



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

Request for Quotation

RFQ NUMBER:
DEP14144

PAGE:
1

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

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

SHIP TO

**ENVIRONMENTAL PROTECTION
 DEPT. OF
 OFFICE OF SPECIAL RECLAMATION
 105 S. RAILROAD STREET
 PHILIPPI, WV
 26416-9998 304-457-3219**

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B	FREIGHT TERMS
09/20/2007				

BID OPENING DATE: **10/25/2007** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		962-73		
<p>RECLAMATION: RESTORATION OF WATER</p> <p>THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING BIDS TO AWARD A CONTRACT TO PERFORM WATER RECLAMATION ON THE MINING OPERATION OF KEISTER COAL CO. INC., NATIONAL CONSTRUCTION COMPANY, INC., AN WERNER MINING COMPANY, INC., NOW UNDER REVOKED PERMIT NUMBERS(S)184-77, S-2004-86 & S-2003-86, PER THE FOLLOWING DRAWINGS, SPECIFICATIONS, BID REQUIREMENTS, TERMS & CONDITIONS, SCOPE OF WORK, AND THE BID SCHEDULE AS ATTACHED.</p> <p>THE RECLAMATION SHALL BE PERFORMED UNDER THE GUIDANCE AND GENERAL SUPERVISION OF THE AGENT ASSIGNED TO THE PROJECT FOR THE STATE OF WEST VIRGINIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION.</p> <p>A MANDATORY ON SITE PREBID CONFERENCE SHALL BE HELD ON 10/02/07 @ 10:00 AM. FAILURE TO ATTEND THE PREBID CONFERENCE WILL RESULT IN BID DISQUALIFICATION. THE PRE-BID WILL INVOLVE EXTENSIVE FOOT TRAVEL OVER DIFFICULT TERRAIN AN/OR DURING INCLEMENT WEATHER. CONSIDER THIS WHEN SELECTING YOUR REPRESENTATIVE FOR ATTENDANCE.</p> <p>THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND OTHER NECESSARY SERVICES SO AS TO ACCOMPLISH THE ITEMS AS SPECIFIED IN THIS CONTRACT. PROJECT IS LOCATED NEAR BELINGTON, WV, BARBOUR COUNTY AND CONSISTS OF APPROXIMATELY 15 ACRES.</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE		TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE	

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

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. All quotations are governed by the *West Virginia Code* and the *Legislative Rules* of the Purchasing Division.
4. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125.00 registration fee.
5. All services performed or goods delivered under State Purchase Orders/Contracts are to be continued for the term of the Purchase Order/Contract, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods, this Purchase Order/Contract becomes void and of no effect after June 30.
6. Payment may only be made after the delivery and acceptance of goods or services.
7. Interest may be paid for late payment in accordance with the *West Virginia Code*.
8. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
9. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
10. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
11. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern all rights and duties under the Contract, including without limitation the validity of this Purchase Order/Contract.
12. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
13. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, this contract is automatically null and void, and is terminated without further order.
14. **HIPAA Business Associate Addendum** - The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, and available online at the Purchasing Division's web site (<http://www.state.wv.us/admin/purchase/vrc/hipaa.htm>) is hereby made part of the agreement. Provided that, the Agency meets the definition of a Covered Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division.
2. **SPECIFICATIONS:** Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Complete all sections of the quotation form.
4. Unit prices shall prevail in cases of discrepancy.
5. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
6. **BID SUBMISSION:** All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications.

SIGNED BID TO:

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



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<p>ALL WORK MUST BE COMPLETED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS PREPARED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND PURCHASE ORDER ISSUED BY THE DEPARTMENT OF ADMINISTRATION, PURCHASING DIVISION.</p> <p>EXHIBIT 5</p> <p>NOTICE TO PROCEED: THIS CONTRACT IS TO BE PERFORMED WITHIN 365 CALENDAR DAYS AFTER THE NOTICE TO PROCEED IS RECEIVED. UNLESS OTHERWISE SPECIFIED, THE FULLY EXECUTED PURCHASE ORDER WILL BE CONSIDERED NOTICE TO PROCEED.</p> <p>CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE MATERIALS OR WORKMANSHIP SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM WITH THE SPECIFICATIONS OF THE THE BID AND CONTRACT HEREIN.</p> <p>WAGE RATES: THE CONTRACTOR OR SUBCONTRACTOR SHALL PAY THE HIGHER OF THE U.S. DEPARTMENT OF LABOR MINIMUM WAG RATES AS ESTABLISHED FOR BARBOUR COUNTY, PURSUANT TO WEST VIRGINIA CODE 21-5A, ET,SEQ.</p> <p>ARBITRATION: ANY REFERENCES MADE TO ARBITRATION OR INTEREST FOR PAYMENTS DUE (EXCEPT FOR ANY INTEREST REQUIRED BY STATE LAW) CONTAINED IN THIS CONTRACT OR IN ANY AMERICAN INSTITUTE OF ARCHITECTS DOCUMENTS PERTAINING TO THIS CONTRACT ARE HEREBY DELETED.</p> <p>WORKERS' COMPENSATION: VENDOR IS REQUIRED TO PROVIDE A CERTIFICATE FROM WORKERS' COMPENSATION IF SUCCESSFUL.</p>						

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<p>ALL OF THE ITEMS CHECKED BELOW WILL BE A REQUIREMENT OF THIS CONTRACT:</p> <p>(XX) INSURANCE: SUCCESSFUL VENDOR SHALL FURNISH PROOF OF COMMERCIAL GENERAL LIABILITY INSURANCE PRIOR TO ISSUANCE OF CONTRACT. UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS, THE MINIMUM AMOUNT OF INSURANCE COVERAGE REQUIRED IS \$250,000.</p> <p>() BUILDERS RISK INSURANCE: SUCCESSFUL VENDOR SHALL FURNISH PROOF OF BUILDERS RISK - ALL RISK INSURANCE IN AN AMOUNT EQUAL TO 100% OF THE AMOUNT OF THE CONTRACT.</p> <p>(XX) BONDS: FIVE PERCENT (5%) OF THE TOTAL AMOUNT OF THE BID PAYABLE TO THE STATE OF WEST VIRGINIA, SHALL BE SUBMITTED WITH EACH BID AS A BID BOND. THE SUCCESSFUL BIDDER SHALL ALSO FURNISH A PERFORMANCE BOND AND LABOR MATERIAL BOND FOR 100% OF THE AMOUNT OF THE CONTRACT. BONDS MAY BE PROVIDED IN THE FORM OF A CERTIFIED CHECK, IRREVOCABLE LETTER OF CREDIT, OR BOND FURNISHED BY A SOLVENT SURETY COMPANY AUTHORIZED TO DO BUSINESS IN THE STATE OF WEST VIRGINIA. A LETTER OF CREDIT SUBMITTED IN LIEU OF A PERFORMANCE AND LABOR & MATERIAL BOND WILL ONLY BE ALLOWED FOR PROJECTS UNDER \$100,000. PERSONAL OR BUSINESS CHECKS ARE NOT ACCEPTABLE IN LIEU OF THE 5% BID BOND, PERFORMANCE BOND, OR LABOR/MATERIAL BOND.</p> <p>() MAINTENANCE BOND: A TWO (2) YEAR MAINTENANCE BOND COVERING THE ROOFING SYSTEM WILL BE A REQUIREMENT OF THE SUCCESSFUL VENDOR.</p> <p>REV. 11/00</p> <p>CONTRACTORS LICENSE</p>						

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<p>WEST VIRGINIA STATE CODE 21-11-2 REQUIRES THAT ALL PERSONS DESIRING TO PERFORM CONTRACTING WORK IN THIS STATE MUST BE LICENSED. THE WEST VIRGINIA CONTRACTORS LICENSING BOARD IS EMPOWERED TO ISSUE THE CONTRACTORS LICENSE. APPLICATIONS FOR A CONTRACTORS LICENSE MAY BE MADE BY CONTACTING THE WEST VIRGINIA DIVISION OF LABOR CAPITOL COMPLEX, BUILDING 3, ROOM 319, CHARLESTON, WV 25305. TELEPHONE: (304) 558-7890.</p> <p>WEST VIRGINIA STATE CODE 21-11-11 REQUIRES ANY PROSPECTIVE BIDDER TO INCLUDE THE CONTRACTORS LICENSE NUMBER ON THEIR BID.</p> <p>BIDDER TO COMPLETE:</p> <p>CONTRACTORS NAME -</p> <p>CONTRACTORS LICENSE NO. -</p> <p>THE SUCCESSFUL BIDDER WILL REQUIRED TO FURNISH A COPY OF THEIR CONTRACTORS LICENSE PRIOR TO ISSUANCE OF A PURCHASE ORDER/CONTRACT.</p> <p>APPLICABLE LAW</p> <p>THE WEST VIRGINIA STATE CODE, PURCHASING DIVISION RULE AND REGULATIONS, AND THE INFORMATION PROVIDED IN THE "REQUEST FOR QUOTATION" ISSUED BY THE PURCHASING DIVISION IS THE SOLE AUTHORITY GOVERNING THIS PROCUREMENT.</p> <p>ANY INFORMATION PROVIDED IN SPECIFICATION MANUALS, OR ANY OTHER SOURCE, VERBAL OR WRITTEN, WHICH CONTRADICTS OR ALTERS THE INFORMATION PROVIDED FROM THE SOURCES AS DESCRIBED IN THE ABOVE PARAGRAPH IS VOID AND OF NO EFFECT.</p>						

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<p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THIS CONTRACT IS AUTOMATICALLY NULL AND VOID, AND IS TERMINATED WITHOUT FURTHER ORDER.</p> <p>EXHIBIT 7</p> <p>DOMESTIC ALUMINUM, GLASS & STEEL IN PUBLIC WORKS PROJECTS</p> <p>IN ACCORDANCE WITH WEST VIRGINIA CODE 5-19-1 ET., SEQ., EVERY CONTRACT FOR CONSTRUCTION, RECONSTRUCTION, ALTERATION, REPAIR, IMPROVEMENT OR MAINTENANCE OF PUBLIC WORKS, WHERE THE COST IS MORE THAN \$50,000 AND, IN THE CASE OF STEEL ONLY, WHERE THE COST OF STEEL IS MORE THAN \$50,000 OR WHERE MORE THAN 10,000 POUNDS OF STEEL ARE REQUIRED, THE STATE WILL ACCEPT ONLY ALUMINUM GLASS, OR STEEL PRODUCTS PRODUCED IN THE UNITED STATES. IN ADDITION, ITEMS OF MACHINERY OR EQUIPMENT PURCHASED FOR USE AT THE SITE OF PUBLIC WORKS SHALL BE MADE OF DOMESTIC ALUMINUM, GLASS OR STEEL, UNLESS THE COST OF THE PRODUCT IS LESS THAN \$50,000 OR LESS THAN 10,000 POUNDS OF STEEL ARE USED IN PUBLIC WORKS PROJECTS.</p> <p>FOREIGN MADE ALUMINUM, GLASS OR STEEL PRODUCTS MAY BE ACCEPTED ONLY IF THE COST OF DOMESTIC PRODUCTS IS FOUND TO BE UNREASONABLE. SUCH COST IS UNREASONABLE IF IT IS %20 OR MORE HIGHER THAN THE BID PRICE FOR FOREIGN MADE PRODUCTS. IF THE DOMESTIC ALUMINUM, GLASS OR STEEL PRODUCTS TO BE SUPPLIED OR PRODUCED IN A "SUBSTANTIAL LABOR SURPLUS AREA", AS DEFINED BY THE UNITED STATES DEPARTMENT OF LABOR, FOREIGN PRODUCTS MAY BE SUPPLIED ONLY IF DOMESTIC PRODUCTS ARE %30 OR MORE HIGHER IN PRICE THAN THE FOREIGN MADE PRODUCTS.</p>						

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<p>IF, PRIOR TO THE AWARD OF A CONTRACT UNDER THE ABOVE PROVISIONS, THE SPENDING OFFICER OF THE SPENDING UNIT DETERMINES THAT THERE EXISTS A BID FOR LIKE FOREIGN ALUMINUM, GLASS OR STEEL THAT IS REASONABLE AND LOWER THAN THE LOWEST BID FOR DOMESTIC PRODUCTS, THE SPENDING OFFICE MAY REQUEST, IN WRITING, A REEVALUATION AND REDUCTION IN THE LOWEST BID FOR SUCH DOMESTIC PRODUCTS. ALL VENDORS MUST INDICATE IN THEIR BID IF THEY ARE SUPPLYING FOREIGN ALUMINUM, GLASS OR STEEL.</p> <p>REV. 3/88</p> <p>EXHIBIT 9</p> <p>NOTICE FOR ISSUANCE & ACKNOWLEDGEMENT OF CONSTRUCTION PROJECT ADDENDA</p> <p>THE ARCHITECT/ENGINEER AND/OR AGENCY SHALL BE REQUIRED TO ABIDE BY THE FOLLOWING SCHEDULE IN ISSUING CONSTRUCTION PROJECT ADDENDA FOR STATE AGENCIES:</p> <p>(1) THE ARCHITECT/ENGINEER SHALL PREPARE THE ADDENDUM AND A LIST OF ALL PARTIES THAT HAVE PROCURED DRAWINGS AND SPECIFICATIONS FOR THE PROJECT. THE ADDENDUM AND LIST SHALL BE FORWARDED TO THE BUYER IN THE STATE PURCHASING DIVISION. THE ARCHITECT/ENGINEER SHALL ALSO SEND A COPY OF THE ADDENDUM TO THE STATE AGENCY FOR WHICH THE CONTRACT IS ISSUED.</p> <p>(2) THE BUYER SHALL SEND THE ADDENDUM TO ALL INTERESTED PARTIES AND, IF NECESSARY, EXTEND THE BID OPENING DATE. ANY ADDENDUM SHOULD BE RECEIVED BY THE BUYER WITHIN FOURTEEN (14) DAYS PRIOR TO THE BID OPENING DATE.</p>						

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<p>(3) ALL ADDENDA SHOULD BE FORMALLY ACKNOWLEDGED BY ALL BIDDERS AND SUBMITTED TO THE STATE PURCHASING DIVISION AND THE STATE AUDITOR'S OFFICE. THE SAME RULES AND REGULATIONS THAT APPLY TO THE ORIGINAL BIDDING DOCUMENT SHALL ALSO APPLY TO AN ADDENDUM DOCUMENT. THE ONLY EXCEPTION MAY BE FOR AN ADDENDUM THAT IS ISSUED FOR THE SOLE PURPOSE OF CHANGING A BID OPENING TIME AND/OR DATE.</p> <p>REV. 11/96</p> <p>EXHIBIT 10</p> <p style="text-align: center;">REQUISITION NO.: DEP14144</p> <p>ADDENDUM ACKNOWLEDGEMENT</p> <p>I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.</p> <p>ADDENDUM NO.'S:</p> <p>NO. 1</p> <p>NO. 2</p> <p>NO. 3</p> <p>NO. 4</p> <p>NO. 5</p> <p>I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS.</p>						

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<p>VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.</p> <p>..... SIGNATURE COMPANY DATE</p> <p>REV. 11/96</p> <p>NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p>DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130</p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p>						

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<p>SEALED BID</p> <p>BUYER: CB-23 RFQ. NO.: DEP14144 BID OPENING DATE: 10/25/2007 BID OPENING TIME: 1:30 PM</p> <p>PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:</p> <p>-----</p> <p>CONTACT PERSON (PLEASE PRINT CLEARLY):</p> <p>-----</p> <p>***** THIS IS THE END OF RFQ DEP14144 ***** TOTAL: _____</p>						

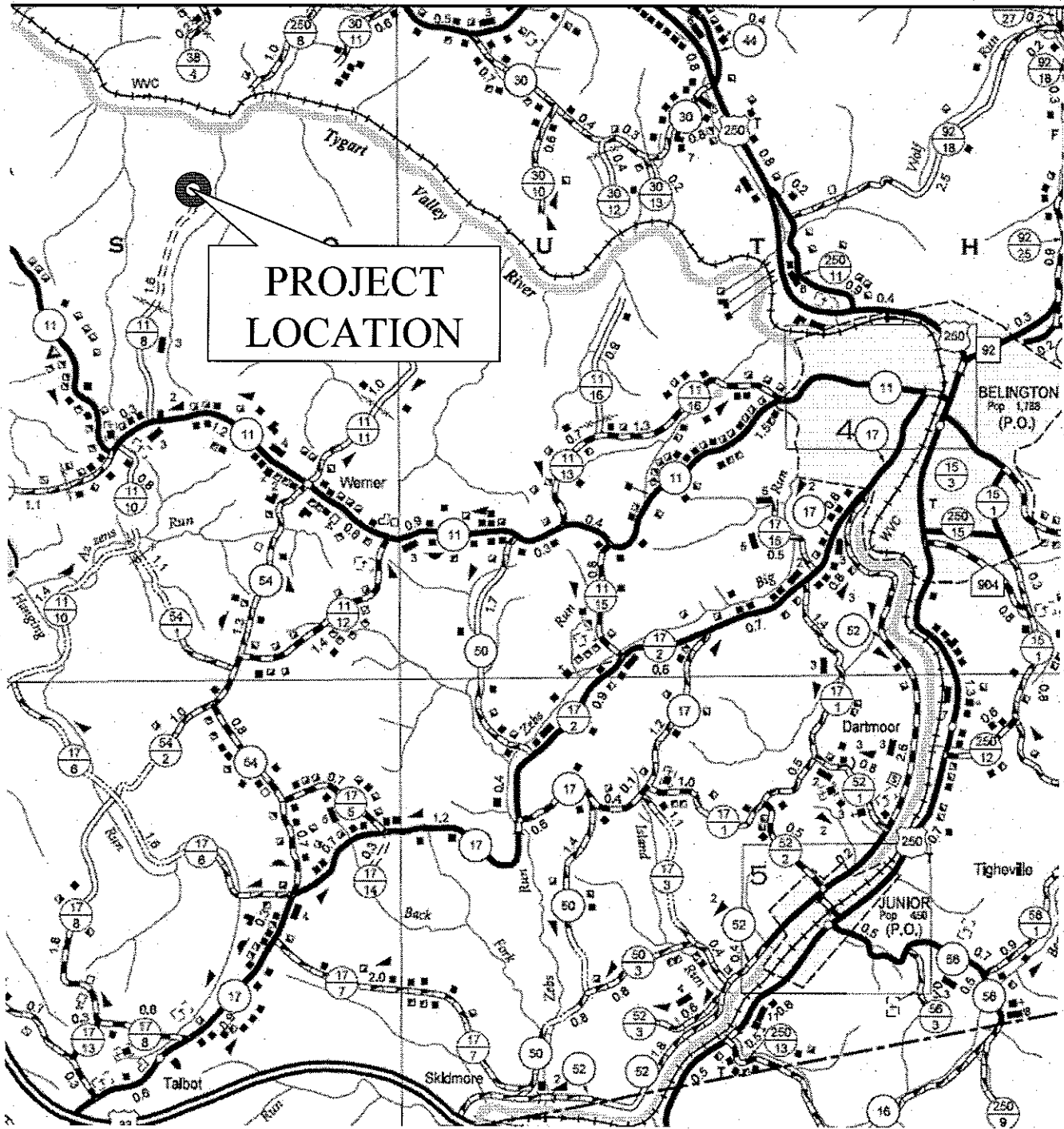
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Keister Coal Co. Inc., Permit # 184-77
National Const. Co. Inc., Permit # S-2004-86
Werner Mining Co. Inc., Permit # S-2003-86

LOCATION MAP



From US 250 in Belington. Turn West onto WV County Route 11. Travel approximately 5.9 miles (toward Audra State Park) to WV County Route 11/8. Turn right onto 11/8.

