacement in the course of construction. Any damage to these items shall be repaired or replaced at the expense of the Contractor and to the satisfaction of DEP.

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- 9.3** The Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations, and lawful orders of any public authority, bearing on the safety of persons or property, or their protection from damage, injury, or loss.
- 9.4** The Contractor shall erect and maintain, as required by existing conditions and progress of the work, all reasonable and adequate safeguards for safety and protection. It shall post danger signs and provide other warnings as required against hazards and dangers to persons and property.
- 9.5** In case of an emergency which threatens injury, loss of life and/or damage to property, the Contractor will be permitted to act, without prior instruction from the Construction Administrator, in a diligent manner. It shall notify the Construction Supervisor immediately thereafter. Any claim for compensation by the Contractor due to such extra work shall be promptly submitted to the Construction Supervisor for verification and approval by the Construction Administrator.

Where the Contractor has not taken action, but has notified the Construction Administrator of an emergency threatening injury to persons or damage to the work or any adjoining property, it shall act as instructed or authorized by the Construction Administrator.

The amount of reimbursement claimed by the Contractor for work arising out of any emergency situation shall be determined by the Director or his/her authorized representative.

- 9.6** The Contractor shall be responsible for the verification of existing utilities that may be affected by its work in the project area. It shall be held responsible for any damage to and for maintenance and protection of existing utilities and structures during the performance of the work.

10.0 INSURANCE & WORKER'S COMPENSATION

10.1 Contractor's and Subcontractor's Public Liability, Vehicle Liability and Property Damage Insurance.

The Contractor shall maintain insurance as follows:

- (a) Contractor's Public Liability Insurance and Comprehensive Vehicle Liability Insurance shall be in an amount not less than \$2,000,000.00 for bodily injury and property damage for each occurrence and not less than \$2,000,000.00 aggregate. Additional named insured Cole and Crane Real Estate Trust, 848 Fourth Avenue, Suite 303, Huntington, WV 25701; Buskirk Properties, LLC, 139 Lamplighter Drive, Morgantown, WV 26508; Lauren Land Company, P.O. Drawer 830, Belfry, KY 41514.

The required insurance must be written by a company or companies licensed to do business in West Virginia at the time the policy is issued and the policy must be countersigned by a licensed resident agent.

- (b) Contractor shall either (1) require each of the subcontractors to procure and to maintain, during the life of its subcontract, subcontractor's Public Liability and Property Damage Insurance of the type and in the same amounts as specified in paragraph (a) above, or (2) insure the activities of its subcontractors in its own policy.

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Contractor agrees to indemnify and hold harmless DEP from all liability for personal injury, including death resulting therefrom, and against all liability for property damage sustained by any person or persons, including persons employed by Contractor or subcontractors, which is caused in whole or in part by an act or omission, negligent or otherwise, of the Contractor, its agents, servants, or employees, and to assume the defense of any action brought by such persons to recover damages, and to pay all costs and expenses, including attorney's fees, incurred by DEP as result thereof.

Each party to the contract shall promptly notify the other of the assertion of any claim against which such party is held harmless pursuant to this Section, shall give such other party the opportunity to defend any such claim, and shall not settle any such claim without approval of the indemnifying party.

10.2 Proof of Carriage of Insurance.

The Contractor shall provide DEP, before work commences, with certificates issued by the insurance company or companies issuing the insurance policies required by this Section. The certificates shall show the type, amount, class of operations covered, effective dates, and dates of expiration of such policies. Such certificates shall provide that written notice shall be given to DEP prior to expiration, cancellation, or modification of any such policy, and shall contain substantially the following representation: "The insurance covered by this certificate will not be canceled, or materially modified or altered, except after ten (10) days written notice has been verified as received by the West Virginia Department of Environmental Protection".

10.3 Worker's Compensation Insurance.

All employees of the Contractor, and of subcontractors engaged in the work of this contract, shall be covered by West Virginia Worker's Compensation Insurance. Certificates shall be provided to DEP by the Contractor and subcontractors showing compliance with the Worker's Compensation Laws of West Virginia.

RTICLE III - GENERAL CONDITIONS

11.0 LABOR LAWS, ORDINANCES, WAGES, AND OTHER CONDITIONS

11.1 The Contractor shall obey and abide by all laws of the State of West Virginia, particularly with respect to the carrying out of public improvements.

The Contractor shall not pay less than the established prevailing minimum wage rate for each particular class of employment in the county in which the work is being performed.

ARTICLE III - GENERAL CONDITIONS

11.2 During the performance of this contract, the Contractor agrees as follows:

- (a) The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notice, to be provided by the contracting officer, setting forth the provisions of this nondiscrimination clause.**
- (b) Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color or national origin.**
- (c) Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, a notice, to be provided by the agency contracting officer, advising the labor union or worker's representative of the Contractor's commitments under Section 202 of Presidential Executive Order #11246 of September 24, 1965 (hereinafter "Executive Order #11246"), as amended by Presidential Executive Order #11375 and supplemented by U.S. Department of Labor regulations 41 CFR Part 60 and shall post copies of the notice in conspicuous places available to employees and applicants for employment.**
- (d) Contractor will comply with all provisions of Executive Order #11246, and with all of the applicable rules, regulations, and relevant orders of the U.S. Secretary of Labor (hereinafter "Secretary of Labor").**
- (e) Contractor will furnish all information and reports required by Executive Order #11246, and by the applicable rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders. These provisions shall also apply to DEP or employees of the Federal Government or their designated representatives for the purpose of making audits, examinations, excerpts, or transcriptions.**
- (f) In the event of the Contractor's noncompliance with these nondiscrimination clauses, this contract may be canceled, terminated, or suspended, in whole or in part, and the Contractor may be declared ineligible for further government contracts in accordance with procedures authorized in Executive Order #11246, and such other sanctions may be imposed and remedies invoked as provided in Executive Order #11246, or by rules, regulations, or orders of the Secretary of Labor, or as otherwise provided by law.**

ARTICLE III - GENERAL CONDITIONS

- (g) The Contractor will include the provisions of these paragraphs (a) through (g) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order #11246, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontractor or purchase order as the contracting agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event the Contractor becomes involved in, or is threatened with litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the Contractor may request DEP to enter into such litigation to protect the interests of DEP.
- (h) Copeland "Anti-Kickback" Act. Contractor or Subcontractor shall comply with the Copeland "Anti-Kickback" Act (18 USC 874) as supplemented in U.S. Department of Labor regulations (29 CFR Part 3). Said Act provides that each Contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public works, to give up any part of the compensation to which it is otherwise entitled. The Contractor shall report all suspected or reported violations to DEP.
- (i) Clean Air & Water Acts. Should the amount of this contract exceed one-hundred thousand dollars (\$100,000.00), compliance will be required with all applicable standards, orders, or requirements issued under Section 306 of the Clean Air Act (42 USC 1857[h]), Section 508 of the Clean Water Act (33 USC 1368), Presidential Executive Order #11738, and Federal Environmental Protection Agency regulations (40 CFR Part 15), which prohibit the use under non-exempt Federal contracts, grants or loans of facilities included on the EPA List of Violating Facilities. Contractor shall report violations to DEP and to the U.S. EPA Assistant Administrator for Enforcement (EN-329).
- (j) Energy Policy & Conservation Act. The Contractor shall comply with mandatory standards and policies relating to energy efficiency which are contained in the State energy conservation plan issued in compliance with the Energy Policy and Conservation Act, Public Law 94-163.
- (k) Access to Records. DEP, the U.S. Department of Interior's Office of Surface Mining Reclamation & Enforcement, and the U.S. Comptroller General or their duly authorized representatives shall have access to any books, papers, and records of the Contractor which are directly pertinent to that specific contract, for the purpose of making audits, examinations, excerpts, and transcriptions.
- (l) Maintenance of Records. The Contractor shall maintain all required records for three (3) years after DEP processes final payments and all other pending matters are closed.
- (m) Termination of Contract by DEP. This contract may be cancelled in whole or in part in writing by the Director of Purchasing, without prejudice to any other right or remedy it may have, provided that the contractor is given not less than thirty (30) calendar days written notice, (delivered by certified mail, return receipt requested) of intent to terminate.

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- (n) **Legal Remedies.** Unless otherwise provided by law or elsewhere in this contract, all claims, counter-claims, disputes and other matters in question between DEP and the Contractor arising out of, or relating to, this contract or the breach of it will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State of West Virginia.

11.3 **Wages.**

Attention is called to the prevailing rates of wages to be paid for labor on public improvements in Logan County, West Virginia, as determined by the West Virginia Department of Labor. A copy of wage rates shall be posted in a conspicuous location on the job site. Copies of the wage rates are included herein, however, it is the responsibility of the Contractor to pay the wage rate in effect when the project was bid. The Contractor is to maintain and have available for inspection by DEP, upon request, certified copies of its payrolls.

The contractor/subcontractors shall pay the higher of the U.S. Department of Labor Davis-Bacon Act or the WV Prevailing wage rate as established for various county, pursuant to West Virginia Code 21-5A, Et, Seq. and 42CSR7 Rules & Regulations for the WV Prevailing Wage Act. For prevailing wage rates, please refer to <http://www.sos.wv.gov>

12.0 **SUBCONTRACTORS**

- 12.1 Unless otherwise required by the contract documents, the Contractor, as soon as practicable after award of the contract, shall furnish DEP in writing the names of subcontractors (including those who are to furnish materials or equipment fabricated to special design) proposed for performing portions of the work.
- 12.2 DEP reserves the right to disapprove any proposed subcontractor whose record of performance does not establish its experience, competence, and financial ability to perform the work for which it is proposed. Nothing contained in the contract documents shall create any contractual relation between any subcontractor and DEP.

13.0 **TIME**

- 13.1 The date of commencement of work is the date established in a written "Notice to Proceed" issued by DEP to the Contractor. The date of completion shall be the date that DEP finds the work acceptable under the contract documents and the contract fully performed.

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13.2 Delays & Extensions of Time.

- (a) It is agreed that if the Contractor should be unavoidably delayed in fulfilling its obligations under this contract by acts of Providence or general strikes, or by Court injunctions, or by stopping of the work by DEP because of any Contractor toward final completion of the work hereunder, DEP may require the Contractor to prepare an itemized estimate of the amount of work performed, and material and equipment stored under the contract since the date of the last preceding estimate and Application for Payment. DEP may request that the Contractor submit such estimate along with supporting documentation in the form of certified payrolls, material invoices, weight slips, and Applications for Payment. Contractor is to maintain and have available such records for inspection by DEP upon request.
- (b) Upon approval by DEP of the Application and Certificate for Payment, DEP shall, as soon thereafter as practicable, process for the Contractor as a progress payment a sum equal to the contract value of the work performed since the last preceding estimate and Application for Payment in accordance with Paragraphs 14.4 and 14.5 of this Section, less the aggregate of previous payments.
- (c) No Certificate for a progress payment, nor any progress payment, shall constitute acceptance or be deemed or construed as acceptance of any part of the work not in accordance with the contract documents.
- (d) The Contractor warrants and guarantees that title to all work, materials, and equipment covered by an Application for Payment, whether incorporated in the project or not, will pass to DEP upon the receipt of such payment by the Contractor, free and clear of all liens.

13.3 Progress Schedule.

The Contractor, immediately after being awarded the contract, shall prepare and submit, for DEP's information, an estimated progress schedule for the work. Such progress schedule shall be related to the entire project to the extent required by the contract documents, and shall provide for expeditious and practicable execution dates of the various stages of construction and may be revised as required by conditions of work, subject to DEP's approval.

14.0 PAYMENTS & COMPLETION

14.1 Contract Sum.

The contract sum as stated in the Contractor's executed Contract Acceptance Form, including any authorized adjustment(s) thereto, is the total amount payable by DEP to the Contractor for the performance of the work under the contract documents.

ARTICLE III - GENERAL CONDITIONS

14.2 Schedule of Values.

Before submitting its first Application for Payment, the Contractor shall submit to DEP a schedule of values allocated to the various portions of the work, prepared in such form and supported by such data to substantiate its accuracy, as DEP may require. This schedule shall be used only as a basis for the Contractor's Applications for Payment.

14.3 Progress Estimates, Applications for Payment.

- (a) On the fifteenth (15th) and thirtieth (30th) day of each month during which progress has been made on the work under the contract by the Contractor toward final completion of the work hereunder, DEP may require the Contractor to prepare an itemized estimate of the amount of work performed since the date of the last preceding estimate and Application for Payment. DEP may request that the Contractor submit such estimate along with supporting documentation in the form of certified payrolls (not to include social security numbers), material invoices, weight slips, and Applications for Payment. Contractor is to maintain and have available such records for inspection by DEP upon request.
- (b) Upon approval by DEP of the Application and Certificate for Payment, DEP shall, as soon thereafter as practicable, process for the Contractor as a progress payment a sum equal to the contract value of the work performed since the last preceding estimate and Application for Payment, in accordance with Paragraphs 14.4 and 14.5 of this Section, less the aggregate of previous payments.
- (c) No Certificate for a progress payment, nor any progress payment, shall constitute acceptance or be deemed or construed as acceptance of any part of the work not in accordance with the contract documents.
- (d) The Contractor warrants and guarantees that title to all work, materials, and equipment covered by an Application for Payment, whether incorporated in the project or not, will pass to DEP upon the receipt of such payment by the Contractor, free and clear of all liens, claims, security interests or encumbrances, and that no work, materials, or equipment covered by an Application for Payment will have been acquired by the Contractor or by any other person performing the work at the site or furnishing materials and equipment for the project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the Contractor or otherwise imposed by the Contractor or such other person.

ARTICLE III - GENERAL CONDITIONS

14.4 Payments Withheld.

The Director may decline to approve an estimate or Application for Payment, to the extent necessary to protect DEP from loss because of:

- (i) Unsatisfactory, unrepresentative, and unverified amounts and items included in progress estimates of Paragraph 14.3(a) above.**
- (ii) Unfulfilled provisions of Paragraphs 14.3(d) above.**
- (iii) Defective work not remedied.**
- (iv) Unsatisfactory performance of the work by the Contractor.**
- (v) Failure of the Contractor to make payments properly to subcontractors, or for labor, materials, or equipment.**
- (vi) Reasonable doubt that the remaining work can be completed for the unpaid balance of the contract sum.**
- (vii) Reasonable indication that the work will not be completed within the contract time for completion.**
- (viii) Third party claims filed, or reasonable evidence indicating probable filing of such claims.**
- (ix) Damage to another contractor.**

When the above grounds under 14.4 (i)-(ix) are removed, payment shall be approved for the amounts that were withheld because of them.

14.5 Final Completion & Final Payment.

- (a) Upon notice from the Contractor that the work is ready for final inspection, the Construction Supervisor will promptly make such inspection. If the Construction Supervisor upon his/her inspection finds the work acceptable under the contract documents and the contract fully performed, the Contractor shall submit a Final Estimate Application and Certificate for Payment to DEP for processing. Also, final quantity calculations shall be submitted to DEP at the final inspection conference by the Contractor.**
- (b) Final payment to the Contractor will be processed by DEP upon fulfillment of the provisions of the contract documents and the conditions thereof.**

ARTICLE III - GENERAL CONDITIONS

- (c) The processing of final payment and the processing of payment of retained percentage shall constitute a waiver of all claims by DEP except those arising from:
 - (i) Unsettled liens.
 - (ii) Faulty or defective work appearing after final completion.
 - (iii) Failure of the work to comply with requirements of the contract documents.
 - (iv) Terms of any special warranties required by the contract documents.
- (d) The acceptance of final payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of the final Application for Payment. No payment, however, final or otherwise, shall operate to release the Contractor or its sureties from any obligation under the contract documents, or the Performance Bond, and the Labor and Material Payment Bond. (See 15.1 below.)

14.6 Application for Payment Forms.

Bound herewith on the following pages are sample Application and Certificate for Payment forms which the Contractor shall use in the submittal of progress estimate Applications for Payment to DEP.

AML-7A
Revised 6/00

Page ___ of ___ pages

Project Name: _____ Application No: _____						Page ____ of ____ pages	
BID SCHEDULE PER CONTRACT				UNITS THIS APPLICATION	TOTAL COMPLETED AND STORED TO DATE		
ITEM # A	DESCRIPTION B	UNITS C	UNIT BID PRICE D	UNITS E	UNITS F	COST $G=(D \times F)$	
							SUBTOTAL OR TOTAL

ARTICLE III - GENERAL CONDITIONS

15.0 SURETY BONDS

- 15.1 The Contractor shall provide and deliver to DEP's Buyer at the Purchasing Division of the Department of Administration at the time of execution of the contract, and prior to the performance of the work, satisfactory surety bonds in an amount of not less than one hundred percent (100%) of the contract sum which shall include a Performance Bond and Labor and Material Payment

Bond, with sureties acceptable to DEP's Buyer, for the faithful fulfillment of the contract within the time specified. Said bonds shall also save and hold harmless DEP from all liens and claims arising out of the work. The Contractor shall pay for the bonds.

- 15.2 In the event that the surety on any contract or payment bond given by the Contractor becomes insolvent, or is placed in the hands of a receiver, or has its right to do business in this State revoked as provided by law, the Director may at his/her election, withhold payment or any estimate until the Contractor shall give a good and sufficient bond in lieu of the bond so executed by such surety.

15.3 Power of Attorney.

Attorneys-in-Fact who execute surety bonds issued pursuant to this Section must provide with each such bond a certified and properly executed Power of Attorney.

15.4 Bond Release.

All performance bonds shall be in effect throughout the one-year guarantee period set out in Section 5.0 above. Bonds will be released upon completion of the guarantee period and acceptance of the project by DEP.

16.0 CHANGES IN THE WORK

16.1 Change Orders.

- (a) DEP, without invalidating the contract, may order or the Contractor may request changes in the work within the general scope of the contract consisting of additions, deletions, or other revisions, the contract sum and the contract time being adjusted accordingly. All such changes in the work shall be authorized by change order, and shall be executed under the applicable conditions of the contract documents.
- (b) A change order is a written order to the Contractor, properly executed as to form, issued after the execution of the contract, authorizing a change in the work or an adjustment in the contract sum or contract time. The contract sum or contract time may be changed only by a change order. A change order issued to the Contractor indicates its agreement therewith, including the adjustment in the contract sum or contract time set forth therein.

ARTICLE III - GENERAL CONDITIONS

- (c) **The cost or credit to DEP resulting from a change in the work shall be determined in one or both of the following ways:**

 - (i) **By mutual acceptance of a lump sum properly itemized.**
 - (ii) **By unit prices stated in the contract documents or subsequently agreed upon.**
 - (d) **If none of the methods set forth in 16.1(c) above is agreed upon, or the work to be performed is agreed by DEP and Contractor to be of such nature that it cannot be estimated in advance with sufficient exactness for mutual agreement, then DEP may direct the Contractor to perform the work by change order in accordance with the following provisions, and the Contractor shall promptly proceed with the work:**

 - (i) **The work shall then be performed for an amount equal to the actual and necessary net cost to the Contractor for material and labor cost necessarily used therein, including all taxes and delivery costs for materials, all required extra costs on labor, plus cost for superintendents, power, use of tools, equipment, plant, plus the Contractor's normal charge under the contract for overhead and profit. The Contractor shall keep and present to DEP for inclusion in the change order complete itemized accounting for all materials, complete identified time and payment records for all employees, and workmen actually performing the work covered by the change order, the cost accounting of work performed by subcontractors for work covered by the change order. DEP reserves the right to require verifications of all costs covered under the change order.**
 - (ii) **The amount of credit to be allowed by the Contractor to DEP for any deletion or change which results in a net decrease in the contract sum will be the actual net cost. When both additions and credits covering related work or substitutions are involved in one change, the allowance for overhead and profit shall be figured only on the basis of the increase, if any, with respect to that change.**
- 16.2 The Director is the only individual who can execute a change order committing DEP to the expenditure of public funds. No person other than the Director or his/her authorized representative can make any changes to the terms, conditions, contract clauses, or other stipulations of this contract.**

The Contractor shall not accept any instructions issued by any person other than the Director or his/her authorized representative regarding changes in the work under the contract which affect the contract sum and/or contract time. No information, other than that which may be contained in an authorized modification to this contract, duly issued by the Director or his/her authorized representative, which may be received from any person employed by DEP or otherwise, shall be considered grounds for deviation from any stipulation of the contract.

ARTICLE III - GENERAL CONDITIONS

16.3 Minor Changes in the Work.

Notwithstanding the requirements of Section 16.2 above, the Director or his/her authorized representative shall have authority to order minor changes in the work not involving an adjustment in the contract sum or an extension of the contract time and not inconsistent with the intent of the contract documents. Such changes may be affected by field order or by other written order. Such changes shall be binding on DEP and the Contractor. The Contractor shall carry out such written orders promptly.

16.4 Omissions.

DEP may omit any item or items in the contract, provided that the notice of intent to omit such item or items is given to the Contractor before any material has been purchased or labor involved has been performed, and such omission shall not constitute grounds of any claim for damages or loss of anticipated profits. DEP may omit any item or items shown the estimate, at any time, by agreeing to compensate the Contractor for the reasonable expense already incurred and to take over at actual cost any unused material purchased in good faith for use for the item or items omitted.

