

WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ABANDONED MINE LANDS
AND RECLAMATION

COUNTY
OF
MARION

NAME OF PROJECT
FAIRMONT (DAC) S, CS, P

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

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

ARTICLE II - BIDDING INFORMATION

Sections Included:

- 1.0 Receipt & Opening of Bids.**
- 2.0 Eligibility Requirement of Bidders.**
- 3.0 Preparation of Bid.**
- 4.0 Method of Bidding.**
- 5.0 Qualifications of Bidders.**
- 6.0 Sub-Contracts.**
- 7.0 Forfeiture of Bid Security For Failure to Enter Into Contract.**
- 8.0 Time of Completion & Liquidated Damages.**
- 9.0 Addenda & Interpretations.**
- 10.0 Conditions of Work.**
- 11.0 Obligations of Bidders.**
- 12.0 Method of Award.**

ARTICLE II - BIDDING INFORMATION

1.0 RECEIPT & OPENING OF BIDS

- 1.1 BIDS SHOULD BE SUBMITTED ON FORMS PROVIDED BY THE STATE PURCHASING DIVISION. ANY BID RECEIVED AFTER DATE AND TIME OF THE BID OPENING WILL NOT BE CONSIDERED.**
- 1.2 Purchasing may consider informal any bid not prepared and submitted in accordance with the above procedure and may waive any informalities in or reject any and all bids.**
- 1.3 Bid proposals containing any omission, alterations of forms, additions or conditions not called for, conditional or alternate bids (unless called for), or incomplete bid proposals may be rejected. DEP reserves the right to waive any technicalities as to changes, alterations, omissions or reservations, to the extent allowed by State Purchasing law, and recommend the award in the best interests of DEP.**

2.0 ELIGIBILITY REQUIREMENT OF BIDDERS

In order for any bids to be considered or to be eligible for consideration, the bidder should first file a Vendor Registration and Disclosure Statement Form, and obtain a Vendor's Registration Number prior to award of a Purchase Order. The subject Form may be obtained from the State Purchasing Division at the above address, or by calling 304/558-2311.

3.0 PREPARATION OF BID

- 3.1 Each bid should be submitted on the required form and in accordance with the Purchasing Division's requirements. All blank spaces for bid prices should be completed, in ink or typewritten figures.**

4.0 METHOD OF BIDDING

DEP invites the bid as indicated in the package furnished by the Purchasing Division of the West Virginia Department of Administration.

5.0 QUALIFICATIONS OF BIDDERS

DEP may make such investigations as it deems necessary to determine the bidder's ability to perform the work, and the bidder shall furnish to DEP all such information and data for this purpose as DEP may request. DEP reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy DEP that such bidder is properly qualified to carry out the obligations of the contract and complete the work contemplated therein. Conditional bids will not be accepted.

6.0 SUB-CONTRACTS

Any person, firm or other party whom the Contractor proposes to award a sub-contract under this contract must be acceptable to DEP.

7.0 FORFEITURE OF BID SECURITY FOR FAILURE TO ENTER INTO CONTRACT

Should the apparent successful bidder fail or refuse to execute and deliver its required bonds for any reason within fourteen (14) days after receiving notice of the acceptance of its bid, the security deposited with its bid shall be forfeited.

8.0 TIME OF COMPLETION & LIQUIDATED DAMAGES

The successful bidder agrees to schedule with the DEP a Pre-Construction Conference within twenty-one (21) calendar days of the purchase order date. The successful bidder agrees to commence work on a date specified in a "Notice to Proceed" issued by the DEP and to fully complete the project within 365 calendar days from said date. Said date shall be set within ten (10) calendar days of the Pre-Construction Conference date. The Contractor must contact the DEP within 10 days of receiving the Purchase Order in order to schedule the Pre-Construction Conference. A Notice to Proceed may be delayed due to adverse weather conditions with written approval from the Construction Administrator. If the contractor fails to complete the work within the time specified in the contract, or any extension thereof, Contractor shall pay to DEP as liquidated damages the sum of two hundred and fifty dollars (\$250) for each day of delay.

ARTICLE II - BIDDING INFORMATION

9.0 ADDENDA & INTERPRETATIONS

- 9.1 No interpretation of the meaning of the plans, drawings, specifications or other pre-bid documents will be made to any bidder orally.**
- 9.2 All addenda will be issued by the State Purchasing Division in writing to attendees of the mandatory Pre-Bid Conference. The changes contained therein are the only binding changes to the plans and/or specifications of this project.**

10.0 CONDITIONS OF WORK

Each bidder must inspect the conditions relating to the project and the employment of labor thereon. Failure to do so will not relieve the successful bidder of any obligation to furnish all material and labor necessary to carry out the provisions of the contract. Insofar as possible, the Contractor in carrying out its work must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor.

11.0 OBLIGATIONS OF BIDDERS

At the time of the opening of bids, each bidder will have inspected the project job site, and will have read and will be thoroughly familiarized with all of the contract documents, including addenda. The failure or omission of any bidder to examine any form, instrument or document shall in no way relieve any bidder of any obligation with respect to its bid.

12.0 METHOD OF AWARD

The contract shall be awarded to the lowest responsible bidder, in accordance with West Virginia Code Section 5A-3-14.

AML CONTRACTOR INFORMATION FORM

You must complete this form for your AML contracting officer to request an eligibility evaluation from the Office of Surface Mining to determine if you are eligible to receive an AML contract. This requirement applies to contractors and their sub-contractors and is found under OSM's regulations at 30 CFR 874.16. When possible, please type your information onto this form to reduce errors on our end. NOTE: Signature and date this form is signed must be recent (within the last month) to be considered for a current bid

Part A: General Information

Business Name: _____ Tax Payer ID No.: _____
Address: _____
City: _____ State: _____ Zip Code: _____ Phone: _____
Fax No.: _____ E-mail address: _____

Part B: Legal Structure

☐ Corporation ☐ Sole Proprietorship ☐ Partnership ☐ LLC
☐ Other (please specify) _____

Part C: Certifying and updating information in the Applicant/Violator System (AVS). Select only one of the following options, follow the instructions for that option, and sign below.

I, _____, have the express authority to certify that:
(print name)

1. _____ Information on the **attached** Entity Organizational Family Tree (OFT) from AVS is accurate, complete, and up-to-date. If you select this option, you **must** attach an Entity OFT from AVS to this form. Sign and date below and do not complete Part D.
2. _____ Part of the information on the **attached** Entity OFT from AVS is missing or incorrect and must be updated. If you select this option, you **must** attach an Entity OFT from AVS to this form. Use Part D to provide the missing or corrected information. Sign and date below and complete Part D.
3. _____ Our business currently is not listed in AVS. If you select this option, you must provide all information required in Part D. Sign and date below and complete Part D.

_____ Date	_____ Signature	_____ Title
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IMPORTANT! In order to certify in Part C to the accuracy of existing information in AVS, you must obtain a copy of your business' Entity OFT. To obtain an Entity OFT, contact the AVS Office, toll-free, at 800-643-9748 or from the AVS website at <https://avss.osmre.gov>.

Part D.

Contractor's Business Name: _____

If the current Entity OFT information for your business is incomplete or incorrect in AVS, or if there is no information in AVS for your business, you must provide all of the following information as it applies to your business. Please make as many copies of this page as you require.

- Every officer (President, Vice President, Secretary, Treasurer, etc.);
- All Directors;
- All persons performing a function similar to a Director;
- Every person or business that owns 10% or more of the voting stock in your business;
- Every partner, if your business is a partnership;
- Every member and manager, if your business is a limited liability company; and
- Any other person(s) who has the ability to determine the manner in which the AML reclamation project is being conducted.

Name	_____	Position/Title	_____
Address	_____	Telephone #	_____
	_____	% of Ownership	_____
Begin Date:	_____	Ending Date:	_____
Name	_____	Position/Title	_____
Address	_____	Telephone #	_____
	_____	% of Ownership	_____
Begin Date:	_____	Ending Date:	_____
Name	_____	Position/Title	_____
Address	_____	Telephone #	_____
	_____	% of Ownership	_____
Begin Date:	_____	Ending Date:	_____
Name	_____	Position/Title	_____
Address	_____	Telephone #	_____
	_____	% of Ownership	_____
Begin Date:	_____	Ending Date:	_____

PAPERWORK REDUCTION STATEMENT

The Paperwork Reduction Act of 1995 (44 U.S.C. 3501) requires us to inform you that: Federal Agencies may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. This information is necessary for all successful bidders prior to the distribution of AML funds, and is required to obtain a benefit.

Public reporting burden for this form is estimated to range from 15 minutes to 1 hour, with an average of 22 minutes per response, including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. You may direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Office of Surface Mining Reclamation and Enforcement, Room 202 SIB, Constitution Ave., NW, Washington, D.C. 20240.

ARTICLE III - GENERAL CONDITIONS

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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 (13 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.

ARTICLE III - GENERAL CONDITIONS

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: _____

ARTICLE III - GENERAL CONDITIONS

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.

ARTICLE III - GENERAL CONDITIONS

- 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: Jo Ann Lough, 200 Locust Avenue, Fairmont, WV 26554; Lorraine and Kenneth Weston, 158 Locust Avenue, Fairmont, WV 26554; Westwood Properties, LLC, 800 Westwood Court, Fairmont, WV 26555.

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.

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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.**

ARTICLE III - GENERAL CONDITIONS

- (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 Marion 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.

ARTICLE III - GENERAL CONDITIONS

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.

DEPARTMENT OF ENVIRONMENTAL PROTECTION / OFFICE OF ABANDONED MINE LANDS & RECLAMATION

AML-7

Revised 5/09

Page 1 of 1 pages

APPLICATION AND CERTIFICATE FOR PAYMENT

Project Name: _____

Application No: _____

Contractor: _____

Application Date: _____

Address: _____

Performance Period From: _____ To: _____

ATTN (AML&R Inspector): _____

CHANGE ORDER SUMMARY

Change Order Number	Approved (date)	Additions \$+	Deductions \$-

Application is made for payment, as shown below, in connection with contract. Continuation

Sheet is attached. The present status of the account for this contract is as follows:

ORIGINAL CONTRACT SUM \$ _____

Net Change by Change Orders \$ _____

CONTRACT SUM TO DATE \$ _____

TOTAL COMPLETED & STORED TO DATE \$ _____

(Column "G" on Continuation Sheet)

LESS PREVIOUS CERTIFICATES FOR PAYMENT \$ _____

CURRENT PAYMENT DUE \$ _____

Items listed hereon conform to specification, were received & are approved for payment.