BUYER CB-23	PAGE 011	REQ. OR PO NO. DEP 14144
SPENDING UNIT WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION/SPECIAL RECLAMATION		

WV-36a STATE OF WEST VIRGINIA
 Rev. 1/29/02 PURCHASING CONTINUATION SHEET
 VENDOR:

SCOPE OF WORK

The successful bidder shall provide appropriate equipment, materials, labor and any technical services needed for the successful reclamation of Keister Coal Company, Inc., National Construction Company, Inc., and Werner Mining Company, Inc. Permit #'s 184-77, S-2004-86, and S-2003-86 and any disturbance associated with such operation. The General Performance Standards (GPS) shall apply to all items in Scope of Work.

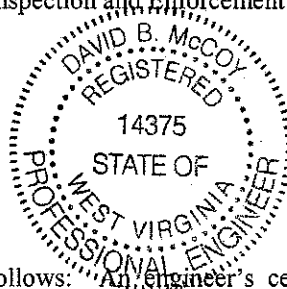
Work necessary on this site will include the following items, but is not limited to these:

1. Upon mobilization to the site, which will be directed in a written Notice to Proceed, the access roads shall be developed in accordance with bid item #3.0-6.0, 37.0-40.0, & 52.0-55.0. If, fuel and lubricants are to be stored on site, bid item #2.0 shall be in place before fuel is delivered. Project sign is to be obtained and installed.
2. Storm water management in the form as described in bid item #8.0, 42.0, & 57.0 shall be installed (described locations).
3. Concurrent and continuous reclamation shall begin at the access road as shown on the site plan and shall end at treatment site 2. Revegetation and soil improvements are required for areas designated at the pre-bid meeting. Reclamation is to be according to the attached specifications, plans, and clarifying discussions at the Pre-Bid Conference.
4. Clean existing ponds & wetlands, expand settling ponds, install curtain baffles, and construct berms where required.
5. Construct riprap ditches or open limestone channels.
6. Upgrade existing access roads.
7. Construct new access roads.
8. Construct seep drain collectors.
9. Install culverts.
10. Install sludge pumping lines and construct sludge holding cells.
11. Install Aquafix doser units and silos.
12. Establish vegetation with lime, fertilizer, seed, and mulch.
13. Any other site-specific items required.

I, David B. McCoy, the undersigned, hereby certify¹ that this Reclamation Plan is correct and shows to the best of my knowledge and belief all the information required by the surface mining laws of the State of West Virginia. The source of information was the approved mining and reclamation plan contained in the forfeited surface mine permit, existing site conditions and information contained in the WV DEP, Inspection and Enforcement files.

David B. McCoy

Registered Professional Engineer WV No. 14375



JBS
8/7/07

Date: 8-6-07

¹ The term "certify" as used herein is defined as follows: An engineer's certification of conditions is a declaration of professional judgment. It does not constitute a warranty or guarantee, either expressed or implied.

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ITEM NO.	QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
BID SCHEDULE				
PERMIT NAME: <u>KEISTER COAL</u>				
PERMIT NUMBER: <u>184-77</u>				
1.0	LUMP SUM	<u>MOBILIZATION/DEMobilIZATION/PROJECT SIGN</u> (5% Total Bid Maximum for this permit)	LUMP SUM	\$ _____
2.0	LUMP SUM	<u>SPILL CONTAINMENT AREA (S.C.A.)</u> (\$1,000.00 Maximum Bid for this permit)	LUMP SUM	\$ _____
3.0	<u>7500</u> LF	<u>HAULROAD/ACCESS ROAD UPGRADE</u>	\$ _____ PER LF	\$ _____
4.0	<u>700</u> LF	<u>FILTER FABRIC FOR ROAD UPGRADE</u>	\$ _____ PER LF	\$ _____
5.0	<u>200</u> TON	<u>INCIDENTAL #1 STONE FOR ROAD UPGRADE</u>	\$ _____ PER TON	\$ _____
6.0	<u>1510</u> LF	<u>NEW HAULROAD/ACCESS ROAD</u>	\$ _____ PER LF	\$ _____
7.0		<u>REVEGETATION</u>		
7.1	<u>8</u> AC	<u>AGRICULTURAL LIME</u>	\$ _____ PER ACRE	\$ _____
7.2	<u>8</u> AC	<u>FERTILIZER</u>	\$ _____ PER ACRE	\$ _____
7.3	<u>8</u> AC	<u>MULCH</u>	\$ _____ PER ACRE	\$ _____
7.4	<u>8</u> AC	<u>VEGETATIVE SPECIES</u>	\$ _____ PER ACRE	\$ _____
8.0	<u>500</u> LF	<u>HAYBALE DIKE</u> (Max. Bid \$5.00 Per LF)	\$ _____ PER LF	\$ _____

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9.0	650 LF	<u>TRAPEZOIDAL RIPRAP DITCH</u>	\$ _____ PER LF	\$ _____
10.0	220 LF	<u>HDPE CULVERT 12" DIAMETER</u>	\$ _____ PER LF	\$ _____
11.0	20 LF	<u>HDPE CULVERT 24" DIAMETER</u>	\$ _____ PER LF	\$ _____
12.0	NO BID ITEM	<u>UTILITIES</u>	NO BID ITEM	
13.0	LUMP SUM	<u>WATER TREATMENT</u>	LUMP SUM	\$ _____
14.0	60 LF	<u>SEEP CONVEYANCE DRAIN</u>	\$ _____ PER LF	\$ _____
15.0	225 LF	<u>SDR 35 PVC SOLID PIPE 6" DIAMETER</u>	\$ _____ PER LF	\$ _____
16.0	LUMP SUM	<u>CONCRETE SEEP COLLECTION STRUCTURE</u>	LUMP SUM	\$ _____
17.0	180 LF	<u>4-INCH HDPE PIPE</u>	\$ _____ PER LF	\$ _____
18.0	LUMP SUM	<u>WATER CONNECTIONS AT DISPENSING UNITS</u>	LUMP SUM	\$ _____
19.0	LUMP SUM	<u>CLEAR AND GRUB</u>	LUMP SUM	\$ _____
20.0	LUMP SUM	<u>SETTLING PONDS-RECONSTRUCT</u>	LUMP SUM	\$ _____
21.0	LUMP SUM	<u>COLLECTION POND-CLEAN AND MODIFY</u>	LUMP SUM	\$ _____
22.0	165 LF	<u>BAFFLE CURTAIN</u>	\$ _____ PER LF	\$ _____
23.0	LUMP SUM	<u>WATER INTAKE RISER</u>	LUMP SUM	\$ _____
24.0	LUMP SUM	<u>TWO SLUDGE DISPOSAL CELLS</u>	LUMP SUM	\$ _____

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25.0	<u>1600</u> LF	<u>6 INCH HDPE SLUDGE PIPE</u>	\$ _____	\$ _____
			PER LF	
26.0	<u>4</u> EA	<u>PUMP ADAPTOR CONNECTION</u>	\$ _____	\$ _____
			PER EA	
27.0	<u>3</u> EA	<u>WYES (6" HDPE LATERALS 45°)</u>	\$ _____	\$ _____
			PER EA	
28.0	<u>1</u> EA	<u>BLIND FLANGE (6" HDPE)</u>	\$ _____	\$ _____
			PER EA	
<u>TREATMENT SITE 1</u>				
29.0	<u>10</u> LF (Depth)	<u>SUB-FOUNDATION PREPARATION</u>	\$ _____	\$ _____
			PER LF	
30.0	LUMP SUM	<u>FOUNDATION</u>	LUMP SUM	\$ _____
31.0	LUMP SUM	<u>CRANE</u>	LUMP SUM	\$ _____
32.0	LUMP SUM	<u>DOSING UNIT AND SILO AT SITE 1</u>	LUMP SUM	\$ _____
<u>TREATMENT SITE 2</u>				
33.0	<u>10</u> LF (Depth)	<u>SUB-FOUNDATION PREPARATION</u>	\$ _____	\$ _____
			PER LF	
34.0	LUMP SUM	<u>FOUNDATION</u>	LUMP SUM	\$ _____
35.0	LUMP SUM	<u>CRANE</u>	LUMP SUM	\$ _____
36.0	LUMP SUM	<u>DOSING UNIT AND SILO AT SITE 2</u>	LUMP SUM	\$ _____
TOTAL PERMIT <u>184-77</u>				\$ _____

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BID ITEM TECHNICAL SPECIFICATIONS

1.0 MOBILIZATION/DEMObILIZATION/PROJECT SIGN PROJECT SIGN

A project sign shall be obtained or manufactured and installed as indicated on the attached specifications and details. Payment for this sign shall be incidental to the mobilization item. No separate payment will be made.

MOBILIZATION

This work shall consist of the performance of construction preparatory operations, including the movement of personnel, equipment and other facilities to the project site necessary to begin work on a substantial phase of the contract.

DEMObILIZATION

Prior to demobilization, an inspection shall be conducted by the Department of Environmental Protection and the contractor to insure compliance with contract performance. Once compliance is ascertained, demobilization activities can be initiated and completed. Demobilization shall be totally completed before the invoice for payment shall be processed.

PAYMENT

The lump sum bid for this item shall not exceed 5% of the total bid for this permit. Payment shall be made in two 50% amounts, one upon completion of the mobilization and project sign items and the second payment at the completion of demobilization. No deduction shall be made nor shall any increase be made in the lump sum item amount, regardless of decreases or increases in the final total contract amount or any other reason.

2.0 SPILL CONTAINMENT AREA (S.C.A.)

Spill containment measures shall be used for fuel and lubricant storage areas. All containers, barrels, buckets, cans, etc., are to be legally disposed of off site. Used lubricants are to be disposed of according to state law to minimize pollution to the local surface and ground water supplies. Spills are the responsibility of the contractor and need immediate clean up and maintained at no expense to the State. This S.C.A. shall be constructed in accordance with the typical drawing specification. (See Attachment) Alternate containment measures will be considered for approval by the Program Manager if acceptable results can be shown. Fuel tanks manufactured with secondary containment are desirable. Minimum secondary containment is 110 percent. (Bid limited to \$1,000.00 maximum)

3.0 HAULROAD/ACCESS ROAD UPGRADE

The contractor shall maintain and/or construct haulroad/access road(s) during the reclamation process to provide access on a well drained surface. Plan to upgrade the existing access road to the specifications and details as indicated in the Upgrade Access Road drawing. The access road on the reclamation site shall be graded, sloped, and maintained to drain to provide a road surface free of excessive mud and standing waters at all times while work is in progress. Upon completion of all reclamation activities, a final 3 inch layer of 1 ½ crusher run limestone shall be placed on the roadway. Dust-control measures may be necessary if hauling creates airborne material. Snow removal is to be included in this item.

4.0 FILTER FABRIC FOR ROAD UPGRADE

Filter Fabric (Tyvar 3401, Mirafi 500X, or equivalent) shall be placed over the completed road foundation (12' width) and covered with a six (6) inch minimum layer of No. 1 limestone (3½ to 1½ inches) (separate bid item). The fabric shall be paid for by the linear foot of road construction.

5.0 INCIDENTAL #1 STONE FOR ROAD UPGRADE

During construction of culvert installations, roadway ditch improvements, and reshaping of the roadway,

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areas may need additional base layer stone. After any necessary re-compaction and re-grading work on roadways has been performed by the contractor, a six (6) inch layer of #1 limestone (3.5" to 1.5" size) shall be placed as needed. This stone shall be graded and tracked in with a dozer or other equipment to achieve a compacted base for the final top layer of 1 ½ inch crusher run limestone (separate bid item).

Payment shall be paid per ton of stone applied by weight ticket and will be made at completion of all work and acceptance by DEP.

6.0 NEW HAULROAD/ACCESS ROAD

This required road will be approximately 1510 LF. Accompanying plans show the details of the construction of the road. The contractor shall provide all services, materials, construction layout, equipment, or other materials necessary to execute the work.

SITE PREPARATION

Any areas with soft unsuitable foundation materials shall be undercut to remove this material. The material removed shall be disposed of within the construction area at a site agreed to between the contractor and the DEP on site representative. Construction stake out shall be completed as necessary to complete that phase of the work being undertaken. Payment for the construction stakeout is to be included in the road price. No separate payment will be made for construction stake out.

ROAD CONSTRUCTION

Suitable foundation material shall then be placed in compacted layers not to exceed six (6) inches in thickness to obtain the desired grade and alignment. Compaction equipment is to be approved by DEP on site representative. Filter Fabric (Typar 3401, Mirafi 500X, or equivalent) shall be placed over the completed foundation and covered with a six (6) inch minimum layer of No. 1 limestone (3½ to 1½ inches). The No. 1 stone shall then be covered with 1½ inch crusher run limestone so that the surface is choked off and a three (3) inch minimum layer remains on top. The completed road shall have a minimum width of twelve (12) feet and the surface shall be crowned and sloped to both sides a minimum of 24-horizontal to 1 vertical. Any fill sections, if used, shall not impound water. The total length of roadside ditch shall be along the entire length of the road. A roadside drainage ditch shall be established along the hillside of the road, and shall be free draining to any culverts crossing under the road. The ditch shall be vegetated and constructed as indicated in the New Access Road drawing.

Payment shall be for completed length of road, and shall include a truck turn-around area paid as length of road (204 LF). The turn-around area shall be approximately twenty four (24) feet wide and ninety (90) feet in length with twelve (12) feet wide corners totaling 2448 sq.ft., see Truck Turn-around Detail drawing. The turn-around area location shall be designated by the DEP on-site representative.

7.0 REVEGETATION

The actual seeding date, within the work performance period, shall be at the discretion of the contractor, but a permanent vegetative cover must be established. Verification of materials used shall be required for payment. Seed bed preparation, unless otherwise approved, shall be conducted by industrial disks or tracking with heavy equipment with cleat marks across slope and parallel to the final contours. The surface shall be tracked, track to track. Seeding shall commence after seedbed preparation on a loose and uncompacted soil and with the approval of the Department of Environmental Protection. Contractor shall provide equipment as necessary to secure approval of the seedbed. Revegetation activities shall be carried out in a continuous, concurrent, timely and uniform manner. Failure to do this may result in nonpayment for portions of or the entire Revegetation item. Hydroseeding or broadcast seeding with the approved species is acceptable. The application rate may be increased but the ratio is to remain constant, but no additional monetary compensation will be awarded. Areas outside the limits of construction, disturbed by the contractor, shall be revegetated by the contractor at no expense to DEP. Water utilized for hydroseeding shall be free of injurious or other toxic substances harmful to plant life. The source of water is subject to the approval of the DEP Specialist. It shall be the vendor's responsibility to repeat the procedures under REVEGETATION until a permanent vegetation is established. The acreage quantities in this contract are for bidding purposes only.

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A warranty period of one (1) year shall commence upon completion and payment of the revegetation item of the contract. No payment will be made for additional seeding necessary to comply with warranty requirements. The warranty period will be extended for one (1) year from the date of the last augmented seeding done by the contractor. The performance bond and labor and materials bond shall remain in effect throughout the warranty period. The Standards for Evaluating Vegetative Cover as presented in Title 38, CSR2, Section 9 of the West Virginia Surface Mining Reclamation Regulations will apply.

Equipment for the retracking/scarification to eliminate rills and gullies shall be mobilized and utilized to produce slopes consistent with the regrading and topsoiling bid item prior to warranty reseeding. No additional payment will be made by DEP for this warranty work.

7.1 AGRICULTURAL LIME

Unless otherwise specified, all lime used shall be registered with the West Virginia Department of Agriculture, have an 85% minimum calcium carbonate equivalent, and meet the fineness classification no larger than that for ground lime. The following fineness classifications or combinations of lime are acceptable:

- Pulverized - 100% passing a U.S. Standard 20 mesh sieve
 70% passing a U.S. Standard 100 mesh sieve
- Ground - 90% passing a U.S. Standard 20 mesh sieve
 - 50% passing a U.S. Standard 60 mesh sieve
 - 35% passing a U.S. Standard 100 mesh sieve

Use of blends and low-grade agricultural liming materials shall require prior approval. Lime shall be spread as soon as possible after delivery to site. Lime shall be applied evenly and uniformly distributed over the treated area. Lime shall be thoroughly mixed into the soil material. Lime subjected to adverse conditions before spreading will be deemed unacceptable. Failure to complete this phase shall result in nonpayment of this bid item.

Lime shall be applied at 10 ton/acre.

7.2 FERTILIZER

Fertilizer rates given for REVEGETATION are for 1,000 lbs. of 10-20-20 per acre. These rates are minimum and for bidding purposes.

Fertilizer shall be applied evenly and uniformly distributed over the treated area. Common complete fertilizers which meet the minimum standards are acceptable.

7.3 MULCH

Acceptable mulch for this project is wood fiber, hay, or straw.

Mulch: Wood Fiber @ 1.0 ton/Acre

Hay or straw mulch may be substituted at a rate of 2 tons/Acre

7.4 VEGETATIVE SPECIES

Seeding rate required is for pure live seed (pls) in pounds per acre. The use of annuals or cover crops will not be considered for vegetative success.

NORTH MIX

VEGETATIVE SPECIES¹ RATE/ACRE¹

Orchard Grass @ 15 lbs/acre

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Birdsfoot Trefoil ²	@ 15 lbs/acre
Yellow Sweet Clover	@ 5 lbs/acre
Red Clover	@ 10 lbs/acre
Ky 31 Fescue	@ 15 lbs/acre
Foxtail Millet ³	@ 12 lbs/acre
Wheat or Rye ⁴	@ 50 lbs/acre

1. Seeding rate suggested is for pure live seed (pls) in pounds per acre.
2. Herbaceous legumes must be treated with the appropriate bacterium before seeding.
3. Spring mix.
4. Fall mix.

8.0 HAYBALE DIKE

Disturbed areas which have storm water runoff which does not pass through a sediment control structure shall utilize the following method to manage storm water runoff: Max. Bid of \$5.00/LF of Hay Bale Dike.