17.0 UNCOVERING & CORRECTION OF WORK

17.1 Uncovering of Work.

- (a) If any work should be covered contrary to the request of DEP, it must, if required by DEP, be uncovered for its observation and be replaced at the Contractor's expense.
- (b) If any other work has been covered which DEP has not specifically requested to observe prior to being covered, DEP may request to see such work and it shall be uncovered by the Contractor. If such work is found to be in accordance with the contract documents, the cost of uncovering and replacement shall, by appropriate change order, be charged to DEP. If such work is found not to be in accordance with the contract documents, the Contractor shall pay such costs unless it is found that such condition was caused by a separate contractor employed by DEP and in that event DEP shall be responsible for the payment of such costs.

17.2 Correction of Work.

The Contractor shall promptly correct all work rejected by DEP as defective or as failing to conform to the contract documents whether observed before or after final completion and whether or not fabricated, installed or completed. The Contractor shall bear all cost of correcting such rejected work. All such defective or

ARTICLE III - GENERAL CONDITIONS

non-conforming work shall be removed from the site if necessary, and the work shall be corrected to comply with the contract documents at no cost to DEP. If the Contractor fails to correct such defective or non-conforming work, DEP may correct it in accordance with Section 17.3 below or Section 11.2(m) of these General Conditions.

17.3 Acceptance of Non-Conforming Work.

If DEP prefers to accept non-conforming work, it may do so instead of requiring its removal and correction, in which case a change order will be issued to reflect an appropriate reduction in the contract sum, or, if the amount is determined after final payment, it shall be paid by the Contractor.

18.0 ASSIGNMENT OF CONTRACT

Contractor shall not assign or transfer this contract or sublet it as a whole without having first obtained the written consent of DEP to do so; and it is likewise agreed that the Contractor shall not assign legally or equitably any of the moneys payable to it under the contract, or its claim thereto, without having first obtained the written consent of DEP to do so.

ARTICLE IV - GENERAL REQUIREMENTS

ARTICLE IV - GENERAL REQUIREMENTS

Sections Included:

- 1.0 Summary of the Work**
- 2.0 Quality Standards, Approvals**
- 3.0 Superintendents, Coordination**
- 4.0 Project Meetings**
- 5.0 Authority & Duties of Inspectors**
- 6.0 Shop Drawings, Product Data, Samples**
- 7.0 Measurements, Manufacturer's Directions**
- 8.0 Lines, Levels, Grades, Layout**
- 9.0 Documents, Shop Drawings, Etc., at Site**
- 10.0 Storage of Materials**
- 11.0 Protection of Work, Damages**
- 12.0 Temporary Facilities**
- 13.0 Construction Sign**
- 14.0 Cleaning and Final Clean-Up**
- 15.0 Testing**
- 16.0 Project Completion - Certificates**

ARTICLE IV - GENERAL REQUIREMENTS

1.0 SUMMARY OF THE WORK

This Article briefly outlines and describes the work to be performed and is not intended to limit the faithful execution of the contract documents.

1.1 Work Included.

The scope of the work for this project, without attempting to restrict or limit the contractor's responsibility, consists of furnishing all plant, labor, materials, and equipment to construct abandoned mine drainage control structures described in the drawings and these specifications. The work shall include, but not be limited to, the following:

Providing erosion and sediment control. Clearing and grubbing at the site. Construction and installation of support areas, and maintenance/upgrade of access roads to the site. Stream bank stabilization and regading. Installation of various types of mine seals, including a bat gate. Construction and installation of drainage control structures. Revegetation of disturbed areas.

ARTICLE IV - GENERAL REQUIREMENTS

2.0 QUALITY STANDARDS, APPROVALS

- 2.1** Notwithstanding reference in the specifications or on the drawings to any article, item, product, material, equipment, or system by name, brand, make, or manufacturer, such reference shall be intended and interpreted as establishing a standard of quality, and shall not be taken, regarded, or construed as limiting competition.
- 2.2** Any article, item, product, material, equipment, or system which will perform adequately and satisfactorily the duties imposed by the general design will be considered equally acceptable to that specified or referenced, providing the article, item, product, material, equipment, or system so proposed is equal in quality, substance, design, manufacture, function and performance as that specified or referenced, and adjudged and determined to be so in the opinion of the Construction Supervisor and is approved by him/her. The approval of the Construction Administrator is required before purchase and installation.
- 2.3** Approvals.
- Where the term "of approved manufacture" appears in the specifications, or an "approved" or "approved as equal" article or item is referred to, it shall mean that the article, item, workmanship, or material must meet the approval of the Construction Supervisor.

3.0 SUPERINTENDENTS, COORDINATION

3.1 Superintendents.

The Contractor shall employ and keep a competent superintendent and assistants who shall be capable of effective communication as required on the job at all times and who shall give efficient supervision to the work, using his/her best skill and attention, and shall have knowledge and control of all trades. The superintendent shall be acceptable to the Construction Supervisor and shall not be changed without the Construction Supervisor's knowledge and consent. The Contractor also shall see that each respective sub-contractor provides a competent foreman for each trade.

3.2 Coordination.

The Contractor and each sub-contractor shall coordinate the work and operations and shall cooperate with and assist each other on the job for the successful execution of the work within trade jurisdictional rulings. Each shall study all drawings and specifications and shall perform all work which properly comes under jurisdiction of the trade he/she represents.

4.0 PROJECT MEETINGS AND CONFERENCES

- 4.1** The following meetings shall be scheduled and held prior to commencement of the project and during execution of the work. DEP will schedule such

ARTICLE IV - GENERAL REQUIREMENTS

meetings and advise all parties concerned by written notice of the date, time, and location of such meetings.

- (a) **Pre-Bid Conference.** Conference with Engineer, bidders and appropriate DEP personnel as necessary, and others directly concerned for explanation of bidding and contract documents, project site familiarization as required, and for answering questions pertinent to the project. **Attendance by bidders is mandatory in order to be eligible to bid on the project.**

A date and time will be set for the on-site **mandatory** Prebid Conference. All interested parties are required to attend this meeting. Failure to attend the mandatory pre-bid shall result in disqualification of the bid. No one person may represent more than one bidder.

An attendance sheet will be made available for all potential bidders to complete. This will serve as the official document verifying attendance at the mandatory pre-bid. Failure to provide your company and representative name on the attendance sheet will result in disqualification of the bid. The State will not accept any other documentation to verify attendance. The bidder is responsible for ensuring they have completed the information required on the attendance sheet. The Purchasing Division and the state agency will not assume any responsibility for a bidder's failure to complete the pre-bid attendance sheet. In addition, we request that all potential bidders include their e-mail address and fax number.

All potential bidders are requested to arrive prior to the starting time for the pre-bid. Bidders who arrive late, but prior to the dismissal of the technical portion of the pre-bid will be permitted to sign in. Bidders who arrive after conclusion of the technical portion of the pre-bid, but during any subsequent part of the pre-bid will not be permitted to sign the attendance sheet.

- (b) **Pre-Construction Conference.** Conference with Engineer, appropriate DEP personnel, Contractor, Sub-Contractors, and others directly concerned, after award of the contract and prior to commencement of construction, for discussion of the project, contract documents, scheduling, and for resolving questions concerning project execution and administration as required.

- (c) **Project Meetings.** Meetings shall be held at periodic intervals throughout the construction contract period for discussion of matters pertinent to the execution and administration of the project. The Construction Administrator, Engineer, Construction Supervisor, Inspector, Contractor and/or its Superintendent, Subcontractors, Project Foremen, as required, and others directly concerned, as necessary, shall attend the meetings.

5.0 AUTHORITY & DUTIES OF INSPECTORS

- 5.1** The Inspector, as the Director's authorized representative, is authorized to make minor field changes to the plans and specifications that do not involve an increase or decrease in the contract sum or an increase or decrease in the contract time. The Inspector shall be authorized to inspect all work done, all material furnished, payroll records of personnel, material invoices and relevant data and records of the work, and the preparation, fabrication, or manufacture of the materials to be used. The Inspector is not authorized to revoke, alter, or waive any requirements of the plans and specifications that result in an increase or decrease in the amount of compensation due the Contractor or an increase or decrease in the contract time. The Inspector is authorized to call to the attention of the Contractor any failure of the work or materials to conform to the plans and specifications. The Inspector shall have the authority to reject materials or suspend the work until any questions at issue can be referred to and decided by the Construction Administrator.
- 5.2** The Inspector shall in no case act as foreman or perform other duties for the Contractor, nor interfere with the management of the work by the Contractor. Any advice which the Inspector may give the Contractor shall in no way be construed as binding the Construction Administrator in any way, or releasing the Contractor from fulfilling all of the terms of the contract.

ARTICLE IV - GENERAL REQUIREMENTS

- 5.3** If the Contractor refuses to suspend operations on verbal order, the Inspector shall issue a written order giving the reason for ordering the work to stop. After placing the order in the hands of the person in charge, the Inspector shall immediately leave the job, and the Contractor shall cease all operations.

6.0 SHOP DRAWINGS, PRODUCT DATA, SAMPLES

6.1 Definitions.

- (a) "Shop drawings" are drawings, diagrams, schedules, and other data, prepared for the project by the Contractor, Sub-contractor, manufacturer, or supplier, to illustrate and/or install some portion of the work.
- (b) "Product data" are illustrative data, brochures, schedules, catalog cuts, charts, informative material and specifications to illustrate materials, articles, items, or products for use in some portion of the work.
- (c) "Samples" are physical examples which show and illustrate materials, finishes, equipment or workmanship of products proposed for use in some portion of the work.

6.2 Submittals.

- (a) The Contractor shall review, approve, and submit to the Construction Administrator with reasonable promptness, and in such sequence to cause no delay in the work, all shop drawings, product data, and samples required by the contract documents.
- (b) No shop drawings, product data, or samples shall be submitted to the Construction Administrator except by the Contractor, who shall, before submission, verify all materials, check all details, measurements, verify all field measurements and field construction conditions, and other job coordination requirements. Upon review, check, and approval by the Contractor, the Contractor shall place its stamp of approval thereon before submitting to the Construction Administrator.
- (c) The Contractor shall not be relieved of responsibility for any deviation from the requirements of the contract documents by the Construction Administrator's approval of shop drawings, product data, or samples, nor shall it be relieved of responsibility for errors or omissions therein.
- (d) Shop drawings, product data, and samples shall be submitted in sufficient number for all approvals, with a minimum of two (2) copies or samples being retained by the Construction Administrator, and a number of copies and samples being retained by the Contractor as required for the execution of its work.

ARTICLE IV - GENERAL REQUIREMENTS

- (e) No portion of the work requiring submission of a shop drawing, product data, or sample shall be commenced until the submittal has been approved by the Construction Administrator. All such portions of the work shall be in accordance with approved submittals.
- (f) Shop drawings, product data, and samples shall be submitted for work, systems, articles, items, and equipment as specified. Other additional shop drawings, product data, and samples as may be requested for the work by the Construction Administrator shall be submitted to him/her for approval.

7.0 MEASUREMENTS, MANUFACTURER'S DIRECTIONS

7.1 Measurements.

Before ordering any material, product, article, or doing any work, the Contractor shall take all necessary measurements at the project and shall be responsible for the correctness of same. No extra charge or compensation will be allowed on account of differences between actual dimensions and the dimensions indicated on the drawings. The Construction Administrator shall be notified of any differences found and work shall not proceed thereon until the Construction Administrator has rendered a decision.

7.2 Manufacturers' Directions.

All manufactured articles, items, products, material, and equipment shall be applied, installed, connected, erected, used, cleaned, conditioned and put into operation or use as directed by the manufacturer's printed instructions, unless specified otherwise herein. The Contractor shall be responsible for obtaining all such instructions.

7.3 Measurement of Quantities.

The Contractor shall be responsible for providing all necessary volumetric and weight measurement equipment necessary to measure quantities accurately for payment of contract unit items, and said equipment shall be subject to the Construction Administrator's approval. Volume and weight measurements shall be submitted to the Construction Administrator for approval.

8.0 LINES, LEVELS, GRADES, LAYOUT

8.1 Lines, Levels, Grades.

- (a) Control points have been established in the field and are shown on the plans whereby the Contractor can properly control the work contracted for under these specifications. Such stakes and markings which the Engineer may have set for either his/her own guidance shall be scrupulously preserved by the Contractor, or its employees. If any

ARTICLE IV - GENERAL REQUIREMENTS

action by the Contractor should result in the destruction of such stakes or markings, an amount equal to the cost of replacing same may be deducted from subsequent estimates due the Contractor at the discretion of the Construction Supervisor. The Contractor shall satisfy itself as to the accuracy of all measurements before constructing any permanent structure and shall not take advantage of any errors which may have been made in laying out the work. Should any discrepancies become evident between the plans and the Contractor's field survey, the Contractor shall immediately notify the Inspector. If these discrepancies will create a change in any item in the Contractor's accepted final bid, the DEP reserves the right to re-design or negotiate. Should the Contractor fail to make notification of these discrepancies, DEP will not be held liable for any changes in the original quantities.

- (b) The Contractor shall make all field measurements necessary for its work and shall be responsible for the accuracy of all dimensions, lines, levels, and grades. If a survey is required, it shall be performed at the expense of the Contractor. All survey work shall be performed by a West Virginia Registered Civil Professional Engineer or Licensed Land Surveyor who shall certify as to the accuracy of the survey to DEP.

9.0 DOCUMENTS, SHOP DRAWINGS, ETC., AT THE SITE

- 9.1 The Contractor shall maintain at the project site for DEP one (1) record copy of all drawings, specifications, addenda, change orders, and other modifications, in good order, marked currently to record all changes made during construction, and all approved shop drawings, product data, and samples, properly filed and referenced. All such documents and samples shall be delivered to the Construction Supervisor upon completion of the work.
- 9.2 The Contractor shall furnish the Inspector in writing two (2) sets of daily reports showing all personnel (by classification), equipment, and tools engaged in the work, for use in accounting records.
- 9.3 The Contractor shall be responsible for submitting a daily activity summary which shall be used to report progress of the various construction activities performed at the subject site. The summary report shall be submitted to the Inspector on a weekly basis on the prescribed forms. Processing invoices may be delayed if summary reports are not submitted.

10.0 STORAGE OF MATERIALS

- 10.1 The Contractor, under and with the approval, supervision, and direction of DEP, shall assume full charge of the area or areas of the project premises allocated for the storage of materials and equipment as required, allocating the necessary site space to any sub-contractor(s) for storage sheds and space for the storage of materials and equipment. Such arrangement of storage facilities

ARTICLE IV - GENERAL REQUIREMENTS

shall be orderly, convenient, shall not obstruct movement on the site, the work of others, or construction operations. All storage sheds, enclosures, and facilities shall fully protect the stored materials. The Contractor shall arrange with appropriate landowner(s) for any storage areas located outside of the project limits and such storage areas shall also be subject to DEP's approval.

- 10.2 All materials subject to damage by moisture, water, or weather shall be fully protected. All flammable, toxic, and explosive materials shall be safely stored in conformity with applicable safety requirements of State and Federal regulations and safety standards of the National Fire Protection Association.

11.0 PROTECTION OF WORK; DAMAGES

11.1 Protection and Replacement of Work.

- (a) The Contractor shall protect its work from damage of any kind until completion of construction. Each contractor or sub-contractor shall adequately protect all preceding work from damage caused by it or its work. Should any part of the construction be subject to freezing or exposure to the elements, the same shall be fully protected to prevent damage.
- (b) The Contractor and each sub-contractor shall provide protection against weather, frost, freezing, storms, and heat, to maintain all work, materials, installations, and equipment safe from injury and damage. The Contractor shall provide temporary covering and closures in the construction as required to protect it from damage by weather, until permanent construction provides such protection.
- (c) Damaged or defective work must be replaced; all other work injured or damaged in the replacing of such work or in any way incidental thereto must be brought back to its original condition or replaced by the Contractor performing the work, without additional cost to DEP.

11.2 Damages to Existing Work.

All masonry damage, glass breakage, and other damage caused to existing buildings and appurtenances by the Contractor or by other contractors in the performance of work shall be properly replaced or repaired at the option of DEP, without additional cost to DEP.

12.0 TEMPORARY FACILITIES

12.1 Job Utilities.

- (a) General. All concerned with providing temporary utilities for use on the project are advised to determine locations of sources of supply and the conditions under which services can be brought to points of use on the site.

ARTICLE IV - GENERAL REQUIREMENTS

- (b) **Drinking Water.** The Contractor shall arrange for drinking water and containers to be provided on the site.
- (c) **Utility Connections.** The Contractor is to furnish power, gas, compressed air and any other utilities required for its own use during construction. The Contractor shall remove all temporary wiring, switches, lights, piping and connections to service facilities used during construction. Such connections shall not be made without approval of the Inspector.
- (d) **Temporary Supports.** The Contractor shall provide such temporary supports as may be required during construction, including those necessary to ensure the stability of the proposed excavation.
- (e) **Equipment.** The Contractor shall furnish all special apparatuses, welding machines, air compressors, hoisting equipment, tools, implements, cartage, scaffolding, ladders, planks, acetylene gas, oxygen gas, expendable materials, temporary light and heat, construction materials, shims and all other materials that may be required for the proper execution of the work.
- (f) **Temporary Buildings.** The Contractor will furnish, place, and equip, at its own expense, and as it deems necessary, any portable construction building(s) such as a trailer, storage sheds or chemical sanitary facilities. These portable facilities must be within the designated project limits; otherwise, the Contractor is solely responsible for making necessary arrangements with the proper landowner when the buildings are set up outside of the project limits. The type and number of buildings are subject to the approval of the Inspector. All written instructions, orders, and other communication delivered to the temporary construction office set up on the site shall be considered as having been delivered to the Contractor itself. The Contractor shall provide and pay for its own fire protection, watchman, temporary utility hookups, etc. The Contractor will promptly remove from the project any office facilities, equipment or materials when so instructed by the Inspector.
- (g) **Sanitation Facilities.** The Contractor shall provide and pay for adequate temporary toilet facilities for personnel during the project construction period. Toilets shall be of types approved by DEP and the State Division of Health, and situated only in approved locations. The Contractor shall be responsible for operation and sanitary maintenance of the temporary toilets and shall have them removed upon completion of construction.

ARTICLE IV - GENERAL REQUIREMENTS

13.0 CONSTRUCTION SIGN

13.1 Work Required.

The work to be performed under this Section consists of providing all labor, material and equipment necessary to install a project sign as indicated on the detail included herein and as specified herein.

13.2 Materials.

- (a) Paint. Paint for the project sign shall be one (1) coat Exterior-Grade Wood Primer-Sealer, and two (2) coats Exterior Grade Low-Sheen Enamel by Glidden or another approved manufacturer.
- (b) Wood. Sign face shall be 3/4" Marine Exterior plywood, and posts and cross-brace shall be No. 2 Grade Pine or Fir, kiln dried and treated.
- (c) Hardware:
 - (1) All hardware shall be manufactured from good, commercial-quality material and meet all applicable ASTM standards.
 - (2) Spikes and nails shall be common wire-type and shall meet AISI steel specifications 1010 or 1020.
 - (3) All hardware shall be hot-dip galvanized in accordance with ASTM A-153.

13.3 Execution.

- (a) Project Sign. The sign board shall be cut to the dimensions shown on the detail herein. The sign shall painted with one (1) coat of primer and two (2) coats of white enamel. All exterior cut edges shall be smooth sanded prior to painting. All edges shall be double primed. The letters, border and strips shall be painted as shown on the detail drawing. Posts and cross-brace shall be painted with two (2) finished coats of brown enamel.

The Contractor shall bolt the sign to posts and provide required cross-bracing. The posts and sign shall be erected and posts set in gravel base, as shown on the drawings. One (1) sign is required and is to be located at the discretion of the Inspector.

- (b) Payment. Payment for the work which shall include installation of the project sign shall be part of the lump-sum bid for "Mobilization".