Date: _____	Signed: _____	Inspector: _____
PO#: _____	Office/App: _____	Date: _____
PH: _____	FEIN/SS#: _____	
FIMS Vendor #		
PLNE	FX	ORG
8708	20	130
		830
		ACT
		QBS-COBF
		GRANT
		PROJECT

% COMPLETE: _____ x 100 = _____

Contract Sum to Date

Contractor: _____

Original Signature (Blue Ink)

CONTINUATION SHEET OF APPLICATION AND CERTIFICATE FOR PAYMENT

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=(DxF)

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:

Installation of two dry mine seals; drilling and casing of vertical and/or angled injection holes; injection of concrete and/or grout into the mine works and overburden to stabilize the area and prevent further subsidence; and additional activities related to the subsurface stabilization of the structures on-site.

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".



STATE OF WEST VIRGINIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Earl Ray Tomblin
Governor



Randy C. Huffman
Cabinet Secretary

AML

Robert Rice
Chief

Project Cost: \$XXX,XXX.00

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

Project Name:

DEP#

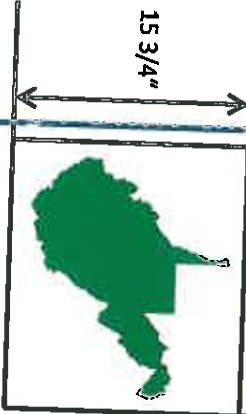
Contractor: Joe Smith Contracting

Project Start Date: 01/01/01

1 1/2" 17 1/4"

77 1/4"

15 3/4"



7 7/8" Earl Ray Tomblin Governor

3 3/4" dep

7 7/8" Randy C. Huffman Cabinet Secretary

3" AML

8 5/8" Robert Rice Chief

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Office of Abandoned Mine Lands & Reclamation

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

Project Cost: \$XXX,XXX.00

Project Name:
DEP#

Contractor: Joe Smith Contracting

Project Start Date: 01/01/01

48"

73 7/8"

36"

36"

6"

6"

18"

2 1/4"

27 3/4"

96"



STATE OF WEST VIRGINIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Earl Ray Tomblin
Governor



Randy C. Huffman
Cabinet Secretary

AML

Robert Rice
Chief

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

48"

5 1/4"

7 7/8"

9 3/8"

81 3/8"



17 1/2"

1 1/2" Earl Ray Tomblin

3/4" Governor

1 1/2" dep

1" Randy C. Huffman
1" Cabinet Secretary

8" AML

1" Robert Rice
3/4" Chief

3 3/4" 1"

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

6"

2 1/2"

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"

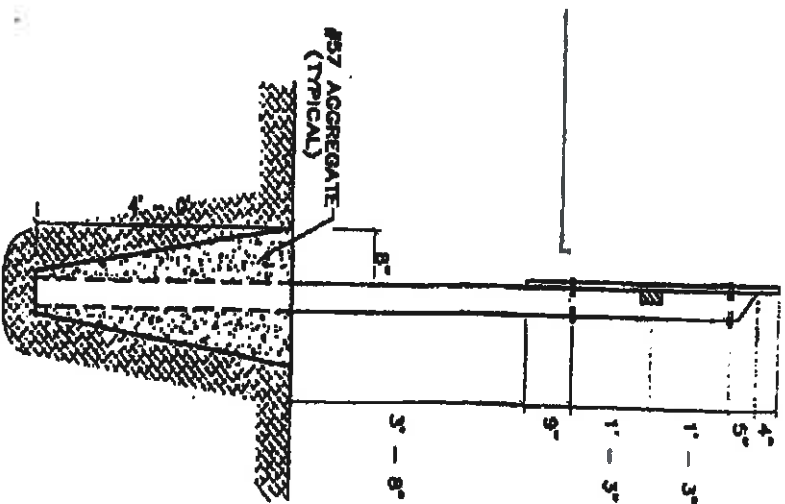
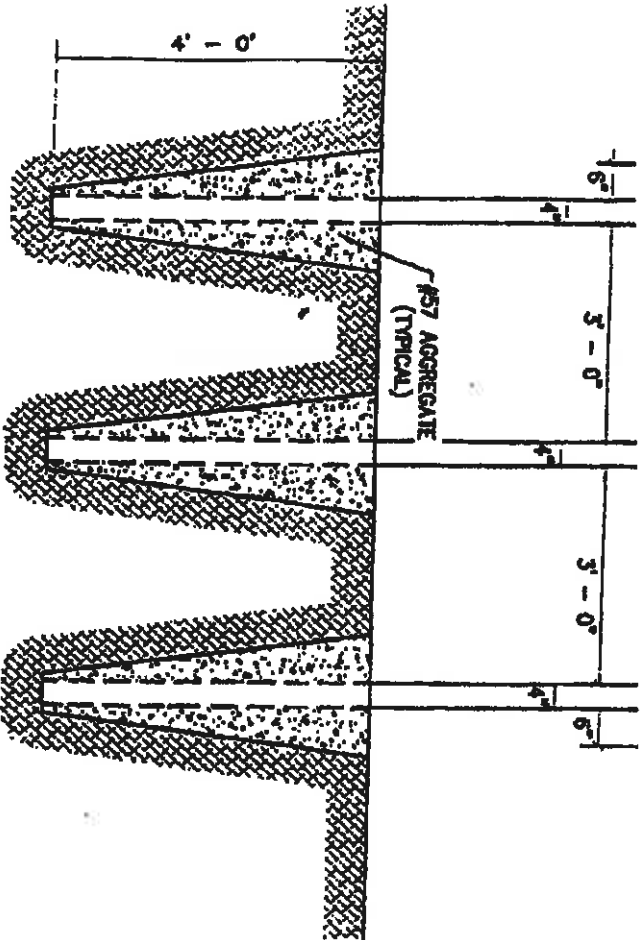
4 7/8"

1 1/2"

3 3/4"

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.**

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 sub-contractors 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

**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: _____

[illegible]

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

Change Orders ☐

Test Results

Other (explain)

Field Changes ☐

Explanation of work stoppages not due to weather ☐

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 <i>(if individual, last name, first name, MI):</i>	b. Individuals Performing Services <i>(including address if different from No. 10a)</i> <i>(last name, first name, MI):</i>	
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

SPECIFICATIONS

FOR:

FAIRMONT (DAC) S, CS, P

DEP #16131

FAIRMONT DISTRICT

MARION COUNTY, WEST VIRGINIA

SUBMITTED TO:

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ABANDONED MINE LANDS
101 CAMBRIDGE PLACE
BRIDGEPORT, WEST VIRGINIA 26330

PREPARED BY:

HATCH MOTT MACDONALD
2601 CRANBERRY SQUARE
MORGANTOWN, WV 26508

October 27, 2014

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I. SPECIAL PROVISIONS

1.0 LOCATION / SITE DESCRIPTION

This project is located in the City of Fairmont, in Marion County, West Virginia. The project address is xx and xx Locust Avenue and xx Benoni Avenue. This site consists of the stabilization of 2 two-story masonry and frame constructed houses, 1 garage, and a two-story masonry and frame constructed apartment complex, undrain drainage control for a masonry public building, and sealing of 3 mine entries. Project will include vertical and angled drilling, placement of grout or concrete in mine workings, mine seals, underdrain, and reclamation of work area.

2.0 REFERENCE SPECIFICATIONS / DEFINITIONS

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

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

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 "WVDOH 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 or alkaline mine drainage discharges from the project site.

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

All reference to “NEPA” shall be understood to mean the National Environment Policy Act.

3.0 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 all equipment, materials, and labor to provide subsurface stabilization to two homes, one garage, three mine seals and one drainage control structure;
- construction and installation of support areas, and maintenance of access roads to the site, including the repair and replacement of any damaged asphalt and pavement;
- drilling of both vertical and angled injection holes and providing adequate casing to protect the integrity of the boring;
- injection of both concrete or grout into the abandoned mine workings to eliminate voids and stabilize the structures’ foundation zone from subsidence stresses;
- installation of two dry mine seals;
- construction and installation of drainage control items

- preparation of as-built drawings identifying work performed;
- providing sediment control;
- revegetation and restoration of disturbed areas;

The Contractor also shall 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.

4.0 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.

5.0 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 for this project shall be from 7:00am to 7:00pm, Monday through Saturday. Work on Sunday and major holidays, as defined by the Engineer, will not be allowed on this project.

6.0 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.

7.0 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 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 (disposal) 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) to indemnify and hold harmless the WVDEP 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 rights of entry; failure to obtain the proper rights of entry; failure to utilize appropriate language in the rights of entry agreements; or failure to obtain permission and signature of all persons or entities holding a legal interest in the subject property(ies) covered by the rights of entry.

The Contractor also shall submit a borrow area reclamation plan for prior approval by 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 for, 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.

8.0 DISPOSAL OF UNSUITABLE MATERIAL

All waste areas shall be obtained in accordance with Special Provisions Section 7.0 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 the applicable sub-sections of Section 4.0 of these Specifications. Wood may be burned in conformity with the applicable sub-sections of Section 4.0 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 7.0 of these Specifications.

9.0 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.

10.0 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.

11.0 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. 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.

12.0 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.

13.0 PERMITS, LICENSES AND FEES

The WVDEP shall provide the NPDES Stormwater permit from the Division of Water and Waste Management, a WVDOH Encroachment permit if required, the Water Quality Certification from the Division of Water and Waste Management and an ACOE Regional permit if required. After award of the contract, the Contractor shall become Co-Applicant to the NPDES Permit as per Article III, Section 7 of these Specifications.

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: a Stream Activity permit from the WV Division of Natural Resources and burning permits from 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.

14.0 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.

15.0 UTILITIES AND OTHER OBSTRUCTIONS

The Contractor shall be solely responsible to correctly locate all existing active underground and overhead utilities at the project site 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, except for utilities that are subject to regulation by the Public Service Commission, in which case, payment will be made directly to the affected utility by the WVDEP. The utility companies and West Virginia Miss Utility (WVMIS) 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 WVMIS Utility location service is as follows:

WVMIS
1-800-245-4848.

16.0 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. The Contractor shall remove the Project Sign prior to the Final Inspection, and upon approval from the WVDEP.

17.0 ROCK BLASTING

All blasting operations shall 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.

18.0 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 the 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.

19.0 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.

20.0 SITE CONDITIONS AND ENVIRONMENTAL PROTECTION

Conditions at the site shall be examined by the Contractor, and he/she 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 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 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. 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 (asphalt, gravel or concrete), trees, shrubs, fences, or 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 their own expense.

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

21.0 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 workers accomplishment of work on this project.

The presence of the WVDEP's Field Representative and/or Engineer at the site is to provide the WVDEP 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 workers.