1. All bales shall be placed on the contour.
2. Bales shall be placed in a row with ends tightly abutting the adjacent bales.
3. Bales shall be securely anchored in place by stakes or rebars driven through the bales. Rebar to be removed at the direction of DEP. The first stake in each bale shall be driven toward previously laid bale to force the bales together. Construction of sediment control sumps, and/or rock check dams may become necessary to supplement the hay bale dikes, and shall be incidental to this bid item.

9.0 TRAPEZOIDAL RIPRAP DITCH

Provide all materials, excavate and construct trapezoidal ditch as indicated on the attached typical plans, cross-section, specifications, and as discussed at the Pre-Bid Showing. Channels and ditches shall be free draining upon completion of construction. Length of channel may be adjusted to meet on site conditions. (See riprap specifications) R-5 limestone riprap shall be used at a thickness of 1 ½ feet. This ditch has a 6 feet top width.

10.0 HDPE CULVERT 12" DIAMETER

The culvert shall be HDPE, dual wall smooth interior corrugated twenty (20) foot joint type. The pipe joints shall be silt-tight and the pipe shall meet ASTM D3350 manufacturing standards. This culvert shall replace an existing culvert near the access gate.

Culverts installed in access roads shall cross the road at a 30 degree angle downgrade with a minimum grade of three percent (3%) from inlet to outlet, except in streams or diversion ditches where the pipe shall be installed straight and coincide with the normal direction of flow.

The culvert inlet and outlet ends shall be protected by a headwall of stable non-erodible material and the slope at the outlet shall be protected with an apron of rock riprap, energy dissipater or other designated material. The culvert shall be installed in a trench excavated in solid undisturbed ground or formed by compacted earth.

The culvert shall be imbedded in a formed trench to a depth no less than 1/10 the outside diameter of the pipe. Selected backfill material shall be placed around the culvert in four (4) inch layers and thoroughly compacted by means of hand tamping or manually directed power tampers or plate vibrators.

The culvert shall be covered with a minimum of twelve (12) inches of material. Payment shall be for length of culvert installed.

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11.0 HDPE CULVERT 24" DIAMETER

The culvert shall be HDPE, dual wall smooth interior corrugated twenty (20) foot joint type. The pipe joints shall be silt-tight and the pipe shall meet ASTM D3350 manufacturing standards. This culvert shall replace an existing culvert near the access gate.

Culverts installed in access roads shall cross the road at a 30 degree angle downgrade with a minimum grade of three percent (3%) from inlet to outlet, except in streams or diversion ditches where the pipe shall be installed straight and coincide with the normal direction of flow.

The culvert inlet and outlet ends shall be protected by a headwall of stable non-erodible material and the slope at the outlet shall be protected with an apron of rock riprap, energy dissipater or other designated material. The culvert shall be installed in a trench excavated in solid undisturbed ground or formed by compacted earth.

The culvert shall be imbedded in a formed trench to a depth no less than 1/10 the outside diameter of the pipe. Selected backfill material shall be placed around the culvert in four (4) inch layers and thoroughly compacted by means of hand tamping or manually directed power tampers or plate vibrators.

The culvert shall be covered with a minimum of twelve (12) inches of material. Payment shall be for length of culvert installed.

12.0 UTILITIES

This is a no bid item. A natural gas line is buried across the property, and the contractor shall be responsible for having the utility company locate and flag any buried lines at the construction site. Pond #2 discharge water shall cross over or under a buried natural gas line. It is the contractor's responsibility to determine the exact location of each utility in the project area, where these utilities would be interrupted or damaged by performing work.

13.0 WATER TREATMENT

Water in pits, ponds, or sediment structures shall be analyzed and treated before pumping and discharge to receiving waters of the state. Treat to a pH of 6 or to the pH of the receiving stream (whichever is greater), but not to exceed 9. Water monitoring of the discharge shall be done at all times this work is in progress.

Provide all chemicals, equipment, testing, personnel, or other items needed to complete this bid item.

14.0 SEEP CONVEYANCE DRAIN

Collection underdrains shall be constructed to collect all seep water for conveyance to the treatment sites. The collection underdrain shall be 4 ft. X 4 ft. in cross-section. Stone for the underdrain shall be non-calcareous with a size of 3" to 6" in diameter. The drain shall be wrapped with filter fabric (Tyvar 3401 or equivalent). Filter fabric may be omitted from areas where the seepage enters the underdrain if approved by the DEP on site representative. A 6" perforated SDR-35 PVC pipe shall extend the length of the underdrain and connect to solid pipe. The solid pipe shall daylight to the settling pond. An animal guard shall be installed on the exit of the pipe. The perforated end of the 6" pipe seep collector shall extend to the surface as a clean-out with 6" diameter pipe and cap. A 40 mil HDPE synthetic liner shall cover the bottom and lower side/ends of the underdrain.

Cover the underdrain with a minimum of 1 ft. of material and grade the surface so it is well drained. Material on the downslope side of the drain shall be impervious to prevent leakage from the underdrain to the surface. Provide all fittings necessary for installation. Refer to the attached drawing for further details. All materials specified above and on the attached drawing shall be incidental to this bid item. Payment for each underdrain is for complete installation and verified by DEP with photos. Underdrains will be installed in three locations.

15.0 SDR 35 PVC SOLID PIPE 6" DIAMETER

The six inch diameter SDR-35 PVC shall be solid pipe (gasket joint type) used to convey the water from the seep collector to the trapezoidal ditch or pond, and shall extend above ground as cleanouts (see drawing). The pipe shall be buried with a minimum of two and one-half (2.5 ft) feet of cover to avoid freezing. The end of the pipe shall have an animal guard installed (see drawing), and shall be incidental to this bid item. Payment shall be made for the

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actual measured length of pipe installed.

16.0 CONCRETE SEEP COLLECTION STRUCTURE

This structure shall collect seep water for conveyance to the treatment site. The structure shall be cast in place concrete Type II (Sulfate Resistant) Concrete and shall conform to the dimensions and shape shown in the detail drawings and specifications. Use of a concrete pumper truck may be required for proper placement of the concrete. This concrete shall meet a minimum 28-day compressive test strength of 4000 psi, and the slump shall be between 2 and 3 inches during placement of concrete. Include all reinforcing bars with supports and anchor bolts as necessary. The rebar shall be #4 in size. Provide all forms, personnel and equipment required for the placement, finishing, and curing of the concrete. The concrete shall be consolidated with use of an internal spud vibrator to liquefy the concrete so that entrapped air and water can come to the surface. Also, supplement the mechanical vibrator by hand-spading, rodding, or tamping. Place concrete in wall forms in horizontal layers not deeper than 24 inches, and place each layer while the preceding layer is still plastic. Adverse weather conditions shall be avoided during completion of this item. WVDOH specifications (Section 601-Construction Manual) for concrete shall apply to this item. Concrete shall cure for a minimum of 5 to 7 days before the structure is backfilled. Excavation for the foundation is incidental to this item with no separate payment being made.

The concrete footer shall be cast in place with #4 rebar anchors placed 12 inches on center a minimum of 6 inches into the bedrock. The footer base and the side walls shall be cut or notched into the existing bedrock to prevent water seepage under the footer. The footer shall have a 2"x4" tapered keyway formed in the top with a PVC 4 inch "dumbbell with centerbulb" type waterstop to prevent leakage. Two rows of vertical rebar shall be fit and tied to the footer anchor rebar, and placed 12 inches on center and two rows. Any rebar splices shall overlap on a minimum of two footer anchors. Vertical rebar shall extend through the footer to the wall construction. Rebar shall be installed horizontally across the vertical wall pieces at 12 inch on center spacing. Any lap in the rebar shall be a minimum of 20 inches, and shall be tied. Allow for a minimum of 1 1/2 inches of concrete between the edge of any rebar and the form. The wall shall be 10 inches wide. Any pipe openings shall have a flexible waterstop installed around the pipe in contact with concrete. Additional rebar shall be placed around the pipe openings in the concrete end wall.

A six inch diameter SDR 35 PVC perforated pipe shall extend through the length of seep collector structure, and shall daylight to the surface as a cleanout. At the concrete wall, connect to the six inch pipe and reduce to a four inch diameter HDPE pipe (bid item #17.0) to extend to the Aquafix treatment site. The six inch SDR PVC overflow pipe shall extend through the seep collector with perforated pipe, and shall daylight into the riprap ditch with an animal guard. Stone for the underdrain shall be non-calcareous with a size of 3" to 6" in diameter. The top of stone shall be covered with filter fabric (Tyvar 3401 or equivalent), and have a minimum of one foot of soil cover. Refer to the attached drawings for additional details and dimensions.

17.0 4-INCH HDPE PIPE

One (1) HDPE (DR 15.5 or 17) 4 inch diameter water line shall be provided to connect the water from the fresh water pond to the ball valve at the dispensing unit. The line shall be buried with a minimum of two and one-half (2.5') feet of cover to avoid freezing. Approximately 180 linear feet will be required. Payment shall be made for the actual measured length of pipe installed.

18.0 WATER CONNECTIONS AT DISPENSING UNITS

At the dispensing unit, the 4 inch diameter HDPE line (bid item #17.0) shall be connected with a four (4) inch True union PVC ball valve and a two (2) inch True union PVC ball valve, various HDPE fittings (see Drive Line Schematic drawing), cleanouts, molded elbows, caps, reducer fittings, and flanges to supply water to the unit. This is a lump sum payment upon completion of work. All material costs are incidental to this bid item. Three separate connections will be made at two different dispensing units.

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19.0 CLEAR AND GRUB

All vegetative cover (trees, shrubs, bushes etc.) within the entire work area shall be removed to bare ground. It is the contractor's responsibility to obtain all necessary permits and to follow state guidelines for burning and proper disposal of vegetative materials. Disposal of trees and shrubs on-site with a chipper is an acceptable alternative to burning. Any timber cut in the clear and grub area that the landowner wishes to retain shall be delimbed and stockpiled.

20.0 SETTLING PONDS-RECONSTRUCT

Three settling ponds shall be constructed. The DEP onsite representative shall approve an onsite location to dispose of pond cleaning materials. Each pond bottom shall have a 2-foot difference in depth from one end to the other, and shall slope toward the water inlet. The sloped bottom is to help with periodic sludge pumping.

Pond 2 shall have a top width of approximately twenty five (25) feet, an approximate top length of one hundred sixty five (165) feet and a total excavation volume of approximately 23,583 cubic feet. The pond shall have a water depth of varying from 6-8 ft. with 2 ft. of freeboard. Side slopes shall be one horizontal to one vertical (1h:1v). An existing seep near the access road must be piped into this settling pond; therefore, the pond top berm and water elevation must be lowered 3 to 4 feet. Lowering of the pond may require reconstruction of the lower pond embankment. The exit spillway channel shall have a skimmer board (see detail drawing).

Pond 3 is an existing wetland and shall be cleaned and excavated to the specified size. Pond 3 shall have a top width of approximately sixty five (65) feet an approximate top length of one hundred and five (105) feet and a total excavation volume of approximately 52,583 cubic feet. The pond shall have a water depth of varying from 6-8 ft. with 2 ft. of freeboard. Side slopes shall be one horizontal to one vertical (1h:1v). The pond shall have a 12 inch diameter HDPE spillway pipe to exit into the trapezoidal exit channel (separate bid items).

Pond 4 is an existing wetland and shall be cleaned and excavated to the specified size. Pond 4 shall have a top width of approximately thirty five (35) feet on one end and fifty (50) feet wide on the other end, and an approximate top length of two hundred forty (240) feet and a total excavation volume of approximately 64,202 cubic feet. The pond shall have a water depth of varying from 6-8 ft. with 2 ft. of freeboard. Side slopes shall be one horizontal to one vertical (1h:1v). An existing dike shall be upgraded to separate the ponds into two segments. Water shall cross through the dike with a riprap channel (bid item #9.0) to extend on both sides to prevent erosion. The pond shall have a 12 inch diameter HDPE spillway pipe to exit into the trapezoidal exit channel (separate bid items).

The settling ponds are a lump sum bid item. The settling pond inlet and outlet spillway channels shall be paid for under the riprap ditch (bid item #9.0), and shall be trapezoidal in shape. Remove all vegetation during clearing & grubbing operations for the pond site, which is incidental to this bid item.

EMBANKMENT CONSTRUCTION

Embankments shall be constructed in compacted lifts with no lift exceeding six (6) inches. The entire width of each 6" lift shall be compacted with an overlapping pattern. If necessary, compaction equipment (vibratory roller, sheep's foot roller, etc.) may be used to help secure a solid embankment, which will not slip or allow seepage of the ponded water. The base of any fill areas shall be undercut to solid material, and benched or keyed into the existing bank. All stones exceeding 6 inches shall be removed from the embankment material prior to being placed. Also, any organic material (tree limbs, roots, top soil, etc.) shall be removed from embankment material prior to compaction. Weak or compressible areas, which cannot be satisfactorily compacted, shall be removed and replaced with properly compacted fill material. During dry conditions, water may need to be added to the fill material during the placement process to achieve optimum compaction. If the fill material is over saturated with water, the material may need to be spread and aerated prior to placement at the fill site for compaction. The top pond berm width shall be a minimum of 12.0 feet. During construction if the above mentioned compaction equipment is not utilized, the top berm may need to be wider than 12.0 feet (20 feet wide) to accommodate multiple dozer passes and overlapping tracking to obtain compaction across the entire top width of pond berm. After appropriate compaction of material is achieved, the embankment slopes may be cut back to a 12.0 feet top width.

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21.0 COLLECTION POND-CLEAN AND MODIFY

Pond 1, an existing wetland with forebay, shall be cleaned and excavated to have an approximate top width of seventy (70) feet and an approximate top length of one hundred and seventy (170) feet. The existing dike between the pond and the forebay shall be removed. The pond shall have a water depth of approximately 4 ft. with 2 ft of freeboard and a total excavation volume of approximately 63,048 cubic feet. Side slopes shall be no greater than one horizontal to one vertical (1h:1v).

The collection pond is a lump sum bid item. The pond inlet and outlet spillways shall be paid for under the riprap ditch with liner bid item #9.0, and shall be trapezoidal in shape. Remove all vegetation during clearing & grubbing operations for the pond site, which is incidental to this bid item. The DEP onsite representative shall approve an onsite location to dispose of pond cleaning materials.

EMBANKMENT CONSTRUCTION

Embankments shall be constructed in compacted lifts with no lift exceeding six (6) inches. The entire width of each 6" lift shall be compacted with an overlapping pattern. If necessary, compaction equipment (vibratory roller, sheep's foot roller, etc.) may be used to help secure a solid embankment, which will not slip or allow seepage of the ponded water. The base of any fill areas shall be undercut to solid material, and benched or keyed into the existing bank. All stones exceeding 6 inches shall be removed from the embankment material prior to being placed. Also, any organic material (tree limbs, roots, top soil, etc.) shall be removed from embankment material prior to compaction. Weak or compressible areas, which cannot be satisfactorily compacted, shall be removed and replaced with properly compacted fill material. During dry conditions, water may need to be added to the fill material during the placement process to achieve optimum compaction. If the fill material is over saturated with water, the material may need to be spread and aerated prior to placement at the fill site for compaction. The top pond berm width shall be a minimum of 12.0 feet. During construction if the above mentioned compaction equipment is not utilized, the top berm may need to be wider than 12.0 feet (20 feet wide) to accommodate multiple dozer passes and overlapping tracking to obtain compaction across the entire top width of pond berm. After appropriate compaction of material is achieved, the embankment slopes may be cut back to a 12.0 feet top width.

22.0 BAFFLE CURTAIN

The baffle curtain shall be of an ultraviolet (UV) resistant type vinyl coated polyester material with a minimum total weight rating of 17 oz./sq. yd. Styrofoam floats of size 3"x4"x12" shall be hot seam sealed into the top of baffle curtain, and shall be evenly spaced 4 inches apart end to end. A grommet shall be placed between each of the Styrofoam floats. A 5/16 inch diameter stainless steel wire cable shall be seamed into the top of the baffle to anchor at the sides of the pond. A 1/4 inch diameter link chain shall be hot seam sealed into the bottom of the baffle for weight, and to anchor at the sides of the pond. Secure anchor points (pipe, rods, or treated posts) shall be installed at the ponds edge to hold the baffle in place. Anchor points and the baffle location shall be approved by the DEP onsite representative before installation. The wire cable and chain shall be attached in such a way to allow for easy disconnect while sludge is being pumped from the pond. All cable fasteners, eye bolts, and other accessories shall be stainless steel to prevent corrosion, and shall be incidental to this pay item. The baffle curtain opening slots shall be cut into the curtain below the hot seam seal at the top of the baffle, as indicated on the attached drawing. The spacing and the size of the slots shall be determined by the DEP engineer or onsite representative. Four separate curtains shall be installed at locations designated by the DEP onsite representative. Payment shall be by the linear foot installed.

23.0 WATER INTAKE RISER

The foundation shall be Type II Sulfate Resistant Concrete and shall conform to the dimensions and shape shown in the detail drawings and specifications. Include all reinforcing bars with supports as necessary. Provide all forms, personnel and equipment required for the placement, finishing, and curing of the concrete. The concrete shall be consolidated with use of an internal spud vibrator to liquefy the concrete so that entrapped air and water can come to the surface. Adverse weather conditions shall be avoided during completion of this item. WVDOH specifications for concrete shall apply to this item. Excavation for the foundation is incidental to this item with no separate payment being made.

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The sub-foundation shall be undercut to remove all unconsolidated material down to a competent foundation as determined by the DEP on site representative. The DEP on site representative shall be present during this work. If the foundation site is over excavated, durable rock may be added and compacted in six (6) inch layers to obtain a solid foundation.

The 30" HDPE riser shall be anchored into the foundation with rebar as shown in the detail drawings and specifications. A minimum of sixty, evenly spaced, one inch diameter perforations in the 30" HDPE Riser shall conform to the dimensions, location, and shape shown in the detail drawings and specifications. Riprap (3"-6" non-calcareous) shall be placed around the 30" HDPE riser to allow water to flow into the perforated riser. Allow enough riprap to cover a minimum of a twelve (12) feet diameter area around the riser pipe.

An aluminum lid shall be fabricated to cover the 30" HDPE riser. The aluminum cover shall be attached to the riser, easily opened, and at least 3/16 inch thick.