Earl Ray Tomblin
Governor



Randy C. Huffman
Cabinet Secretary

AML

Robert Rice
Chief

STATE OF WEST VIRGINIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Office of Abandoned Mine Lands & Reclamation

Project Cost: \$XXX,XXX.00

Funding: US Department of the Interior – OSM with fees paid by the Coal Industry

Project Name:

DEP#

Contractor: Joe Smith Contracting

Project Start Date: 01/01/01

77 1/4"

1 1/2"

17 1/4"

1 1/8"

15 3/4"



STATE OF WEST VIRGINIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Office of Abandoned Mine Lands & Reclamation

Earl Ray Tomblin
Governor

7 7/8"



Project Cost: \$XXX,XXX.00
Funding: US Department of the Interior – OSM with fees paid by the Coal Industry

3 3/4"

7 7/8"

Randy C. Huffman
Cabinet Secretary

3"

AML

8 5/8"

Robert Rice
Chief

Project Name:
DEP#

Contractor: Joe Smith Contracting

Project Start Date: 01/01/01

73 7/8"

48"

6"

36"

36"

6"

27 3/4"

18"

2 1/4"

96"



STATE OF WEST VIRGINIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Office of Abandoned Mine Lands & Reclamation

Earl Ray Tomblin
Governor



Randy C. Hultman
Cabinet Secretary

AML
Robert Ride
Chief

Project Cost: \$XXX,XXX.00

Funding: US Department of the Interior – OSM with fees paid by the Coal Industry

Project Name:

DEP#

Contractor: Joe Smith Contracting

Project Start Date: 01/01/01

48"

5 1/4"

7 7/8"

9 3/8"

81 3/8"



17 1/2"

STATE OF WEST VIRGINIA

6"

2 1/4"

1 1/2 "

2 1/4 "

3 3/4"

2 1/4 "

1 1/2"

2"

3 3/4"

1 1/2"

4 7/8"

2 1/4"

1 1/2"

2 1/4"

4 7/8"

1 1/2"

3 3/4"

1 1/4" Earl Ray Tomblin
1 1/2" Governor

9 1/2" dep

1" Randy C. Huffman
3/4" Cabinet Secretary
1"

8"

AML

1" Robert Rice
3/4" Chief
1"

3 3/4" ⇅

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Office of Abandoned Mine Lands & Reclamation

Project Cost: \$XXX,XXX.00

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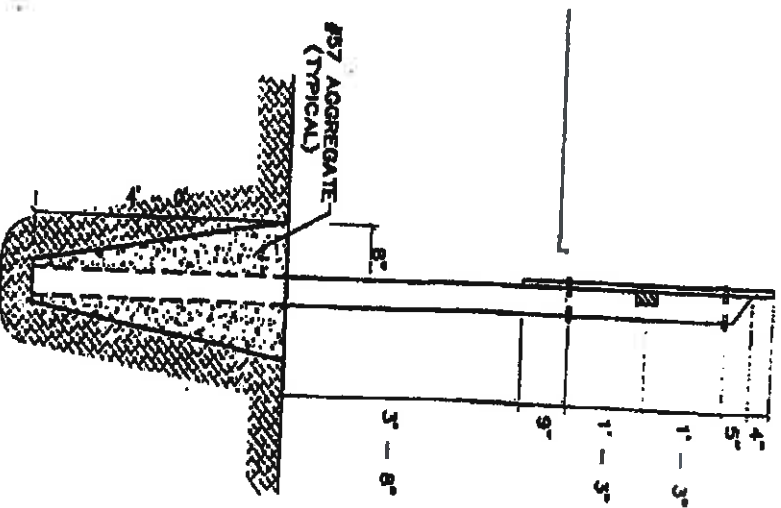
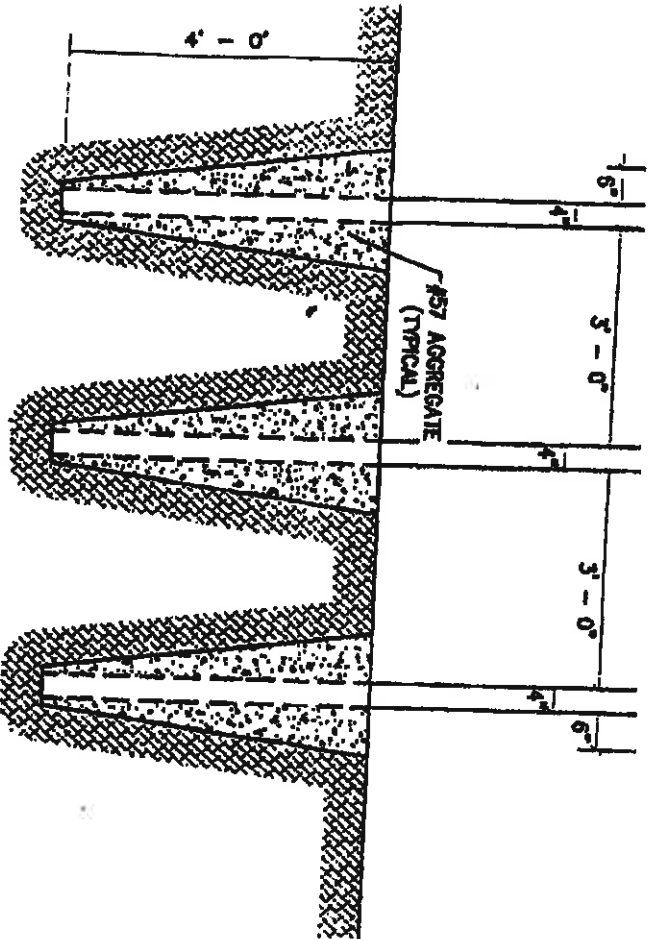
4' - 0"

Notes



Notes:

1. Sign board to be $\frac{3}{4}$ " by 4'X 8' marine plywood.
2. Sign board color is to be white and letter colors are to be dark green and sized as shown on the detail.
3. 2"X 4" treated cross brace let into posts.
4. Mount sign to posts using $\frac{3}{8}$ "X 5" galvanized carriage bolt.
5. Posts are to be treated 4"X 4"X 12' and panted brown.
6. Location determined by WVDEP.



ARTICLE IV - GENERAL REQUIREMENTS

14.0 CLEANING & FINAL CLEAN-UP

14.1 Housekeeping - Periodic Cleaning.

The Contractor shall at all times keep the construction site free of accumulations of waste materials and rubbish caused by its operations. Periodically during the progress of the work, and also when directed to do so by DEP, the Contractor shall remove, or cause to be removed by sub-contractors responsible, accumulated waste materials, rubbish, and debris, and leave the construction area in good order.

14.2 Final Clean-Up.

The Contractor at all times shall dispose of all debris and waste resulting from work at the Contractor's dump site. The Contractor shall not put or spill any materials into any drainage system which would pollute area streams or waterways. The Contractor shall be liable for any stream pollution caused directly or indirectly by its own employees or those of its sub-contractors.

14.3 DEP's Right to Clean-Up.

Should disputes arise between Contractor and separate contractors, or sub-contractors as to responsibilities for cleaning-up, and refusals to do so result therefrom, DEP may perform the clean-up and charge the cost thereof to the Contractor, the contractors, or sub-contractors responsible therefor, as DEP shall determine fair and just.

15.0 TESTING.

15.1 When Testing Required.

Testing shall be performed as required by the specifications or ordered by the Construction Administrator in writing. The Construction Administrator will determine the need, location, extent, and time of any testing herein specified, or in addition to that which is herein specified.

15.2 Payment for Testing.

The Contractor shall select an independent testing laboratory or utilize a laboratory run by the Contractor, to perform all testing for compaction, concrete, and soils as specified herein. All laboratory reports must be signed by a registered professional engineer. The Contractor shall be responsible for testing payments as an incidental to the various items of the bid schedule. If the Contractor allows work to proceed beyond a testing point resulting in the disassembly of structures or the uncovering of work for testing, payment for such will be the responsibility of the Contractor at no extra cost to DEP.

ARTICLE IV - GENERAL REQUIREMENTS

16.0 PROJECT COMPLETION - CERTIFICATES

- 16.1 All certificates of testing, quality, compliance, and performance, as required, requested, and/or specified, shall be delivered to DEP upon delivery or completion of the work covered by the certificates.**
- 16.2 All certificates of approval, compliance, and completion as required by codes, inspection and regulatory agencies, and local, State and Federal governmental authorities, shall be delivered to DEP upon completion of the work and inspections covered by such certificates.**
- 16.3 The contractor shall submit to the WVDEP as built drawings certified by a Registered Professional Engineer identifying all changes occurring on the project. The drawings shall be of professional quality. Unsuitable drawings will be returned for revisions. These drawings shall be approved by WVDEP prior to scheduling a Final Inspection.**

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ABANDONED MILE LANDS & RECLAMATION**

Report for Week Ending: _____ Project Name: _____
By: _____ Location: _____
Title: _____ Contractor: _____

Daily Activity Summary

Sunday	
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	

DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF ABANDONED MILE LANDS & RECLAMATION Weekly Quantity Summary Report By: _____ For Week Ending: _____	
--	--

For Week Ending: _____

[illegible]

Attach any sheets applicable to this weeks work and check appropriate box.

Change Orders	<input type="checkbox"/>	Field Changes	<input type="checkbox"/>
Test Results	<input type="checkbox"/>	Explanation of work stoppages not due to weather	<input type="checkbox"/>
Other (explain)	<input type="checkbox"/>		

Field Changes ☐

Explanation of work stoppages not due to weather ☐

Other (explain)

ARTICLE V - SPECIAL CONDITIONS

ARTICLE V - SPECIAL CONDITIONS

Sections Included:

- 1.0 Use of Minority, Women's, & Small Business Enterprises**
- 2.0 Erosion & Sediment Control**
- 3.0 Debarment and Suspension Requirements**
- 4.0 Certification Regarding Lobbying**

ARTICLE V - SPECIAL CONDITIONS

1.0 USE OF MINORITY, WOMEN'S, & SMALL BUSINESS ENTERPRISES

- 1.1** Should the Contractor intend to sublet a portion of the work on this project, it shall seek out and consider minority, women's, and small business enterprises as potential sub-contractors. The Contractor shall contact minority, women's, and small businesses to solicit their interest, capability, and prices, and shall retain proper documentation to substantiate such contacts.
- 1.2** The Contractor will sign and provide the enclosed Minority, Women's and Small Business Affirmative Action Certification to DEP along with the name(s) of any subcontractor(s) it submits for approval.

**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
CONSTRUCTION CONTRACTOR'S
MINORITY, WOMEN'S AND SMALL BUSINESS
AFFIRMATIVE ACTION CERTIFICATION**

We, _____, the undersigned, Construction Contractor on the Abandoned Mine Lands & Reclamation construction contract herein, intending to sub-contract a part of our contract work under Requisition No. _____, hereby certify as follows:

- 1) We will include qualified small, minority and women's businesses on solicitation lists;
- 2) We will assure that small, minority and women's businesses are solicited whenever they are potential sources;
- 3) We will, when economically feasible, divide total requirements into smaller tasks or quantities so as to permit maximum small, minority and women's business participation.
- 4) Where our requirements permit, we will establish delivery schedules which will encourage participation by small, minority and women's businesses.
- 5) We will utilize the services and assistance of the Small Business Administration, the Office of Minority Business Enterprise of the Department of Commerce and the Community Services Administration as required.

We understand that we may obtain the information required under the foregoing provisions from the Governor's Office of Community & Industrial Development's Small Business Development Center, 1115 Virginia Street, East, Charleston, West Virginia 25301, Phone 304/348-2960.

- 6) We will submit this certification to the Construction Supervisor when we submit proposed subcontractors for approval.
- 7) We agree that all documentation relative to affirmative action taken by us to seek out and consider the use of minority, women's and small business enterprises as subcontractors shall be made available for inspection by representatives of the West Virginia Department of Environmental Protection and the U.S. Office of Surface Mining Reclamation and Enforcement;
- 8) This certification is an integral part of our proposal for the construction contract.

Signed this _____ day of _____, 20__ .

Signature of Authorized Representative

Title

ARTICLE V - SPECIAL CONDITIONS

2.0 EROSION & SEDIMENT CONTROL

The manual entitled "West Virginia Department of Natural Resources Technical Handbook of Standards and Specifications for Erosion and Sediment Control", 1981, is incorporated herein by reference as a guide for erosion and sediment control, except that where any provision of said manual is in conflict with any special erosion and sediment control provision set out and contained in this specification book and/or in the plans for this project, the specification book and/or plans shall prevail and be followed.

**ASSURANCE REQUIREMENT REGARDING EQUAL EMPLOYMENT OPPORTUNITY
FOR VENDORS, SUPPLIERS AND CONTRACTORS ENGAGED IN
COMMERCIAL TRANSACTIONS WITH
THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

We, _____, the undersigned, desiring to avail ourselves of the benefits of engaging in commercial transactions with the West Virginia Department of Environmental Protection, hereby agree that:

- 1) All employment and personnel practices under this contract, Requisition No. _____, will be conducted without regard to race, sex, religion or national origin;
- 2) We will include in all recruitment advertisements the following wording:
"An Equal Opportunity Employer"; and
- 3) We will provide the Director of the Abandoned Mine Lands and Reclamation Division or his/her authorized representative, upon request, documentation that will enable him/her to judge the extent of our compliance with the requirements of Governor's Executive Order No. 4-65, of December 15, 1965.

Signed this ____ day of _____, 20__.

Signature of Authorized Representative

Title

ARTICLE V - SPECIAL CONDITIONS

3.0 GOVERNMENT-WIDE DEBARMENT & SUSPENSION REQUIREMENTS

U. S. Department of the Interior

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion

Lower Tier Covered Transactions

- 1.** By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.
- 2.** The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- 3.** The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- 4.** The terms "covered transaction," "debarred", "suspended", "ineligible", "lower tier covered transaction", "participant", "person", "primary covered transaction", "principal", "proposal", and "voluntarily excluded", as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- 5.** The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction originated.
- 6.** The prospective lower tier participant further agrees by submitting this proposal, that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- 7.** A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Non procurement List (Tel.#).
- 8.** Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- 9.** Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

U. S. Department of the Interior
Certification Regarding
Debarment, Suspension, Ineligibility and
Voluntary Exclusion
Lower Tier Covered Transactions

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 43 CFR Part 12, Section 12.510, Participants' responsibilities. The regulations were published as Part VII of the May 26, 1988 Federal Register (pages 19160-19211). For assistance in obtaining a copy of the regulations, contact the U.S. Department of the Interior, Acquisition and Assistance Division, Office of Acquisition and Property Management, 18th and C Streets, N.W., Washington D.C. 20240.

(1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Name and Title of Authorized Representative

Signature

Date

ARTICLE V - SPECIAL CONDITIONS
Instructions for Certification Regarding Lobbying

- 1. This certification and a disclosure form should be filed by each person as required, with each submission that initiates agency consideration of such person for: (1) award of a Federal contract, grant, or cooperative agreement exceeding \$100,000 or (2) an award of a Federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding \$150,000.**
- 2. This certification and a disclosure form should be filed by each person as required, upon receipt by such person of (1) a Federal contract, grant, or cooperative agreement exceeding \$100,000, or (2) a Federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding \$150,000, unless such person previously filed a certification, and a disclosure form, if required, at the time agency consideration was initiated.**
- 3. Any person who requests or receives from a person referred to in paragraphs (1) and (2) above: (1) a subcontract exceeding \$100,000 at any tier under a Federal contract; (2) a subgrant, contract, or subcontract exceeding \$100,000 at any tier under a Federal grant; (3) a contract or subcontract exceeding \$100,000 at any tier under a Federal loan exceeding \$150,000; or (4) a contract or subcontract exceeding \$100,000 at any tier under a Federal cooperative agreement, shall file a certification, and a disclosure form, as required, to the next tier above.**
- 4. All disclosure forms, but not certifications, shall be forwarded from tier to tier until received by the person referred to in paragraphs(1) or (2) above. That person shall forward all disclosure forms to the appropriate Bureau/Office within the Department of the Interior.**
- 5. Any certification or disclosure form filed under paragraph (4) above shall be treated as a material representation of fact upon which all receiving tiers shall rely. All liability arising from an erroneous representation shall be borne solely by the tier filing that representation and shall not be shared by any tier to which the erroneous representation is forwarded. Submitting an erroneous certification or disclosure constitutes a failure to file the required certification or disclosure, respectively. If a person fails to file a required certification or disclosure, the United States may pursue all available remedies, including those authorized by Section 1352, title 31, U.S. Code.**

**U. S. Department of the Interior
CERTIFICATION REGARDING LOBBYING**

This certification is required by Section 1352, title 31, U. S. Code, entitled "Limitation on use of appropriated funds to influence certain Federal contracting and financial transactions."

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.**
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions. To obtain a Standard Form LLL, contact DEP or the U.S. Office of Surface Mining, 603 Morris Street, Charleston, WV 25301, phone number 347-7158.**
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.**

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Signature _____ Date _____

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352

Approved by OMB

0348-0046

(See reverse for public burden disclosure.)

1. Type of Federal Action: <input type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance		2. Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award		3. Report Type: <input type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change For Material Change Only: year _____ quarter _____ date of last report _____	
4. Name and Address of Reporting Entity: <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known: Congressional District, if known: ^{4c}			5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime: Congressional District, if known:		
6. Federal Department/Agency:			7. Federal Program Name/Description: CFDA Number, if applicable: _____		
8. Federal Action Number, if known:			9. Award Amount, if known: \$		
10. a. Name and Address of Lobbying Registrant (if individual, last name, first name, MI):			b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI):		
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.			Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date: _____		
Federal Use Only:					Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.

(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
11. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503.

WAGE AND HOUR INFORMATION

PREVAILING WAGE RATES

can be obtained by contacting:

**WV Division of Labor
Capitol Complex
Bldg. 6, Room 749B
Charleston, WV 25305**

Phone: (304) 558-7890

Website: www.sos.wv.gov

CONSTRUCTION SPECIFICATIONS

**TECHNICAL SPECIFICATIONS
CONLEY BRANCH (WHITT)
LANDSLIDE
LOGAN COUNTY, WV**

Prepared for:



**West Virginia Department of Environmental Protection
Division of Land Restoration
Office of Abandoned Mine Lands and Reclamation
Charleston, West Virginia**

Prepared by:



TERRADON Corporation

**PO Box 519
Nitro, West Virginia 25143
(304) 755-8291**



William J. Saunders
10/22/14

October 22, 2014

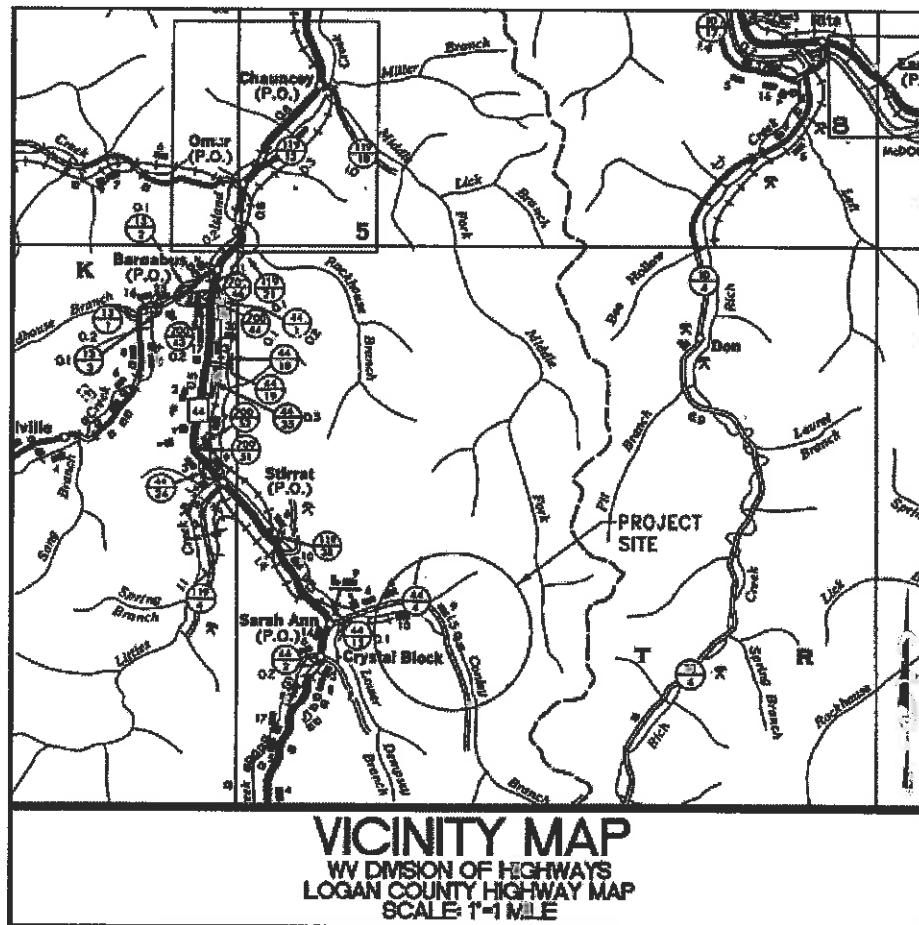
CONLEY BRANCH (WHITT) LANDSLIDE

SPECIAL PROVISIONS

I. LOCATION / SITE DESCRIPTION

The site is located in Logan County, West Virginia, near the Town of Sarah Ann.

Directions to Site: From Charleston take U.S. 119 (Corridor G) South to Logan Exit. Follow Rt. 73 to intersection of Rt. 10. Travel straight through intersection and travel South on WV Route 44 for approximately 11.8 miles to Sarah Ann. In Sarah Ann, turn left onto Crystal Block Road (County Route 44/4) then veer left onto Royal Oaks Lane for 0.9 miles. The portal is located on the hillside above brown trailer with red shutters on the left.



II. REFERENCE SPECIFICATIONS / DEFINITIONS

All references to "Owner" in these Specifications shall mean West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands and Reclamation (WVDEP).

All reference to "Engineer" in these Specifications shall mean the Owner's Engineer or authorized representative.

All reference to "ASTM" shall mean the American Society of Testing and Material Specifications, Latest Edition unless otherwise noted.

All reference to "AASHTO Specifications" shall mean the Standard Specifications for Transportation Materials and Methods of Sampling and Testing by the American Association of State Highway and Transportation Officials, latest edition, and all subsequent addenda thereto.

All reference to "WVDOT Standard Specifications" shall mean State of West Virginia Department of Transportation, Division of Highways Standard Specifications for Roads and Bridges, adopted 2000, and all-subsequent addenda thereto.

All references to the "Contractor" shall be understood to mean the successful bidder and or firm or corporation undertaking the execution of the work under the terms of these Specifications.

All reference to "OSHA" shall be understood to mean The Occupational Safety and Health Administration and the standards set in the Occupational Safety and Health Act of 1970.