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.

22.0 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.

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

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

Diversions must be stabilized prior to becoming functional.

MAINTENANCE & INSPECTION

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

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

Inspection and maintenance records must be kept onsite.

EROSION & SEDIMENT CONTROL CONSTRUCTION SEQUENCE

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

DIVISION II – TECHNICAL SPECIFICATIONS

1.0 MOBILIZATION AND DEMOBILIZATION

1.1 Description

This work shall consist of the performance of construction preparatory operations, including: erection and removal of the project sign; the movement of personnel and equipment to the project site; and the staging of supplies and resources necessary to begin work on a substantial portion of the contract. It shall also include all demobilization activities. Equipment and material storage areas must be pre-approved by WVDEP.

Access to and from the sites shall be as shown on the plans, and any other access used shall be the responsibility of the contractor. The contractor will be required to obtain a right of entry agreement and any state, federal or local permits necessary for the office site, in accordance with this Section and Special Provision Specification Number 1.03.

1.2 Method of Measurement

The method of measurement for determining the mobilization and demobilization work done as described above will be on a lump sum basis.

1.3 Basis of Payment

The bid for Mobilization and Demobilization shall be a lump sum bid item and shall not be more than ten (10) percent of the total bid amount for the project. Partial payments will be as listed below.

1.3.1 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.

1.3.2 The final one-half of the amount bid shall be released with the estimate payable after work is accepted by the WVDEP and when all "As Built" drawings are submitted and approved by 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 bid 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

The item consists of furnishing, placing, replacing and maintaining construction layout stakes, baseline stations, primary control points and any disturbed property location monuments as necessary for the proper performance of the work under this contract. It further consists of determining the exact units of measurement for payment. It also consists of checking and making any field adjustments to the grout hole locations that may be necessary due to confirmation boring as approved by a WV Registered Professional Engineer or the WVDEP.

Additionally, this item shall also include the preparation of "As-Built" Plans including the Reclamation Plan and any others specifically requested by the Department of Environmental Protection. All of these "As-Built" Plans shall be provided prior to the Final Inspection meeting. "As-Built" submittals shall include, two (2) hard copies and an electronic submission in Adobe (.pdf) and Auto CAD 2007 (.dwg) formats. "As Built" shall be certified by a Registered Professional Engineer or a Licensed Land Surveyor. Upon receipt and approval of the "As-Built" Plans by the WVDEP, the final one-half of the amount bid for Mobilization under Section 1 shall be released with estimate payable.

2.2 Materials

Materials necessary for this item include, but are not limited to; survey equipment, survey stakes, flagging, drafting media, etc...

2.3 Construction Methods

2.3.1 The Engineer will initially establish necessary benchmarks prior to the beginning of the project. From those benchmarks and backsight information supplied by the Engineer, the Contractor shall make all calculations necessary to layout the work and shall furnish, place and maintain all layout stakes needed to complete the work as outlined in the Specifications and Contract Drawings.

2.3.2 The Contractor shall provide a field work force and shall set all additional stakes 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. The Contractor shall mark each injection hole with a stake and a 2" square 6" long oak hub driven flush with the ground surface. The Contractor shall be responsible for having the layout staking work

conform to the lines, grades, elevations, and dimensions called for on the Contract Drawings. The Contractor shall furnish a copy of his survey records for checking by the WVDEP 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 WVDEP and the acceptance of all or any part of it shall not relieve the Contractor of his responsibility to secure the proper dimensions, grades, and elevations.

2.3.3 The Contractor shall exercise care in the preservation of existing stakes and bench marks and shall have them reset at his expense when any are damaged, lost, displaced, or removed. The Contractor shall use primary control points for re-establishing baseline stations wherever previously surveyed stations have been destroyed or removed. At a minimum, the Contractor shall confirm the location of existing baseline stations by field survey of each station's relationship to a suitable primary control point. Should any discrepancies be found, primary control points shall supersede any existing baseline stations.

2.3.4 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 WV Registered Professional Engineer or a WV Licensed Land Surveyor.

All survey notes, calculations, sections, plans, or said WV Registered Professional Engineer or WV Licensed Land Surveyor shall certify other documents produced pursuant hereto as correct.

2.3.5 Survey monuments and property corners exist on the subsurface injection areas. It shall be the sole responsibility of the Contractor to correctly locate all existing survey monuments and property corners. All necessary precautions shall be employed by the Contractor to insure avoidance of and damage to said survey monuments and property corners. It shall be the responsibility of the Contractor to properly locate and monument all existing property corners in relation to the project monuments. Said existing property corners removed or damaged during construction shall be reset in its original position, or acceptable offset, upon completion of construction activities, but prior to demobilization activities. Said property corners shall be referenced and replaced by a WV Licensed Land Surveyor. Should offsets to original corner locations be required, a plat, certified by said Licensed Land Surveyor, showing offset monument locations and descriptions, as

well as relationship to the original corner location, shall be submitted to WVDEP and the affected owners for their files.

2.3.6 The as-built plans shall include the vertical and horizontal location of all buried components depicted on the plans and herein specified.

2.3.6.1 As-built plans shall include the vertical and horizontal locations of all installed pipes and associated drop inlets.

2.3.6.2 In addition, as-built plans shall show the vertical and horizontal location of any and all mine seals and subsurface drains, including bottom of drain, pipe inverts, and top of buried subsurface drain installed for this project.

2.4 Method of Measurement

There shall be no measurement of this item as it is lump sum. Payment will be for furnishing, setting, maintaining, and resetting the stakes, when necessary; for furnishing all engineering personnel, equipment, materials, and all incidentals thereto; and for providing the WVDEP “as-built” drawings showing the reclamation plan with actual hole locations, drilling depth and grout and/or concrete quantities used. Partial payment is listed below.

2.4.1 The final one-half of the amount bid for “Mobilization and Demobilization” will be held until submittal and approval of the as-built drawings. The as-builts shall consist of hard copies and two copies on CD-ROM in AutoCad Release 2007 format.

2.5 Basis of Payment

This item shall be paid at the bid lump sum price. The amount shall not exceed five percent (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.

2.6 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 assuring the materials supplied and the work performed are in conformance with these specifications.

3.2 Applicable Publications

Work shall comply with, but not be limited to, the provisions of the following codes, standards and specifications:

ACI 301	"Specifications for Structural Concrete For Buildings".
ASTM C-31	"Standard Method of Making and Curing Concrete Test Specimens in the Field".
ASTM C-39	"Standard Test Method For Compressive Strength of Cylindrical Concrete Specimens".
ASTM C-172	"Fresh Concrete Sampling".
ASTM C-109	"Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in or [50-mm] Cube Specimens)."
ASTM C-939	"Standard Test Methods for Flow of Grout for Preplaced Aggregate Concrete (Flow Cone)."

3.3 Submittals

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

3.3.2 The Contractor shall submit at least two (2) copies of the results of all tests conducted on in-place material. As a minimum, these tests will include the compressive strength tests for the grout and concrete used in the project.

3.4 Construction Methods

3.4.1 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 State of West Virginia Registered Professional Engineer. The laboratory must be approved by the WVDEP.

3.4.2 The Contractor shall be responsible to perform sampling and testing of the grout and concrete used in the injection process for mine stabilization. The grout and concrete shall exhibit a minimum compressive strength of 500 psi at 28 days.

See Specification Section 13.0, "**Subsurface Injection**", for frequency and specific requirements for testing.

3.4.3 Only new and first class materials that conform to the requirements of these Specifications shall be used unless specified otherwise. When requested by the WVDEP, the Contractor shall furnish a written statement of the origin, composition, and manufacturer of any or all materials (manufactured, produced, or grown) that are to be used in the work.

The sources of supply of each material used shall be approved by the WVDEP before delivery is started. If, at any time, sources previously approved fail to produce materials acceptable to the WVDEP, the Contractor shall furnish materials from other approved sources.

3.5 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.

3.6 Basis of Payment

The quantity of work done will be paid at the bid lump sum price for this item, which payment shall be full compensation for doing all the work herein prescribed in a workmanlike and acceptable manner; including the furnishing of all labor, materials, tools, equipment, supplies and incidentals necessary to complete the work.

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

3.7 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

This work shall include the preservation from injury to all vegetation, utilities, existing structures, etc. or other objects to remain. The Contractor shall be responsible for removing and replacing, at his own expense, any fencing, trees, shrubs, lawns, etc., which are damaged as a result of construction. The Contractor shall, at his own expense, also correct any damage done to sidewalks, driveways, pavements, patios, etc., repair of sidewalks, streets, driveways, etc., shall be in accordance with Section 6.0 of these Specifications.

The contractor is required to video all areas and structures (inside and out), including all roads (public or private), subject to potential damages resulting from construction. Said videos shall be copied and supplied to WVDEP in DVD format prior to construction activities. It is recommended that contractor perform video review of site and access prior to mobilizing any company equipment to document pre-construction conditions.

4.2 Materials

Trunk damage to trees shall be painted with an antiseptic and waterproof paint with an asphaltic base. This paint shall not contain coal-tar creosote, turpentine or other materials harmful to plants or animals. Any replacement of landscape, trees, shrubs, etc., required shall be with nursery stock, as approved by WVDEP.

4.3 Construction Methods

4.3.1 The specific areas designated for site preparation shall include all areas of work within the limits of construction as shown on the Contract Drawings. Any shrubs, landscaping, vegetation, trees, fencing, etc., shall not be removed without prior approval from WVDEP.

4.3.2 It shall be the sole responsibility of the Contractor to correctly locate and avoid all underground, on-ground, and overhead utilities, including but not limited to: structure overhangs, fences, trees, shrubs, lawns, sidewalks, driveways, patios, pavement, facilities, etc. 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.

- 4.3.3** 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.
- 4.3.4** All materials generated from required clearing and grubbing operations shall be removed and disposed of by the Contractor. Any structures, 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 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 (See Special Provisions Section 7.0 for NEPA Compliance Schedule). All waste areas must be approved by the WVDEP, and the Contractor must provide a reclamation plan for approval. In addition, for all waste areas outside the construction limits, 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 and all injuries or damages whatsoever resulting from the use of property.
- 4.3.5** It shall be the sole responsibility of the Contractor to correctly locate and avoid all overhead and underground utilities, facilities and other structures and appurtenances. The Contractor shall employ all necessary precautions and methods to insure the protection of all utilities and/or other facilities during the construction. In the event damage does occur, the Contractor shall notify the affected owner and the WVDEP immediately and initiate immediate repair.

The contractor shall bear all expenses associated with the repair of the damaged utility and/or other facility, and any liability resulting from the interruption of service or use.