24.0 TWO SLUDGE DISPOSAL CELLS

Sludge disposal areas shall be constructed to receive sludge pumped from the settling ponds. Each area shall have a completed holding volume of at least 42,300 cubic feet. The constructed sludge disposal cell shall have a two-foot freeboard. The approximate size of the pond shall have a forty (40) foot top width, a top length of two hundred (200) feet, and a total depth of ten (10) feet. The sludge disposal cell shall have side slopes not exceeding one horizontal to one vertical. The cell shall be constructed in an area approved by the DEP onsite representative. Material which is removed during the pond construction and which is suitable for reclamation shall be stockpiled on site and vegetated, and some material may be used for partial embankment construction. This pond shall be dugout in nature to facilitate its future reclamation. The exit channel spillway shall be paid under Bid Item #9.0. Lump sum payment shall be for the completed item upon approval of the DEP on site representative. This is a lump sum bid item for two sludge cells.

25.0 6 INCH HDPE SLUDGE PIPE

Pipe shall be 6 inch diameter, SDR 15.5 or 17 HDPE of standard manufacture. Install to manufacturers recommendations. Install the pipe as indicated in the specifications and/or as shown on the drawings.

Payment for the actual length of pipe installed. This 6 inch HDPE pipe shall be used for sludge line. Provide all materials, equipment and personnel necessary for installation. Pipe shall be buried at least 2.5 feet deep. Use butt weld fusion process to join pipes. A qualified fusion technician shall supervise the fusion of all joints. See site plan for location.

26.0 PUMP ADAPTOR CONNECTION

The pond ends of the HDPE 6 inch diameter pipe shall be fitted with a threaded adaptor to receive a 6 inch cam-lock adaptor. Install posts or pipes to protect outlet from damage. Use riprap around pipe as necessary. Include a cam-lock cap for sealing each adaptor. The cap shall withstand pressures developed during pumping at other pumping points. The sludge disposal pond ends will be the same as the pond ends. Payment shall be for each location installed.

27.0 WYES (6 INCH HDPE LATERALS 45°)

Wyes shall be of standard manufacture for 6 inch diameter HDPE pipe to allow 45° junction. Use butt weld fusion process to join fittings to pipes. A qualified fusion technician shall supervise the fusion of all joints. Payment shall be for each location installed.

28.0 BLIND FLANGE (6 INCH HDPE)

One the end of the 6 inch HDPE wye fitting, a 6-inch HDPE blind flange with a stainless steel backer ring shall be installed to the manufacturer's standards as a cleanout. The HDPE blind end cap shall be provided with stainless steel bolts/nuts. Use butt weld fusion process to join fittings to pipes. A qualified fusion technician shall

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supervise the fusion of all joints. Payment shall be for each location installed.

29.0 SUB-FOUNDATION PREPARATION

The sub-foundation shall be undercut to remove all fill (unconsolidated material) down to a competent foundation as determined by the DEP on site representative. The sub-foundation shall be constructed in substantial conformity to the plans and/or specifications. The DEP on site representative shall be present during this work.

The sub-foundation material shall be suitable material free of particles larger than three inches in diameter and consist of granular material conforming to WVDOH specification 716.1.1.2. A bearing capacity of approximately 6 tons per square ft should be obtained.

Compaction shall be done with a suitable compactor to obtain approximately 98% Standard Proctor Density. Layers shall be six (6) inches or less in thickness before compaction is initiated. Moisture content of the fill material shall be controlled to obtain maximum compaction.

Payment shall be made for each one (1) foot depth of undercut required.

30.0 FOUNDATION

The foundation shall be Type II (Sulfate Resistant) Concrete and shall conform to the dimensions and shape shown in the detail drawings and specifications. This concrete shall meet a minimum 28 day compressive test strength of 4000 psi, and the slump shall be between 2 and 3 inches during placement of concrete. Include all reinforcing bars with supports and anchor bolts as necessary. Provide all forms, personnel and equipment required for the placement, finishing, and curing of the concrete. The concrete shall be consolidated with use of an internal spud vibrator to liquefy the concrete so that entrapped air and water can come to the surface. Also, supplement the mechanical vibrator by hand-spading, rodding, or tamping. Adverse weather conditions shall be avoided during completion of this item. WVDOH specifications (Section 601-Construction Manual) for concrete shall apply to this item. Concrete shall cure for a minimum of 5 to 7 days before the silo may be erected in place. Excavation for the foundation is incidental to this item with no separate payment being made.

The channel in the foundation is to receive water from the collection pond through an open limestone channel (see bid item #9.0). After treatment with the reagent, the water will exit the foundation into open limestone channel to the settling pond. This item shall be paid for as a lump sum item after completion of the foundation and acceptance by the DEP.

31.0 CRANE

This shall include furnishing a crane of sufficient capacity to unload and erect the silo structure on its foundation and to install the reagent dispensing unit. The silo is estimated to weigh less than 10 ton.

Payment for this work shall be made based on the lump sum contract and paid upon final acceptance by DEP.

32.0 DOSING UNIT AND SILO AT SITE 1

This item includes all work necessary to purchase, install and initiate operation of an Aquafix water powered dosing unit (Unit type MSS-SM-OA-30). This item shall be subcontracted to:

Aqua-Fix Water Treatment Systems.
Michael Jenkins
301 Maple Lane
Kingwood, WV 26537 Telephone: (304) 329-1056.

Structural elements shall be warranted by the manufacturer to withstand normal static and dynamic loads as commonly accepted by industry. Changes to these specifications shall be made only with the written approval of the Program Manager.

A 30 ton steel silo is required to store the reagent. The silo shall be equipped with an interior ladder, an

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exterior ladder with a protective cage and a lockable steel safety door, a steel safety fence around the top of the silo, and a filler pipe to extend to the unloading port. A steel cone shall be placed at the base of the silo to direct the discharge of the reagent through a steel flange, which is sized and located to accommodate the reagent dispensing unit. Silo shall include a vent pipe to prevent pressure buildup during filling. An emergency pop off valve shall be included in case the vent pipe malfunctions. Pneumatic filling of the silo is to be utilized.

An insulated steel security enclosure attached to the silo structure support system to protect the dosing unit from vandalism and the weather is required. The wall thickness of the silo enclosure shall be equivalent to the steel used in the construction of the silo. The enclosure shall be equipped with a hinged, lockable steel door of sufficient size to facilitate removal of the dosing unit for repair and/or future replacement. The enclosed structure shall be fitted with a propane heating unit with a capacity to prevent freezing of the dosing unit during the winter. The heater will include all needed piping, regulator and fittings to connect to the tank. A 100 gallon tank shall be included, and will need to be filled one time.

Painting of the silo and steel security enclosure shall be done in accordance with WVDOH Specification 711. Preferred colors are green and/or tan.

The dosing unit, silo, and filler pipe shall be designed to facilitate the use of Calcium Oxide (CaO) during the service life of the unit. A water line will be installed to power the water wheel. This portion of the work shall include the initial filling and the start up of the unit, at the direction of the Program Manager, to confirm that all units function as intended. Any repairs and/or adjustments required to the unloading system and dosing unit to allow them to function as designed shall be performed at no cost to the DEP. The system shall be operated successfully for a one-week period before acceptance by the DEP. All settling ponds and riprap ditches leading to them must be completed before testing is initiated. The Calcium Oxide shall be 30 tons in amount and delivered as scheduled by the on site DEP representative.

Payment for all of the work specified above shall be made based on the lump sum contract price.

33.0 SUB-FOUNDATION PREPARATION

The sub-foundation shall be undercut to remove all fill (unconsolidated material) down to a competent foundation as determined by the DEP on site representative. The sub-foundation shall be constructed in substantial conformity to the plans and/or specifications. The DEP on site representative shall be present during this work.

The sub-foundation material shall be suitable material free of particles larger than three inches in diameter and consist of granular material conforming to WVDOH specification 716.1.1.2. A bearing capacity of approximately 6 tons per square ft should be obtained.

Compaction shall be done with a suitable compactor to obtain approximately 98% Standard Proctor Density. Layers shall be six (6) inches or less in thickness before compaction is initiated. Moisture content of the fill material shall be controlled to obtain maximum compaction.

Payment shall be made for each one (1) foot depth of undercut required.

34.0 FOUNDATION

The foundation shall be Type II (Sulfate Resistant) Concrete and shall conform to the dimensions and shape shown in the detail drawings and specifications. This concrete shall meet a minimum 28 day compressive test strength of 4000 psi, and the slump shall be between 2 and 3 inches during placement of concrete. Include all reinforcing bars with supports and anchor bolts as necessary. Provide all forms, personnel and equipment required for the placement, finishing, and curing of the concrete. The concrete shall be consolidated with use of an internal spud vibrator to liquefy the concrete so that entrapped air and water can come to the surface. Also, supplement the mechanical vibrator by hand-spading, rodding, or tamping. Adverse weather conditions shall be avoided during completion of this item. WVDOH specifications (Section 601-Construction Manual) for concrete shall apply to this item. Concrete shall cure for a minimum of 5 to 7 days before the silo may be erected in place. Excavation for the foundation is incidental to this item with no separate payment being made.

The channel in the foundation is to receive water from the concrete seep collection structure through a 4 inch HPDE pipe. After treatment with the reagent, the water will exit the foundation into open limestone channel to the

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settling pond. This item shall be paid for as a lump sum item after completion of the foundation and acceptance by the DEP.

35.0 CRANE

This shall include furnishing a crane of sufficient capacity to unload and erect the silo structure on its foundation and to install the reagent dispensing unit. The silo is estimated to weigh less than 10 ton.

Payment for this work shall be made based on the lump sum contract and paid upon final acceptance by DEP.

36.0 DOSING UNIT AND SILO AT SITE 2

This item includes all work necessary to purchase, install and initiate operation of an Aquafix water powered dosing unit (Unit type MSS-SM-OA-20). This item shall be subcontracted to:

Aqua-Fix Water Treatment Systems.
 Michael Jenkins
 301 Maple Lane
 Kingwood, WV 26537 Telephone: (304) 329-1056.

Structural elements shall be warranted by the manufacturer to withstand normal static and dynamic loads as commonly accepted by industry. Changes to these specifications shall be made only with the written approval of the Program Manager.

A 20 ton steel silo is required to store the reagent. The silo shall be equipped with an interior ladder, an exterior ladder with a protective cage and a lockable steel safety door, a steel safety fence around the top of the silo, and a filler pipe to extend to the unloading port. A steel cone shall be placed at the base of the silo to direct the discharge of the reagent through a steel flange, which is sized and located to accommodate the reagent dispensing unit. Silo shall include a vent pipe to prevent pressure buildup during filling. An emergency pop off valve shall be included in case the vent pipe malfunctions. Pneumatic filling of the silo is to be utilized.

An insulated steel security enclosure attached to the silo structure support system to protect the dosing unit from vandalism and the weather is required. The wall thickness of the silo enclosure shall be equivalent to the steel used in the construction of the silo. The enclosure shall be equipped with a hinged, lockable steel door of sufficient size to facilitate removal of the dosing unit for repair and/or future replacement. The enclosed structure shall be fitted with a propane heating unit with a capacity to prevent freezing of the dosing unit during the winter. The heater will include all needed piping, regulator and fittings to connect to the tank. A 100 gallon tank shall be included, and will need to be filled one time.

Painting of the silo and steel security enclosure shall be done in accordance with WVDOH Specification 711. Preferred colors are green and/or tan.

The dosing unit, silo, and filler pipe shall be designed to facilitate the use of Calcium Oxide (CaO) during the service life of the unit. A water line will be installed to power the water wheel. This portion of the work shall include the initial filling and the start up of the unit, at the direction of the Program Manager, to confirm that all units function as intended. Any repairs and/or adjustments required to the unloading system and dosing unit to allow them to function as designed shall be performed at no cost to the DEP. The system shall be operated successfully for a one-week period before acceptance by the DEP. All settling ponds and riprap ditches leading to them must be completed before testing is initiated. The Calcium Oxide shall be 20 tons in amount and delivered as scheduled by the on site DEP representative.

Payment for all of the work specified above shall be made based on the lump sum contract price.

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ITEM NO.	QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
BID SCHEDULE				
PERMIT NAME: NATIONAL CONSTRUCTION				
PERMIT NUMBER: S-2004-86				
37.0	1600 LF	<u>HAULROAD/ACCESS ROAD UPGRADE</u>	\$ _____ PER LF	\$ _____
38.0	150 LF	<u>FILTER FABRIC FOR ROAD UPGRADE</u>	\$ _____ PER LF	\$ _____
39.0	40 TON	<u>INCIDENTAL #1 STONE FOR ROAD UPGRADE</u>	\$ _____ PER TON	\$ _____
40.0	545 LF	<u>NEW HAULROAD/ACCESS ROAD</u>	\$ _____ PER LF	\$ _____
41.0		<u>REVEGETATION</u>		
41.1	4 AC	<u>AGRICULTURAL LIME</u>	\$ _____ PER ACRE	\$ _____
41.2	4 AC	<u>FERTILIZER</u>	\$ _____ PER ACRE	\$ _____
41.3	4 AC	<u>MULCH</u>	\$ _____ PER ACRE	\$ _____
41.4	4 AC	<u>VEGETATIVE SPECIES</u>	\$ _____ PER ACRE	\$ _____
42.0	150 LF	<u>HAYBALE DIKE</u> (Max. Bid \$5.00 Per LF)	\$ _____ PER LF	\$ _____
43.0	20 LF	<u>HDPE CULVERT 15" DIAMETER</u>	\$ _____ PER LF	\$ _____
44.0	40 LF	<u>HDPE CULVERT 36" DIAMETER</u>	\$ _____ PER LF	\$ _____

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45.0	LUMP SUM	<u>WATER TREATMENT</u>	LUMP SUM	\$ _____
46.0	LUMP SUM	<u>POND CLEANING</u>	LUMP SUM	\$ _____
47.0	LUMP SUM	<u>POND MODIFICATION</u>	LUMP SUM	\$ _____
48.0	LUMP SUM	<u>CLEAR AND GRUB</u>	LUMP SUM	\$ _____
49.0	<u>2600</u> LF	<u>TRAPEZOIDAL RIPRAP CHANNEL</u>	\$ _____ PER LF	\$ _____
50.0	<u>300</u> LF	<u>TRAPEZOIDAL RIPRAP CHANNEL WITH LINER</u>	\$ _____ PER LF	\$ _____
51.0	LUMP SUM	<u>STRUCTURE AND/OR DEBRIS REMOVAL</u>	LUMP SUM	\$ _____
TOTAL PERMIT <u>S-2004-86</u>				\$ _____

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BID ITEM TECHNICAL SPECIFICATIONS

37.0 HAULROAD/ACCESS ROAD UPGRADE

The section of road considered in this bid item will start from the beginning of the new haulroad (bid item #40.0) and continue downhill approximately 1,600LF to Keister Site 2. The contractor shall maintain and/or construct haulroad/access road(s) during the reclamation process to provide access on a well drained surface that is free of excessive mud and standing waters at all times while work is in progress. Plan to upgrade the existing access road to the specifications and details as indicated in the Upgrade Access Road drawing. Upon completion of all reclamation activities, a final 3 inch layer of 1 ½ crusher run limestone shall be placed on the roadway. Dust-control measures may be necessary if hauling creates airborne material. Snow removal is to be included in this item.

38.0 FILTER FABRIC FOR ROAD UPGRADE

Filter Fabric (Tyvar 3401, Mirafi 500X, or equivalent) shall be placed over the completed road foundation (12' width) and covered with a six (6) inch minimum layer of No. 1 limestone (3½ to 1½ inches) (separate bid item). The fabric shall be paid for by the linear foot of road construction.

39.0 INCIDENTAL #1 STONE FOR ROAD UPGRADE

During culvert installations, roadway ditch improvements, and reshaping of the roadway, areas may need additional base layer stone. After any necessary re-compaction and re-grading work on roadways has been performed by the contractor, a six (6) inch layer of #1 limestone (3.5" to 1.5" size) shall be placed as needed. This stone shall be graded and tracked in with a dozer or other equipment to achieve a compacted base for the final top layer of 1 ½ inch crusher run limestone (separate bid item).

Payment shall be paid per ton of stone applied by weight ticket and will be made at completion of all work and acceptance by DEP.

40.0 NEW HAULROAD/ACCESS ROAD

This required road will be approximately 425 LF. The road will begin at the existing haulroad/access road and lead up to the pond site where it will terminate at a truck turnaround positioned near the center of the pond. Accompanying plans show the details of the construction of the road. The contractor shall provide all services, materials, construction layout, equipment, or other materials necessary to execute the work.

SITE PREPARATION

Any areas with soft unsuitable foundation materials shall be undercut to remove this material. The material removed shall be disposed of within the construction area at a site agreed to between the contractor and the DEP on site representative. Construction stake out shall be completed as necessary to complete that phase of the work being undertaken. Payment for the construction stakeout is to be included in the road price. No separate payment will be made for construction stake out.

ROAD CONSTRUCTION

Suitable foundation material shall then be placed in compacted layers not to exceed six (6) inches in thickness to obtain the desired grade and alignment. Compaction equipment is to be approved by DEP on site representative. Filter Fabric (Tyvar 3401, Mirafi 500X, or equivalent) shall be placed over the completed foundation and covered with a six (6) inch minimum layer of No. 1 limestone (3½ to 1½ inches). The No. 1 stone shall then be covered with 1½ inch crusher run limestone so that the surface is choked off and a three (3) inch minimum layer remains on top. The completed road shall have a minimum width of twelve (12) feet and the surface shall be crowned and sloped to both sides a minimum of 24-horizontal to 1 vertical. Any fill sections, if used, shall not impound water. The total length of roadside ditch shall be along the entire length of the road. A roadside drainage ditch shall be established along the hillside of the road, and shall be free draining to any culverts crossing under the

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road. The ditch shall be vegetated and constructed as indicated in the New Access Road drawing.

Payment shall be for completed length of road, and shall include a truck turn-around area paid as length of road. The turn-around area shall be approximately twenty four (24) feet wide and sixty (60) feet in length totaling 1440 sq.ft. The turn-around area location shall be designated by the DEP on-site representative.

41.0 REVEGETATION

The actual seeding date, within the work performance period, shall be at the discretion of the contractor, but a permanent vegetative cover must be established. Verification of materials used shall be required for payment. Seed bed preparation, unless otherwise approved, shall be conducted by industrial disks or tracking with heavy equipment with cleat marks across slope and parallel to the final contours. The surface shall be tracked, track to track. Seeding shall commence after seedbed preparation on a loose and uncompacted soil and with the approval of the Department of Environmental Protection. Contractor shall provide equipment as necessary to secure approval of the seedbed. Revegetation activities shall be carried out in a continuous, concurrent, timely and uniform manner. Failure to do this may result in nonpayment for portions of or the entire Revegetation item. Hydroseeding or broadcast seeding with the approved species is acceptable. The application rate may be increased but the ratio is to remain constant, but no additional monetary compensation will be awarded. Areas outside the limits of construction, disturbed by the contractor, shall be revegetated by the contractor at no expense to DEP. Water utilized for hydroseeding shall be free of injurious or other toxic substances harmful to plant life. The source of water is subject to the approval of the DEP Specialist. It shall be the vendor's responsibility to repeat the procedures under REVEGETATION until a permanent vegetation is established. The acreage quantities in this contract are for bidding purposes only.