All reference to "refuse" and/or "mine spoil" shall be understood to mean all coal refuse, shale, sandstone and other rock fragments that were generated and disposed of as such within the project area during mining and processing of coal.

All reference to "AMD" shall be understood to mean all acid mine drainage discharges from the project site.

All reference to "OSM" shall be understood to mean the Office of Surface Mining.

All reference to "NEPA" shall be understood to mean the National Environmental Protection Act.

All reference to "OSMRE" shall be understood to mean the Office of Surface Mining Reclamation and Enforcement.

III. SCOPE OF WORK

The work covered by the Special Provisions and Technical Specifications consists of furnishing all labor, plant, power, equipment and supplies, and performing all operations necessary for the completion of the project. The Contractor shall perform all operations necessary for:

- Mobilization and demobilization of necessary and sufficient sized equipment to the project area to complete the project within state timeframes;
- Survey and construction layout of grading, facilities, constructions, and appurtenances shown on the plans;
- Site preparation including clearing and grubbing at the site, and removal or burning of existing structures, debris, trash, tree roots, and associated materials;
- Construction and installation of support areas, and maintenance of access roads to the sites, including the repair and replacement of gravel roads and replacement of existing culverts as specified, coordination of work activities with local residents and complying with WVDOH rules and regulations for hauling construction equipment, construction supplies, and travel on C.R. 44/4 as well as other existing site access roads utilized by the Contractor;
- Construction and installation of drainage control items including channels, pipes, and riprap pads;
- Construction and installation of wet and dry mine seals with bat gates;
- Regrading of the portal sites to the lines and grades as shown on the Plans;
- Regrading of the mixed refuse sites and ponding areas, and capping with 12 inches of soil as shown on the Plans;
- Resurfacing access road;
- Sediment and erosion control in compliance with the approved NPDES permit;
- Revegetation of disturbed areas.

The Contractor shall also be responsible for surveying, including establishing construction baseline, measuring and developing all completed quantities on the job, and for ordering, purchase and delivery of any and all materials required for construction or required for development of support areas. The Contractor shall perform all other operations as incidental to the program as specified herein.

IV. BIDDERS TO EXAMINE LOCATION

Prospective bidders are required to examine the locations of the proposed work and to determine, each in their own way, the difficulties which may be encountered in the prosecution of the same. The submission of a bid shall be prima facie evidence that such examination and determinations have been made by the Bidder. No claims for additional compensation will be considered by the Owner based on obstruction or conditions at the location of the work, which may add to the difficulties or costs of construction, even though such obstructions or conditions are not shown on the contract plans or indicated in the other construction documents. Prospective bidders are advised that should they deem it necessary to obtain any subsurface samples of test borings etc. at the site, they should

obtain their own permission from the landowners.

V. SCHEDULE OF WORK

Before commencing work on this project, the Contractor shall prepare and submit a schedule of construction activities for approval by the Owner.

The Contractor shall provide adequate supervision, labor, tools, equipment, and materials to prosecute the work energetically and complete the work within the time specified.

It is the intention not to delay the work for the checking of lines or grades, but if necessary, working operations shall be suspended for such reasonable time as the Engineer may require for the purpose. No special compensation shall be paid for the cost to the Contractor for any of the work or delay occasioned by checking lines and grades, by making other necessary measurements, or by inspection.

The Contractor's work hours shall be limited to between 7:00 a.m. and 7:00 p.m. Monday through Saturday. Work on Sunday and major holidays, as defined by the Engineer, will not be allowed on this project.

VI. MEASUREMENT OF QUANTITIES

The Contractor shall be responsible for providing all necessary volumetric, dimension, and weight measurement equipment necessary to prosecute the work as shown on the Construction Drawings and to accurately determine quantities for payment of Contract Bid Items as approved by the Engineer. Such measurements and equipment shall be subject to the approval of the Engineer for use in this project.

VII. BORROW (DISPOSAL) AREAS

All borrow (disposal) areas must be approved by WVDEP. Should the Contractor decide to obtain and utilize any borrow areas outside of the construction limits, or move material from one property owner to another unless designated, the Contractor shall be responsible to obtain from the property owner(s) of the borrow areas, all necessary rights of entry, including rights of entry for WVDEP and OSMRE for inspection purposes. The said rights of entry agreement must state that the property owner(s) indemnify and hold harmless the WVDEP for Contractor's action for any injury or damages whatsoever resulting from the use of the property.

The Contractor shall also submit a borrow area reclamation plan for prior approval by the WVDEP. The Contractor shall observe the following NEPA compliance schedule relative to selecting and utilizing any off site borrow areas and or any waste disposal areas:

- a. No borrow (disposal) site operations will affect a site listed in, eligible or

proposed to be listed in the National Register of Historic Places.

- b. No borrow (disposal) operations will be located within one-quarter mile of any Federally listed established or prospective component of the National Wild and Scenic River System under 16 USC 1274 and 1276.
- c. Borrow (disposal) site operations will not cause a significant encroachment within the base floodplain (CE.O. 11988: Floodplain Management).
- d. Borrow (disposal) site operations will not be located in or affect a critical habitat of a Federally listed endangered or threatened species under 16 USC 1531, et. seq.
- e. No borrow (disposal) operations will occur in wetland areas which are designated by appropriate agencies.
- f. Borrow (disposal) site operations will be consistent with any approved plans governing ambient air quality.
- g. Adherence to these mitigation measures does not relieve the Contractor of the obligation or responsibility to obtain any other Federal, State, or local approvals required to use borrow (disposal) areas and conduct such activities.
- h. Documentation: Copies of borrow (disposal) site approvals and concurrences will be submitted to the WVDEP prior to the commencement of reclamation activities.
- i. Site Monitoring: Borrow (disposal) activities will be monitored by the State to ensure compliance with contractual requirements, applicable Federal, State, and local laws, and any permit conditions.

VIII. DISPOSAL OF UNSUITABLE MATERIAL

All waste areas shall be obtained in accordance with Special Provisions Section VII. of these specifications. All unsuitable materials (wood, trash, debris, and garbage) as determined by the Engineer shall be wasted by the Contractor, at his/her expense, outside the limits of work conforming to the requirements of Sections 4.2.8 of these Specifications. Wood may be burned in conformity with Sections 4.2.7 of these Specifications.

The Contractor shall observe the NEPA compliance schedule relative to selecting and utilizing any off-site disposal areas in accordance with Special Provisions Section VII of these Specifications.

IX. INTERPRETATION OF APPROXIMATE ESTIMATE OF QUANTITIES

The estimate of quantities of work to be done and/or materials to be furnished under the Special Provisions and Technical Specifications, as shown on the Contract Bid Schedule, is approximate and is given only as a basis of calculation upon which the award of the Contract is to be made. WVDEP reserves the right to increase or decrease any or all of the quantities of work or to omit any of them, as it may deem necessary.

X. SAFETY

All regulations of the Occupational Safety and Health Act of 1970 (OSHA) are in effect for this Contract. WVDEP shall not be liable for any citations received by the Contractor as a result of failure to comply with applicable OSHA standards. Compensation is to be included in the various items of the Contract for the expense involved in complying with these standards. In addition, the Contractor shall comply with Section 107.7 of the WVDOH Standard Specifications regarding public convenience and safety.

XI. REGULATIONS

All appropriate Township, County, State, and Federal Regulations shall apply to this Contract. It shall be the Contractor's sole responsibility to be aware of these regulations and to comply with them. The WVDEP shall not be liable for any citations received by the Contractor. The Contractor shall keep the existing roads open and safe to public vehicular traffic at all times and shall provide appropriate barriers and warning devices as directed by the Engineer.

XII. LAWS TO BE OBSERVED

The Contractor shall at all times, observe, comply with, and post as required all Federal, State, and local laws, ordinances, and regulations in any manner affecting the conduct of the work or applying to employees on the project as well as all orders or decrees which have been or may be promulgated or enacted by any legal bodies or tribunals having authority or jurisdiction over the work, materials, employees, or Contract. The Contractor shall protect and indemnify WVDEP and its representatives against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree whether by the Contractor or by the Contractor's employees.

XIII. PERMITS, LICENSES AND FEES

The WVDEP shall provide the following permits for this project:

1. NPDES Stormwater permit from the Division of Water and Waste Management

2. WVDOH Encroachment permit (MM109)
3. Water Quality Certification from the Division of Water and Waste Management
4. ACOE Regional permit

The Contractor shall procure all other permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work. Permits required for this project may include but are not limited to:

1. Stream Activity permit from the WV Division of Natural Resources
2. Burning Permits from the WV Division of Forestry and WVDEP, Division of Air Quality

A copy of the permits as procured shall be furnished to the Owner prior to initiation of the work under this Contract.

XIV. ELECTRICITY, WATER SUPPLY AND SANITARY FACILITIES

There are no available supplies at the site of electricity and water and, additionally, there are no sanitary facilities. Arrangements for electric service, water supply and sanitary facilities shall be made by the Contractor, and all costs for such arrangements shall be borne by the Contractor at no additional cost to the WVDEP.

XV. UTILITIES AND OTHER OBSTRUCTIONS

The Contractor shall be solely responsible to correctly locate all existing active underground and overhead utilities at the project sites and take precautions to avoid damage to them. Any existing utility lines damaged by the Contractor shall be replaced by the Contractor or repaired at no cost to the Owner. The Contractor shall notify the utility companies likely to be affected well in advance and before beginning any work within the project sites. In the event of damage to the existing utilities or other facilities, the Contractor shall notify the affected utility Owner(s) and the Engineer immediately and make, or have made, all necessary repairs and bear the expense thereof and resulting damaged caused thereby. It shall be the responsibility of the Contractor to arrange for relocating the utility lines, where required and as directed by the Engineer, in accordance with the guidelines set forth by the utility company, prior to beginning construction. The Contractor will be reimbursed for actual charges invoiced by the Utility Company. The utility companies (and Miss Utility of West Virginia (MUWV)) must be contacted by the Contractor at least one week prior to commencement of construction activities for the purpose of field locating and marking utility owned facilities within the project area.

The name and phone number of the MUWV Utility location service is 1-800-245-4848. The names and phone numbers of the utility companies that serve the project area are included in the Plans.

XVI. SITE CLEANUP

Before the project shall be considered as having been satisfactorily completed, the Contractor shall clean and remove, from the project site, all surplus and discarded materials, and equipment and shall further remove all debris and objectionable materials of any kind from areas used or disturbed by the construction operations within or within sight of the project area.

XVII. ROCK BLASTING

It is anticipated that blasting will not be required on this project, but if necessary, all blasting will be conducted in strict accordance with applicable State and Federal laws relating to rock blasting and the storage and use of explosives. The contractor shall maintain and keep in full force and effect blasting insurance to protect and indemnify the Owner and/or his agents or representative from claims for damages and shall defend all suits at law. The Contractor shall submit to the Owner a request for permission to blast rock, a reclamation plan for the area to be disturbed, and proof of blasting insurance coverage prior to initiating blasting operations. Failure to obtain approval for blasting prior to initiating the work will result in no payment for items utilizing this rock. No pre-splitting will be allowed.

XVIII. TEMPORARY ACCESS ROADS

The Contractor shall construct and maintain temporary access roads for convenient access to the various parts of the work, and for other necessary purposes incidental to the performance of this Contract. The location of access roads shall be approved by the Engineer prior to construction. No separate payment for construction and maintenance of such roads will be made. The Contractor shall erect such temporary fences or guards as may be necessary to keep unauthorized persons away from the work. Grading and surfacing of temporary access roads, excavations, fills and embankments for purposes of construction, or for convenience, beyond the limits of ordered excavations and all temporary fences and guards, shall be provided by the Contractor and shall be maintained in good condition. The Contractor shall be required to maintain all roads used by his hauling equipment in a dust-controlled condition. Upon completion, the Contractor shall return the disturbed areas to the approximate original condition as approved by the Engineer.

The contractor shall be required to obtain a right of entry agreement from any property owner(s) prior to the utilization or construction of any access outside of the construction limits shown on the plans. Such agreement shall require the property owner(s) to indemnify and hold WVDEP harmless from any and all injuries or damages, whatsoever, resulting from the Contractor's use of the property.

XIX. TRAFFIC CONTROL

The Contractor shall maintain and protect traffic, protect the work in progress, protect adjacent property from excess dust resulting from the construction and maintain traffic through, around, or adjacent to the construction area. All materials used for traffic control shall be in accordance with the current WVDOH manual: "Traffic Control for Streets and Highway Construction and Maintenance Operations." A copy of the operational plan accepted by the WVDOH shall be submitted to the WVDEP for approval prior to its implementation. All traffic control required during the work shall be considered incidental to the project. Contractor shall follow any traffic control notes located on the Construction Plans. Contractor shall use case A10B from the "Manual on Temporary Traffic Control for Streets and Highways", 2006 Edition.

XX. SITE CONDITIONS AND ENVIRONMENTAL PROTECTION

Conditions at the site shall be examined by the Contractor, and the Contractor shall assume responsibility as to the contours and the character of the earth, rock, water and other items that may be encountered during the excavation and filling operations.

The Contractor shall be responsible for controlling and handling water encountered during construction, including dewatering of mine pools for mine seal installations, by providing equipment and labor to insure safe and proper construction. The Contractor shall submit a plan to the WVDEP at the pre-construction meeting for approval. The WVDEP's approval of this plan does not relieve the Contractor of his responsibility for controlling water.

The Contractor shall be responsible for the operation and maintenance of any required diversion or pumping facilities for removing ground water from work areas during the progress of the work under this Contract. The Contractor shall be responsible for furnishing all materials, equipment, labor and incidentals necessary for the installation of silt barriers and check dams as designated in the drawings. Sediment control shall be placed on regraded areas concurrent with construction and prior to revegetation.

The Contractor shall be responsible for implementing the measures called for in the NPDES Stormwater permit provided by the WVDEP for erosion and sediment control. Sediment control measures shall be in-place and operational prior to any disturbance occurring in the project area. The WVDEP's approval of this plan does not relieve the Contractor of his responsibility to be in compliance with any laws and/or permits.

The Contractor shall take any necessary steps to prevent erosion or silting problems from occurring and to minimize pollution or sedimentation of the stream. The sequence of construction in the area of the stream bank stabilization shall be to first install all erosion and sediment control features shown in the plans, followed by excavation necessary to install the riprap bank protection. The contractor shall take all necessary measures to ensure excessive sedimentation into the stream is prevented. The erosion and sediment control features shall be adequately maintained to minimize disturbance to the streams. If

any such problems develop, the Contractor shall be responsible to take immediate corrective action.

The Contractor shall be responsible for the repair or replacement of streets or driveways (blacktop, gravel & concrete), trees, shrubs, fences, and any other physical features that are disturbed by construction which were not included in the proposed scope of work for the project to original condition or better at his own expense.

The Contractor shall be responsible for the replacement of any existing boundary or corner markers disturbed by construction activities.

XXI. CONTROL AND REVIEW OF WORK BY THE ENGINEER

All services rendered by the Engineer consist of professional opinions and recommendations made in accordance with generally accepted engineering practice. Under no circumstances is it the intent of the Engineer to directly control the physical activities of the Contractor or the Contractor's workmen's accomplishment of work on this project.

The presence of the Department's Field Representative and/or Engineer at the site is to provide the Department a continuing source of professional advice, opinions and recommendations based upon the Field Representative's and/or Engineer's observations of the Contractor's work and does not include any superintending, supervision or direction of the actual work of the Contractor or the Contractor's workmen.

Any construction review of the Contractor's performance conducted by the Engineer is not intended to include review of the adequacy of the Contractor's safety measures, in, or near the construction site.

XXII. CITATION OF OTHER SPECIFICATIONS

Whenever the Specifications for this Contract refer to the specifications of any society, institute, association or government organization, then such specifications cited shall become a part of this Contract as if written in full. Commonly used abbreviations have the following meanings:

- ASTM - American Society for Testing Materials
- ASA - American Standards Association
- AWWA - American Water Works Association
- AASHTO - American Association of State Highway and Transportation Officials
- ACI - American Concrete Institute
- WVDOT – West Virginia Department of Transportation
- WVDOH – West Virginia Division of Highways

Where reference is made to a specification, it shall be the latest revision at the time called for bids, except as noted on the Plans or elsewhere herein.

XXIII. NPDES STORMWATER PERMIT GUIDELINES

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 seventh 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 14 days from when activities ceased, (e.g., the total time period that construction activity is temporarily halted is less than 14 days) then stabilization measures do not have to be initiated on that portion of the site by the seventh day after construction activities have temporarily ceased.

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. Remove and dispose of existing structures, trash, debris and unsuitable materials per specifications.
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.

II. TECHNICAL SPECIFICATIONS

1.0 MOBILIZATION AND DEMOBILIZATION

1.1. Description

This work shall consist of the performance of construction preparatory operations, including the movement of personnel and equipment to the project sites and for the establishment of the Contractor's offices, buildings and other facilities including the construction of all temporary access roads as necessary to begin work on a substantial phase of the contract. The location of Contractor's office to be established shall be approved by WVDEP. It also shall include all demobilization activities involving the removal from the sites of all plant, equipment, supplies and personnel after completion of the work including cleanup of all rubbish and waste materials generated during the construction of this project; and restoration of any damage to existing site improvements resulting from the Contractor's activities at the site; and installation of the project sign; and a completed and approved set of as-built plans of the completed restoration work.

There are no equipment and material storage areas identified on the plans. It shall be the Contractor's responsibility to obtain approval for equipment and material storage areas located within the Construction Limits from the WVDEP and from the landowner for storage areas located outside of the Construction Limits.

1.2. Method of Measurement

The method of measurement will be per lump sum.

1.3. Basis of Payment

The bid for "Mobilization and Demobilization" shall be a lump sum and cannot be more than 10% of the TOTAL AMOUNT BID for the project. Partial payments will be as follows:

- a. One-half of the amount bid will be released to the Contractor with the first estimate payable, not less than 15 days after the start of work at the project site.
- b. The final one-half of the amount bid shall be released with the estimate payable after the work is accepted by the WVDEP and when all "As-Built" drawings are submitted and approved by the WVDEP.

Nothing herein shall be construed to limit or preclude partial payments otherwise provided for by the Contract. No deduction will be made nor will any increase be made, in the lump sum mobilization and demobilization item amount regardless of decreases or

increases in the final total contract amount or for any other cause.

1.4. Pay Item

Item 1.0 "Mobilization and Demobilization" per lump sum. Cannot be more than 10% of the TOTAL AMOUNT BID for the project.

2.0 CONSTRUCTION LAYOUT

2.1. Description

This item consists of furnishing, placing, and maintaining construction layout stakes necessary for the proper performance of the work under this contract including borrow areas. It shall further consist of determining the exact units of measure for payment. It also consists of checking and making any field adjustment to the plan alignment, grades and elevations as considered necessary by the Engineer. Additionally, this item shall also include the preparation of "As-Built" Plans including the Reclamation Plan and any others specifically requested by the Division of Environmental Protection. All of these "As-Built" Plans shall be provided prior to the Final Inspection Meeting. Upon receipt and approval of the "As-Built" Plans by WVDEP, the final one-half of the amount bid for Mobilization under Section 1 shall be released with the estimate payable.

2.2. Materials

Conventional survey stakes, hubs, batter boards, flagging, templates, straightedges and other devices necessary for laying out all parts of the work.

2.3. Construction Methods

2.3.1. The Contractor shall be responsible for the proper layout of the work. The Owner will provide the Contractor with survey information regarding the baselines and the existing surface features shown on the Construction Drawings. The Contractor shall make all calculations involved and shall furnish and place all layout stakes.

2.3.2. The Contractor shall provide field forces and shall set all additional stakes as needed, such as offset stakes, reference point stakes, slope stakes, grade stakes, stakes for drainage, or other structures, supplementary bench marks, and any other horizontal or vertical controls necessary to secure a correct layout of the work including the re-establishment of the survey and construction baselines (as necessary), as shown on the Construction Drawings. The Contractor shall also perform any necessary cross-section surveying of the existing ground surface at the intervals shown within the Construction Drawings, provide an overlay of the surveyed cross-sections on the cross-sections shown on the Construction Drawings, and submit the same to the Engineer for comparison prior to initiating earthwork. The original grade line and proposed final grade line shall be included on all sections. Incomplete cross-sections will be returned to the Contractor for necessary additions. Cross-sections, which do not encompass all areas of both earthwork excavation (including borrow excavation) and fill placement shall be considered incomplete without exception. The Contractor shall also include the

locations of baselines used showing cross section locations on a copy of the reclamation plan when submitting cross sections.

- 2.3.3.** The Contractor shall be responsible for assuring the layout staking work is in conformance to the lines, grades, elevations, dimensions, and locations shown on the Construction Drawings or as required by the Engineer. The Contractor shall furnish a copy of his/her survey records for checking by the Engineer and for the Owner's permanent file. These records shall be furnished as they are completed during the progress of the work.

Any inspection or checking of the Contractor's layout by the Engineer and the acceptance of all or any part of it shall not relieve the Contractor of his/her responsibility to secure the proper dimensions, grades, and elevations of the various parts of work.

- 2.3.4.** The Contractor shall exercise care in the preservation of stakes and benchmarks, including existing property line markers, and shall have them reset at his/her expense when any are damaged, lost, displaced or removed. The Contractor shall use competent personnel and suitable equipment for the layout work required and shall provide that it be done under the supervision of, or directed by, a Registered Professional Civil Engineer or Licensed Land Surveyor registered in the State of West Virginia.