4.4 NEPA Compliance Schedule

The West Virginia Department of Environmental Protection has determined that off-site disposal (wash out) may be required to complete reclamation on this site. Since the most effective location has not been determined, the following procedures will be observed relative to selection and utilizing any disposal (or borrow) location.

- 4.4.1** No disposal (wash out) site operations will affect a site listed in, eligible or proposed to be listed in the National Register of Historic Places.

- 4.4.2 No disposal (wash out) 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.
- 4.4.3 Disposal (wash out) site operations will not cause a significant encroachment within the base floodplain (E.O. 11988: Floodplain Management).
- 4.4.4 Disposal (wash out) site operations will not be located in or affect a critical habitat of a Federally listed endangered or threatened species under 16 UCS 1531, et. seq.
- 4.4.5 No disposal (wash out) operations will occur in wetland areas that are designated by appropriate agencies.
- 4.4.6 Disposal (wash out) site operations will be consistent with any approved plans governing ambient air quality.
- 4.4.7 Adherence to these mitigation measures does not relieve the grantee or recipient of the obligation or responsibility to obtain any other Federal, State, or local approvals required to use disposal (wash out) and conduct such activities.
- 4.4.8 Documentation: Copies of disposal (wash out) site approvals, and concurrences will be submitted to the Department of Environmental Protection prior to the commencement of reclamation activities.
- 4.4.9 Site Monitoring: Disposal (wash out) activities will be monitored by the State to ensure compliance with contractual requirements, applicable Federal, State, and local laws, and any permit conditions.

4.5 **Method of Measurement**

- 4.5.1 The method of measurement for Site Preparation will be on a lump basis and cannot be more than 7% of the **TOTAL AMOUNT BID** for the project.
- 4.5.2 Site Preparation shall include the removal or relocating of timber, shrubs, equipment, garbage, junk, structures and debris. This item will not be measured but will be considered incidental to the site preparation operations.

4.5.3 Video recording of all areas and structures (inside and out), including all roads (public or private), will not be measured but will be considered incidental to the site preparation operations.

4.6 Basis of Payment

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

No 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.

4.7 Pay Items

Item 4.0 “Site Preparation”, per lump sum cannot be more than 7% of the **Total Amount Bid** for the project.

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 12" compost filter socks as detailed on the Plans. Sediment control shall be installed about the perimeter of disturbed areas prior to any construction activities. Sediment control devices will be removed from all yard areas upon completion of the project. Installation locations shall be at the direction of the WVDEP representative.

Water encountered in the drilling process and carried to the surface with cuttings shall be contained and filtered by the use of 12" compost filter socks. Cuttings and dust sludge shall be contained by these filter socks and shall be used as hole backfill, with WVDEP approval, or removed from the site. The final location and dispensation of removed cuttings and sludge shall be approved by WVDEP prior to placement. Water discharged from the immediate work areas shall meet all applicable Federal, State and Local effluent limitations.

5.2 Materials

5.2.1 Socks: Shall be from Silt Sock Products or equal.

5.2.2 Stakes: The stakes used for filter socks shall consist of 3/4" x 3/4" stakes, 25" length made from wood or biodegradable materials. Other method of anchoring may be used if specifically approved by the WVDEP Representative.

5.3 Maintenance

During the course of the Project, sediment control 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 should be spread in the general vicinity, except when such practices may be a detriment to the environment and/or the project.

5.4 Installation

Filter socks shall be installed along the ground contour or at the toe of slopes. No trenching is required, however a bed must be prepared for proper installation by removing any large debris including rocks, soil clods, and woody vegetation. Rake the bed area with a hand rake or by drag harrow. All surfaces shall be uniform and well compacted for maximum seating and stability. Do not place filter socks over rills and gullies until area has been hand excavated and raked to provide a level

bedding surface in order for the filter socks to seat uniformly with no bridging effects that would allow flow to bypass under the bag. For locations where filter socks will be placed in concentrated flows and for perimeter controls at primary discharge locations, bed the filter socks in a jute mesh cradle. If more than one filter sock is placed in a row, install the filter sock by firmly overlapping upslope or downslope a minimum of 6" of the previous filter sock. Place anchoring posts on both sides of the filter socks as shown on the Contract Drawings. Do not drive the post through the erosion filter socks. Wooden posts are to be embedded nearly flush with the top of the filter sock and spaced a maximum of 10 feet apart for slopes less than 3:1 and have a maximum spacing of 5 feet for slopes between 3:1 and 2:1. Filter socks are not to be used on slopes greater than 2:1. Typical installation details are provided in the Drawings.

5.5 Removal

Upon the completion of the project, the WVDEP Representative may contact the Contractor to remove, clean or replace silt control structures and revegetate such disturbances in accordance with the Section 6.0 of these specifications.

5.6 Method of Measurement

The method of measurement shall be performed to the nearest linear foot of sediment control placed in conformance with these specifications and accepted by the WVDEP Representative. Only that sediment control which is determined necessary by WVDEP shall be included for measurement. Any additional sediment control installed by the Contractor to meet any applicable State or Federal Law or Regulation shall be the Contractor's sole responsibility and all costs pursuant thereto shall be borne fully by the Contractor.

Any sediment control that the Contractor may install to protect streams for other purposes shall not be included for measurement and shall be the sole responsibility of the Contractor. However, any sediment control approved by the WVDEP Representative prior to placement shall be included for measurement.

5.7 Basis of Payment

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

5.8 Pay Item

Item 5.0 “Erosion and Sediment Control”, per linear foot.

6.0 REVEGETATION

6.1 Description

This work shall cover all operations incidental to the establishment of vegetation within the limits of construction as shown on the Construction Drawings and any other areas as directed by the WVDEP. This work also includes the furnishing and the application of fertilizer and mulch and the furnishing and sowing of seed, all in accordance with these Specifications and as designated herein. Site restoration shall begin immediately after completion of construction activities required for the residence.

No areas outside the limits of construction shall be disturbed without prior approval from the WVDEP in order to ensure that Right of Entry has been obtained. The Contractor at no expense to the WVDEP, shall revegetate any areas outside the limits of construction, disturbed by the Contractor.

6.2 Materials

6.2.1 Fertilizer

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

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

Fertilizer rates shall be formulated from soil test results. In the absence of soil testing a rate of 1000 lbs/acre will serve as a preferred minimum. Fertilizer shall be applied immediately to all areas reaching final grade by one of the two following methods:

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

6.2.2 Lime

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

Lime requirement shall be formulated from soil test results. Lime should be thoroughly mixed into the top three (3) inches of soil. In the absence of soil testing a rate of three (3) tons per acre will serve as the preferred minimum.

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 <25% by weight)

All leguminous seed shall be inoculated with the specified strain of rhizobia that 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 Lawn Seed Mixtures

Existing lawn areas disturbed by construction, drill activities, or injection operations shall be reseeded using the following mix or contractor may use a high quality commercial lawn mix:

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

* Use annual ryegrass only in mixtures seeded after August 15 and before May 15.

6.2.4 Mulch Material

6.2.4.1 Straw

Straw mulch shall include baled wheat or oats straw or baled grass hay. Straw mulch shall be dry and reasonable free of weed sticks, sticks or other foreign material. Straw mulch shall be applied at a rate of two tons/acre. As necessary, the straw mulch shall be anchored with 100 gallons/acre asphalt emulsion or 750 lbs/acre wood cellulose fiber.

6.2.4.2 Wood Cellulose Fiber

Wood cellulose fiber may be used on slopes at a rate of 1,500 lbs/acre. A mulch for use with the hydraulic application of seed, fertilizer and lime shall consist of wood cellulose fiber. It shall be processed in such a manner that it will contain no growth or germination inhibiting factors and shall be dyed green. It shall be manufactured in such a manner that:

- (1) After addition and agitation in slurry tanks with fertilizers, lime seeds, and water, the fibers in the material will become uniformly suspended to form a homogeneous slurry, and:
- (2) The material, when hydraulically sprayed on the ground, will form a blotter-like ground cover impregnated uniformly with seed, and will allow rainfall to percolate to the underlying soil.

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

6.2.5 Water

Water shall be reasonably **free** from 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 Site restoration shall begin on each structure immediately after completion of construction activities required for that structure, so as to utilize the fine soil material as a seedbed before this material is lost via erosion from 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. Discing, harrowing, cultipacking or other acceptable tillage operations may be used to prepare the seedbed. 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 Reclamation and revegetation of yards shall require hand raking and removal of rocks larger than two (2) inches in diameter. After broadcasting or otherwise applying seed, the surface of the seedbed shall be raked, culti-packed, or very lightly brush dragged to insure seed contact with soil. All raking shall be done parallel with the contour. Seedbed preparation shall be suspended when soil moisture conditions are not suitable for the preparation of a satisfactory seedbed as determined by the WVDEP.

6.3.4 Mulching operations may also require manual applications within lawn areas. Mulch that becomes displaced shall be reapplied at once, together with necessary reseeding, all at no expense to WVDEP.

6.3.5 Seedbed preparation and seeding shall take place progressively as construction proceeds.

6.3.6 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.

6.3.7 Seed application shall consist of approved hydro seeding methods where feasible.

Any seed left in hydroseeder overnight shall be reinoculated before that seed shall be applied. Other methods of seed application maybe utilized for site-specific reasons when approved by the WVDEP.

6.3.8 Any area failing to establish a vegetative stand due to weather or adverse soil conditions shall be reseeded, relimed, refertilized and remulched as directed by the WVDEP.

6.3.9 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.

6.4 Site Restoration and Road Repair

6.4.1 Site restoration shall cover all operations incidental to repair of sidewalks, driveways, pavements, patios, overhangs, buried utilities, landscape amenities, etc., and the re-establishment of lawns in accordance with Section 5.5. The Contractor shall hold the WVDEP harmless for any damage to public or private property. All proposed routes of access shall be subject to the approval of the WVDEP. Site restoration shall begin on each structure immediately after completion of construction activities required for that structure. Structure associated site restoration shall be completed ten (10) calendar days after completion of injection operations associated with that structure.

6.4.2 The Contractor shall be responsible for removing and replacing any fence necessary for access to work areas, and providing any temporary fencing required, all at his own expense. Demolished or removed materials or objects shall be removed from the site to a State approved landfill permitted to accept the removed or demolished materials.

6.4.3 The Contractor shall be responsible for removing and replacing, at his own expense, trees, shrubs, lawns, landscape amenities, etc., which are damaged as a result of construction activities, including drilling and grout injection operations. Clearing and grubbing in the area of subsurface injection operations shall be controlled by WVDEP. Trees, shrubs, or other lawn vegetation may be cleared or grubbed only with WVDEP approval.