A warranty period of one (1) year shall commence upon completion and payment of the revegetation item of the contract. No payment will be made for additional seeding necessary to comply with warranty requirements. The warranty period will be extended for one (1) year from the date of the last augmented seeding done by the contractor. The performance bond and labor and materials bond shall remain in effect throughout the warranty period. The Standards for Evaluating Vegetative Cover as presented in Title 38, CSR2, Section 9 of the West Virginia Surface Mining Reclamation Regulations will apply.

Equipment for the retracking/scarification to eliminate rills and gullies shall be mobilized and utilized to produce slopes consistent with the regrading and topsoiling bid item prior to warranty reseeding. No additional payment will be made by DEP for this warranty work.

41.1 AGRICULTURAL LIME

Unless otherwise specified, all lime used shall be registered with the West Virginia Department of Agriculture, have an 85% minimum calcium carbonate equivalent, and meet the fineness classification no larger than that for ground lime. The following fineness classifications or combinations of lime are acceptable:

- Pulverized - 100% passing a U.S. Standard 20 mesh sieve
 - 70% passing a U.S. Standard 100 mesh sieve
- Ground - 90% passing a U.S. Standard 20 mesh sieve
 - 50% passing a U.S. Standard 60 mesh sieve
 - 35% passing a U.S. Standard 100 mesh sieve

Use of blends and low-grade agricultural liming materials shall require prior approval. Lime shall be spread as soon as possible after delivery to site. Lime shall be applied evenly and uniformly distributed over the treated area. Lime shall be thoroughly mixed into the soil material. Lime subjected to adverse conditions before spreading will be deemed unacceptable. Failure to complete this phase shall result in nonpayment of this bid item.

Lime shall be applied at 10 ton/acre.

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41.2 FERTILIZER

Fertilizer rates given for REVEGETATION are for 1,000 lbs. of 10-20-20 per acre. These rates are minimum and for bidding purposes.

Fertilizer shall be applied evenly and uniformly distributed over the treated area. Common complete fertilizers which meet the minimum standards are acceptable.

41.3 MULCH

Acceptable mulch for this project is wood fiber, hay, or straw.

Mulch: Wood Fiber @ 1.0 ton/Acre

Hay or straw mulch may be substituted at a rate of 2 tons/Acre

41.4 VEGETATIVE SPECIES

Seeding rate required is for pure live seed (pls) in pounds per acre. The use of annuals or cover crops will not be considered for vegetative success.

NORTH MIX

<u>VEGETATIVE SPECIES</u> ¹	<u>RATE/ACRE</u> ¹
Birdsfoot Trefoil ²	@ 10 lbs/acre
Yellow Sweet Clover	@ 5 lbs/acre
Red Clover	@ 10 lbs/acre
Ky 31 Fescue	@ 15 lbs/acre
Foxtail Millet ³	@ 12 lbs/acre
Wheat or Rye ⁴	@ 50 lbs/acre

1. Seeding rate suggested is for pure live seed (pls) in pounds per acre.
2. Herbaceous legumes must be treated with the appropriate bacterium before seeding.
3. Spring mix.
4. Fall mix.

42.0 HAYBALE DIKE

Disturbed areas which have storm water runoff which does not pass through a sediment control structure shall utilize the following method to manage storm water runoff: Max. Bid of \$5.00/LF of Hay Bale Dike.

1. All bales shall be placed on the contour.
2. Bales shall be placed in a row with ends tightly abutting the adjacent bales.
3. Bales shall be securely anchored in place by stakes or rebars driven through the bales. Rebar to be removed at the direction of DEP. The first stake in each bale shall be driven toward previously laid bale to force the bales together. Construction of sediment control sumps, and/or rock check dams may become necessary to supplement the hay bale dikes, and shall be incidental to this bid item.

43.0 HDPE CULVERT 15" DIAMETER

The culvert shall be HDPE, dual wall smooth interior corrugated twenty (20) foot joint type. The pipe joints shall be silt-tight and the pipe shall meet ASTM D3350 manufacturing standards. This culvert shall replace an existing culvert near the access gate.

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Culverts installed in access roads shall cross the road at a 30 degree angle downgrade with a minimum grade of three percent (3%) from inlet to outlet, except in streams or diversion ditches where the pipe shall be installed straight and coincide with the normal direction of flow.

The culvert inlet and outlet ends shall be protected by a headwall of stable non-erodible material and the slope at the outlet shall be protected with an apron of rock riprap, energy dissipater or other designated material. The culvert shall be installed in a trench excavated in solid undisturbed ground or formed by compacted earth.

The culvert shall be imbedded in a formed trench to a depth no less than 1/10 the outside diameter of the pipe. Selected backfill material shall be placed around the culvert in four (4) inch layers and thoroughly compacted by means of hand tamping or manually directed power tampers or plate vibrators.

The culvert shall be covered with a minimum of twelve (12) inches of material. Payment shall be for length of culvert installed.

44.0 HDPE CULVERT 36" DIAMETER

The culvert shall be HDPE, dual wall smooth interior corrugated twenty (20) foot joint type. The pipe joints shall be silt-tight and the pipe shall meet ASTM D3350 manufacturing standards. This culvert shall replace an existing culvert near the access gate.

Culverts installed in access roads shall cross the road at a 30 degree angle downgrade with a minimum grade of three percent (3%) from inlet to outlet, except in streams or diversion ditches where the pipe shall be installed straight and coincide with the normal direction of flow.

The culvert inlet and outlet ends shall be protected by a headwall of stable non-erodible material and the slope at the outlet shall be protected with an apron of rock riprap, energy dissipater or other designated material. The culvert shall be installed in a trench excavated in solid undisturbed ground or formed by compacted earth.

The culvert shall be imbedded in a formed trench to a depth no less than 1/10 the outside diameter of the pipe. Selected backfill material shall be placed around the culvert in four (4) inch layers and thoroughly compacted by means of hand tamping or manually directed power tampers or plate vibrators.

The culvert shall be covered with a minimum of twelve (12) inches of material. Payment shall be for length of culvert installed.

45.0 WATER TREATMENT

Water in pits, ponds, or sediment structures shall be analyzed and treated before pumping and discharge to receiving waters of the state. Treat to a pH of 6 or to the pH of the receiving stream (whichever is greater), but not to exceed 9. Water monitoring of the discharge shall be done at all times this work is in progress.

Provide all chemicals, equipment, testing, personnel, or other items needed to complete this bid item.

46.0 POND CLEANING

After dewatering, the pond shall be cleaned to its original depth. Permit files indicate the pond had a total depth of twelve feet (12 ft). All unsuitable material shall be disposed of on site at an area agreed upon between the contractor, the DEP on-site representative, and if necessary the landowner. Upon complete removal of all material, the disposal area shall then be revegetated according to bid item #41.0. This shall be a lump sum bid item. Payment shall be made upon completion and after inspection by the DEP on-site representative.

47.0 POND MODIFICATION

After completion of bid item #46.0, the pond shall be reconfigured according to the attached typical plans, cross-section, specifications, and as discussed at the Pre-Bid Showing. Inlet, outlet, and baffle elevations are critical to the functionality of this passive treatment system. These critical points must also be level to ensure sheet flow across the entire treatment system.

The baffle boards shall be constructed from treated lumber according to plans and specifications provided. All fasteners, bolts, nuts, and washers for the baffle boards and HDPE liner shall be stainless steel. Screws with flat washers shall be used to attach the liner material to the baffle support boards. The baffle boards shall be leveled by

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the contractor and verified by the on-site DEP representative. The over/under baffles shall be lined with a 40 mil HDPE synthetic liner material.

Limestone for bed #1 shall be clean, high quality meeting 85% purity (CaCO₃) or higher. Approximately 600 ton of AASHTO #2 limestone (2-1/2 to 1-1/2") shall be placed in limestone bed #1 (LB1). Limestone for bed #2 shall be approximately 900 ton of AASHTO #2 limestone (2-1/2 to 1-1/2"). Test results will be required from the quarry lab to certify the limestone purity, prior to placement of limestone. See the attached drawing for further details.

The two water dispersion troughs, located at both ends of the treatment system, will require synthetic liners of 40 mil HDPE or equivalent, and covered with a 3 inch layer of limestone. Three skimmer baffle boards shall be installed on the pond outlet, and shall be leveled. Stainless steel lag bolts, washers, and nuts shall be installed with slots in each skimmer board for future adjustments (see attached drawing).

Provide all necessary materials to complete this bid item. Payment shall be made lump sum upon completion and inspection by the on-site DEP representative.

48.0 CLEAR AND GRUB

All vegetative cover (trees, shrubs, bushes etc.) within the entire work area shall be removed to bare ground. It is the contractor's responsibility to obtain all necessary permits and to follow state guidelines for burning and proper disposal of vegetative materials. Disposal of trees and shrubs on-site with a chipper is an acceptable alternative to burning. Any timber cut in the clear and grub area that the landowner wishes to retain shall be de-limbed and stockpiled.

49.0 TRAPEZOIDAL RIPRAP CHANNEL

Provide all materials, excavate and construct open limestone channels (2600 LF) as indicated on the attached typical plans, cross-section, specifications, and as discussed at the Pre-Bid Showing. Limestone shall be clean and obtained from a WV-DOT approved quarry. Channels shall be free draining upon completion of construction. Length of channel may be adjusted to meet on site conditions. R-5 limestone riprap shall be used at a thickness of 1 1/2 feet. This channel has an 8 feet top width.

50.0 TRAPEZOIDAL RIPRAP CHANNEL WITH LINER

Provide all materials, excavate and construct channel as indicated on the attached typical plans, cross-section, specifications, and as discussed at the Pre-Bid Showing. Limestone riprap shall be used. Channels shall be free draining upon completion of construction. Length of channel may be adjusted to meet on site conditions. A 40 mil. HDPE liner (or approved equivalent) shall be placed on rock free material or a layer of sand shall be placed below liner. A 3 inch layer of limestone sand shall be placed above the liner to act as a cushion for the liner. Engineering fabric (Typar 3401, Mirafi 500X, or equal) shall be placed on top of the sand layer to support the R-5 size limestone riprap. This channel has an 8 feet top width.

51.0 STRUCTURE AND/OR DEBRIS REMOVAL

All existing man-made items particular to the site and not to be utilized in the total reclamation of this site shall be demolished (if necessary) and disposed of in a legal manner. All iron, steel, aluminum, or any other metal, plastic, or any other man made material, including but not limited to I-Beams, Angle Iron, Channel Iron, Corrugated Metal, Flat Metal, Floc Drums, Grease Drums, Pipe or Conduit is to be dismantled, removed and properly disposed of off site and according to state, local, and federal requirements.

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ITEM NO.	QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
BID SCHEDULE				
PERMIT NAME: <u>WERNER MINING</u>				
PERMIT NUMBER: <u>S-2003-86</u>				
52.0	4225 LF	<u>HAULROAD/ACCESS ROAD UPGRADE</u>	\$ _____ PER LF	\$ _____
53.0	150 LF	<u>FILTER FABRIC FOR ROAD UPGRADE</u>	\$ _____ PER LF	\$ _____
54.0	40 TON	<u>INCIDENTAL #1 STONE FOR ROAD UPGRADE</u>	\$ _____ PER TON	\$ _____
55.0	420 LF	<u>NEW HAULROAD/ACCESS ROAD</u>	\$ _____ PER LF	\$ _____
<u>REVEGETATION</u>				
56.1	3 AC	<u>AGRICULTURAL LIME</u>	\$ _____ PER ACRE	\$ _____
56.2	3 AC	<u>FERTILIZER</u>	\$ _____ PER ACRE	\$ _____
56.3	3 AC	<u>MULCH</u>	\$ _____ PER ACRE	\$ _____
56.4	3 AC	<u>VEGETATIVE SPECIES</u>	\$ _____ PER ACRE	\$ _____
57.0	300 LF	<u>HAYBALE DIKE</u> (Max. Bid \$5.00 Per LF)	\$ _____ PER LF	\$ _____
58.0	700 LF	<u>V-DITCH</u>	\$ _____ PER LF	\$ _____
59.0	300 LF	<u>TRAPEZOIDAL DITCH</u>	\$ _____ PER LF	\$ _____

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60.0	<u>80</u> LF	<u>TRAPEZOIDAL EXIT SPILLWAY CHANNEL</u>	\$ _____ PER LF	\$ _____
61.0	<u>20</u> LF	<u>HDPE CULVERT 12" DIAMETER</u>	\$ _____ PER LF	\$ _____
62.0	<u>80</u> LF	<u>HDPE CULVERT 24" DIAMETER</u>	\$ _____ PER LF	\$ _____
63.0	LUMP SUM	<u>WATER TREATMENT</u>	LUMP SUM	\$ _____
64.0	LUMP SUM	<u>POND CLEANING</u>	LUMP SUM	\$ _____
65.0	LUMP SUM	<u>POND MODIFICATION</u>	LUMP SUM	\$ _____
66.0	<u>200</u> LF	<u>BAFFLE CURTAIN</u>	\$ _____ PER LF	\$ _____
67.0	LUMP SUM	<u>CLEAR AND GRUB</u>	LUMP SUM	\$ _____
		TOTAL PERMIT <u>S-2003-86</u>		\$ _____
		TOTAL PERMIT <u>S-2004-86</u>		\$ _____
		TOTAL PERMIT <u>184-77</u>		\$ _____
		<u>GRAND TOTAL</u>		\$ _____

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BID ITEM TECHNICAL SPECIFICATIONS

52.0 HAULROAD/ACCESS ROAD UPGRADE

The contractor shall maintain and/or construct haulroad/access road(s) during the reclamation process to provide access on a well drained surface. Plan to upgrade the existing access road to the specifications and details as indicated in the Upgrade Access Road drawing. The access road on the reclamation site shall be graded, sloped, and maintained to drain to provide a road surface free of excessive mud and standing waters at all times while work is in progress. Upon completion of all reclamation activities, a final 3 inch layer of 1 ½ crusher run limestone shall be placed on the roadway. Dust-control measures may be necessary if hauling creates airborne material. Snow removal is to be included in this item.

53.0 FILTER FABRIC FOR ROAD UPGRADE

Filter Fabric (Typar 3401, Mirafi 500X, or equivalent) shall be placed over the completed road foundation (12' width) and covered with a six (6) inch minimum layer of No. 1 limestone (3½ to 1½ inches) (separate bid item). The fabric shall be paid for by the linear foot of road construction.

54.0 INCIDENTAL #1 STONE FOR ROAD UPGRADE

During construction of culvert installations, roadway ditch improvements, and reshaping of the roadway, areas may need additional base layer stone. After any necessary re-compaction and re-grading work on roadways has been performed by the contractor, a six (6) inch layer of #1 limestone (3.5" to 1.5" size) shall be placed as needed. This stone shall be graded and tracked in with a dozer or other equipment to achieve a compacted base for the final top layer of 1 ½ inch crusher run limestone (separate bid item).

Payment shall be paid per ton of stone applied by weight ticket and will be made at completion of all work and acceptance by DEP.

55.0 NEW HAULROAD/ACCESS ROAD

This required road will be approximately 420 LF. Accompanying plans show the details of the construction of the road. The contractor shall provide all services, materials, construction layout, equipment, or other materials necessary to execute the work.

SITE PREPARATION

Any areas with soft unsuitable foundation materials shall be undercut to remove this material. The material removed shall be disposed of within the construction area at a site agreed to between the contractor and the DEP on site representative. Construction stake out shall be completed as necessary to complete that phase of the work being undertaken. Payment for the construction stakeout is to be included in the road price. No separate payment will be made for construction stake out.

ROAD CONSTRUCTION

Suitable foundation material shall then be placed in compacted layers not to exceed six (6) inches in thickness to obtain the desired grade and alignment. Compaction equipment is to be approved by DEP on site representative. Filter Fabric (Typar 3401, Mirafi 500X, or equivalent) shall be placed over the completed foundation and covered with a six (6) inch minimum layer of No. 1 limestone (3½ to 1½ inches). The No. 1 stone shall then be covered with 1½ inch crusher run limestone so that the surface is choked off and a three (3) inch minimum layer remains on top. The completed road shall have a minimum width of twelve (12) feet and the surface shall be crowned and sloped to both sides a minimum of 24-horizontal to 1 vertical. Any fill sections, if used, shall not impound water. The total length of roadside ditch shall be along the entire length of the road. A roadside drainage ditch shall be established along the hillside of the road, and shall be free draining to any culverts crossing under the road. The ditch shall be vegetated and constructed as indicated in the New Access Road drawing.

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Payment shall be for completed length of road.

56.0 REVEGETATION

The actual seeding date, within the work performance period, shall be at the discretion of the contractor, but a permanent vegetative cover must be established. Verification of materials used shall be required for payment. Seed bed preparation, unless otherwise approved, shall be conducted by industrial disks or tracking with heavy equipment with cleat marks across slope and parallel to the final contours. The surface shall be tracked, track to track. Seeding shall commence after seedbed preparation on a loose and uncompacted soil and with the approval of the Department of Environmental Protection. Contractor shall provide equipment as necessary to secure approval of the seedbed. Revegetation activities shall be carried out in a continuous, concurrent, timely and uniform manner. Failure to do this may result in nonpayment for portions of or the entire Revegetation item. Hydroseeding or broadcast seeding with the approved species is acceptable. The application rate may be increased but the ratio is to remain constant, but no additional monetary compensation will be awarded. Areas outside the limits of construction, disturbed by the contractor, shall be revegetated by the contractor at no expense to DEP. Water utilized for hydroseeding shall be free of injurious or other toxic substances harmful to plant life. The source of water is subject to the approval of the DEP Specialist. It shall be the vendor's responsibility to repeat the procedures under REVEGETATION until a permanent vegetation is established. The acreage quantities in this contract are for bidding purposes only.

A warranty period of one (1) year shall commence upon completion and payment of the revegetation item of the contract. No payment will be made for additional seeding necessary to comply with warranty requirements. The warranty period will be extended for one (1) year from the date of the last augmented seeding done by the contractor. The performance bond and labor and materials bond shall remain in effect throughout the warranty period. The Standards for Evaluating Vegetative Cover as presented in Title 38, CSR2, Section 9 of the West Virginia Surface Mining Reclamation Regulations will apply.

Equipment for the retracking/scarification to eliminate rills and gullies shall be mobilized and utilized to produce acceptable slopes prior to warranty reseeding. No additional payment will be made by DEP for this warranty work.