2.4. Measurement and Payment

Measurement and payment for furnishing, setting, maintaining, and resetting the stakes when necessary, and for furnishing all engineering personnel, equipment, materials, and all incidentals thereto, shall be by the lump sum bid for "Construction Layout". The lump sum payment also shall include the cost for providing the Engineer pre-and post-construction ground line cross-sections for all disturbed or regraded areas including borrow areas and "As-Built" Plans as described herein. Said lump sum bid cannot be more than 5% of the TOTAL AMOUNT BID for the project. No deduction will be made, nor will any increase be made, in the lump sum "Construction Layout" item amount regardless of decreases or increases in the final total contract amount or for any other cause.

2.5. Pay Item

Item 2.0, "Construction Layout", per lump sum. Cannot be more than 5% of the TOTAL AMOUNT BID for the project.

3.0 **QUALITY CONTROL**

3.1. **Description**

This work shall consist of testing for verification that the materials supplied and the work performed are in accordance with these specifications.

3.1.1 **Fill and Compaction**

The Contractor shall be responsible to perform laboratory tests of the various fill materials (soils and rock) to identify the Standard Proctor Density. If, in the opinion of the Engineer, the Standard Proctor Density has changed, then a re-test may be required.

Unless otherwise specified, excavated material and soil is to be used on this project as fill. Fill shall be placed in maximum two (2) foot thick lifts and compacted to achieve a minimum of ninety percent (90%) of the laboratory maximum dry Proctor density as determined by ASTM D 698. Normally, material shall be placed between plus and minus three percent (3%) of optimum moisture content. The Engineer reserves the right to reduce lift thicknesses as conditions dictate in order to achieve satisfactory compaction or material placement. Frequency of density tests shall be required every lift or 5,000 cubic yards of material placed, whichever comes first, or as requested by the Engineer. **All tests shall be submitted to the Engineer for approval prior to compacting the fill and after fill compaction to verify that the compaction criterion is obtained.** Tests at the Contractor's cost shall be conducted by a testing firm approved by the Engineer. Large rock and fused coal refuse shall be disposed of onsite as approved by the Engineer.

No frozen material shall be placed as fill or shall fill be placed over frozen material. No fill shall be placed in standing water. Excessively wet material shall be allowed to dry prior to incorporating it as fill. Excessively wet material on the subgrade shall be bladed off and allowed to dry prior to using as fill or disposed of as unsuitable material as approved by the Engineer.

3.2. **Materials**

3.2.1 The Contractor shall submit a minimum of two (2) copies of shop drawings, catalog cuts and material certifications (as applicable) to the Engineer of all off-site materials to be incorporated into the work. Written approval from the Engineer will be required prior to incorporation of these items into the work.

3.2.2 The Contractor shall submit at least two (2) copies of the results of all tests conducted on in-situ material and concrete to be used in this project. As a minimum, these tests will include moisture content & density tests of the soil in accordance with the provisions of ASTM D698 (Standard Proctor), field density tests following compaction, soil tests to determine the lime and nutrient requirements of the areas to be revegetated, and for concrete in accordance with ASTM C31 & C39.

3.3. Construction Methods

- 3.3.1** The Contractor shall furnish the services of his own testing laboratory or select an independent testing laboratory, as long as the laboratory is under the direct supervision of a Registered Professional Civil Engineer. The laboratory must be approved by the Owner.
- 3.3.2** Testing for compaction, soil nutrient and lime requirements for soil; compressive strength tests for concrete and grout; shall be performed as required by these specifications and□/or ordered by the Engineer in writing. The Engineer will determine the locations and time of any testing herein specified and the need and extent of any testing in addition to that which is herein specified.
- 3.3.3** The contractor shall be responsible for performing laboratory tests of the coal refuse, mine spoil, and any natural soil to identify the compaction requirements for their use as fill and cover material, respectively. In addition, field density tests shall be performed in accordance with the Construction Specifications. All test results shall be submitted to the Engineer for approval of compaction criteria prior to compacting the fill and after fill compaction to verify that the required compaction is obtained.
- 3.3.4** Only new and first class materials, which conform to the requirements of these Specifications, shall be used unless specified otherwise. When requested by the Owner, the Contractor shall furnish a written statement of the origin, composition, and manufacturer of any or all materials (manufactured or produced) that are to be used in the work. The sources of supply of each material used shall be approved by the Engineer before delivery is started. If, at any time, sources previously approved fail to produce materials acceptable to the Owner, the Contractor shall furnish materials from other approved sources.

3.4. Method of Measurement

The method of measurement for determining the quantity of quality control work done as described above will be on a lump sum basis.

3.5. Basis of Payment

The quantity of quality control work done will be paid at the contract lump sum price bid for this item. Said lump sum bid cannot be more than 3% of the TOTAL AMOUNT BID for the project. No deduction will be made nor will any increase be made in the lump sum "Quality Control" item amount regardless of decreases or increases in the final total contract amount or for any other cause.

3.6. Pay Item

Item 3.0, "Quality Control", per lump sum. Cannot be more than 3% of the TOTAL AMOUNT BID for the project.

4.0 SITE PREPARATION

4.1 Description

4.1.1 Clearing & Grubbing

Work performed under this section shall include the removal and disposal of all trees, stumps, shrubs and any other vegetation, wood, debris, and garbage of any nature from those areas specified below and/or shown on the plans and/or any other areas as approved by the WVDEP. This work shall also include the preservation from damage to all vegetation, septic fields, utilities or other objects to remain.

4.1.2 Access Road Resurfacing

Access road resurfacing shall be constructed as shown on the plans. After the construction is completed, the Contractor shall resurface existing access roads per the detail shown in the Plans.

4.2 Materials

4.2.1 Crushed stone for the access road resurfacing shall be Class I stone per the detail shown in the Plans.

4.2.2 Crushed stone shall consist of particles of clean, hard, tough, durable rock, free from adherent coating and meeting the requirements of Section 704 of the WVDOT Standard Specifications for Roads and Bridges, Adopted 2010.

4.2.3 Geotextile shall be Amoco 4510 or equal.

4.3 Construction Methods

4.3.1 The specific areas to be cleared and grubbed are as shown on the Construction Plans and are generally described as, but not limited to, those specific areas of excavation, backfill, soil borrow or drainage structure installation.

4.3.2 The Contractor shall clear the site within the Limit of Disturbance for the areas to be disturbed. The WVDEP shall exercise control over clearing and shall designate all trees, plants and other objects to be removed or to remain.

4.3.3 Clearing and grubbing shall be completed prior to initiation of earthwork operations only to the extent necessary to complete the work. The Contractor shall confine his operations strictly to required areas. If the Contractor clears and grubs beyond the required areas, whether knowingly or accidentally, the Contractor shall, at their expense, replant and otherwise restore all areas outside the Limit of Construction to a condition equal to that existing prior to the start of

work.

- 4.3.4 All timber eight (8) inches in diameter and larger at stump height shall be saw cut prior to grubbing operations. Timber shall be topped with the branches removed and stacked and stockpiled on wide bench areas or locations approved by the WVDEP. Timber to be stockpiled shall not be pushed down by equipment prior to being cut nor can it be indiscriminately shoved into a stockpile.
- 4.3.5 All stumps, roots, buried logs and brush shall be removed. Grass, however, may be incorporated into the resoiling material. Taproots and other projections over 1-½ inches in diameter shall be grubbed out to a depth of at least ten (10) inches below the planned subgrade or slope elevation. All holes remaining after the grubbing operation shall have the sides broken down to flatten out the slopes, and shall be filled with suitable materials, moistened and properly compacted.
- 4.3.6 Cleared and grubbed areas shall be worked such that positive drainage is provided to prevent ponding of water except for the purpose of Temporary Sediment Traps as approved by the WVDEP.
- 4.3.7 All organic material shall be burned completely to ash or otherwise removed from the site and disposed of in a manner approved by the WVDEP. Burning of the combustible material will not be permitted on or near refuse, mine portals or within close proximity to coal seams or utilities. The Contractor shall obtain all permits and licenses required prior to burning the material. A plan showing the location of material to be burned and all fire control measures to be implemented, including copies of permits and licenses, shall be submitted to the WVDEP's representative at the site for approval.
- 4.3.8 All other materials generated from required clearing and grubbing operations shall be removed and disposed of by the Contractor. All garbage, construction debris, mining debris, etc., shall be disposed of in approved waste areas or landfills. It shall be the responsibility of the Contractor to obtain, at no expense to the WVDEP, all necessary waste and borrow areas or landfills for the disposal of waste materials in accordance with any applicable local, state, and/or federal regulations including compliance with NEPA requirements. All waste and borrow areas must be approved by the WVDEP, and the Contractor must provide a reclamation plan for approval. In addition, for all waste and borrow areas outside the Limit of Construction, the Contractor must obtain from the property owner a right-of-entry agreement in which the property owner indemnifies and holds the WVDEP harmless from any injury or damages whatsoever resulting from the use of the property.
- 4.3.9 It shall be the sole responsibility of the Contractor to correctly locate and avoid all underground, on-ground, and overhead utilities, facilities and other structures and constructions, and for that purpose, shall employ all necessary precautions and methods to insure avoidance of and damage to such constructions. In the event damage does occur, the Contractor shall notify the affected Owner and the WVDEP immediately and make or have made all necessary repairs and bear the expense thereof and resulting damage caused thereby. See "Special Provisions",

Section XV "Utilities and Other Obstructions", of these specifications for more information on utilities.

- 4.3.10 Buildings, mining related structures, existing ruins and foundation structures, shall be removed to one (1) foot below finished grade, which operation shall include removal of concrete slabs or any other type of floors and/or walls resting upon the ground. Basement floors shall be shattered. Pits, trenches, holes or basements shall be backfilled. Coal and/or refuse spillage, concrete, cinder blocks, and foundation ruins shall be excavated and/or removed and incorporated into an approved landfill, as approved by the Engineer, unless otherwise directed.
- 4.3.11 Trash, garbage, railroad ties, roofing shingles, tires, plastic, metal and other unsuitable material resulting from demolition shall be disposed of by the Contractor at his/her own responsibility and expense outside the work limits in an approved landfill, as approved by the Engineer, unless otherwise directed. Bricks and stone blocks shall be disposed of as per Section 4.3.10 of these specifications.
- 4.3.12 In the area where structures and buildings are demolished and removed, the removal operation shall extend to one (1) foot below finished grade. The area shall then be regraded as necessary to blend into adjacent finished grades. Regrading shall be such that all areas are free draining and surface runoff will not pool or impound as directed by the Engineer.
- 4.3.13 Should offsite disposal or borrow be necessary, the Contractor shall observe the NEPA Compliance Schedule.
- 4.3.14 Access Road Resurfacing shall be constructed at location (s) shown on the Plans. The width shall not be less than the full roadway width, with a minimum width of 10 feet. Geotextile fabric (Amoco 4510 or equal) shall be placed over the entire area prior to the placing of stone. The minimum stone thickness should not be less than 6 inches.
- 4.3.15 Existing site access roads shall provide safe, all-weather access to the site. These existing roads, including stoned roads, shall be maintained during construction and left in a better than or equal to condition. The Contractor is responsible for locating and avoiding all underground and overhead utilities and constructions during access road grading and maintenance.

4.4 **Method of Measurement**

- 4.3.1 There shall be no measurement of the "Site Preparation" item as it is a lump sum.
- 4.3.2 Measurement for Access Road Resurfacing shall be on a per ton basis.

4.5 **Basis of Payment**

Site Preparation shall be paid at the bid lump sum price. The amount shall not exceed 10% of the TOTAL AMOUNT BID for each bid. 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. Included in this item is Temporary Access Roads.

4.4.1 No deduction will be made, nor will any increase be made, in the lump sum "Site Preparation" amount regardless of decreases or increases in the final total contract amount or for any other cause.

4.4.2 Payment for Access Road Resurfacing shall be by the unit bid price per ton and shall include the furnishing of all labor, materials, tools, equipment, supplies, and incidentals necessary to complete the work.

4.6 Pay Items

Item 4.1, "Site Preparation", per lump sum. Cannot be more than 10% of the "Total Amount Bid" for the project.

Item 4.2, "Access Road Resurfacing", per ton.

5.0 EROSION AND SEDIMENT CONTROL

5.1 Description

This item shall consist of furnishing all materials, equipment, labor, and incidentals necessary for the installation of straw wattles, sediment control structures, temporary pipe around, triangular silt dikes, rock check dams, diversion berms, sediment traps, stabilized construction entrances, temporary stream crossings, and permanent erosion control matting, as designated in the Plans. Temporary pipe around shall be installed prior to any excavation activities, in locations shown on the Plans. In addition, sediment control shall be placed on regraded out-slope areas concurrent with construction and prior to revegetation. Additional quantities may be added at the discretion of the WVDEP.

The Contractor shall submit an erosion and sediment control plan to the WVDEP at the pre-construction meeting for approval if his/her plan differs from the Engineer's Construction Plans. This plan shall include measures to be utilized for temporary and permanent erosion and sediment control. This plan shall also include the measures as outlined herein. The WVDEP's approval of this plan does not relieve the Contractor of his/her responsibility to be in compliance with any and all permits. All costs associated with meeting the Federal and/or State Regulations shall be the sole responsibility of the Contractor.

5.2 Materials

5.2.1 Straw Wattles

The Straw Wattles shall consist of cylinders of recycled, compressed, 100% agricultural straw, and are wrapped in photodegradable black synthetic netting. Twelve (12) inch diameter wattles, 25-feet in length shall be utilized and shall be North American Green (NAG) WS1210, or approved equal.

The stakes shall consist of 1" x 1" stakes that are a minimum of 24 inches in length and made from suitable hardwoods. Stakes shall be spaced 4-feet maximum on each straw wattle. Other methods of anchoring may be used if specifically approved by the WVDEP.

5.2.2 Silt Fence

Silt fence shall be utilized on this project in locations as shown on the Plans. Silt fence is to be placed as shown on the detail. The posts shall consist of 48" long steel or 2" x 2" hardwood posts, spaced 10' maximum apart. The filter cloth shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of 6-month's construction life at temperatures ranging from 0 to 120 degrees Fahrenheit. The filter cloth shall be Filter X, Mirafi 100X, Linka T140N, Exxon GTF 180, or approved equal. The filter cloth shall be attached with wire ties or staples. The fence shall be 30" above ground and 4" buried below existing

ground.

5.2.3 Temporary Pipe Around

Temporary Pipe Around shall be utilized on this project in locations as shown on the Plans. Temporary Pipe Around is to be placed as shown on the detail.

5.2.4 Triangular Silt Dikes

Triangular Silt Dikes shall be utilized in channels at locations shown on the Plans. Triangular Silt Dikes shall be ACF Environmental TRISILTD7 or approved equal.

5.2.5 Temporary Sediment Traps

Temporary Sediment Traps shall be constructed as shown on the Plans. D_{max} of 9 inches aggregate riprap and filter fabric (AMOCO 4510, or equal) shall be used to construct the traps per the detail shown in the Plans.

5.2.6 Temporary Erosion Control Matting

Temporary Erosion Control Matting shall be placed in the grass lined waterway before vegetation is established. The matting shall be NAG SC150, or approved equal.

5.2.7 Permanent Erosion Control Matting

Matting shall be NAG SC250 or equal for use on the permanent erosion control matting for Type I channel, per the detail shown in the Plans.

5.2.8 Rock Check Dams

Rock Check Dams shall be constructed as shown on the plans per the detail. Rock Check Dams shall be wrapped in AMOCO 4510 geotextile fabric or equal as shown in the plans.

5.2.9 Stabilized Construction Entrance

Stabilized Construction Entrances are required as shown on the plans where traffic shall leave or enter the construction site onto a public road. The detail for the temporary stabilized construction entrance is shown in the Plans. The Stabilized Construction Entrance is to be removed after project completion, unless prior written approval is obtained from WVDEP for the Stabilized Construction Entrance to remain.

5.3 Maintenance

5.3.1 During the course of the project, sediment control structures shall be maintained in sound condition and accumulations of silt which may threaten their effectiveness shall be removed. Silt removed from the sediment control structures shall be taken to an approved disposal area.

5.3.2 The Contractor shall inspect the erosion and sediment control devices, including

diversion berms, silt fence, super silt fence and temporary sediment traps, at a minimum once every seven (7) calendar days and within 24 hours after any storm event resulting in precipitation greater than 0.5 inches in a 24-hour period. The Contractor shall check if stormwater has flowed as originally intended per the project's NPDES permit and that no water is by-passing these measures through the failure of a device or by flowing around and/or beneath the edges of the structure(s). The Contractor shall replace and repair erosion and sediment control devices as necessary to maintain the correct height and configuration.

- 5.3.3 Sediment deposits should be removed after each storm event. The Contractor must remove the deposits when deposits reach approximately one-half the height of the sediment control structure. If any section of a sediment control structure is compromised, by-passed, and/or knocked down during a rain event, then the Contractor shall install other sediment control measures such that the condition(s) will not reoccur.
- 5.3.4 The Contractor shall repair damaged silt fence resulting from end runs and undercutting.
- 5.3.5 Should the fabric on a silt fence decompose or become ineffective prior to the end of the project and the erosion control barrier is still necessary, the Contractor shall promptly replace the fabric.
- 5.3.6 Construction entrances shall be maintained in a condition that will prevent tracking or flowing of sediment onto public right-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures to trap sediment. The Contractor shall remove all sediment spilled, dropped, washed, or tracked onto public rights-of-way immediately. The Contractor should inspect the construction entrance daily and any necessary maintenance should be provided, but the Contractor must inspect the construction entrance at a minimum at an interval of every seven (7) calendar days and after every rain event in which precipitation greater than 0.5 inches falls within a 24 hour period.
- 5.3.7 Temporary Stream Crossings shall be maintained in a condition that will prevent tracking or flowing of sediment into the stream. This may require periodic repair and/or cleanout of any sediment. The Contractor should inspect the temporary stream crossings daily and any necessary maintenance should be provided, but the Contractor must inspect the temporary stream crossings at a minimum interval of every seven (7) calendar days and after every rain event in which precipitation greater than 0.5 inches falls within a 24 hour period.
- 5.3.8 Wheels on all vehicles shall be cleaned to remove sediment prior to the vehicles entrance onto public rights-of-way. If washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device. If the street is washed, precautions must be taken to prevent sediment laden/muddy water from running into waterways and/or storm sewers.

5.4 Installation

- 5.4.1** Straw Wattles shall be installed end to end at locations shown on the Plans, per the detail. Temporary Straw Wattles shall be set in a 3"-5" deep trench by 12" wide. Stakes shall be placed every 3 to 4 feet, driven thru the middle of the wattle, with 2"-3" of the top of the stake exposed.
- 5.4.2** Silt Fence shall be installed at locations shown on the Plans per the detail. Posts for the silt fence shall penetrate the ground a minimum of 14 inches into the ground.
- 5.4.3** Temporary Pipe Around shall be installed at locations shown on the Construction Plans per the detail.
- 5.4.4** Triangular Silt Dikes shall be installed at locations shown on the Plans per the detail. The silt dikes shall provide a minimum ditch depth of 1 foot and be installed at the specified spacing or a 50 foot maximum.
- 5.4.5** Temporary Sediment Traps shall be constructed at locations shown per the detail in the Plans.
- 5.4.6** The Temporary Erosion Control Matting shall be constructed in grass lined waterway as shown in the Plans.
- 5.4.7** The Permanent Erosion Control Matting shall be constructed for Type I Channels per the detail in the Plans.
- 5.4.8** Rock Check Dams shall be constructed at locations shown on the Plans per the detail. The riprap shall consist of a D_{max} of 18 inches, D_{50} of 12 inches, to a D_{min} of 6 inches diameter with no more than 15 percent by weight less than D_{min} .
- 5.4.9** Stabilized Construction Entrances shall be constructed at locations shown on the Plans. Stabilized Construction Entrance: Length is as required, but no less than 70 feet. The width shall not be less than the full width at points where ingress or egress occurs, with a minimum running width of 12 feet and a minimum curve radius of 10 feet at the entrance. Geotextile fabric shall be placed over the entire area prior to the placing of stone. The minimum stone thickness shall not be less than 6 inches. All surface water running, flowing or diverted toward construction entrances shall be piped across the entrance. If a culvert is impractical, a mountable berm with 5: 1 slopes shall be used.

5.5 Removal

Upon completion of the project including adequate stabilization, all temporary erosion and sediment controls shall be removed from the site, including but not limited to silt fencing, triangular silt dikes, diversion berms, rock check dams, temporary stream crossings, temporary pipe around, and stabilized construction entrances. The site should be left with a clean/neat appearance and any disturbed areas shall be revegetated.

Rock outlet protection for permanent drainage structures shall not be removed once the project is complete.

5.6 Method of Measurement

5.6.1 Temporary Straw Wattle

The method of measurement for Temporary Straw Wattle installation, maintenance, and removal in conformance with the specifications and accepted by the WVDEP shall be on a "one-time" basis per lineal foot basis to include wattles, stakes, all necessary materials, supplies, labor, and equipment for installation, maintenance, and removal including sediment removal and disposal.