The contractor shall conduct all operations so as to eliminate damage to local flora and fauna. Shrubbery and trees damaged or removed shall be replaced with like species of a size available at a local nursery. Shrubbery and tree replacement will require WVDEP approval prior to purchase and installation. All vegetation replaced by the Contractor shall be guaranteed in a manner similar to Section 6.3.

Landscape amenities such as timbers, patio blocks, ornaments, etc. shall be replaced with like materials and approved by WVDEP prior to replacement.

6.4.4 Depressions created in lawns shall be repaired by importing topsoil material and filling depressions and blending to adjacent grades, at the most moderate slope possible, to produce an aesthetically pleasing site and to the satisfaction of WVDEP. Topsoil fill material shall require WVDEP approval prior to use. Lawns shall

be revegetated in accordance with Specification Section 6.3.3.2. Other aspects of Section 6, **Revegetation**, such as seedbed preparation and lime, fertilizer, and mulch quantities apply to lawn restoration.

6.4.5 The Contractor shall, at his own expense, correct any damage to any and all paved or poured structures, sidewalks, driveways, pavements, patios, overhangs, buried utilities, etc., above, in, and/or below ground elevations attributable to his construction activities and grout injection operations. Sidewalks, driveways, pavements, patios, overhangs, buried utilities, etc. shall be repaired with materials compatible to those existing and as approved by WVDEP. The extent of damage and associated repair work required and amount of materials involved will be determined by WVDEP.

6.4.6 Also, maintenance of existing streets, roads, and driveways, both paved and graveled, shall be the responsibility of the Contractor. All roads disturbed by the Contractor's work shall be repaired and maintained in a condition equal to or better than existed prior to the contractor's activities and in accordance with the following requirements:

6.4.6.1 The Contractor shall be responsible for repairing any damage to roads, streets, sidewalks, curbs, driveways, etc., resulting from drilling or construction activities. Damages to streets include damage resulting from heavy construction/delivery vehicles and/or numerous cycles of equipment over streets. The WVDEP shall be the sole judge as to the extent of damage requiring repair.

6.4.6.2 Bituminous pavement shall be repaired by cutting out the damaged section and replacing the pavement in kind, including base stone and hot-laid bituminous pavement in accordance with the West Virginia Department of Transportation, Division of Highways Standard Specifications for Roads and Bridges, WVDOH Section 401.

Concrete pavement shall be repaired by cutting out the damaged section and replacing the pavement in kind, including base stone and concrete pavement in accordance with the West Virginia Department of Transportation, Division of Highways Standard Specifications for Roads and Bridges, WVDOH Section 501. The extent of the cut out area shall be defined by WVDEP. The patched area

joint shall be sealed using a WVDEP-approved sealer. Damaged pavement removed by the Contractor shall be deposited in a landfill approved by the State to accept this type material.

- 6.4.6.3 Any portion of unpaved driveways/roads, etc. impacted by Contractor activities shall be resurfaced with four inches, minimum, depth of Class 2 crushed stone as described in West Virginia Department of Transportation, Division of Highways Standard Specifications for Roads and Bridges, WVDOH Section 704. Adequate access shall be maintained to nearby residences at all times.
- 6.4.6.4 The Contractor shall conduct all work in such a manner that the amount of dust, erosion, clogging of existing drains and damage to street, driveway, or site drainage structures are minimized or eliminated.
- 6.4.7 Special provisions or plans needed to avoid existing structures, utilities, etc., shall be approved by WVDEP prior to the Contractor utilizing these provisions or plans to drill the associated boreholes.
- 6.4.8 The contractor is responsible for obtaining all necessary Federal, State, and Local permits required for construction operations as described herein. Also, the contractor shall limit interruptions to residential access to as little inconvenience as possible.
- 6.4.9 General site cleanup shall be performed upon completion of work and on a daily basis as determined by the WVDEP. The project area shall be kept clean of all rubbish and debris resulting from the work. All barrels, cans, drums, rubbish, waste or other debris shall be disposed of in an approved landfill or other appropriate location, or as approved by the WVDEP.
- 6.4.10 Water encountered in the drilling process and carried to the surface with cuttings shall be contained and filtered by the use of Erosion Eel Product or silt fence. Erosion Eel Product or silt fence shall be paid under Section 5.0, "**Erosion and Sediment Control**". Cuttings and dust sludge shall be cleaned from the hole area after drilling is completed and prior to injection into the hole. Water discharged from the immediate work areas shall meet all applicable Federal, State and Local effluent limitations.

6.5 Method of Measurement

6.5.1 The method of measurement for Site Restoration shall be per lump sum. Site restoration shall include re-establishment of lawns, filling depressions, and repair of all damaged structures, facilities, and constructions as specified and approved by WVDEP.

6.5.2 The method of measurement for Road Repair work done will not be a separate pay item, but will be considered incidental to “**Revegetation**” and shall include all costs related to the furnishing of labor, materials, and equipment required to repair and maintain both paved and unpaved roads consisting of concrete, asphalt or gravel in accordance with these specifications and as approved by WVDEP.

6.5.3 No payment shall be made for any seeding conducted after the final inspection; this work is considered warranty.

6.6 Basis of Payment

6.6.1 The lump sum shall be considered 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.

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

6.7 Pay Items

Item 6.0 “**Revegetation**”, per lump sum.

9.0 MINE SEALS

9.1 Description

This work shall consist of excavating the mine opening and installing the concrete dry mine seals. There is a dry mine seal detail shown in the Contract Drawings. It shall be constructed in accordance with the typical detail at the locations shown on the Contract Drawings. Materials shall conform to those listed below.

9.2 Materials

9.2.1 Concrete Mix

Concrete shall be composed of a mixture of water, cement, sand, flyash, fine aggregate and coarse aggregate. Concrete must have a mix proportioned for no greater than a four inch slump as measured in ASTM Test Designation C 143, or otherwise, will be directed by the engineer. The Contractor shall be responsible for insuring that the design mix for concrete can be pumped through the injection pipes from the pump to tremie pipe that he intends to utilize for the project. All concrete placed shall have a minimum unconfined compressive strength of 350 psi after seven days of curing and 500 psi after 28 days of curing, and the water/cement ratios shall not exceed those of the design mix for each design slump. Slump shall be maintained in the required range even after pumping.

9.3 Construction Methods

9.3.1 The opening shall be cleaned of debris to the satisfaction of the WVDEP. Once the opening has been cleaned a tremie line shall be placed a minimum of 10' from the face of the mine into the mine. Concrete is to be pumped in stages to control quantities. Concrete is to have a slump less than 4". The finish on the final face is to be hand or broom finished.

9.3.3 The dry mine seals will require excavation into the mine entries/collapsed portals for proper installation. The Contractor shall safely 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.

Construction of dry mine seals shall be in accordance with the Contract Drawing details.

9.4 Method of Measurement

9.4.1 Dry Mine Seals shall be measured per dry mine seal installed and shall include all excavation and purchasing, handling, and placing concrete, and all associated costs will be based on the number of cubic yards of concrete injected. This shall include purchase, mixing and transportation of high and low slump concrete from the batch plant or supplier to the job site. The volume submitted for payment cannot exceed the material dry weight(s) delivered and proportioned per cubic yard based on the mix design submitted. as necessary to complete the seal.

9.4.2 Soda Ash Briquettes shall be measured per 50# bag used.

9.5 Pay Items

Item 9.1, "**Dry Mine Seals**", shall be a per each bid item.

Item 9.2, "**Soda Ash Briquettes, 50 lb. Bag**", shall be a per each bid item.

11.0 UTILITIES

11.1 Description

This work shall consist of all necessary measures to locate, relocate, maintain and protect all utilities within the limits of work specified herein and on the construction drawings.

The Contractor shall be responsible for making all necessary arrangements and/or performing all necessary work to the satisfaction of the affected utility company and the West Virginia Department of Highways in connection with disturbances within their right-of-way or services.

The Contractor shall be solely responsible for locating all utilities within the limits of work. All damage made to existing utilities by the Contractor shall be the sole responsibility of the Contractor. 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 expenses thereof and resulting damage caused thereby.

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11.2 Materials

All materials used for utility related disturbance shall be in accordance with these specifications or as indicated by the affected utility.

11.3 Construction Methods

All work shall be in accordance with these specifications or in accordance with those methods as indicated by the affected utility. The Contractor is required to work in close proximity to the utilities noted above as well as other overhead and buried public and private utilities and other constructions, especially during subsurface injection operations. It shall be the sole responsibility of the Contractor to correctly locate and avoid all overhead and underground utilities, facilities, and other structures and constructions, and for that purpose shall employ all necessary precautions and methods to insure avoidance of any damage to such structures, facilities, and constructions. In the event such damage does occur, the Contractor shall notify the affected owner and WVDEP immediately and make or have made all necessary repairs and bear the expense thereof and resulting damage caused thereby.

The Contractor shall notify affected utilities as soon as possible, so utility location activities and permit requirements can be put into motion early and insure smooth project progress.

11.4 Method of Measurement

The method of measurement for determining the quantity of work done as described above for utility work will not be a separate Pay Item, but will be considered incidental to all other work associated with the construction of this Project as described in these Specifications, and as shown on the Plans. Should any utility work require relocation, said relocation shall be approved by the affected Utility, WVDEP and necessary for completion of operations as detailed.

In this instance, the Contractor shall be reimbursed per WVDEP approved Utility invoices. Permit fees and other miscellaneous associated costs required for any utility work shall also be considered incidental to all other work associated with the construction of this Project as described in these Specifications, and as shown on the Plans. No separate Pay item exists for Utility work.

12.0 INJECTION HOLE DRILLING

12.1 Description

This work consists of drilling all injection holes (boreholes or holes) from the ground surface to 1 foot below the base of the mined coal seam and installing casing as directed by these Specifications.

12.2 Equipment

Standard rotary type drilling equipment can be used. The drilling equipment must be capable of drilling vertical and angled injection holes as indicated on the Plans to the required diameter and depth.

The drilling equipment must be equipped with dust collection and/or control devices capable of minimizing fugitive dust emissions during the drilling operation. All drills utilized on this project should be at a minimum, equipped with dust skirts on the drill table, an exhaust system meeting the original manufacturers recommendations or equipment, dust collars which fit around the drill steel as it passes through the drill table (irregardless of top or bottom drive), and water spray bars. Drills shall also be equipped with pressure gauges, which indicate the down hole drilling pressure.