56.1 AGRICULTURAL LIME

Unless otherwise specified, all lime used shall be registered with the West Virginia Department of Agriculture, have an 85% minimum calcium carbonate equivalent, and meet the fineness classification no larger than that for ground lime. The following fineness classifications or combinations of lime are acceptable:

- Pulverized - 100% passing a U.S. Standard 20 mesh sieve
 - 70% passing a U.S. Standard 100 mesh sieve
- Ground - 90% passing a U.S. Standard 20 mesh sieve
 - 50% passing a U.S. Standard 60 mesh sieve
 - 35% passing a U.S. Standard 100 mesh sieve

Use of blends and low-grade agricultural liming materials shall require prior approval. Lime shall be spread as soon as possible after delivery to site. Lime shall be applied evenly and uniformly distributed over the treated area. Lime shall be thoroughly mixed into the soil material. Lime subjected to adverse conditions before spreading will be deemed unacceptable. Failure to complete this phase shall result in nonpayment of this bid item.

Lime shall be applied at 10 ton/acre.

56.2 FERTILIZER

Fertilizer rates given for REVEGETATION are for 1,000 lbs. of 10-20-20 per acre. These rates are minimum and for bidding purposes.

Fertilizer shall be applied evenly and uniformly distributed over the treated area. Common complete

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fertilizers which meet the minimum standards are acceptable.

56.3 MULCH

Acceptable mulch for this project is wood fiber, hay, or straw.
 Mulch: Wood Fiber @ 1.0 ton/Acre
 Hay or straw mulch may be substituted at a rate of 2 tons/Acre

56.4 VEGETATIVE SPECIES

Seeding rate required is for pure live seed (pls) in pounds per acre. The use of annuals or cover crops will not be considered for vegetative success.

NORTH MIX

<u>VEGETATIVE SPECIES</u> ¹	<u>RATE/ACRE</u> ¹
Orchard Grass	@ 15 lbs/acre
Birdsfoot Trefoil ²	@ 15 lbs/acre
Yellow Sweet Clover	@ 5 lbs/acre
Red Clover	@ 10 lbs/acre
Ky 31 Fescue	@ 15 lbs/acre
Foxtail Millet ³	@ 12 lbs/acre
Wheat or Rye ⁴	@ 50 lbs/acre

1. Seeding rate suggested is for pure live seed (pls) in pounds per acre.
2. Herbaceous legumes must be treated with the appropriate bacterium before seeding.
3. Spring mix.
4. Fall mix.

57.0 HAYBALE DIKE

Disturbed areas which have storm water runoff which does not pass through a sediment control structure shall utilize the following method to manage storm water runoff: Max. Bid of \$5.00/LF of Hay Bale Dike.

1. All bales shall be placed on the contour.
2. Bales shall be placed in a row with ends tightly abutting the adjacent bales.
3. Bales shall be securely anchored in place by stakes or rebars driven through the bales. Rebar to be removed at the direction of DEP. The first stake in each bale shall be driven toward previously laid bale to force the bales together. Construction of sediment control sumps, and/or rock check dams may become necessary to supplement the hay bale dikes, and shall be incidental to this bid item.

58.0 V-DITCH

Provide all materials, excavate and construct trapezoidal ditch as indicated on the attached typical plans, cross-section, specifications, and as discussed at the Pre-Bid Showing. Channels and ditches shall be free draining upon completion of construction. Length of channel may be adjusted to meet on site conditions. (See riprap specifications) R-5 limestone riprap shall be used at a thickness of 1 ½ feet. This ditch has a 4 feet top width.

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59.0 TRAPEZOIDAL DITCH

Provide all materials, excavate and construct trapezoidal ditch as indicated on the attached typical plans, cross-section, specifications, and as discussed at the Pre-Bid Showing. Channels and ditches shall be free draining upon completion of construction. Length of channel may be adjusted to meet on site conditions. (See riprap specifications) R-5 limestone riprap shall be used at a thickness of 1 ½ feet. This ditch has a 6 feet top width.

60.0 TRAPEZOIDAL EXIT SPILLWAY CHANNEL

Provide all materials, excavate and construct trapezoidal spillway channel as indicated on the attached typical plans, cross-section, specifications, and as discussed at the Pre-Bid Showing. Ditches shall be free draining upon completion of construction. Length of ditch may be adjusted to meet on site conditions. R-5 limestone riprap shall be used at a thickness of 1 ½ feet. This channel has an 18 feet top width, and a 10 feet wide bottom width.

61.0 HDPE CULVERT 12" DIAMETER

The culvert shall be HDPE, dual wall smooth interior corrugated twenty (20) foot joint type. The pipe joints shall be silt-tight and the pipe shall meet ASTM D3350 manufacturing standards. This culvert shall replace an existing culvert near the access gate.

Culverts installed in access roads shall cross the road at a 30 degree angle downgrade with a minimum grade of three percent (3%) from inlet to outlet, except in streams or diversion ditches where the pipe shall be installed straight and coincide with the normal direction of flow.

The culvert inlet and outlet ends shall be protected by a headwall of stable non-erodible material and the slope at the outlet shall be protected with an apron of rock riprap, energy dissipater or other designated material. The culvert shall be installed in a trench excavated in solid undisturbed ground or formed by compacted earth.

The culvert shall be imbedded in a formed trench to a depth no less than 1/10 the outside diameter of the pipe. Selected backfill material shall be placed around the culvert in four (4) inch layers and thoroughly compacted by means of hand tamping or manually directed power tampers or plate vibrators.

The culvert shall be covered with a minimum of twelve (12) inches of material. Payment shall be for length of culvert installed.

62.0 HDPE CULVERT 24" DIAMETER

Two forty (40) feet sections of twenty-four (24) inch culverts will be placed in the locations as shown in the attached plans and specifications and in accordance to the following instructions. Additionally, the two existing 18 inch HDPE culverts shall be installed in the roadside ditch over the twenty-four inch culvert leading to the pond (see attachment).

The culvert shall be HDPE, dual wall smooth interior corrugated twenty (20) foot joint type. The pipe joints shall be silt-tight and the pipe shall meet ASTM D3350 manufacturing standards. This culvert shall replace an existing culvert near the access gate.

Culverts installed in access roads shall cross the road at a 30 degree angle downgrade with a minimum grade of three percent (3%) from inlet to outlet, except in streams or diversion ditches where the pipe shall be installed straight and coincide with the normal direction of flow.

The culvert inlet and outlet ends shall be protected by a headwall of stable non-erodible material and the slope at the outlet shall be protected with an apron of rock riprap, energy dissipater or other designated material. The culvert shall be installed in a trench excavated in solid undisturbed ground or formed by compacted earth.

The culvert shall be imbedded in a formed trench to a depth no less than 1/10 the outside diameter of the pipe. Selected backfill material shall be placed around the culvert in four (4) inch layers and thoroughly compacted by means of hand tamping or manually directed power tampers or plate vibrators.

The culvert shall be covered with a minimum of twelve (12) inches of material. Payment shall be for length of culvert installed.

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63.0 WATER TREATMENT

Water in pits, ponds, or sediment structures shall be analyzed and treated before pumping and discharge to receiving waters of the state. Treat to a pH of 6 or to the pH of the receiving stream (whichever is greater), but not to exceed 9. Water monitoring of the discharge shall be done at all times this work is in progress.

Provide all chemicals, equipment, testing, personnel, or other items needed to complete this bid item.

64.0 POND CLEANING

After dewatering, the pond shall be cleaned to solid ground. Permit files indicate a pond water depth of six (6) inches. All unsuitable material shall be disposed of on site at an area agreed upon between the contractor, the DEP on-site representative, and if necessary the landowner. Upon complete removal of all material, the disposal area shall then be revegetated according to bid item #56.0. This shall be a lump sum bid item. Payment shall be made upon completion and after inspection by the DEP on-site representative.

65.0 POND MODIFICATION

Upon completion of bid item #64.0, the existing pond will be modified as shown in the attached plans and specifications. The area will be excavated to a total depth of eight (8) feet. This will provide six feet of standing water and two feet of freeboard. The pond area will then be divided into two cells by an earthen dike. The dike, while providing two foot of freeboard, shall have a twelve-foot top width and two to one side slopes (2:1). The spillway shall be positioned to the western side of the dike and the final spillway from the pond shall be relocated to the far eastern side of the pond. Spillway construction details are described in the plans and specifications section. The dike shall be constructed in the same fashion as described below for embankment construction.

One curtain baffle shall be installed in each section of the pond area (separate bid item). The location and length of baffle will be determined by the on-site DEP representative. Curtain baffle cutouts will also be determined by the on-site DEP representative.

EMBANKMENT CONSTRUCTION

Embankments shall be constructed in compacted lifts with no lift exceeding six (6) inches. The entire width of each 6" lift shall be compacted with an overlapping pattern. If necessary, compaction equipment (vibratory roller, sheep's foot roller, etc.) may be used to help secure a solid embankment, which will not slip or allow seepage of the ponded water. The base of any fill areas shall be undercut to solid material, and benched or keyed into the existing bank. All stones exceeding 6 inches shall be removed from the embankment material prior to being placed. Also, any organic material (tree limbs, roots, top soil, etc.) shall be removed from embankment material prior to compaction. Weak or compressible areas, which cannot be satisfactorily compacted, shall be removed and replaced with properly compacted fill material. During dry conditions, water may need to be added to the fill material during the placement process to achieve optimum compaction. If the fill material is over saturated with water, the material may need to be spread and aerated prior to placement at the fill site for compaction. The top pond berm width shall be a minimum of 12.0 feet. During construction if the above mentioned compaction equipment is not utilized, the top berm may need to be wider than 12.0 feet (20 feet wide) to accommodate multiple dozer passes and overlapping tracking to obtain compaction across the entire top width of pond berm. After appropriate compaction of material is achieved, the embankment slopes may be cut back to a 12.0 feet top width.

66.0 BAFFLE CURTAIN

The baffle curtain shall be of an ultraviolet (UV) resistant type vinyl coated polyester material with a minimum total weight rating of 17 oz./sq. yd. Styrofoam floats of size 3"x4"x12" shall be hot seam sealed into the top of baffle curtain, and shall be evenly spaced 4 inches apart end to end. A grommet shall be placed between each of the Styrofoam floats. A 5/16 inch diameter stainless steel wire cable shall be seamed into the top of the baffle to anchor at the sides of the pond. A 1/4 inch diameter link chain shall be hot seam sealed into the bottom of the baffle for weight, and to anchor at the sides of the pond. Secure anchor points (pipe, rods, or treated posts) shall be installed at the ponds edge to hold the baffle in place. Anchor points and the baffle location shall be approved by the DEP onsite representative before installation. The wire cable and chain shall be attached in such a way to allow for

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easy disconnect while sludge is being pumped from the pond. All cable fasteners, eye bolts, and other accessories shall be stainless steel to prevent corrosion, and shall be incidental to this pay item. The baffle curtain opening slots shall be cut into the curtain below the hot seam seal at the top of the baffle, as indicated on the attached drawing. The spacing and the size of the slots shall be determined by the DEP engineer or onsite representative. Two separate curtains shall be installed at locations designated by the DEP onsite representative. Payment shall be by the linear foot installed.

67.0 CLEAR AND GRUB

All vegetative cover (trees, shrubs, bushes etc.) within the entire work area shall be removed to bare ground. It is the contractor's responsibility to obtain all necessary permits and to follow state guidelines for burning and proper disposal of vegetative materials. Disposal of trees and shrubs on-site with a chipper is an acceptable alternative to burning. Any timber cut in the clear and grub area that the landowner wishes to retain shall be de-limbed and stockpiled.

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BID PREPARATION INFORMATION

HISTORICAL INFORMATION

Prospective bidders may review files at the West Virginia Department of Environmental Protection, Charleston, WV office, or the Regional West Virginia Department of Environmental Protection Office at 105 South Railroad St., Philippi, WV 26416. These files may contain additional information not included in the contract. Documents including, but not limited to, permit applications, permits, inspection reports, environmental documents, permit violation history, geological and geotechnical information, probable hydrologic consequences, maps, modifications, NPDES information and other related data. Copies may be obtained upon request and payment of copying fees.

EXAMINATION OF BID PACKAGE AND SITE OF WORK

The bidder is required to examine, carefully, the bid package (plans, specifications, supplemental specifications, contract forms, etc.) and the site of the work contemplated. The submission of a bid shall be considered prima facie evidence that the bidder has made such examination and has judged for and satisfied themselves as to the character, quantity, and quality of work to be performed and the materials required to be furnished under the contract.

PREBID CONFERENCE

Only the prospective bidders on the sign-in sheet in attendance for the entire Pre-Bid Conference will be eligible to submit bids for consideration of this project.

VIDEO

The information given at the pre-bid showing by the project contact person or the assigned person shall be documented on video tape and shall be an integral part of this contract's requirements, but will not supersede the written contract. All information on video tape that is new or provides clarification to the specifications will be issued in writing by a formal addendum and will become part of the written contract.

INTENT OF CONTRACT

The intent of the contract is for the reclamation/restoration of forfeited mine lands as required by West Virginia Department of Environmental Protection. The contractor is to provide for the construction and completion in every detail of the work described. The Contractor shall furnish all labor, materials, equipment, tools, transportation, and supplies required to complete the work in accordance with the Plans, Specifications, and terms of the Contract.

Should any misunderstanding arise as to the intent or meaning of the Contract, or any discrepancy appear, the decision of the Director of Division of Land Restoration shall be final.

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GENERAL PERFORMANCE STANDARDS

INTRODUCTION

The performance standards and non-compliance penalties which govern special reclamation-bond forfeiture projects are in Chapter 22A, Article 3, of the Code of West Virginia and subsequent rules and regulations. The following performance standards are of a general nature and do not represent all the performance standards applicable to a special reclamation-bond forfeiture project. However, some or all of these standards will pertain to each project.

BACKFILLING

1. Unless otherwise noted, the highwall shall be eliminated and the disturbed area graded to the approximate original contour.
2. The material used to backfill and eliminate the highwall shall be sufficiently compacted so as to insure stability of the backfill throughout the warranty period.
3. The land above the highwall shall not be disturbed unless otherwise directed.
4. The best available material to support vegetation, sufficient to establish a permanent vegetative cover and to achieve the approved post mining land use, shall be used.

BLASTING

The performance standards of the blasting regulations must be adhered to.

LIFE OF CONTRACT

The purchase order contract becomes effective on the starting date as specified in the notice to proceed as issued by the Department of Environmental Protection. This contract extends for a period of one (1) year and may be renewed until such "reasonable time" thereafter as is necessary to complete the payment therefore. A responsible Contractor's Agent shall be on the site at all working times who demonstrates a knowledge of mined land reclamation, contract requirements and responds to DEP (owner) inspections.

WORK PERFORMANCE PERIOD

The work performance period is a defined portion of the contract in which all items shall be completed. The work performance period is to be performed within 365 calendar days. Extensions may be granted based upon contractor's performance, weather conditions and site-specific site conditions.

NOTICE TO PROCEED

A notice to proceed shall be issued to the Contractor by the project contact person for the Department of Environmental Protection. Actual construction may only begin after a Notice to Proceed is given and as specified. Such notice shall specify the starting date of the Purchase Order, the work performance period, and the completion date of the work performance period.

PRE-CONSTRUCTION CONFERENCE

The Contractor in possession of the awarded purchase order shall schedule a Pre-Construction Conference on the site within ten (10) days after receiving the Notice To Proceed. The Contractor's foreman or the on-the-ground supervisor must be in attendance.

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GENERAL SUPERVISION - This contract is under the general supervision of the West Virginia Department of Environmental Protection's contact person for the purpose of contract compliance inspection only. Contractor shall supervise work being conducted at all times. All services rendered by the Engineer/Contact Person consist of professional opinions and recommendations made in accordance with generally accepted engineering practice. Under no circumstances is it the intent of the Engineer/Contact Person to directly control the physical activities of the Contractor or the Contractor's workmen's accomplishment of work on this project.

CONTRACTOR RESPONSIBILITY

The contractor is responsible for compliance with all aspects of this written contract. No changes will be honored without prior approval from the Program Supervisor.

LAWS TO BE OBSERVED

The Contractor shall keep fully informed of all Federal and State laws, all local laws, ordinances, and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the work, or which in any way affect the conduct of the work. The Contractor shall at all times observe and comply with all such laws, ordinances, regulations, orders and decrees; and shall protect and indemnify the State and its representatives against any claim or liability arising from or based on the violation of any such laws, ordinances, regulations, orders, or decrees, whether by themselves, their subcontractors or their employees.

PERMITS, LICENSES AND TAXES

The Contractor shall procure all permits and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work.

CONCURRENT RECLAMATION

Reclamation of this project shall commence at a definite point as defined and shall progress from that point with total reclamation to include backfilling, grading/regrading, and revegetation. Changes may be granted based upon weather or differing site conditions with prior approval.

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WATER QUALITY CONTROL

Shall commence with initial start-up of the project and remain in effect for the extent of the backfilling, regrading and revegetation activity. DEP obtains a storm water permit for each project from the Water Resources Division. (General Water Pollution Control Permit WVO115924) The Contractor is responsible for performing the best management practices. Adequate facilities shall be installed, operated and maintained using the best management practices of the U.S. Environmental Protection Agency's Non-Point Source (NPS) Program for sediment control during the active reclamation. The contractor shall take any and all steps necessary 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. No separate payment for this work will be honored. All impounded waters which require removal during reclamation, shall be pumped with appropriate measures taken to prevent erosion from the discharge. The contractor shall be responsible for treatment of said waters to meet pH standards. The water shall be discharged only when the quality meets a pH equivalent to the pH of the receiving stream but not less than 6.0.

DIFFERING SITE CONDITIONS

During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided by the contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before they are disturbed and before the affected work is performed.

Upon written notification, the Engineer/Contact Person will investigate the conditions, and if determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment, excluding loss of anticipated profits, will be made and the contract modified in writing accordingly. The Engineer/Contact Person will notify the Contractor of DEP's determination whether or not an adjustment of the contract is warranted.

No contract adjustment which results in a benefit to the Contractor will be allowed unless the Contractor has provided the required written notice.

No contract adjustment will be allowed under this clause for any effects caused on unchanged work.

HANDLING AND STORAGE OF MATERIALS

Materials which are stored on site, before utilization, shall be stored so as to assure the preservation of their quality and fitness for the work. Stored materials, even though approved before storage, may be inspected again prior to their use in the work. Damaged or deteriorated materials shall be removed and replaced by materials meeting the original specifications.

Aggregate stockpiles shall be made on ground that is denuded of vegetation, hard, and well drained. Removal of aggregate from the stockpile shall be done in a manner which will not result in the inclusion of foreign material into the aggregate. The use of the aggregate will determine if exceptions are permitted.

All materials shall be handled in such a manner as to preserve their quality and fitness for the work.

MAINTENANCE DURING CONSTRUCTION

The contractor shall maintain the work during construction and until the project is accepted. All cost of maintenance work during construction and before the project is accepted shall be included in the unit or lump sum prices on the various pay items.