5.6.2 Silt Fence

The method of measurement for Silt Fence installation, maintenance, and removal in conformance with the specifications and accepted by the WVDEP shall be on a "one-time" basis per lineal foot basis to include fabric, fencing, posts, stakes, ties or staples, trenching, backfilling, all other materials, labor, and equipment necessary for the installation, maintenance, and removal, including the periodic removal and disposal of accumulated sediment materials from these structures.

5.6.3 Temporary Pipe Around

The method of measurement for Temporary Pipe Around installation, maintenance, and removal in conformance with the specifications and accepted by the WVDEP shall be on a per foot basis include pipe, aggregate, geotextile, and all other materials, labor, and equipment necessary for the installation, maintenance, and removal.

5.6.4 Triangular Silt Dikes

Measurement for Triangular Silt Dikes shall be paid per each constructed, and shall include all necessary materials, supplies, labor, and equipment for installation and maintenance including removal at the end of the project.

5.6.5 Temporary Sediment Traps

Measurement for Temporary Sediment Traps shall be paid per each constructed, and shall include all necessary materials, supplies, labor, and equipment for installation and maintenance including removal at the end of the project.

5.6.6 Temporary Erosion Control Matting

Measurement for Temporary Erosion Control Matting shall be paid per square yard installed, and shall include all necessary materials, supplies, labor, and equipment for installation.

5.6.7 Permanent Erosion Control Matting

Measurement for Permanent Erosion Control Matting shall be incidental to Type I

Channel, and no additional compensation will be paid for this item.

5.6.8 Rock Check Dams

Measurement for Rock Check Dams shall be paid per each constructed, and shall include all necessary materials, supplies, labor, and equipment for installation and maintenance including removal at the end of the project.

5.6.9 Stabilized Construction Entrance

Measurement for Stabilized Construction Entrance shall be paid per each constructed, and shall include all necessary materials, supplies, labor, and equipment for installation and maintenance including removal at the end of the project.

5.6.10 All erosion and sediment control devices displaced, destroyed, or as may removed by the Contractor, by accumulated sediment or by flowing water shall be reinstalled in their original location and effectiveness at the expense of the Contractor. No measurement is required for these reinstalled components.

5.6.11 Any additional erosion and sediment control devices installed by the Contractor to comply with any applicable State and/or Federal regulations shall be the Contractor's sole responsibility and all costs pursuant thereto shall be borne in full by the Contractor. However, any additional erosion and/or sediment control devices approved by the Owner prior to placement shall be included for measurement once installed to the satisfaction of the Owner.

5.7 Basis of Payment

The quantity of work completed will be paid at the contract unit price bid for the following items, which price and payment shall be full compensation for all materials, labor, equipment and incidentals necessary to perform the work. Additionally, payments shall constitute full compensation for any required maintenance, sediment removal and disposal:

5.7.1 Straw Wattle

Straw Wattle installation, maintenance, and removal in conformance with the specifications and accepted by the WVDEP shall be on a "one-time" basis per lineal foot basis to include wattles, stakes, all necessary materials, supplies, labor, and equipment for installation, maintenance, and removal including sediment removal and disposal.

5.7.2 Silt Fence

Silt Fence shall be paid per a "one-time" basis per lineal foot basis to include fabric, fencing, posts, stakes, ties or staples, trenching, backfilling, all other materials, labor, and equipment necessary for the installation, maintenance, and removal, including the periodic removal and disposal of accumulated sediment materials from these structures.

5.7.3 Temporary Pipe Around

Temporary Pipe Around shall be paid per a lineal foot basis to include pipe, aggregate, geotextile, and all other materials, labor, and equipment necessary for the installation, maintenance, and removal.

5.7.4 Triangular Silt Dikes

Triangular Silt Dikes shall be paid per each dike installed as shown on the Construction Plans and detail, or where it may be deemed necessary per the Engineer. It shall include all necessary materials, supplies, labor, and equipment for installation and maintenance including sediment removal and disposal.

5.7.5 Temporary Sediment Traps

Temporary Sediment Traps shall be paid per each constructed, and shall include all necessary materials, supplies, labor, and equipment for installation and maintenance including sediment removal and disposal.

5.7.6 Temporary Erosion Control Matting

Temporary Erosion Control Matting shall be paid per square yard installed, and shall include all necessary materials, supplies, labor, and equipment for installation.

5.7.7 Permanent Erosion Control Matting

Permanent Erosion Control Matting shall be shall be incidental to Type I Channel, and no additional compensation will be paid for this item.

5.7.8 Rock Check Dams

Rock Check Dams shall be paid per each constructed, and shall include all necessary materials, supplies, labor, and equipment for installation and maintenance including removal at the end of the project.

5.7.9 Stabilized Construction Entrance

Stabilized Construction Entrance shall be paid per each and shall include the furnishing of all labor, materials, tools, equipment, supplies, and incidentals necessary to complete the work. The bid price will include the removal of the Stabilized Construction Entrance after project completion.

5.8 Pay Items

Item 5.1, "Straw Wattles", per linear foot.

Item 5.2, "Silt Fence", per linear foot.

Item 5.3, "Temporary Pipe Around", per linear foot.

Item 5.4, "Triangular Silt Dikes", per each.

Item 5.5, "Temporary Sediment Traps", per each.

Item 5.6, "Temporary Erosion Control Matting", per square yard.

Item 5.7, "Rock Check Dams", per each.

Item 5.8, "Stabilized Construction Entrance", per each.

6.0 REVEGETATION

6.1 Description

This work shall cover all operations incidental to the establishment of vegetation within the Limit of Construction as shown on the Construction Plans 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 Limit of Construction shall be disturbed without prior approval from the WVDEP in order to ensure that Right-of-Entry has been obtained.

The Contractor, at no expense to the WVDEP, shall revegetate any areas outside the Limit of Construction, disturbed by the Contractor.

6.2 Materials

6.2.1 Fertilizer

The commercial fertilizer to be used shall consist of 10-20-20 grade of uniform composition and be 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 shall be applied at a minimum rate of 1,000 lbs/acre. 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 hydro seeding mixture following seedbed preparation.

6.2.2 Limestone

The lime to be used will be an agricultural grade pulverized limestone containing a minimum of 10% $MgCO_3$ and not less than 75% total carbonates. Fineness will be such that no less than 75% will pass through a #100 sieve and 100% will pass through a #10 sieve.

Lime rate shall be formulated from soil test results. In the absence of soil testing, a rate of three (3) tons per acre will serve as a preferred minimum.

Lime shall be applied immediately to all areas requiring seeding reaching final grade by 1 of the 2 methods listed in Section 6.2.1, "Fertilizer".

6.2.3 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.

6.2.3.1 Temporary Seed Mixture

All stockpiles or other disturbed areas, including temporary access roads, which will require further disturbance in which the additional disturbance will be delayed for a period of seven (7) days or longer shall be vegetated according to the following guidelines.

Variety of Seed	SPRING	SUMMER	FALL	WINTER
	3/15-5/15	5/15-8/15	8/15-10/15	10/15-11/15
	-----lbs/acre-----			
Annual Ryegrass (<i>Lolium multiflorum</i>)	40		40	
German Millet * (<i>Setaria italica</i>)		40		
Cereal Rye (<i>Secale cereale</i>)				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 10-20-20. All areas reaching final grade to be temporarily seeded shall be fertilized according to Section 6.2.1. Lime shall be applied according to Section 6.2.2 and mulched according to Section 6.2.4

6.2.3.2 Lawn Seed Mixture

Existing lawn areas disturbed by construction shall be reseeded using the following mixture:

Rate <u>lb/1000 sq. ft.</u>	Seed <u>Variety</u>	Minimum Specifications	
		<u>0% Purity</u>	<u>%Total Germination</u>
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.

6.2.3.3 Permanent Seed Mixture

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 which reach final grade between May 15 - August 15 or October 15 - March 15 shall be seeded with the appropriate temporary seed mixture according to Section 6.2.3.1. 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 Engineer's approval.

Variety of Seed *	SPRING 3/15 - 5/15	FALL 8/15 - 10/15
	-----lbs/acre-----	
Orchardgrass (Dactylis glomerata)	30	30
Birdsfoot Trefoil (1) (Lotus corniculatus)	15	15
Red Clover (Trifolium pratense)	10	10
Annual Ryegrass (2) (Lolium multiflorum)	25	25
Rye Grain or Winter Wheat	35 0	0 90

(1) 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.

(2) Use Annual Ryegrass only in mixtures seeded after August 15 and before May 15.

*Use only certified "blue tag" seed. Seed-rate suggested is for pure live seed (PLS) in lbs/acre.

6.2.4 Mulch Material

Mulching procedures shall take place immediately following seeding. Mulch material shall consist of straw or wood cellulose fiber.

6.2.4.1 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. However, baled grass hay will not be allowed as mulch for seeding lawn areas.

6.2.4.2 Wood Cellulose Fiber

Wood cellulose fiber may be used only on slopes steeper than 2H:1V at a rate of 1,500 lbs/acre, and only with the approval of the WVDEP. 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. Wood cellulose shall only be used on areas that have been approved by WVDEP.

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.

6.2.4.3 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.

6.3 Construction Methods

- 6.3.1** All revegetation activities shall be conducted immediately following completion of final grading so as to utilize the fine soil material as a seedbed before this material is lost via subsequent rainfall.
- 6.3.2** 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 three (3) inches. Disking, 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. Lawn areas are to be hand raked. Rocks larger than six (6) inches in diameter in field areas or one (1) inch in diameter in lawn areas shall be removed and disposed of as approved by the WVDEP. Trash, weeds and other debris that will interfere with seeding or maintenance shall be removed and 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 the WVDEP.
- 6.3.3** Seedbed preparation and seeding shall take place progressively as various regraded areas are brought to final grade.
- 6.3.4** All seeding operations shall be performed immediately following seedbed preparation in such a manner that the seed is applied in the specified quantities uniformly on the designated areas.
- 6.3.5** Seed Application shall consist of approved hydroseeding methods where feasible. Any seed left in hydroseeder overnight shall be reinoculated before that seed shall be applied. Other methods of seed application may be utilized for site-specific reasons when approved by the WVDEP.
- 6.3.6** Any area failing to establish a vegetative stand due to weather or adverse soil conditions shall be reseeded, relimed, refertilized and remulched as approved by the WVDEP.
- 6.3.7** The Contractor shall maintain all seeded areas until final acceptance of the project. All areas shall be protected from any further equipment traffic and any damaged areas shall be repaired and reseeded. Maintaining seeded areas shall consist of watering, refilling, refertilizing, reliming, reseeding, and remulching erosion gullies and all bare areas.
- 6.3.8** A second and third seeding will be applied as needed, or as approved by the WVDEP.

6.3.8.1 Second Step Seeding

The second step seeding will take place during the first defined seeding period following the initial seeding. No payment shall be made for second step seeding, this work is part of the contract if completed before the final inspection or shall be considered warranty if completed after the final inspection. The following shall be used as a guide for second step application.

- a. For areas with less than a 50 percent stand or subject to severe erosion, apply the complete amount of seed, fertilizer, lime and mulch as specified.
- b. For areas with over 50 percent stand apply one half the original fertilizer, lime and seed. If erosion is a problem, apply one half of the original mulch specified in Section 6.2.4.

6.3.8.2 Third Step Seeding

The third step seeding shall consist of spot applications on areas not showing a satisfactory stand. The seeding shall take place at the next defined seeding period following the second step application. The quantity of material to be used shall be determined on the same basis as the second step application in Section 6.3.8.1.

6.4 Method of Measurement

The method of measurement for revegetation shall be per plan view acre.

6.5 Basis of Payment

- 6.5.1 Payment will be made at the Contract unit price bid for these items, which price and payment shall be full compensation for doing all the work herein described in a workmanlike and acceptable manner; including the furnishing of all labor, materials, tools, equipment, supplies and incidentals as necessary to complete the work. Payment for seeding includes all seeding (i.e. – temporary, first and second seeding). No additional payment will be made for second or third seeding.
- 6.5.2 Temporary seeding will be incidental to the seeding item and no separate measurement or payment will be made for temporary seeding. There will be no separate payment for maintaining seeded areas. No payment will be made for seeding after the final inspection. All work performed after the final inspection will be done under warranty.

6.6 Pay Items

Item 6.0 “Revegetation”, per plan view acre.

7.0 **DRAINAGE STRUCTURES**

7.1. **Description**

This work shall consist of furnishing all labor, equipment, and materials necessary to construct the drainage structures shown on the Plans. Drainage structures shown include, but are not limited to, channels, cisterns, culverts, and pipes. Permanent drainage items include drainage channels, riprap drive-throughs, riprap bank protection, and permanent stream crossings as approved by the Engineer.

7.2. **Materials**

7.2.1 Rock for riprap channels, protection, approaches, riprap drive-throughs and riprap headwalls shall consist of hard durable rock and shall have D_{50} size as shown on the Plans and details. The rock shall range in size from a D_{max} of 18 inches, D_{50} of 12 inches, to a D_{min} of 6 inches diameter with no more than 15 percent by weight less than D_{min} for each type where riprap is to be used. Section 7.3.2 contains information as to the type and size of riprap required for each channel.

Rock for riprap bank protection shall consist of hard durable rock and shall have D_{50} size as shown on the Plans and details. The rock shall range in size from a D_{max} of 24 inches, D_{50} of 18 inches, to a D_{min} of 12 inches diameter with no more than 15 percent by weight less than D_{min} where riprap bank protection is to be used.

The Contractor shall be aware that no provisions have been made to obtain rock on site. All rock riprap used throughout the project site shall meet the following requirements. The rock riprap shall have a maximum weighted loss of thirty percent when subjected to five (5) cycles of the Sodium Sulfate Soundness Test – ASTM C88 (ASTM C88-99a Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate), as modified by the American Association of State Highway and Transportation Officials (AASHTO) T-104.

7.2.2 Erosion Control Matting: Permanent Erosion Control Matting shall be NAG SC250 or equal.

7.2.3 HDPE Pipes: The HDPE pipes shall consist of corrugated, smooth wall interior high density polyethylene pipe, such as Hancor's Hi-Q pipe, or approved equal, in accordance with Section 714.19 of the WVDOT Standard Specifications Roads and Bridges, Adopted 2010.

7.2.4 Pipe bedding shall consist of fine aggregate meeting the requirements of Section 704.6 of the WVDOT Standard Specifications Roads and Bridges, Adopted 2010, except that the gradation shall meet the requirements of Section 702.6 of the WVDOT Standard Specifications Roads and Bridges, Adopted 2010.

7.2.5 The stone for the HDPE pipe bedding, trench backfilling, and Permanent Stream

Crossings shall consist of sound, durable AASHTO No. 57 non-calcareous crushed stone such as that commercially available. Crushed stone shall consist of particles of clean, hard, tough, durable rock, free from adherent coating and meeting the requirements of Section 703.1 of the WVDOT **Standard Specifications Roads and Bridges**, Adopted 2010. Stone shall have a maximum weighted loss of twelve percent when subjected to five (5) cycles of the Sodium Sulfate Soundness Test – ASTM C88 (ASTM C88-99a Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate), as modified by the American Association of State Highway and Transportation Officials (AASHTO) T-104. Non-calcareous stone shall exhibit a fizz of 0 when subjected to dilute hydrochloric acid. A laboratory certification of soundness and fizz shall be submitted to the WVDEP prior to delivery.

7.3. **Installation**

- 7.3.1 The Type 1 channel shall be a varying width bottom, Grass Lined channel, as detailed in the Plans. Before application of the Revegetation items, permanent erosion control matting shall be applied to each Grass Lined Channel, and it shall be NAG SC250 or equal type matting.
- 7.3.2 The Type 2 channel shall be a varying width flat bottom typical riprap channel, as detailed in the Plans. The rock shall range in size from a D_{\max} of 18 inches to a D_{\min} of 6 inches diameter, and D_{50} of 12 inches with no more than 15 percent by weight less than D_{\min} .
- 7.3.3 Riprap Drive-Throughs shall be a riprap stream crossing, as detailed in the Plans. The rock shall range in size from a D_{\max} of 18 inches to a D_{\min} of 6 inches diameter, and D_{50} of 12 inches with no more than 15 percent by weight less than D_{\min} .
- 7.3.4 Riprap Bank Protection: The riprap bank protection shall be undercut 36-inches to insure that the riprap surface is in accordance with the final grades shown on the Plans. The riprap bank protection shall be constructed using 3' of D_{\max} 24-inch riprap, with a D_{\min} of 12" and D_{50} of 18 inches in accordance with the detail in the Plans. The subgrade soil shall be compacted to 90% of Standard Proctor before placing riprap.
- 7.3.5 The ditches shall be constructed to the approximate line, grade, and templates as shown on the Plans or as directed by the WVDEP. Excess material from ditch and pipe trench excavation that is suitable for soil cover may be segregated, stockpiled, and utilized to support "Revegetation" operations. Otherwise, excess material from ditch and pipe trench excavation will be required to be disposed of by the Contractor in an off-site disposal area obtained by the Contractor in accordance with Section VIII of the Special Provisions for these specifications. Sections of ditches that are cut to rock shall not require rock riprap. However the side slopes shall be protected with linings as shown in the plans.

- 7.3.6** The HDPE pipes shall be installed at the location shown on the Plans. The trench for the pipes and underdrains shall be excavated in accordance with the detail provided in the Plans. Pipe bedding shall conform to the details. Fine aggregate shall be placed in the bottom of the trench to the dimensions indicated by the details for leveling purposes.
- 7.3.6.1** The trench width for the pipes shall not be less than the outside diameter of the pipe plus 18 inches on each side of the pipe measured to the face of the trench or to the sheeting when used, and shall be excavated to depth, line and grade, as shown on the Plans. Trenching will involve excavation of in-place material including soil. Trench bottom shall be thoroughly cleaned of any rock and debris prior to the placement of the pipe.
- 7.3.6.2** Trench excavation exceeding 5 feet in depth shall be supported with suitable shoring or sides of the excavation shall be cut to stable slopes as recommended in the OSHA Publication "Excavations", OSHA 2226 and approved by the Engineer to prevent caving, slipping or cracking of the sides to protect workmen from any injury. Any shoring installed shall be removed following backfilling of the trench.
- 7.3.6.3** Pipe bedding and trench backfilling for at least one foot above the top of the pipe shall be AASHTO No. 57 coarse aggregate. A low strength (500 PSI) flowable fill may be used in place of the AASHTO No. 57 stone bedding. The bedding shall be placed at the bottom of the trench and shall be properly shaped to receive the pipe providing a minimum of six (6) inches of bedding for the pipe. The trench shall be kept dry during installation of the pipe.
- 7.3.6.4** When the bedding is in place, the pipe shall be positioned in the trench, as shown on the Plans, and all joints (if any) sealed, as per manufacturer's recommendations.
- 7.3.6.5** After the pipe is placed, the trench shall be backfilled as shown on the Plans. The backfill material shall be placed in maximum six (6) inch lifts and shall be compacted using a tamper. The aggregate backfill shall extend to at least one (1) foot above the top of the pipe as shown on the Plans. The remainder of the trench may be backfilled with in place material provided it is not wet. Compaction of the backfill material shall be at least 95 percent of the maximum dry density obtained by ASTM Method D698 (STANDARD TEST METHODS FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING STANDARD EFFORT (12,400 FT-LBF/FT³ (600 KN-M/M³))). Field density testing and testing frequency shall be as directed by the WVDEP.
- 7.3.7** Permanent Stream Crossing shall be constructed at the location shown on the Plans and in accordance with the detail in the Plans. The width shall not be less than the full width of the roadway, with a minimum width of 12 feet. The riprap headwalls shown on the detail shall be installed on the inlet and outlet of the HDPE pipes. Rock for riprap headwalls shall consist of hard durable rock and

shall range in size from a D_{\max} of 18 inches, D_{50} of 12 inches, to a D_{\min} of 6 inches diameter with no more than 15 percent by weight less than D_{\min} .

7.4. Method of Measurement

- 7.4.1** The method of measurement for Type 1 Channel shall be on a per linear foot basis and shall include all equipment, labor, materials, and all other incidental items necessary to complete this item of work.
- 7.4.2** The method of measurement for Type 2 Channel shall be on a per linear foot basis and shall include all equipment, labor, materials, and all other incidental items necessary to complete this item of work.
- 7.4.3** The method of measurement for the riprap drive-throughs shall be on a per each basis. It shall include all equipment, labor, materials and all other incidental items necessary to complete this item of work as per design detail.
- 7.4.4** The method of measurement for the riprap bank protection shall be on a cubic yard basis and shall include all equipment, labor, materials, and all other incidental items necessary to complete this item of work.
- 7.4.5** The method of measurement for pipe shall be incidental to the permanent stream crossing, and no additional compensation will be paid for this item.
- 7.4.6** The method of measurement for the permanent stream crossing shall be on a per each basis and shall include all equipment, labor, materials, and all other incidental items necessary to complete this item of work as per the detail in the Plans.
- 7.4.7** The method of measurement for the riprap headwalls shall be incidental to the permanent stream crossing, and no additional compensation will be paid for this item.

7.5. Basis of Payment

The quantity of work completed will be paid at the contract unit price bid for the following items, which price and payment shall be full compensation for all materials, labor, equipment and incidentals necessary to perform the work. Additionally, payments shall constitute full compensation for any required maintenance, sediment removal and disposal:

- 7.5.1.** Type 1 Channel shall be paid on a per linear foot basis and shall include all equipment, labor, materials, and all other incidental items necessary to complete this item of work as per the detail in the Plans.
- 7.5.2.** Type 2 Channel shall be paid on a per linear foot basis and shall include all equipment, labor, materials, and all other incidental items necessary to complete

this item of work as per the detail in the Plans.