12.3 Procedures

12.3.1 All boreholes drilled for injection purposes shall be drilled to a point one foot below the base of the mined coal seam and shall have a diameter of sufficient size to permit the installation and removal of required casing and supply pipe. The boreholes shall have a nominal diameter in rock of no less than six inches (6") for both vertical and angled holes. Hole locations depicted on the Plans may be modified by WVDEP as particular site conditions warrant.

Drilling of grout injection holes in yard areas shall be limited to track rigs only, unless prior approval is obtained from the WVDEP. Drilling shall be performed in such a manner as to minimize mine roof collapse, such as reducing down pressure, etc., directly above the mine. The Contractor will be responsible for drilling holes as needed to reach the desired point in the mine and as shown by injection hole locations depicted on the Plans. The holes shall be drilled with bits and stabilizers or collars (as required) to provide full-diameter, straight holes.

Vertical holes shall have a maximum deviation from the vertical of two percent of the hole length. Inclined holes shall be started within two degrees of the specified angle. All holes are planned to be vertical unless indicated as angled holes on the Plans.

12.3.2 Special provisions or plans needed to avoid existing structures, utilities, etc., shall be approved by WVDEP prior to the Contractor utilizing these provisions or plans to drill the associated boreholes.

12.3.3 The Contractor shall be responsible for removing and replacing, at his own expense, any fencing, trees, shrubs, lawns, etc., which are damaged as a result of the drilling. The Contractor shall, at his own expense, also correct any damage to sidewalks, driveways, pavements, patios, overhangs, buried utilities, etc., attributable to his drilling operations. Also, maintenance of existing streets, roads, and driveways, both paved and graveled, shall be the responsibility of the Contractor. All roads disturbed by the Contractor's work shall be repaired and maintained in a condition equal to or better than existed prior to the contractor's activities and in accordance with the following requirements:

12.3.3.1 The Contractor shall be responsible for repairing any damage to roads, streets, sidewalks, curbs, driveways, etc., resulting from drilling or construction activities. Damages to streets include damage resulting from heavy construction/delivery vehicles and/or numerous cycles of equipment over streets. The WVDEP shall be the sole judge as to the extent of damage requiring repair.

12.3.3.2 Bituminous pavement shall be repaired by cutting out the damaged section and replacing the pavement in kind, including base stone and hot-laid bituminous pavement in accordance with the West Virginia Department of Transportation, Division of Highways Standard Specifications for Roads and Bridges, WVDOH Section 401. Concrete pavement shall be repaired by cutting out the damaged section and replacing the pavement in kind, including base stone and concrete pavement in accordance with the West Virginia Department of Transportation, Division of Highways Standard Specifications for Roads and Bridges, WVDOH Section 501. The extent of the cut out area shall be defined by WVDEP. The patched area joint shall be sealed using a WVDEP-approved sealer.

Damaged pavement removed by the Contractor shall be deposited in a landfill approved by the State to accept this type material.

12.3.3.3 Any portion of unpaved driveways/roads, etc. impacted by Contractor activities shall be resurfaced with four inches, minimum, depth of Class 2 crushed stone as described in West Virginia Department of Transportation, Division of Highways Standard Specifications for Roads and Bridges, WVDOH Section 704. Adequate access shall be maintained to nearby residences at all times.

12.3.4 Water encountered in the drilling process and carried to the surface with cuttings shall be contained and filtered by the use of filter socks. Filter socks shall be paid under Section 5.0, **"Erosion and Sediment Control"**. Cuttings and dust sludge shall be cleaned from the hole area after drilling is completed and prior to injection into the hole. Water discharged from the immediate work areas shall meet all applicable Federal, State and local effluent limitations.

12.3.5 It shall be the responsibility of the Contractor to protect all drilled and cleaned out holes from debris until the completion of the work at the hole. Any required cleaning of the hole after initial drilling and cleaning shall be at the Contractor's expense.

12.3.6 Each hole drilled shall be cased and otherwise protected from caving and/or becoming clogged or obstructed. Injection holes through soil shall be cased to the top of rock. All pipe fittings required for casing holes shall be furnished, handled and installed by the Contractor.

The casing must be strong enough to maintain an open hole. Metal or plastic casing may be used as approved by the WVDEP Representative and shall extend a minimum of one foot above the ground surface, where possible. Casing to be left in any paved area, prior to injecting, shall be flush to pavement level after capping. The casings in soil shall be of sufficient inside diameter to permit drilling the required diameter hole in rock. Casings shall be left in the hole until the completion of injection of that hole. All metal casing shall be removed completely, and plastic casing shall be removed to a minimum of one foot below finished subgrade.

The WVDEP Representative will delete from payment to the Contractor all costs associated with removal of unauthorized casing left in place by the Contractor.

12.3.7 The safety of the residents, public and pedestrians shall be kept in mind at all times when casings are located within the streets and/or sidewalks. Appropriate officials shall be contacted to determine what safety precautions, protection and regulations must be followed during drilling and stabilization operations and while the casings remain in place. All casing left in any paved area shall be flush to pavement after capping. Also, the Contractor shall limit interruptions to residential access to as little inconvenience as possible.

12.3.8 The number of injection holes may vary depending on the conditions encountered in the mine workings. Conditions that would reduce the number of injection holes required are: (1) encountering solid coal, and (2) based on camera work, flow from other injection holes has stabilized an area. Some conditions, which may require the addition of injection holes are: (1) voids or broken conditions that have significant injection material takes, and (2) areas along the barrier which may require additional thickness. Injection holes shall only be added or deleted by the WVDEP Representative and shall be approved by the Project Engineer.

12.4 Records of Borings

12.4.1 Drilling records (logs) shall be developed by the Contractor to document all types of soil and rock encountered, the depth of and changes in soil and rock types, locations of voids, fractures, and water bearing zones shall be recorded.

In every hole, special attention shall be given to the conditions at mine level (i.e. presence of coal, gob, roof falls, voids, mud and water), and location of abnormal loss or gain of drill water or air.

The Contractor shall note on the logs which holes, if any, are interconnected as evidenced by dust or water discharge from hole(s) other than the hole being drilled. The fact that the WVDEP Representative may be present and keeping a record of the drilling shall not relieve the Contractor from the requirement of keeping an accurate log as described above.

12.4.2 Drilling records (logs) shall be provided to the WVDEP Representative within one day of completion of the hole and prior to the injection of material.

12.5 Directives

The WVDEP Representative reserves the right to:

- Specify the sequence of drilling;
- Terminate the drilling of any of the holes at any depth;
- Order the drilling of holes in addition to those specified herein or
- Delete the drilling of holes specified herein, and
- Change the proposed location of any of the holes.
- Stop drilling operations if adequate dust control measures are not being met.
- Stop operations if adequate sediment control measures are not being met.

12.6 Method of Measurement

12.6.1 Drilling Vertical and Angled Injection Holes

The method of measurement for drilling vertical and angled injection holes in both soil and rock will be made in lineal feet from the ground surface to the actual depth drilled along the axis of the hole.

This shall include the cost of furnishing all labor, materials, tools and equipment required for drilling the holes, removing all materials from the casing and maintaining the holes open and clean until no longer required, and all incidental work connected therewith.

12.6.2 Casing Vertical and Angled Injection Holes

There will be no method of measurement for casing of vertical and angled injection holes. Materials and installation required for casing of injection holes shall be in accordance with the contract plans and specifications, and shall be considered incidental to and included in the price bid for drilling vertical and angled injection holes.

This shall include the cost of furnishing all labor, materials, pipe, casing, tools and equipment required for casing the vertical and angled injection holes, maintaining the holes open and clean until no longer required, removing the casing from the hole and all incidental work connected therewith.

The method of measurement for Road Repair as described in sections 5.3.3 shall be as described in Section 12 of these Specifications

12.7 Basis of Payment

12.7.1 Drilling Vertical and Angled Injection Holes

Payment will be made at the contract unit price per lineal foot.

12.8 Pay Items

Item 12.1 **“Drilling and Casing Vertical Injection Holes”, per lineal foot.**

Item 12.2 **“Drilling and Casing Angled Injection Holes”, per lineal foot.**

13.0 SUBSURFACE INJECTION

13.1 Description

This work consists of purchasing, handling and delivering to the site all required materials for injection and injecting the materials as directed by these Specifications.

13.2 Definitions

The following definitions apply in the interpretation of these Specifications:

13.2.1 Zone: A zone is the horizontal area influenced by the injection into a hole.

13.2.2 Void: A void is any subsurface opening resulting from the removal of coal from the coal seam. Voids may be at the coal seam level or above.

13.2.3 Gob: Gob is a mixture of materials found at mine level that consists of roof shales and other rock materials that have fallen or have been placed in a void.

13.2.4 Coal Pillar: Coal pillar is an unmined block of coal remaining in the coal seam.

13.2.5 Stage: A stage is a vertical subsurface injection interval, which may include all, or part of the drill hole length.

13.2.6 Gravity Injection: Gravity injection is the method used to place grout or concrete into the injection hole without pressure packers being used. The necessary materials are placed through a pipe (supply and/or tremie) at the specified interval of depth under the action of gravity (gravity flow). Pumping will be required to place concrete and grout at mine level to overcome friction in the injection hoses and pipes.

13.2.7 Overburden: Overburden includes soil and rock overlying the mined coal seam.

13.2.8 Take: Take is the volume of material injected into a specified interval of an injection hole.

13.2.9 Mine Workings: The vertical interval that corresponds to the mined portion of the coal. This interval starts at the base of the coal and extends to the mine roof.

13.2.10 Closure: A closure (split spacing) method for secondary injection will be used in areas as determined by the WVDEP Representative. Closure holes will normally be located midway between holes injected previously.

13.3 Materials

Grout shall be composed of a flowable mixture of cement, fly ash and water, with the possible addition of an accelerator. Concrete shall be composed of a mixture of coarse aggregate, cement, fine aggregate, fly ash, and water. Chemical admixtures may be used to obtain the required slump or to maintain the required workability or flowability if included in the design mix testing. For an on-site batch plant, sufficient quantities of materials shall be stored at or near the site of the work so that grouting or concreting operations will not be delayed by shortage of materials. Any on-site storage and delivery of flyash and cement shall be performed so as to minimize dust. The contractor must maintain a record of all materials delivered to the site and provide WVDEP with a copy of all deliveries on a daily basis.

The contractor, at his expense, will dispose of all materials unacceptable for use and all materials left after grouting is complete, in accordance with NEPA regulations, see Specification Section 4.4.

13.3.1 Water

The water used in grout and concrete shall be clean and free from injurious amounts of sewage, oil, acid, alkali, salts, organic matter or any other foreign solids, and shall be furnished by the Contractor. The water used shall meet the requirements of ASTM C 94. Whenever the outside air temperature is below 20° F, the Contractor shall heat all water for mixing, cleaning and flushing. The final mix temperature shall range from 40° F to 80° F, with the water temperature not exceeding 140° F at the time of mixing.