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FINAL INSPECTION

A final inspection meeting by the Department of Environmental Protection's Specialist and the contractor is required for the construction phase and prior to demobilization.

ACREAGE QUANTITIES

The acreage quantities in this contract are for bidding purpose and are set (definite) number for the project area as specified at the pre-bid showing. Only surveyed acreage's through figures the Contractor and/or the State develops will be honored to alter these acreage numbers.

PAYMENT

Invoices must be submitted on prescribed Department of Environmental Protection, Special Reclamation Program forms and include verification. Certified contractor payrolls for operators directly involved in this project and a current workers compensation certificate must accompany each invoice for payment. Verification of wage rates may include employee interviews. Invoices shall be signed in blue ink so that it is easy to verify that document is an original.

MOBILIZATION/DEMOLIBILIZATION shall be invoiced at fifty percent (50%) with the first invoice and the last 50% invoiced after demobilization and acceptance of the road abandonment or final invoice. Demobilization must have written approval.

SPILL CONTAINMENT AREA shall not exceed \$1,000.00 and will be payable in two payments. The first fifty percent (50%) payable with the first invoice and the remainder payable when all fuel tanks, containers and etc., are removed from the site.

Lump sum items shall be percentage payments based on work completed at time of invoice and paid upon acceptance by the Department of Environmental Protection.

Unit items shall be invoiced by specified units completed and accepted by the DEP.

ROAD ABANDONMENT shall be included in the final construction invoice.

FAILURE TO COMPLETE ON TIME AND LIQUIDATED DAMAGES

Time is an essential element of the Contract and it is important that the work be completed within the time specified. The cost to the Department of the administration of the Contract, including engineering, inspection and supervision, will increase as the time required to complete the work is increased.

The work performance period as specified in the contract's Notice to Proceed shall be complied with or result in liquidated damages. Such damages shall be assessed at an amount of two hundred and fifty dollars (\$250.00) per day for each and every day beyond the work performance period as specified in the Notice to Proceed. The total amount of daily charges will be deducted from any moneys due the Contractor, not as a penalty but as liquidated damages.

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REVEGETATION AND WARRANTY

The seeding date shall be at the discretion of the contractor once an approved seedbed has been prepared. In all cases a permanent vegetative cover capable of supporting the post-mining land use must be established. A warranty period of one (1) year shall commence upon completion and payment of the revegetation item of the contract. No payment will be made for additional seeding necessary to comply with warranty requirements. The warranty period will be extended for one (1) year from the date of the last augmented seeding done by the contractor. The performance bond and labor and materials bond shall remain in effect throughout the warranty period. The Standards for Evaluating Vegetative Cover as presented in Title 38, CSR2, Section 9 of the West Virginia Surface Mining Reclamation Regulations will apply.

Equipment for the retracking/scarification to eliminate rills and gullies shall be mobilized and utilized to produce slopes consistent with the regrading and topsoiling bid item prior to warranty reseeding. No additional payment will be made by DEP for this warranty work.

Water utilized for hydroseeding shall be free of injurious or other toxic substances harmful to plant life. The source of water is subject to the approval of the DEP contact person.

CONTRACT NON-COMPLIANCE

If in the opinion of the Department of Environmental Protection the contract is not in compliance with any line item specification, that portion of the project shall cease until a compliance schedule and understanding is demonstrated in writing and accepted by the Director of Division of Land Restoration.

CONTRACT DELETIONS

Any line item, or any portion thereof, may be deleted when determined by the project contact person that such line item, or portion thereof, is deemed unnecessary for the successful reclamation of this project. No claim for loss of anticipated profits will be considered.

CANCELLATION

The performance of work under contract may be terminated by the State in whole, or from time to time in part whenever the State shall determine that such termination is in the best interest of the State. Any such termination shall be effected by delivery to the Contractor of a Notice of Termination specifying the extent to which performance of work under the Contract is terminated and the date upon which such termination becomes effective.

When contracts, or any portion thereof, are terminated before completion of all items of work in the Contract, payment will be made for the actual number of units or items of work completed and accepted at the contract unit price. No claim for loss of anticipated profits will be considered. Reimbursement for organization of the work, when not otherwise included in the Contract, and moving equipment to and from the job will be considered where the volume of work completed and accepted is too small to compensate the Contractor for these expenses under the contract unit prices, the intent being that an equitable settlement will be made with the Contractor.

Termination of the Contract or a portion thereof shall not relieve the Contractor of his responsibilities for the completed work, nor shall it relieve his surety of its obligation for and concerning any just claims arising out of the work performed.

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. This contract objective is to comply with the reclamation laws of this state and must be expedient to meet the time requirements for reclamation of revoked surface mine permits.

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 VENDOR:

S

Attn:

A

Re: Notice to Proceed
 Permit Name: _____
 Permit No. _____
 Purchase Order No.: DEP

Dear :

M

The purpose of this letter is to express our appreciation for your work in advance and to recognize a reclamation partnership project. The official starting date for the above mentioned purchase order is . The work performance period must be completed by . The contract life of one year is provided to accomplish all line items and to process all payments within that period.

You must schedule a pre-construction conference on site within ten (10) days after receiving this notice to proceed. It is then mandatory that construction begins within ten (10) days of the pre-construction conference and continues diligently until completion of the project. Please contact this office to schedule the pre-construction conference. The foreman, superintendent, or on-the-ground supervisor must be in attendance at this conference.

Failure to comply with this notice to proceed will cause termination of the contract and forfeiture of your performance bond.

If you have any questions please feel free to contact this office.

L

Sincerely,

E

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General Requirements

Project Construction Sign

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.

Materials

- (a) Paint. Paint for the project sign shall be one (1) coat Exterior-Grade Wood Primer- Sealer, and two (2) coats Exterior-Grade Enamel by Glidden or equivalent.
- (b) Wood. Sign face shall be 3/4" X 4' X 8' Marine Exterior plywood, and posts and cross braces shall be treated.
- (c) Hardware. All hardware shall be manufactured from good, commercial-quality material and be rust resistant such as galvanized coated.

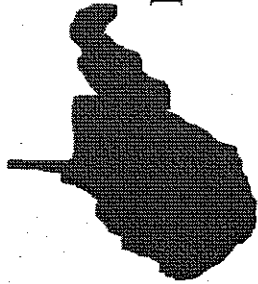
Execution

- (a) Project Sign. The signboard shall be cut to the dimensions shown on the details herein. The sign shall be 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.

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 direction of WVDEP.

- (b) Payment. Payment for the work which shall include installation of the project sign shall be incidental to the lump sum bid item for "Mobilization/Demobilization"

Note: No construction work shall commence prior to the project sign being installed.



Joe Manchin, III
Governor



Stephanie Timmermeyer,
Cabinet Secretary



Ken Ellison,
Director

STATE OF WEST VIRGINIA
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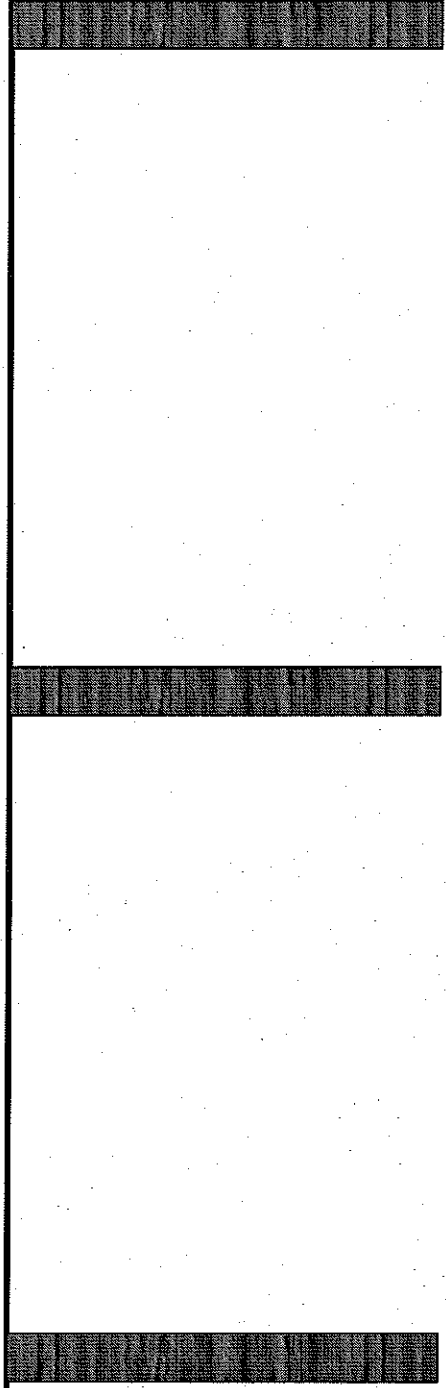
Division of Land Restoration
Office of Special Reclamation

Project Cost: \$XXX,XXX.00
Funding provided by the Special Reclamation Coal Tax paid by WV Coal Mine Companies

Permit Name
Permit Number

Contractor: Joe Smith Contracting

Project Start Date: 01/01/01



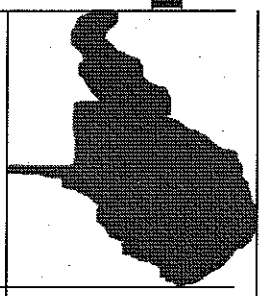
77 1/4"

27 3/4"

STATE OF WEST VIRGINIA
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Division of Land Restoration
Office of Special Reclamation

Project Cost: \$XXX,XXX.00
Funding provided by the Special Reclamation Coal Tax paid by WV Coal Mine Companies



Joe Manchin, III
Governor



Stephanie Timmermeyer,
Cabinet Secretary



Ken Ellison,
Director

Permit Name
Permit Number

Contractor: Joe Smith Contracting

Project Start Date: 01/01/01

17 1/4"

1 1/2"

1 1/8"

15 3/4"

7 7/8"

3 3/4"

7 7/8"

3"

8 5/8"

18"

2 1/4"

73 7/8"

36"

36"

48"

6"

6"

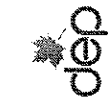
96"



STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Land Restoration
Office of Special Reclamation

Joe Manchin, III
Governor



Stephanie Timmermeyer,
Cabinet Secretary



Ken Ellison,
Director

Project Cost: \$XXX,XXX.00
Funding provided by the Special Reclamation Coal Tax paid by WV Coal Mine Companies

Permit Name	Project Start Date: 01/01/01
Permit Number	
Contractor: Joe Smith Contracting	

81 3/8"

7 7/8"

9 3/8"

5 1/4"

48"

6"

STATE OF WEST VIRGINIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Land Restoration

Office of Special Reclamation

Project Cost: \$XXX,XXX.00

Funding provided by the Special Reclamation Coal Tax paid by WV Coal Mine Companies

Permit Name

Permit Number

Contractor: Joe Smith Contracting

Project Start Date: 01/01/01

3 3/4"

1 1/4"

1 1/2"

2 1/4"

3 3/4"

2 1/4"

1 1/4"

2 1/4"

4 7/8"

1 1/4"

3 3/4"

17 1/2"

1 1/4"

3/4"

1 1/2"

9 1/2"

1"

3/4"

1"

8"

1"

3/4"

1"

3 3/4"



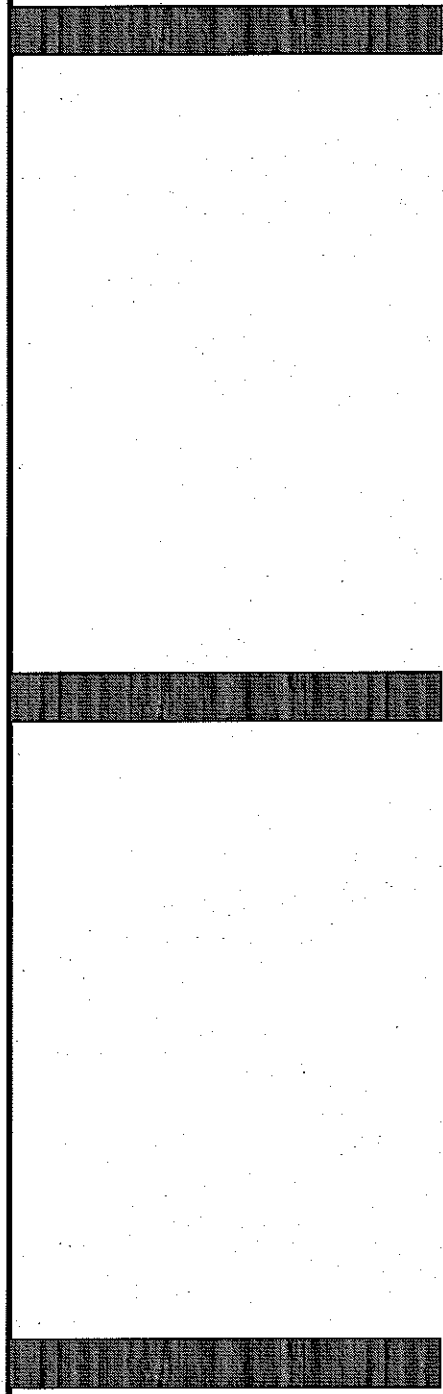
Joe Manchin, III
Governor



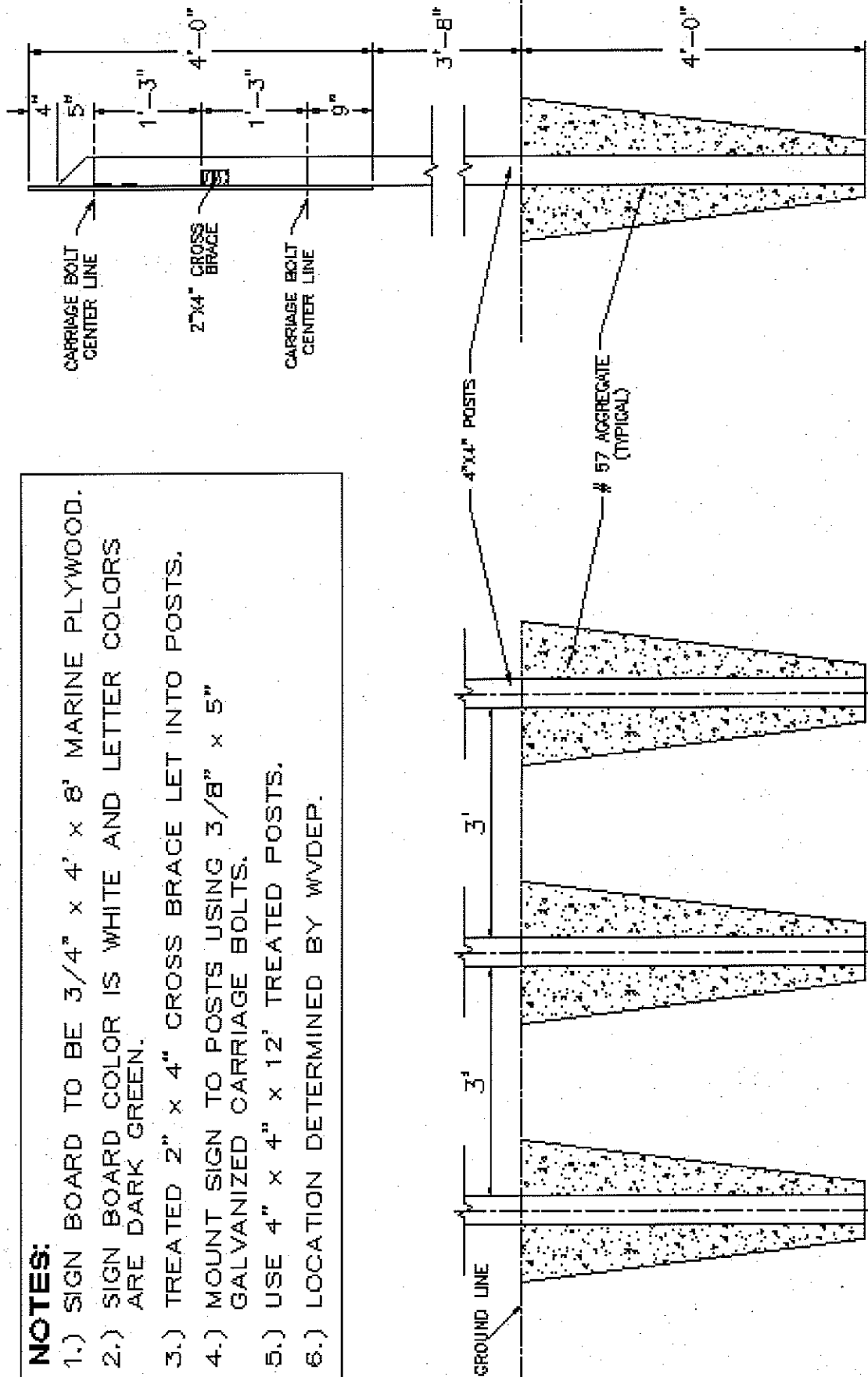
Stephanie Timmermeyer,
Cabinet Secretary



Ken Ellison,
Director



- NOTES:**
- 1.) SIGN BOARD TO BE 3/4" x 4' x 8' MARINE PLYWOOD.
 - 2.) SIGN BOARD COLOR IS WHITE AND LETTER COLORS ARE DARK GREEN.
 - 3.) TREATED 2" x 4" CROSS BRACE LET INTO POSTS.
 - 4.) MOUNT SIGN TO POSTS USING 3/8" x 5" GALVANIZED CARRIAGE BOLTS.
 - 5.) USE 4" x 4" x 12' TREATED POSTS.
 - 6.) LOCATION DETERMINED BY WVDOP.