- 7.5.3.** Riprap Drive-Throughs shall be paid on a per each basis and shall include all equipment, labor, materials and all other incidental items necessary to complete this item of work as per the detail in the Plans.
- 7.5.4.** Riprap bank protection shall be on a cubic yard basis and shall include all equipment, labor, materials, and all other incidental items necessary to complete this item of work as per the detail in the Plans.
- 7.5.5.** The method of measurement for pipe shall be incidental to the permanent stream crossing, and no additional compensation will be paid for this item.
- 7.5.6.** Permanent stream crossing shall be on a per each basis and shall include all equipment, labor, materials, and all other incidental items necessary to complete this item of work as per the detail in the Plans.
- 7.5.7.** The method of measurement for the riprap headwalls shall be incidental to the permanent stream crossing, and no additional compensation will be paid for this item.

7.6. Pay Items

Item 7.1, "Type 1 Channel", per linear foot.

Item 7.2, "Type 2 Channel", per linear foot.

Item 7.3, "Riprap Drive-Through", per each.

Item 7.4, "Riprap Bank Protection", per cubic yard.

Item 7.5, "Permanent Stream Crossing", per lump sum.

8.0 UNCLASSIFIED EXCAVATION

8.1 Description

- 8.1.1** This work shall consist of excavating, transporting, stockpiling, placing and compacting refuse, soil, rock, or other materials encountered in the grading of the project area and any other indicated incidental work.
- 8.1.2** The work to be performed under this Section shall be in accordance with the Plans and as specified herein. The terms for earthwork used in the remainder of this Section shall imply excavating and regrading the refuse pile and muck. The intent of the project is to completely balance the earthwork associated with the regrading of refuse pile. (i.e., no material to be hauled off of the site). The Contractor, with approval of the Engineer, shall adjust the final grades as necessary to create a balanced project.
- 8.1.3** The Contractor shall not begin excavation on the regrading of refuse pile until pre-existing cross sections are approved by the Engineer. Surveyed cross sections are to be on the refuse piles and are to cover both cut and fill areas; payment will not be made without the fill areas shown.
- 8.1.4** The work under Unclassified Excavation shall include, but not necessarily be limited to, the following:
- a. Excavating the spoil/refuse.
 - b. Final grading, shaping, and contouring of the excavation areas and the fill areas.
- 8.1.5** The items excluded from unclassified excavation include, but are not necessarily limited to, the following:
- a. Excavation for erosion and sediment control – Payment for erosion and sedimentation control excavation is included in the item for sediment control (see Section 5.0, "Sediment Control").
 - b. Excavation for drainage channels – Payment for this excavation is incidental to each channel type.

8.2 Material

- 8.2.1** Fill material for embankments shall be considered a mixture of soil or rock or soil and rock commingled with coal refuse encountered during excavation operations. For the purpose of payment only, no distinction shall be made between soil, rock, refuse, or other material encountered, as all shall be deemed Unclassified Excavation.
- 8.2.2** Top soil encountered during clearing and grubbing operations or in excavation operations shall be stockpiled and used as a final cover at final grades.

- 8.2.3** The rock used for the Rock Blanket shall range in size from a D_{\max} of 9 inches to a D_{\min} of 3 inches diameter, and D_{50} of 6 inches with no more than 15 percent by weight less than D_{\min} .

8.3 Water Handling

- 8.3.1** The Contractor must provide a system for diverting water around the work area(s) to the proper down-gradient drainage systems. This shall improve working conditions, and decrease the potential sediment load carried by the water as a result of excavation in the area. The Contractor shall install any water handling systems that will maintain relatively dry excavation areas.
- 8.3.2** The Contractor shall submit a water handling plan for approval by the Engineer prior to the start of construction. The Contractor shall handle all surface and/or ground water so as not to damage adjacent property, pollute streams and/or waterways. The Contractor's plan for diversion of ground water and/or surface water during construction shall be subject to approval by the Engineer. The plan may be placed in operation upon approval. Nothing in this Section shall relieve the Contractor from full responsibility for the adequacy of the diversion and protective works.
- 8.3.3** Excavation areas shall be maintained so that they shall drain properly at all times. The Contractor shall construct and maintain any and all necessary channels, flumes, pipes, sumps and/or other temporary diversion and protective works; shall furnish all materials required, therefore; and shall furnish, install, maintain, and operate all necessary pumps and other equipment for removal of ground water and/or surface water from the work area. After having served their purpose, all of the above shall be removed from the work area. The water handling/diversions described above shall be considered incidental to the project.

8.4 Construction Methods

- 8.4.1** No embankment shall be placed on frozen material.
- 8.4.2** All areas to be excavated or filled shall be cleared and grubbed as specified in Section 4.2.3, "Clearing and Grubbing". In areas to receive fill such as the toe of a slope, the Engineer may require "proof rolling" by the Contractor to determine if unsuitable foundation soil materials exist. The Engineer shall be the judge as to what materials constitute unsuitable foundation material.
- 8.4.3** The Contractor shall excavate to the lines and grades shown on the Plans. The Contractor shall perform all excavation of every description and of whatever materials encountered to the depths indicated on the Plans. No additional compensation shall be considered for rock (or reddog clinkers) excavation, if encountered. Over-excavation and/or fill not shown on the Plans or specified herein shall be at the Contractor's expense, unless approved by the Engineer prior

to commencing such work. If unsuitable materials exist below the grades shown on the Plans, this material shall be removed and stockpiled with the prior approval of the Engineer and shall be paid per the unit price for "Unclassified Excavation" (Item 8.0). Unsuitable material shall be dried, if necessary, and blended into the proposed fill. Excavation operations shall be conducted so that material outside the construction limits shown on the Plans shall not be removed or loosened; material removed or loosened shall be restored to its original condition at the Contractor's expense. Bottoms of excavations shall be shaped to a smooth and uniform surface, free from bumps and depressions, and sloped as indicated.

- 8.4.4** The Contractor shall immediately inform the Engineer of any signs of instability of soil or rock slopes during the course of the reclamation program. Work shall be halted until a plan of action for construction of the work is agreed to by the Engineer.

8.5 Excavation

- 8.5.1** Excavation shall conform to WVDOH Section 207 and 212. All current Local, State (including WVDOH Section 107.7) and Federal regulations covering safety for excavation and for construction shall be followed as applicable specifically, or by similarity of operation, or as may be necessary for personal and property safety. The Contractor must provide any shoring, bracing, and roof support as necessary to properly protect workers in excavations.
- 8.5.2** Approval by the Engineer of the Contractor's procedures does not relieve the Contractor of responsibility for site safety. Excavation shall take place to the lines and grades shown on the Plans.
- 8.5.3** The Contractor shall remove the soft/wet muck material from the water impoundment areas that are to receive compacted fill as shown on the Plans, or as approved by the Engineer. Prior to excavating the muck, the area shall be dewatered as required in the Water Handling Section 8.3. The muck shall be excavated to a depth as detailed in the Plans, as approved by the Engineer, or to bedrock if encountered at a shallower depth. Muck excavated to a depth greater than approved by the Engineer will be at the Contractor's expense. The temporary cut slopes in the muck shall be no steeper than 1H:1V. Upon reaching a desired depth, a Rock Blanket of one (1) foot thick shall be placed. Muck that cannot be placed immediately into the fill shall be dried and stockpiled on site for later use.

8.6 Excavated Materials

- 8.6.1.** All suitable material which is excavated during construction shall be retained for later use as backfill and re-contouring the site. Unsuitable material shall be disposed within the limits of construction as approved by the Engineer.
- 8.6.2.** After substantial completion of grading operations, all suitable excess excavated material shall be used in regrading and recontouring the construction areas such that it shall not interfere with the drainage of the slopes indicated on the Plans and as approved by the Engineer.

8.7 Material Placement

- 8.7.1** Material placement shall conform to WVDOH Section 207 and 212.
- 8.7.2** Depositing and compacting fill in layers shall be started at the lowest point in the fill below grade, at the bottom of ravines and at the toe of the slope in side hills fills. Prior to fill placement, the existing foundation for the embankment will be proof-rolled and all unsuitable material, as determined by the WVDEP, will be removed.
- 8.7.3** Excavated material shall be placed in embankments in successive layers not to exceed one (1) foot in thickness before compaction. The layers shall be constructed approximately horizontal. Each layer, before starting the next, shall be leveled and smoothed by means of power driven graders, dozers, or other suitable equipment with adequate weight, capacity, and power to do the work. Layers shall be extended across the entire fill at the level of deposition unless otherwise authorized by the WVDEP. Each layer, before starting the next, shall be compacted. Fill materials to be used in any area of embankment shall be free from trash, debris, frozen soil, organic material or other foreign material.
- 8.7.4** Embankment fill and embankment subgrade materials shall be compacted to at least 90% of Standard Proctor maximum dry density at a moisture content of not less than 2% below or not greater than 3% above optimum. Testing shall be at a frequency approved by the WVDEP. One test per day during fill placement shall serve as a minimum.
- 8.7.5** Embankment fill material which does not contain sufficient moisture to be compacted to the requirements specified herein shall receive applications of water necessary for compaction. Water shall be applied with suitable sprinkling devices and shall be thoroughly incorporated into the material which is to be compacted. Embankment fill material which contains excess moisture shall be dried prior to compaction. Sufficient discing equipment shall be continuously available at the site and shall be used to add water or remove excess moisture from fill materials.
- 8.7.6** At the close of each day's work, or when work is to be stopped for a period of time, the entire surface of the compacted fill shall be sealed by a method approved by the WVDEP. If, after a prolonged rainfall, the top surface of the embankments

is too wet and plastic to work properly, the top material shall be removed to expose firm material. Ruts in the surface of any layer shall be suitably filled or eliminated by grading before compaction. The disturbed areas will be revegetated according to Section 6.0, "Revegetation."

8.8 Final Shaping and Contouring

Except at locations where excavation of unsuitable material is required, care shall be taken not to excavate beyond lines and grades specified on the Plans, Cross Sections and Profiles. Over-excavation shall be backfilled and compacted in accordance with the Specifications to the proper grade with suitable material at the expense of the Contractor, unless approved by the Engineer prior to commencing such work.

8.9 Method of Measurement

- 8.9.1.** The method of measurement for determining the quantity of excavation required for re-grading the refuse piles shall be on a cubic yard basis for excavated material that includes all soil, fly ash, coal, coal refuse, and black or dark gray shale and includes special handling, transporting, placing, spreading, and compacting material to the lines and grades as shown on the Plans. The excavation volumes shall be calculated using before and after surveyed cross sections of the excavation areas, and the average-end-area method. There will be no compensation for cut (excavation) beyond the lines and grades shown on the design cross sections on the Plans without prior approval from the Engineer.
- 8.9.2.** The muck excavation per the detail on the Plans shall be on a cubic yard basis and shall include all equipment, labor, materials, and all other incidental items necessary to complete this item of work.
- 8.9.3.** The method of measurement for the Rock Blanket shall be on a cubic yard basis and shall include all equipment, labor, materials, and all other incidental items necessary to complete this item of work.

8.10 Basis of Payment

The quantity of work completed will be paid at the contract unit price bid for the following items, which price and payment shall be full compensation for all materials, labor, equipment and incidentals necessary to perform the work. Additionally, payments shall constitute full compensation for any required maintenance, sediment removal and disposal:

- 8.10.1** Unclassified Excavation shall be on a cubic yard basis and shall include all equipment, labor, materials, and all other incidental items necessary to complete this item of work as per the detail in the Plans. No payment shall be made for

unclassified material excavated below the grades shown on the Plans without prior approval by the Engineer.

8.10.2 Muck excavation shall be on a cubic yard basis and shall include all equipment, labor, materials, and all other incidental items necessary to complete this item of work as per the detail in the plans.

8.10.3 Rock Blanket shall be on a cubic yard basis and shall include all equipment, labor, materials, and all other incidental items necessary to complete this item of work as per the detail in the Plans.

8.11 Pay Items

Item 8.1 "Unclassified Excavation", per cubic yard.

Item 8.2 "Muck", per cubic yard

Item 8.3 "Rock Blanket", per cubic yard.

9.0 MINE SEALS

9.1. Description

This work shall consist of dewatering the existing mine pool, excavating the mine openings, installing bat gates, wet seals, drainage pipes, dry seals, modified seals and backfilling the opening to near original grade. The bat gate details are shown in the Plans. The mine seals shall be constructed in accordance with the typical details at the locations shown on the Plans. Materials shall conform to those listed below.

9.2. Materials

9.2.1 Stone.

The stone shall consist of sound, durable AASHTO No. 1 non-calcareous crushed stone such as that commercially available.

Crushed stone shall consist of particles of clean, hard, tough, durable rock, free from adherent coating and meeting the requirements of **Section 703.1** of the WVDOT **Standard Specifications Roads and Bridges**, Adopted 2010. Stone shall have a maximum weighted loss of twelve percent when subjected to five (5) cycles of the Sodium Sulfate Soundness Test – **ASTM C88** (**ASTM C88-99a Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate**), as modified by the American Association of State Highway and Transportation Officials (**AASHTO**) **T-104**. Non-calcareous stone shall exhibit a fizz of 0 when subjected to dilute hydrochloric acid. A laboratory certification of soundness and fizz shall be submitted to the WVDEP prior to delivery.

9.2.2 Filter Fabric

Filter Fabric shall be as specified in Section 715.11.4 of the WVDOT **Standard Specifications Roads and Bridges**, Adopted 2010.

9.2.3 Cistern Collector Plate

A 1" HDPE Plate with three (3) 2" threaded PVC cistern water outlet pipes with caps shall be constructed and installed at the locations shown on the Plans and as detailed on the Plans.

9.2.4 Bat Gate

9.2.5.1 The bat gate pipes with bat gates for the mine seals shall be a 36-inch minimum diameter dual-wall corrugated HDPE (solid and/or perforated) pipe meeting the requirements of AASHTO M 294, Type S or ASTM F2306. Bell and spigot connections shall utilize a spun-on or welded bell and valley or saddle gasket meeting the soil-tight joint performance requirements of AASHTO M 294 or ASTM F2306. The joints are

sealed by high-quality, factory-installed rubber gaskets that meet all the requirements of ASTM F477.

9.2.5.2 A bat gate shall be constructed and installed on the downstream end of the 36-inch minimum diameter HDPE pipes as detailed in the Plans.

9.2.5.3 All steel used for bat gate components shall be Grade 46 steel. All welds shall be 1/8" fillet welds, minimum.

9.2.5.4 Steel components include: 4" x 4" x 3/8" angle steel, 3/8" Grade 8 all thread rod, bolts, nuts, and washers.

9.3. Construction Methods

9.3.1. Mine Dewatering

Excavation of the mine opening shall proceed in a manner which will control the release of the mine pool. The Contractor shall be solely responsible for any damages caused by dewatering activities.

The Contractor shall submit a dewatering plan to the WVDEP for approval prior to dewatering activities and/or seal construction. The Contractor shall be responsible for any damages resulting from dewatering, even if the dewatering plan is approved by the WVDEP.

9.3.2. Water Treatment

The Contractor is advised that abandoned mine workings could contain impounded water that may require treatment. Any water discharged during mine seal installation shall meet effluent standards as set forth by West Virginia Surface Mining Regulations. The Contractor shall install and operate a water treatment system utilizing soda ash briquettes in a manner approved by the Engineer to maintain a pH between 6.0 and 9.0 in all water above base flow while dewatering mines.

The Contractor is also advised that abandoned mine workings could contain dangerous gases such as methane and blackdamp. The Contractor shall be responsible for safety when working around mine openings.

9.3.3. Excavation

The Bat Gate Mine Seals and Wet Bat Gate Mine Seals will require excavation into the mine entries/collapsed portals for proper installation. The Contractor shall perform this work after taking all necessary precautions with regard to control and treatment of the impounded water, with all work being performed at the risk of the Contractor. The WVDEP accepts no responsibility or liability for any related construction activities.

The opening shall be cleaned of debris to the satisfaction of the Engineer.

9.3.4. Bat Gate Mine Seal

Once the opening has been cleaned, a 6-inch layer of AASHTO No. 1 non-calcareous crushed stone shall be placed as HDPE pipe bedding. The 36-inch minimum HDPE pipe shall be installed in accordance with ASTM D2321 and the Manufacturer's recommended installation guidelines.

The 36-inch minimum HDPE pipe shall outlet a minimum of 1 foot above the finished surface. If the 36-inch minimum HDPE bat gate pipe needs to be deflected to raise the outlet to comply with this requirement, the deflection shall be made using dual wall "soil-tight" fittings meeting the requirements of ASTM F 2306.

All pipes shall have a minimum slope of 2 percent.

The Gravel Bulkhead shall be constructed and covered with one layer of filter fabric to separate all aggregate/soil interfaces and compacted clay and soil cover shall be constructed as shown on the Plans. The Contractor shall adhere to OSHA Regulation 29 CFR Part 1926 (Safety and Health Regulations for Construction) during all excavation and other activities.

9.3.5. Wet Bat Gate Mine Seal

Once the opening has been cleaned, a 6-inch layer of AASHTO No. 1 non-calcareous crushed stone shall be placed as HDPE pipe bedding. The 36-inch minimum HDPE pipe shall be installed in accordance with ASTM D2321 and the Manufacturer's recommended installation guidelines. The section of 36-inch minimum HDPE from the upstream end to the face of the mine entry shall be perforated as detailed in the Plans.

All pipes shall have a minimum slope of 2 percent.

The Gravel Bulkhead shall be constructed and covered with one layer of filter fabric to separate all aggregate/soil interfaces and compacted clay and soil cover shall be constructed as shown on the Plans. The Contractor shall adhere to OSHA Regulation 29 CFR Part 1926 (Safety and Health Regulations for Construction) during all excavation and other activities.

9.3.6. Cistern Collector Plate

A Cistern Collector Plate shall be utilized on the project as shown on the plans. The cistern shall be constructed based on the detail shown in the plans.

9.4. Method of Measurement

9.4.1. Bat Gate Mine Seals shall be measured per each seal installed and approved.

9.4.2. Wet Bat Gate Mine Seals shall be measured per each seal installed and approved.

9.4.3. Payment for the Cistern Collector Plate per the detail on the Plans is incidental to construction of the associated Bat Gate Wet Mine Seal.

9.5. Basis of Payment

- 9.5.1** Bat Gate Mine Seals shall be paid per each seal installed and approved and shall include all excavation, stone, filter fabric, HDPE piping and bat gate necessary to complete the seal as shown on the Plans and detailed in these Specifications. Excavation, backfilling, installation of bat gate and minor grading, including all ancillary materials and operations required to construct the Bat Gate Mine Seals according to Plans and as specified, will not be measured, but shall be considered incidental to this construction.
- 9.5.2** Wet Bat Gate Mine Seals shall be paid per each seal installed and approved and shall include all excavation, stone, filter fabric, and piping necessary to complete the seal as shown on the Plans and detailed in these Specifications. Excavation, furnishing and placement of the pipe (fittings, risers, trash racks, and stabilizing plates), backfilling, installation of bat gate and minor grading, including all ancillary materials and operations required to construct the Wet Bat Gate Mine Seals according to Plans and as specified, shall be considered incidental to this construction.
- 9.5.3** Cistern Collector Plate shall be incidental to the cost of the Bat Gate Wet Mine Seal and shall include all equipment, labor, materials, and all other incidental items necessary to complete this item of work as per the detail in the plans.

9.6. Pay Items

Item 9.1, "Bat Gate Mine Seal", per each

Item 9.2, "Wet Bat Gate Mine Seal", per each.

10.0 SUB-SURFACE DRAINS

10.1. Description

This work shall consist of constructing an underdrain and underdrain conveyance pipe to control seepage at the location and to the dimensions shown on the plans. This shall also consist of additional underdrain as required and approved by the WVDEP during construction. The underdrains are to be constructed in accordance with the typical plan detail. Pipe clean-outs may be installed if lengths exceed 100 feet or whenever required by the WVDEP.

10.2. Materials

- 10.2.1** Stone for the underdrain shall consist of crushed, non-calcareous stone aggregate meeting the gradation requirements of AASHTO No. 4 aggregate. Crushed stone shall consist of particles of clean, hard, tough, durable rock, free from adherent coating and meeting the requirements of Section 703.1 of the WVDOT **Standard Specifications for Roads and Bridges**, Adopted 2010. Stone shall have a maximum weight loss of 12% when subjected to five cycles of the Sodium Sulfate Soundness Test.
- 10.2.2** Filter fabric for the underdrain shall be non-woven type, meeting the requirements of Section 715.11.4 of the WVDOT **Standard Specifications for Roads and Bridges**, Adopted 2010.
- 10.2.3** The underdrain pipe shall consist of perforated 6-inch diameter SDR 35 PVC.
- 10.2.4** The conveyance pipes for the underdrain pipes shall consist of solid wall 6-inch diameter SDR 35 PVC.
- 10.2.5** The maximum run allowable of the underdrain pipes and the conveyance pipes without installation of cleanouts shall be 100 feet. Clean-outs, if required, shall be installed along the underdrain pipe and the conveyance pipe alignments and shall consist of necessary wye fittings and connections compatible with SDR 35 PVC pipe and extending from the underdrain pipes and the conveyance pipes to the final grades shown on the Plans.