13.3.2 Cement

Cement used in grout or concrete shall conform to the requirements of ASTM C 150, "Portland Cement," Type II. The Contractor shall furnish and store cement so that it will not deteriorate from moisture, weather or other causes.

Cement that has been in storage more than two months shall not be used for concrete or grout. The use of bulk cement will be permitted provided the Contractor provides methods of handling; transporting, storage and measuring that are satisfactory to the WVDEP Representative.

If sacked cement is used on the project, it shall be used in the chronological order in which it was delivered on the job to prevent undue aging after delivery. Store each shipment of cement so that it may readily be distinguished from other shipments. Use only cement free from lumps due to warehouse set. No additional payment will be made for screening or for old cement, which may be rejected by WVDEP.

13.3.3 Fine Aggregate

Fine aggregate shall consist of hard, dense, durable rock fragments and shall meet the gradation requirements of AASHTO Number 8 (one-half inch to #16) and shall meet all requirements of ASTM C 33.

13.3.4 Coarse Aggregate

Coarse aggregate shall consist of hard, dense, durable fragments and shall meet the gradation requirements of AASHTO Number 57 (one inch to #4) and conform to all requirements of ASTM C 33.

13.3.5 Fly Ash

Type F fly ash resulting from combustion of pulverized coal supplied and handled by the Contractor shall meet the following requirements:

- A Maximum Loss on Ignition (LOI) of 12 percent.
- A minimum of 40.0 percent Silicon Dioxide (SiO_2).
- A minimum of 15.0 percent Aluminum Oxide (Al_2O_3).
- Not more than 5.0 percent Acid Soluble Sulfate (SO_3).
- Not more than 3.0 percent Magnesium Oxide (MgO).

13.3.6 Accelerator

The use of an early set accelerator shall be added to the mixes when directed by the WVDEP Representative. All accelerator products shall conform to ASTM C 494.

13.3.7 Optional – High Range Water Reducer

The use of a water reducer may be added to the concrete mix only with the approval of the WVDEP Representative. All water reducing products shall conform to ASTM C 494. There will not be additional payment for the use of water reducers.

13.3.8 Optional – Set Retarder

The use of a set retarder may be added to the mixes only with the approval of the Engineer. All set retarding products shall conform to ASTM C 494. There will be no additional payment for the use of set retarders.

13.4 Grout and Concrete Mixes

13.4.1 Grout Mix

The water-cement-flyash ratio of the grout mix will be determined by the Contractor with the approval of the WVDEP. The resultant grout must be flowable and have a minimum unconfined compressive strength of 350 psi after seven days of curing and 500 psi after 28 days of curing. The Contractor will be responsible for insuring that the grout mix will meet the strength requirements and also that the mix can be pumped through the injection pipe (both the supply lines from the pump to the injection hole and tremie pipe) to be utilized on this project. Grout mixes may be varied to meet particular characteristics of each boring, with WVDEP approval, but each case must meet the minimum unconfined compressive strength requirements and shall not exceed the water/cement ratio of the design mix. The grout shall have a flow cone value ranging from 30 to 60 seconds as determined by ASTM C 939.

Twenty-eight day compressive strength test specimens shall be obtained and sampled according to ASTM Test Designation C31-83 for a minimum of each 50 cubic yards or daily fraction thereof. WVDEP may require samples to be taken from any truckload of grout. The Contractor shall comply with Specification Section 3.4 to obtain samples and perform testing procedures associated with grout and concrete specimens.

A written grout mix, using weights of materials shall be submitted to WVDEP for approval a minimum of five working days prior to injection operations. Even upon approval, it remains the

Contractor's responsibility to ensure the minimum compressive strength requirements are achieved.

13.4.2 Concrete Mix

Concrete shall be composed of a mixture of water, cement, sand, flyash, fine aggregate and coarse aggregate. Concrete must have a mix proportioned for a four to six inch slump as measured in ASTM Test Designation C 143, or otherwise, will be directed by the engineer. The Contractor shall be responsible for insuring that the design mix for concrete can be pumped through the injection pipes (both the supply lines from the pump to the injection hole and tremie pipe) that he intends to utilize for the project. All concrete placed shall have a minimum unconfined compressive strength of 350 psi after seven days of curing and 500 psi after 28 days of curing, and the water/cement ratios shall not exceed those of the design mix for each design slump. Slump shall be maintained in the required range even after pumping.

13.4.3 Mix Designs

All concrete and grout mix designs to be used by the Contractor will be subject to review and approval of the WVDEP Representative. The use of grout or concrete will be at the discretion of the Engineer. The flow rate of the grout will also be at the discretion of the engineer. The Contractor shall submit to the WVDEP Representative the proposed mix designs along with sufficient test data using the proposed sources of mix components to verify strength parameters prior to the initiation of injection operations. This design mix testing shall include the corresponding slump and fluidity test results for the design mixes. If, during injection operations, the testing indicates that required strengths are not being achieved, the design mix proportions are not being achieved, or the required slump is not being achieved, then the Contractor shall modify the mix proportions, strengths, and slump.

All unconfined compressive strength requirements of this Specification are based on testing according to ASTM C 39 of cylindrical samples prepared according to ASTM C 31.

If the Contractor desires to mold and test cube samples of grout according to ASTM C 109 to assist in quality control during injection, he must also present the test results of unconfined compressive strengths of cube samples of the design mixes prior to the initiation of grouting and concreting operations. These test

results will be used by the Engineer to determine if and how much the design strength measured for cube samples must be increased in order to determine that the specified unconfined compressive strength based on cylindrical samples is being achieved.

13.5 Equipment

13.5.1 All equipment required for mixing and injecting grout and concrete shall be furnished by the Contractor. The power supply and equipment and layout thereof shall meet all applicable Local, State and Federal requirements, regulations and codes, including those related to safety.

13.5.2 The Contractor can use a premixed grout delivery service or an on-site batch mixing facility. On site batch plants require compliance with Special Provision Number 1.03 of these specifications. In the area of fly ash storage, a sprinkler system for dust control is required. In either case, the grout shall be well mixed and shall be free of hardened grout or foreign materials larger than would pass a Number 16 U.S. Standard screen. The Contractor shall provide all necessary pumps, mixers, compressors, tanks, meters, valves, hoses, pipes, fittings, tools and other miscellaneous items to provide a continuous supply of grout and to maintain accurate control and measurement. The grout plant must be capable of providing 50 cubic yards of grout per hour to each operating pump. The tremie pipe, when required, shall be metal or plastic, no smaller than three (3) inches in diameter, and stiff enough to maintain the tip below the level of grout during placement. The type and diameter of grout supply pipe to be used shall be determined by the Contractor and approved by the WVDEP Representative. If, at any time, it is determined that the pipe is of insufficient diameter, then the WVDEP Representative will direct the Contractor to use a larger diameter pipe.

13.5.3 The equipment used to mix grout and concrete shall have suitable metering devices to accurately, continuously measure the proportions of all components of the mix, including, water at the time of injection. The water meter shall be a non-resettable, continuous flow meter and must meet the approval of the WVDEP Representative.

13.5.4 All flow measurement and mix-proportioning equipment shall have a recent calibration and shall be field calibrated periodically during the project as directed by the WVDEP Representative. If a grout plant is utilized during construction, calibration will be required on a weekly basis. All equipment must be in good working condition.

13.6 Procedures

13.6.1 The Contractor shall perform periodic depth soundings during grout and concrete injection operations to determine the levels of injected materials in the holes, and to maintain the discharge points of the injection pipes below the surface level of the grout or concrete.

13.6.2 Vertical and angled holes are as defined on the Contract Plans and are located throughout the area to be stabilized. In general, grout is to be injected into the existing mine voids. Concrete may be injected into the voids as directed by the WVDEP Representative.

13.6.3 Injection sequences, injection materials, and injection procedures for each hole will be determined by the WVDEP Representative. In general, grout or concrete shall be injected continuously into a hole until the hole fills to the base of the casing, or until the WVDEP Representative directs the Contractor to terminate injection. The WVDEP Representative may terminate injection in any hole at any time that the WVDEP Representative determines is appropriate to attempt to limit undesirable loss of injection materials outside the area of stabilization. A minimum period of 12 hours shall elapse between subsequent injection stages in a given hole.

13.6.4 All injection shall be performed using the gravity injection technique described herein. Prior to injecting any material into the mine, the Contractor shall determine the presence or absence of water in the mine (void). Where injection is to occur in water, tremie-grouting using a grout or concrete supply pipe shall be used. The grout or concrete supply pipe shall be extended to the bottom of the hole, filled with grout or concrete and slowly withdrawn from the borehole.

Additional material shall be pumped into the pipe as it is withdrawn such that the pipe is always full and the bottom of the pipe is always maintained within the grout or concrete being placed. Free fall of grout or concrete through the injection stage is prohibited where injection occurs in water.

13.6.5 Grouting above the mine shall continue to the top of rock unless large takes are encountered in which case the mix may be thickened. If directed by the WVDEP Representative, fine or coarse aggregate shall be placed in the hole by shoveling or other methods approved by the WVDEP Representative while grouting continues.

13.6.6 No flushing of water down the hole or into the mine will be allowed once injection has commenced in that borehole. The Contractor shall inject material in such a way as to not coat or foul the borehole until mine-level voids are filled and the injected material backs up into the borehole.

13.6.7 Concrete shall be placed within the following time limits after the introduction of the cement:

13.6.7.1 90 minutes when the ambient air temperature is 80° F or less.

13.6.7.2 60 minutes when the ambient air temperature is over 80° F.

13.6.8 Once the injection holes have been grouted or concreted to the top of rock, the grout or concrete has been permitted to set, and found not to have settled significantly, then the casing shall be removed. Concurrently with or immediately after removal of the casing, the remaining open hole in the overburden shall be filled with grout to the ground surface. If grout settlement occurs later, the hole shall be refilled to the ground surface with aggregate. Aggregate used to fill the holes shall be that specified in Section 14.3, “**Materials**”.

13.6.9 The Contractor shall obtain access to the basement of the residence being stabilized to monitor the walls, while grouting adjacent to the structure. In addition, the Contractor shall be responsible for monitoring every basement in the immediate vicinity during grouting operations. If any evidence of distress to the walls or inflow of injection material or water is noted, injection shall be stopped immediately and the material permitted to set.

Depending on conditions, the WVDEP Representative may decide that the remainder of the hole shall be filled with injection material, fine aggregate, or coarse aggregate.