10.3. Construction Methods

- 10.3.1** The underdrain pipes and conveyance shall be constructed at the location and to the lines, grades, and cross-section as directed by the Engineer based on the field conditions encountered.
- 10.3.2** The underdrain pipes shall discharge into the underdrain drain conveyance pipes.

- 10.3.3 All pipes shall have a minimum slope of 2 percent.
- 10.3.4 Trench width for the underdrain pipes and the conveyance pipes shall not be less than three (3) feet, measured at the bottom of the trench. Trenching will involve excavation of in-place material including soil and rock.
- 10.3.5 Trench exceeding 5 feet in depth shall be supported in compliance with the OSHA requirements. Trench bottom shall be cleared of any loose debris and any standing water.
- 10.3.6 Filter fabric shall be installed in the underdrain trench as shown on the Plans. The aggregate shall be placed carefully to prevent puncturing, tearing or shifting of the filter fabric. The filter fabric shall not be installed over the ends of the underdrain pipes where the rock shall daylight directly into existing or modified drainage channels.
- 10.3.7 An Animal Barrier shall be utilized at the exit of 6" Diameter PVC Underdrain Conveyance Pipe. It shall consist of three (3) 3/8" Stainless Steel Rods spaced as detailed in the Plans.

10.4. Method of Measurement

- 10.4.1 The method of measurement for constructing underdrain shall be on a linear foot basis measured along the centerline of the underdrain. Excavation necessary to construct the underdrain, furnishing and placement of filter fabric, AASHTO No. 4 aggregate, erosion control matting (where required), cleanouts, chain link fence and all other work necessary for the acceptable installation of the underdrain will not be measured but shall be considered incidental to the construction of the respective underdrains.
- 10.4.2 The method of measurement for constructing underdrain conveyance pipe shall be on a linear foot basis measured along the centerline of the underdrain conveyance pipe. Excavation necessary to construct the underdrain conveyance pipe, furnishing and placement of AASHTO No. 4 aggregate, erosion control matting (where required), cleanouts, chain link fence and all other work necessary for the acceptable installation of the underdrain conveyance pipe will not be measured but shall be considered incidental to the construction of the respective underdrain conveyance pipes.
- 10.4.3 The method of measurement for constructing the Animal barrier shall be incidental to the cost of the 6" Diameter PVC Underdrain Conveyance Pipe on which it is installed and no additional compensation will be paid for this item.

10.5. Basis of Payment

- 10.5.1 The method of payment for constructing underdrains shall include all excavation necessary to construct the seep collector; furnishing and placement of filter fabric,

AASHTO No.4 aggregate, and all other work necessary for the acceptable installation of the underdrains will not be measured but shall be considered incidental to the construction of the respective underdrains. The cost of these incidental items shall be included in the unit price bid for aggregate underdrains.

10.5.2 The method of payment for constructing underdrain conveyance pipes shall include all excavation necessary to construct the underdrain conveyance pipes; furnishing and placement of AASHTO No.4 aggregate, and all other work necessary for the acceptable installation of the underdrain conveyance pipes will not be measured but shall be considered incidental to the construction of the respective underdrain conveyance pipes. The cost of these incidental items shall be included in the unit price bid for aggregate underdrain conveyance pipes.

10.5.3 The method of payment for the Animal shall be incidental to the cost of the 6" Diameter PVC Underdrain Conveyance Pipe on which it is installed and no additional compensation will be paid for this item.

10.6. Pay Item

Item 10.1, "Underdrain", per linear foot.

Item 10.2, "6" Diameter PVC Underdrain Conveyance Pipe", per linear foot.

11.0 SOIL COVER

11.1 Description

This work consists of covering the regraded portals and/or any other area required by the WVDEP with a minimum twelve (12) inch thick layer of soil cover material.

11.2 Materials

Soil cover material shall be natural occurring earthen material from potential soil borrow areas. This material shall be capable of supporting vegetation.

The Contractor shall obtain soil cover material from potential soil borrow areas within the Limit of Construction or from additional offsite borrow areas as necessary. If offsite borrow areas are used, it shall be the responsibility of the Contractor to obtain such areas at no expense to the WVDEP, and in accordance with any applicable local, state, and/or federal regulations including compliance with NEPA requirements (See Section 4.2 for NEPA Compliance Schedule). All offsite borrow areas must be approved by the Engineer and the Contractor must provide an erosion and sediment control plan, and reclamation plan for approval by the WVDEP. In addition, for all offsite borrow areas outside the Limit of Construction, the Contractor must obtain from the property owner a Right-of-Entry agreement in which the property owner indemnifies and holds the WVDEP harmless from any injury or damages whatsoever resulting from the use of property.

11.3 Construction Methods

11.3.1 Prior to placement of soil cover material the areas to receive the soil cover shall be graded to remove all surface irregularities.

11.3.2 All areas cut to grade in topsoil (or soil material) do not require soil cover. All areas cut to grade otherwise shall be covered with a minimum of twelve (12) inch inches of soil cover material.

11.3.3 Soil cover material shall neither be frozen nor shall it be placed on frozen ground or under moisture conditions that prevent grading equipment from producing a uniform surface.

11.3.4 After placement, the soil cover material shall be tracked-in to ensure proper bonding of the soil cover material to the regraded area. Equipment shall be capable of operating on the slopes shown on the Construction Plans and shall produce a uniform surface free of ruts and loose soil. No minimum density shall be required for compaction, but soil cover material shall be "tracked-in" with on-site equipment. "Tracking-in" shall take place by operating the equipment up and

down the soil covered slope such that the cleat marks are parallel to the final contours.

- 11.3.5** The final grade of the soil cover shall be free of surface irregularities and shall be built to the lines and grades shown on the Plans.
- 11.3.6** As the soil cover material is placed and compacted, it shall be protected from erosion by installation of silt barriers and shall be fertilized, limed, seeded and mulched in accordance with Section 6.0, "Revegetation".
- 11.3.7** Upon completion of the work, the borrow area and related disturbance shall be neatly trimmed and all debris and soil disposed of in an acceptable manner. All final graded soil slopes shall not be steeper than 2H:1 V unless otherwise proven to be stable or compatible to the reclamation project. All borrow areas outside the Limit of Construction shall require that a reclamation plan be submitted to the WVDEP for approval. The borrow areas and related disturbance shall be graded, fertilized, limed, seeded, and mulched in accordance with Section 6.0, "Revegetation" of these specifications.
- 11.3.8** It shall be the responsibility of the Contractor to obtain, at no expense to the WVDEP, all necessary offsite borrow areas or waste areas in accordance with any applicable local, state, and/or federal regulations including compliance with NEPA requirements.
- 11.3.9** The Contractor shall maintain and keep in full force and effect insurance to protect and indemnify the WVDEP and/or its agents or representative, from claims for damages and shall defend all suits at law.

11.4 Method of Measurement

The method of measurement for Soil Cover placed on the refuse and maintained in conformance with the specifications and accepted by the WVDEP will be by field surveying measured horizontally and rounded to the nearest 1/10 acre. Payment shall include excavating, stockpiling, hauling, spreading, and compacting/tracking-in of soil cover material and maintenance of soil cover.

11.5 Basis of Payment

Payment for covering regraded refuse areas and any other areas as approved by Engineer with soil cover material will be by the contract unit price bid for "Soil Cover."

Reclaiming and revegetating soil cover borrow areas is incidental to this item and no separate payment will be made.

No payment for this material will be made under any other item, including "Unclassified Excavation".

11.6 Pay Items

Item 11.0 "Soil Cover", per plan view acre

12.0 GABION RETAINING WALL

12.1 Description

This work shall consist of furnishing all labor, equipment and materials necessary to construct the Gabion Retaining Wall shown on the Plans.

12.2 Materials

12.2.1 Gabion baskets shall comply with the requirements of ASTM Standards A974-97 and A975-97.

12.2.2 The Contractor shall be aware that no provisions have been made to obtain rock on site. All rock for the Gabion Retaining Wall shall have a maximum weighted loss of thirty percent when subjected to five (5) cycles of the Sodium Sulfate Soundness Test – ASTM C88 (ASTM C88-99a Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate), as modified by the American Association of State Highway and Transportation Officials (AASHTO) T-104.

12.2.3 The rock placed in the gabion baskets shall consist of rock that range in size from a D_{max} of 12 inches to a D_{min} of 6 inches diameter, and D_{50} of 9 inches with no more than 15 percent by weight less than D_{min} .

12.3 Construction Methods

12.3.1 The Gabion Retaining Wall shall be constructed to the lines and grades as shown on the Plans.

12.3.2 The foundation on which the gabion baskets are to be placed shall be cut or filled and graded to the lines and grades shown on the Plans. Surface irregularities, loose material, vegetation, and all foreign matter shall be removed from foundations. When fill is required, it shall consist of materials conforming to the requirements of Section 8.0 Unclassified Excavation. Gabions baskets shall not be placed until the foundation preparation is completed, and the subgrade surfaces have been approved by the Engineer.

12.3.3 Gabion baskets shall be assembled and placed into position for the retaining wall. Wire fasteners shall connect the gabion baskets in the retaining wall to the adjacent gabion baskets, and gabion baskets placed on top of a row shall be connected with the lower row.

12.3.4 After adjacent empty woven wire gabion units are set to line and grade and common sides properly connected, they shall be placed in straight line tension and stretched to remove any kinks from the mesh and to gain a uniform alignment.

Staking of the gabions may be done to maintain the established proper alignment prior to the placement of rock.

- 12.3.5 The gabion baskets shall be carefully filled with the rock as shown in the detail on the Plans. Rock shall be placed either by machine or hand methods, maintaining alignment, avoiding bulges, and providing a compact mass that minimizes voids. At no point in the filling process shall rock be mechanically placed from a height exceeding 36" from the machine to the fill area.
- 12.3.6 The cells in any row shall be filled in stages so that the depth of rock placed in any one cell does not exceed the depth of rock in any adjoining cell by more than 12 inches. Along the exposed faces, the outer layer of stone shall be carefully placed and arranged by hand to ensure a neat, compact placement with a uniform appearance.
- 12.3.7 The last layer of rock shall be uniformly leveled to the top edge of the gabion baskets. Lids shall be placed over the rock filling, and the lids shall be secured to the sides and ends of the gabion baskets.
- 12.3.8 The last layer of rock shall be uniformly overfilled 1-2 inches to allow for rock settlement. Lids shall be stretched tight over the rock fill using only approved lid closing tools. The use of crowbars or other single point leverage bars for lid closing is prohibited.
- 12.3.9 Any damage to the wire or coatings during assembly, placement and filling shall be repaired promptly in accordance with the manufacturer's recommendations or replaced with undamaged gabion baskets.
- 12.3.10 The final grade of the gabion retaining wall shall be free of surface irregularities and shall be built to the lines and grades shown on the Plans.

12.4 Method of Measurement

The method of measurement for Gabion Retaining Wall that is in conformance with the Plans and specifications and accepted by the WVDEP shall be on a per each gabion basket basis and shall include all equipment, labor, materials and all other incidental items necessary to complete this item of work.

12.5 Basis of Payment

The quantity of work completed will be paid at the contract unit price bid for the Gabion Retaining Wall, which price and payment shall be full compensation for all materials, labor, equipment and incidentals necessary to perform the work. Additionally, payments shall constitute full compensation for any required maintenance, sediment removal and disposal.

Gabion Retaining Wall shall be on a per each gabion basket basis and shall include all equipment, labor, materials and all other incidental items necessary to complete this item

of work as per the detail in the Plans.

12.6 Pay Items

Item 12.0 "Gabion Retaining Wall (3'x3'x6') ", per each



30-Oct-2013

Joe Saunders
Terradon Corporation
401 Jacobson Drive
Poca, WV 25149

Re: **Conley Branch (Whitt) Landslide**

Work Order: **13101180**

Dear Joe,

ALS Environmental received 1 sample on 22-Oct-2013 04:45 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 18.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Rebecca Kiser".

Electronically approved by: Rebecca Kiser

Rebecca Kiser
Project Manager



Certificate No: MN 532786

8 Pages Included

Report of Laboratory Analysis

ALS Environmental

www.alsglobal.com

RIGHT SOLUTIONS

Sample location - Outflow from Portal No. 1

ALS Group USA, Corp

Date: 30-Oct-13

Client: Terradon Corporation
Project: Conley Branch (Whitt) Landslide
Work Order: 13101180

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
13101180-01	Conley Branch	Water		10/21/2013 15:07	10/22/2013 16:45	<input type="checkbox"/>

ALS Group USA, Corp

Date: 30-Oct-13

Client: Terradon Corporation
Project: Conley Branch (Whitt) Landslide
WorkOrder: 13101180

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
µmhos/cm @ 25°C	Micromhos per Centimeter at 25 Degrees Celcius
as noted	
mg/L	Milligrams per Liter
s.u.	Standard Units

ALS Group USA, Corp

Date: 30-Oct-13

Client: Terradon Corporation
 Project: Conley Branch (Whitt) Landslide
 Sample ID: Conley Branch
 Collection Date: 10/21/2013 03:07 PM

Work Order: 13101180
 Lab ID: 13101180-01
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS						
Aluminum	0.30		E200.8			Prep Date: 10/25/2013 Analyst: RH
			0.010	mg/L	1	10/27/2013 09:26 AM
Cadmium	ND		0.00020	mg/L	1	10/27/2013 09:26 AM
Hardness (Calculation)	180		2.0	mg/L	1	10/27/2013 09:26 AM
Iron	0.33		0.080	mg/L	1	10/27/2013 09:26 AM
Magnesium	17		0.20	mg/L	1	10/27/2013 09:26 AM
Manganese	0.14		0.0050	mg/L	1	10/27/2013 09:26 AM
Potassium	4.6		0.20	mg/L	1	10/27/2013 09:26 AM
Sodium	72		0.20	mg/L	1	10/27/2013 09:26 AM
NITROGEN, NITRATE-NITRITE						
Nitrogen, Nitrate-Nitrite	0.090		A4500-NO3 E			Analyst: JC
			0.050	mg/L	1	10/30/2013 09:30 AM
PH						
pH (laboratory)	7.8		A4500-H B-96			Analyst: JC
			0.020	s.u.	1	10/22/2013 05:10 PM
SUBCONTRACTED ANALYSES						
Subcontracted Analyses	See attached		SUBCONTRACT	as noted	1	Analyst: BIOC
						10/30/2013
ACIDITY						
Acidity	ND		A2310 B-97			Analyst: JB
			12	mg/L	1	10/24/2013 04:45 PM
ALKALINITY						
Alkalinity, Total (as CaCO3)	38		A2320 B-97			Analyst: JB
			12	mg/L	1	10/24/2013 02:51 PM
ANIONS BY ION CHROMATOGRAPHY						
Chloride	2.2		E300.0			Analyst: ED
			1.0	mg/L	1	10/28/2013 10:50 AM
Sulfate	240		20	mg/L	20	10/28/2013 11:10 AM
SPECIFIC CONDUCTANCE						
Specific Conductance	630		A2510 B-97			Analyst: JB
			5.0	µmhos/cm @ 25	1	10/24/2013 02:51 PM
TOTAL DISSOLVED SOLIDS						
Total Dissolved Solids	410		A2540 C-97			Prep Date: 10/24/2013 Analyst: DC
			10	mg/L	1	10/24/2013 03:30 PM
TOTAL SUSPENDED SOLIDS						
Total Suspended Solids	13		A2540 D-97			Prep Date: 10/24/2013 Analyst: DC
			6.0	mg/L	1	10/24/2013 01:30 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.



BIO-CHEM TESTING, INC.

5 Weatheridge Drive
Hurricane, WV 25526

Phone: (304) 757-8954

Fax: (304) 757-9676

P.O. Box 634
Teays, WV 25569

Web Site: www.bioclientesting.com

e-mail: info@bioclientesting.com

LABORATORY ANALYSIS REPORT

ALS Environmental-South Charleston
1740 Union Carbide Drive
South Charleston, WV 25303
Attn: Rebecca Kiser
ALS - Metals
13101180-01B
13101180-01B
Standard Environmental

Laboratory Number: 1307702-01
Sample Identification: 13101180-01B
Sampled By: Client
Date/Time Sampled: 10/21/2013 00:00
Date/Time Received: 10/23/2013 14:10
Sample Type: GRAB
Client Information: [None]

PARAMETER	RESULT	NOTE	MDL	UNITS	METHOD	DATE OF ANALYSIS	TIME OF ANALYSIS	ANALYST
Metals by Standard Methods								
Selenium	0.00124		0.00100	mg/L	SM3114C-1997ATP	10/24/2013	9:33	CW

Method Reference: USEPA: Methods for Chemical Analysis of Water and Waste, Mar. 1983.
SM: Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1982.
SW: Test Methods for Evaluating Solid Waste, 3rd Edition.

Respectfully Submitted:


Mukesh Shah

OCT 29 2013

Subcontractor:
Bio-Chem Testing, Inc.
5 Weatheridge Drive
Hummata, WV 25528

TEL: (304) 757-8854
FAX:
Acct #:

CHAIN-OF-CUSTODY RECORD

Date: 23-Oct-13
COC ID: 4241
Due D: 30-Oct-13

Page 1 of 1

Environmental

Customer Information		Project Information		Parameters/Method Request for Analysis											
Purchase Order	Project Name	Project Number	13101180	Subcontracted Analyses (SUBCONTRACT)											
Company Name	ALS Group USA, Corp	Bill To Company	ALS Group USA, Corp	A	B	C	D	E	F	G	H	I	J		
Send Report To	Rebecca Kiser	Inv Attn	Accounts Payable	B	C	D	E	F	G	H	I	J			
Address	3352 128th Avenue	Address	3352 128th Avenue	C	D	E	F	G	H	I	J				
City/State/Zip	Holland, Michigan 49424-9263	City/State/Zip	Holland, Michigan 49424-9263	D	E	F	G	H	I	J					
Phone	(616) 399-6070	Phone	(616) 399-6070	E	F	G	H	I	J						
Fax	(616) 399-6185	Fax	(616) 399-6185	F	G	H	I	J							
eMail Address	rebecca.kiser@alsglobal.com	eMail CC		G	H	I	J								
ALS Sample ID	13101180-01B	Client Sample ID		H	I	J									
Corley Branch	Water	Collection Date	21/Oct/2013	I	J										
		Bottle	(1) 500PHINO3	J											

1307702-01

Preservative Checked

Comments:

Please analyze for Selenium Hydride. Results requested by 30 Oct 2013.

1.4°C

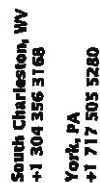
Relinquished by: *[Signature]* Date/Time: 10/23/13 13:40

Received by: *[Signature]* Date/Time: 10/23/13 13:40

Relinquished by: *[Signature]* Date/Time: 10/23/13 14:10

Received by: *[Signature]* Date/Time: 10/23/13 14:10

Report QC Level



coc id: 15567

Note:

1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to those stated on this form.
3. The Chain of Custody is a legal document. All information must be completed accurately.

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: TERRADONCORP

Date/Time Received: 22-Oct-13 16:45

Work Order: 13101190

Received by: JAS

Checklist completed by Janet Smith
eSignature

23-Oct-13
Date

Reviewed by: Rebecca Kier
eSignature

25-Oct-13
Date

Matrices: Water

Carrier name: Courier

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.0C</u> <u>IR</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u></u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<u></u>		

Login Notes: There is no sample collection time listed on COC. Containers list 15:07 as sample collection time.

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:

Conley Branch (Whitt) Landslide
DEP17113
Contractor's Bid Sheet

Company Name: _____

Address: _____

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	UNIT	DESCRIPTION	UNIT PRICE	AMOUNT
1.0	LS	LS	Mobilization and Demobilization (Limited to 10% of Total Bid)	LS	
2.0	LS	LS	Construction Layout (Limited to 5% of Total Bid)	LS	
3.0	LS	LS	Quality Control (Limited to 3% of Total Bid)	LS	
4.1	LS	LS	Site Preparation (Limited to 10% of Total Bid)	LS	
4.2	160	TN	Access Road Resurfacing		
5.1	4,660	LF	Straw Wattles		
5.2	1,100	LF	Silt Fence		
5.3	1,050	LF	Temporary Pipe Around		
5.4	20	EA	Triangular Silt Dikes		
5.5	4	EA	Temporary Sediment Traps		
5.6	115	SY	Temporary Erosion Control Matting		
5.7	10	EA	Rock Check Dams		
5.8	2	EA	Stabilized Construction Entrance		
6.0	6.8	AC	Revegetation (Per Plan View Acre)		
7.1	1,574	LF	Type 1 Channel		
7.2	692	LF	Type 2 Channel		
7.3	4	EA	Riprap Drive-Through		
7.4	2,525	CY	Riprap Bank Protection		
7.5	LS	LS	Permanent Stream Crossing		
8.1	16,913	CY	Unclassified Excavation		
8.2	90	CY	Muck		
8.3	90	CY	Rock Blanket		
9.1	1	EA	Bat Gate Mine Seal		
9.2	1	EA	Wet Bat Gate Mine Seal		
10.1	55	LF	Underdrain		
10.2	100	LF	6" Diameter PVC Underdrain Conveyance Pipe		
11.0	3.3	AC	Soil Cover (Per Plan View Acre)		
12.0	40	EA	Gabion Retaining Wall (3'x3'x6')		
			TOTAL		\$