If any material enters a structure, it shall be removed and the area cleaned and repaired at the Contractor’s expense. The Contractor shall also be responsible and bear the expense for repair of damages to basement floors and walls, sewer lines, which become clogged with injection material, etc.. This monitoring and any necessary repairs or cleanup shall be considered incidental to the subsurface injection program.

13.6.10 The supply line will be cleaned at the conclusion of each day’s injection with a “pig”. The cleaning of the supply line by flushing with water into the injection hole will not be allowed.

After a hole has been drilled, all cuttings will be removed that same day and the area around the hole will be returned to the condition it was in before drilling.

13.7 Testing

13.7.1 The Contractor shall prepare grout and concrete test cylinders in accordance with ASTM C 31 at a rate of four for each 50 cubic yards placed or any fraction thereof. The WVDEP Representative reserves the right to require preparation of cylinders from any batch. The samples shall be obtained at the injection hole location or at the batch plant as directed by the WVDEP Representative. The Contractor shall have the cylinders tested according to the ASTM C 39 at 3 days, 7 days, and 28 days cure and one cylinder held as a spare. The Contractor shall report results to WVDEP in writing within 48 hours of completion of each test. Test cylinders shall be prepared at each plant or field change of the water-cement-fly ash ratio. The slump of each load or batch of concrete shall be determined according to ASTM C 939. The Contractor upon request from the WVDEP Representative shall test the slump or fluidity of the mix. A record of all test results shall be made. The cost of this testing and reporting shall be the responsibility of the Contractor.

13.7.2 If the Contractor desires to test cubes of grout and has previously completed testing as discussed under Section 14.4.3, “**Mix Designs**”, then mold and test cube samples of grout are acceptable at the frequency specified above for cylinders in accordance with ASTM C 109.

13.8 Records and Forms

13.8.1 The Contractor shall maintain daily labor and material records for subsurface injection operations on forms suitable to the WVDEP Representative. These records shall include actual measured quantities of the injection material components, including water.

13.8.2 The Contractor shall record the quantities of concrete and grout injected into each injection hole, on forms approved by WVDEP.

13.8.3 Daily records of labor, mix proportions, slump measurements, fluidity measurements, water removed from the mine and injection quantities shall be submitted to the WVDEP Representative within one day of injections.

13.8.4 Compressive strength test results shall be submitted within 35 days of the sample date on the Laboratory testing. The Laboratory shall meet specifications in Section 3. The Laboratory forms shall bear the laboratory name, address, sample designation, sample date, test date, and original signature of a certified lab analyst. Sample test results which fail to meet required strength criteria, as set forth in the contract and these specifications, may be subject to nonpayment for the volume of material represented by the deficient sample, following a review by the WVDEP.

13.9 Method of Measurement

13.9.1 Purchasing, Handling, and Placing Concrete

Payment for purchasing, handling, and placing concrete, and all associated costs will be based on the number of cubic yards of concrete injected. This shall include purchase, mixing and transportation of high and low slump concrete from the batch plant or supplier to the job site. The volume submitted for payment cannot exceed the material dry weight(s) delivered and proportioned per cubic yard based on the mix design submitted. Concrete placed in installed monitoring wells shall be included in this measurement section.

13.9.2 Purchasing, Handling, and Placing Grout

Payment for purchasing, handling and placing grout, and all associated costs will be based on the number of cubic yards of grout injected. This shall include purchase, mixing and transportation of grout from the batch plant or supplier to the job site. The volume submitted for payment cannot exceed material dry weight(s) delivered and proportioned per cubic yard based on the mix design submitted.

13.9.3 Purchasing, Handling, and Placing Fine Aggregates

Payment for supplying, handling, and placing fine aggregate will be made based on the number of tons of fine aggregate placed.

This shall include the cost of all material, labor, transportation, tools, and equipment and associated costs required for purchasing, handling, and placing the fine aggregate into the borehole. Any work required to clear boreholes where the fine aggregate has “bridged” or otherwise blocked the borehole is also included as part of this item. This item does **not** include fine aggregates used in grout or concrete mixes.

13.9.4 Purchasing, Handling, and Placing Coarse Aggregate

Payment for supplying, handling and placing coarse aggregate will be made based on the number of tons of coarse aggregate placed. This shall include the cost of all material, labor, transportation, tools and equipment and associated costs required for purchasing, handling and placing the coarse aggregate into the boreholes. Any work required to clear boreholes where the coarse aggregate has “bridged” or otherwise blocked the boreholes is also included as part of this item. This item does **not** include coarse aggregate used in concrete mixes.

13.9.5 Accelerator

Measurement of an accelerator will be made per pound based on the weight exhibited by the admixture in its commercial form prior to addition of water or to the injection mix. This shall include the cost of purchase, transport, storing, handling, and mixing of admixture.

13.10 Basis of Payment

13.10.1 Purchasing, Handling, and Placing Concrete

Payment will be made at the contract unit price per cubic yard.

13.10.2 Purchasing, Handling, and Placing Grout

Payment will be made at the contract unit price per cubic yard.

13.10.3 Purchasing, Handling, and Placing Fine Aggregate

Payment will be made at the contract unit price per ton.

13.10.4 Purchasing, Handling, and Placing Coarse Aggregate

Payment will be made at the contract unit price per ton.

13.10.5 Accelerator

Payment will be made at the contract unit price per pound.

13.11 Pay Items

- Item 13.1** **“Purchasing, Handling, and Placing Concrete”, per cubic yard.**
- Item 13.2** **“Purchasing, Handling, and Placing Grout”, per cubic yard.**
- Item 13.3** **“Purchasing, Handling, and Placing Fine Aggregate”, per ton**
- Item 13.4** **“Purchasing, Handling, and Placing Coarse Aggregate”, per ton.**
- Item 13.5** **“Accelerator”, per pound.**

14.0 CONFIRMATION DRILLING

14.1 Description

The Contractor shall perform confirmation exploratory core drilling in accordance with ASTM D 2113 as may be required by the WVDEP Representative to determine the effectiveness of the injection operations or to determine subsurface conditions. The borings shall be advanced through the soil and maintained open to the top of rock by a method selected by the Contractor and approved by the WVDEP Representative. The drilling shall produce a core approximately two (2) inches in diameter.

All core drilling shall be performed with standard core drilling equipment using a double-tube core barrel capable of producing cores of the diameter specified. Coring shall utilize double-tube core barrels with a longitudinally split inner barrel of design equal to or better than "M" series for recovery of unpredictable soft or friable materials. The core barrel shall be pulled and the core removed as often as may be necessary to secure the maximum possible amount of core. The borehole shall be backfilled with grout upon completion of sampling.

14.2 Method of Measurement

The method of measurement for confirmation drilling payment will be in lineal feet from the ground surface to the actual depth drilled as measured along the axis of the hole.

This shall include the cost of furnishing all labor, pipe, casing, tools, and equipment required for drilling, sampling and backfilling the holes including all incidental work connected therewith.

14.3 Basis of Payment

Payment will be made at the contract unit price per lineal foot.

14.4 Pay Items

Item 14.0 "Confirmation Drilling", per lineal foot.

15.0 BOREHOLE PHOTOGRAPHY

15.1 Description

The Contractor shall purchase, rent, or otherwise retain the services of a qualified company with a borehole video camera. The camera shall be utilized to make and record, in CD format, horizontal and axial visual observations, with combined audio records, through boreholes of the effectiveness of the filling the mine voids, or to view conditions at mine level prior to injection. The Contractor shall provide these services, upon request by the WVDEP Representative, within 24 hours of said request. The name and qualifications of the company, as well as information on the camera used, shall be provided with the bid documents and approved by WVDEP prior to use of the company or the camera.

15.2 Method of Measurement

Measurement of borehole photography will be made on a per hour basis. This shall include all labor, materials, equipment, transportation, setup, recording, camera usage, and all other associated items and costs necessary to produce, record, and provide to the WVDEP Representative two copies of compact discs(CD) of the conditions in the boreholes as requested.

15.3 Basis of Payment

Payment will be made at the contract unit price per hour.

15.4 Pay Items

Item15.0 “Borehole Photography”, per hour.

16.0 TRAFFIC CONTROL

16.1 Description

This work shall consist of all necessary measures to maintain and to protect traffic; to protect the work in progress; to protect adjacent property from excess dust resulting from the construction area; and to maintain traffic through, around, or adjacent to the construction area, in accordance with these specifications or as directed by WVDEP.

16.2 Materials

All materials used for traffic control shall be in accordance with the current WV Division of Highways Manual "**Traffic Control for Streets and Highway Construction and Maintenance Operations**".

16.3 Construction Methods

Control and protection of traffic through work areas shall comply with the current WV Division of Highways Manual "**Traffic Control for Streets and Highway Construction and Maintenance Operations**". Traffic control plans may be required during drill rig loading/unloading on Turner Lane and/or at the grout plant/pump staging area.

The Contractor shall be responsible for developing a traffic control plan that complies with WVDOT and Local requirements and obtaining approval of plan. A copy of the traffic control operational plan and WVDOT and Local approval of said plan shall be submitted to the WVDEP for approval prior to its implementation. The Contractor shall give the WVDOT seven (7) working days notice prior to beginning of grout injection operations so the public can be made aware of forthcoming construction activities.

16.4 Method of Measurement

The method of measurement for determining the quantity of work done as described above for Traffic Control work will not be a separate Pay Item, but will be considered incidental to all other work associated with the construction of this Project as described in these Specifications, and as shown on the Plans.

Permit fees and other miscellaneous associated costs associated with and required for any Traffic Control work shall also be considered incidental to all other work associated with the construction of this project, as described in these Specifications and as shown on the Plans. No separate Pay item exists for Traffic Control work.

17.0 TEST BORING LOGS

The final exploratory boring logs for the test borings identified on the Contract Drawings are attached within this section of the specifications. The exploratory borings shown on the plans or attached to these specifications, depicting subsurface conditions are thought to be representative but cannot be guaranteed accurate. In the event others make conclusions or recommendations based on the test boring data shown, such conclusions or recommendations are the responsibility of the others.

The Contractor shall have satisfied himself by personal examination or subsurface samples from test borings, by a visit to the site and by such other means as he may have chosen, as to the actual conditions and requirements of the work. No allowance will be made for any claim that the bid was based upon incomplete information as to the nature and character of the site, the work involved, or for materials of an unexpected character found in excavations.

All Contractors and prospective bidders must receive permission from the Landowner before obtaining any subsurface samples and/or test borings, holding WVDEP harmless against any injury or damage whatsoever resulting from this use of the property.