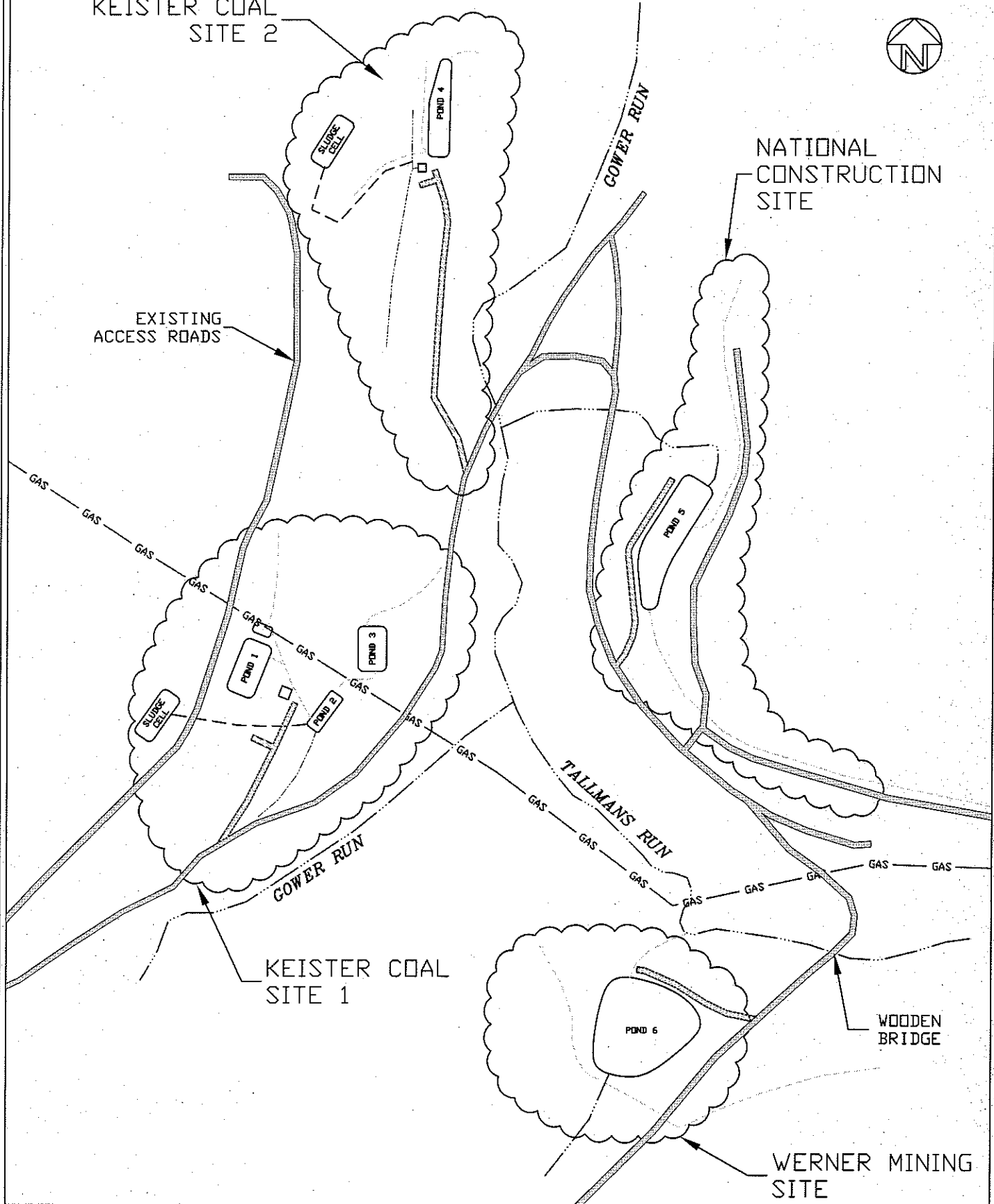
PROJECT SIGN
NOT TO SCALE



KEISTER COAL
SITE 2

NATIONAL
CONSTRUCTION
SITE

EXISTING
ACCESS ROADS



KEISTER COAL
SITE 1

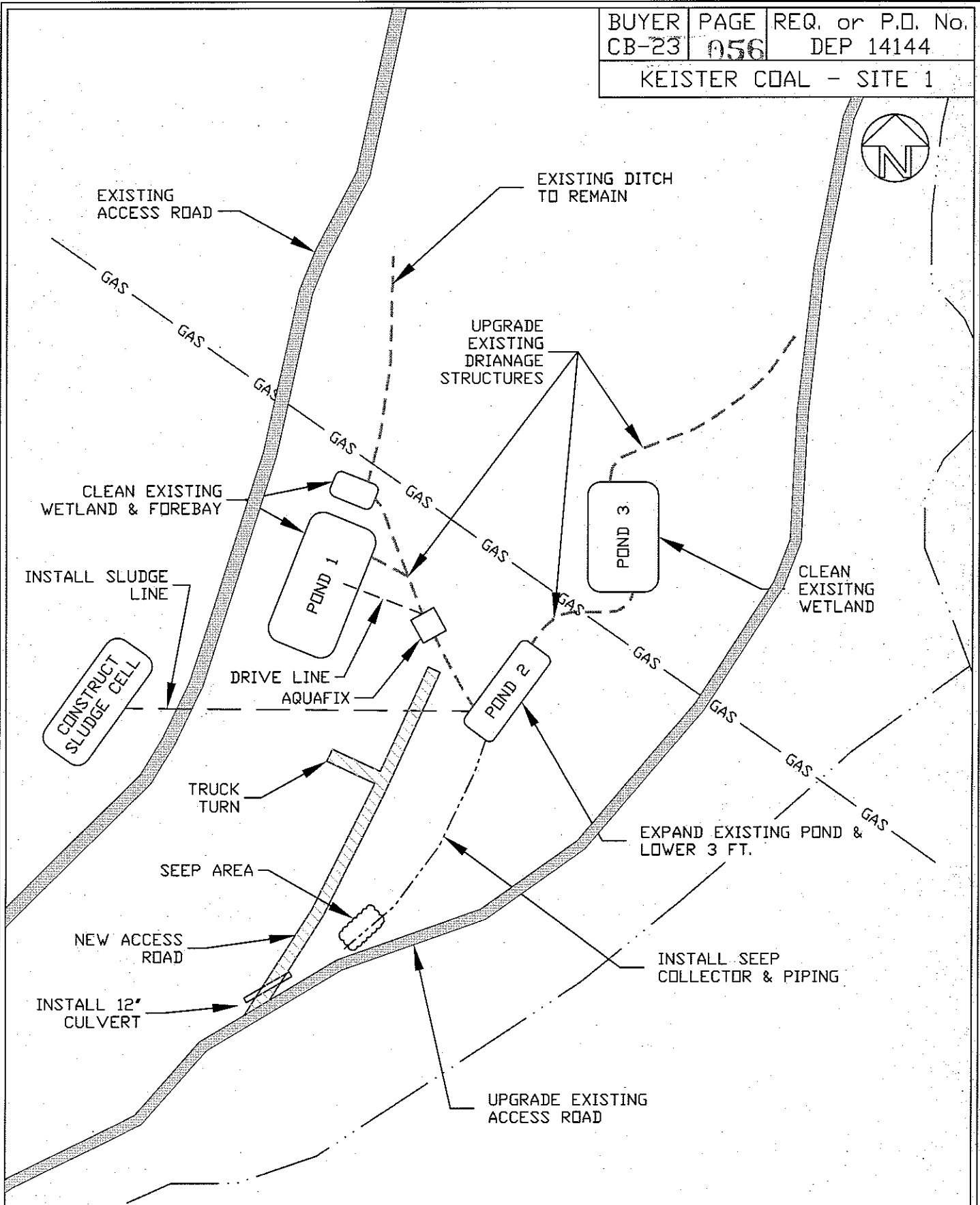
TALLMANS RUN

GOWER RUN

WOODEN
BRIDGE

WERNER MINING
SITE

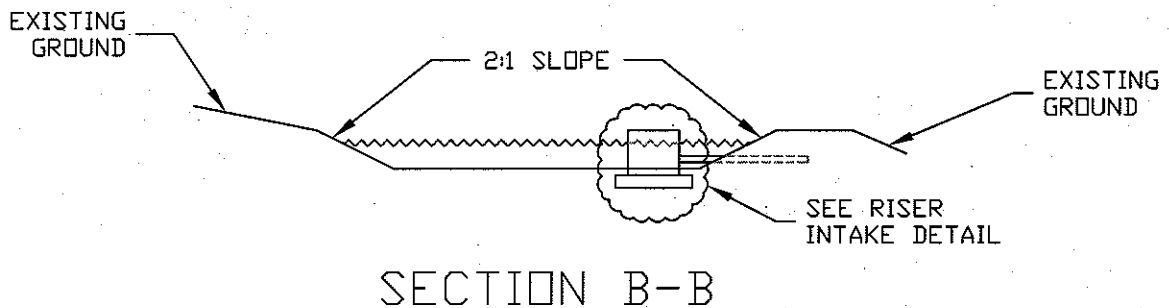
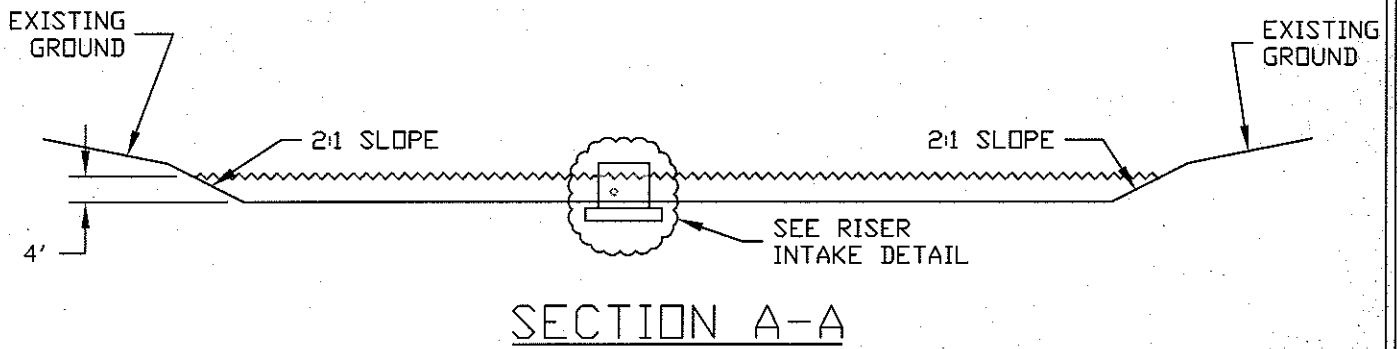
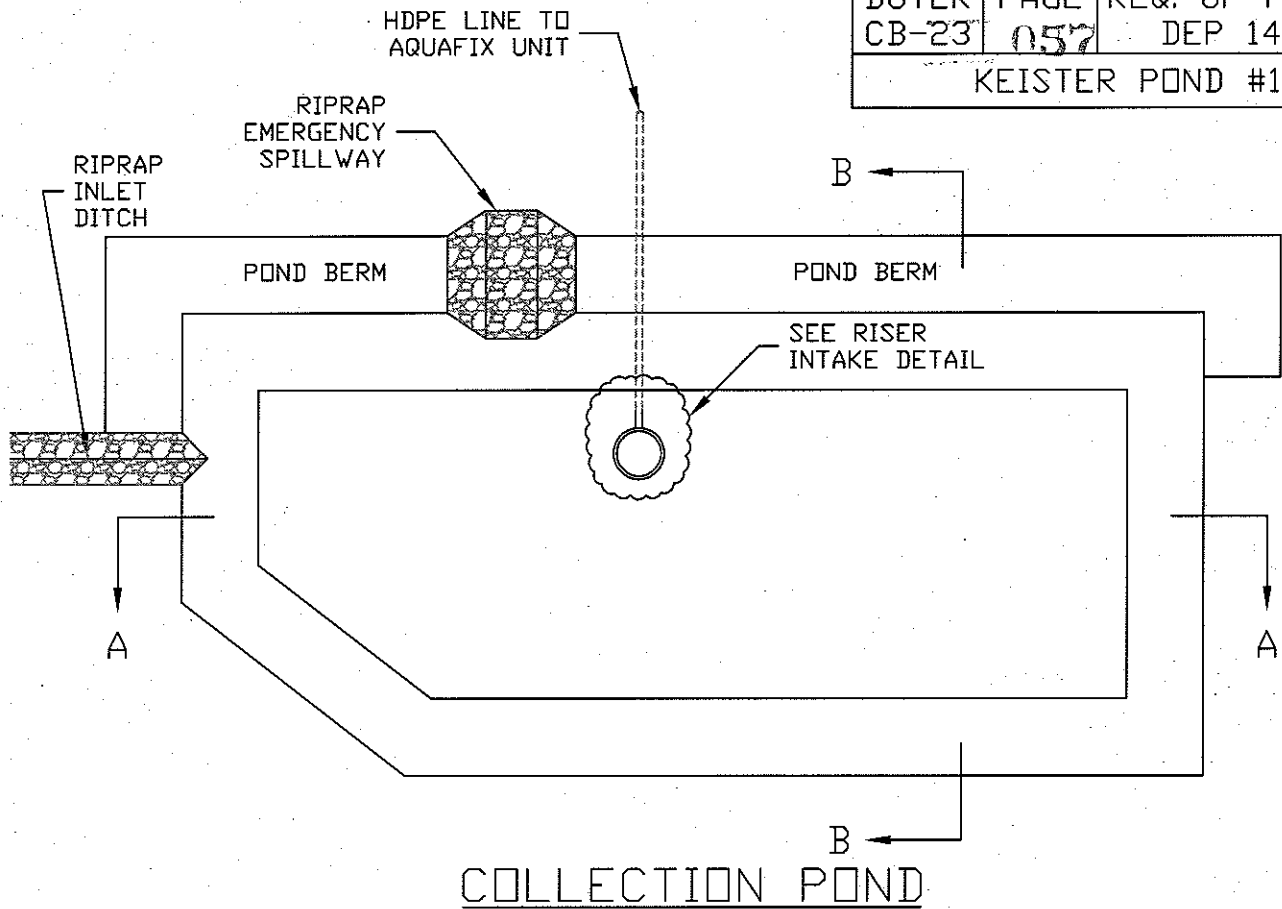
KEISTER COAL - SITE 1



***NOTES:**

1. Clean existing wetland (Pond 1) to a water depth of 4' and 2' of freeboard. (See detail sheet.)
2. Expand Pond 2 as shown on the detail sheet.
3. Clean existing wetland (Pond 3) to a water depth of 6' with 2' of freeboard.

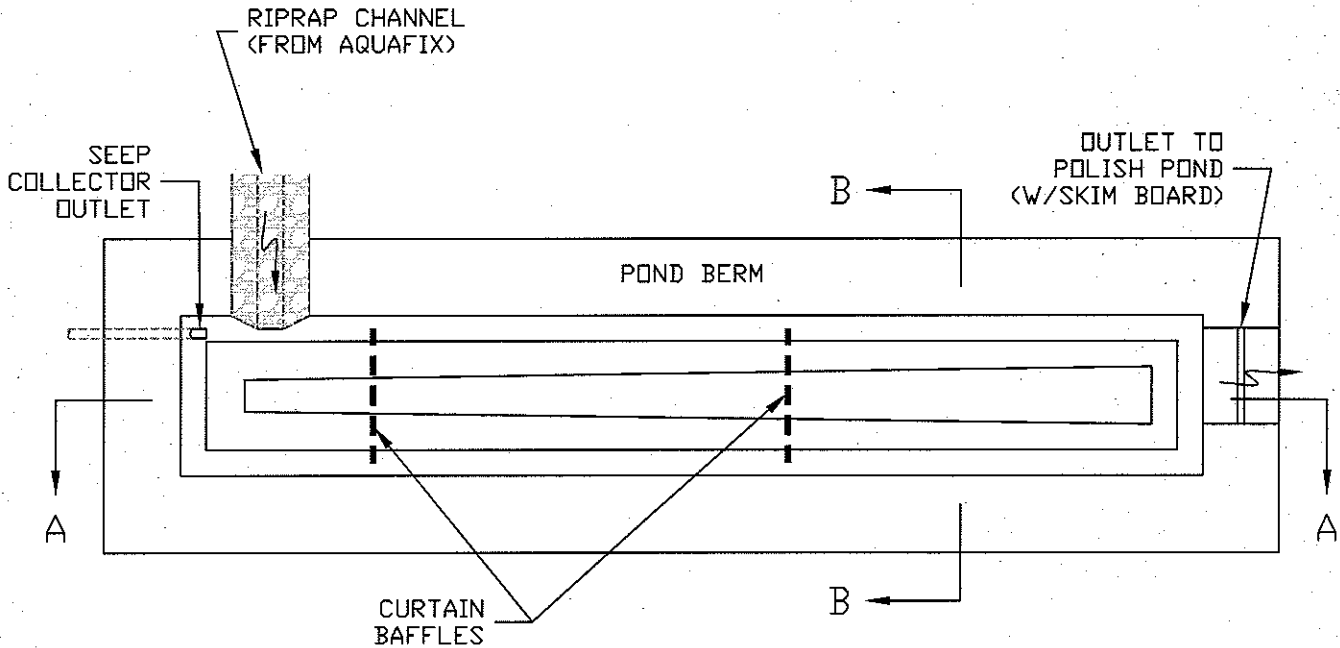
KEISTER POND #1



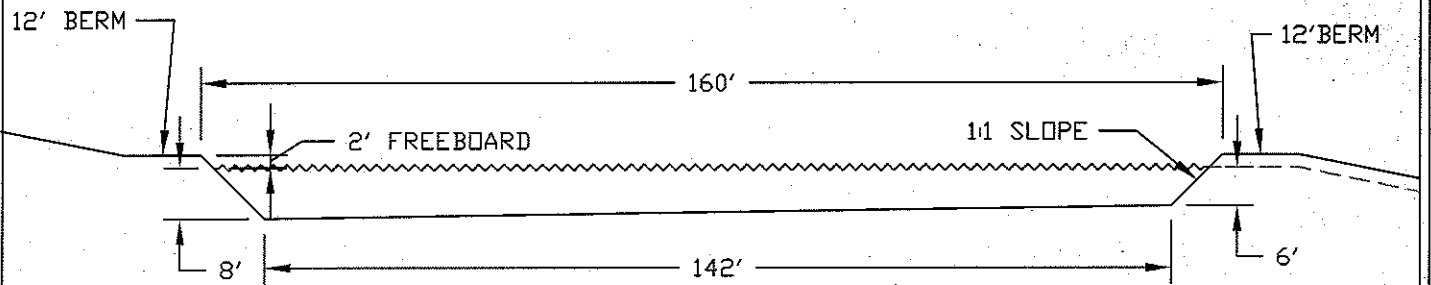
*NOTES:

1. Clean constructed wetlands, to obtain a water depth of four (4') feet and two (2') feet of freeboard, to create the collection pond.
2. Eliminate the sediment forebay berm and include that area in the collection pond.

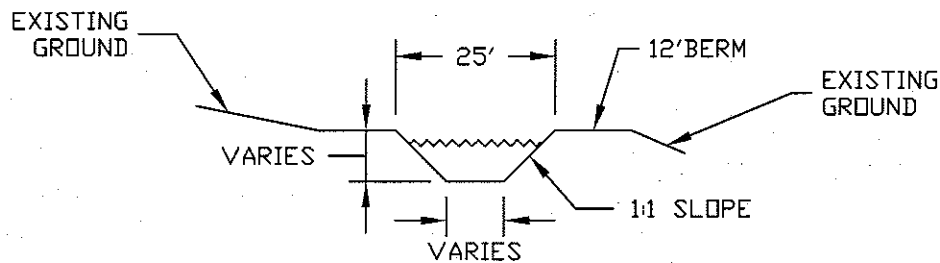
KEISTER POND #2



TREATMENT POND



SECTION A-A

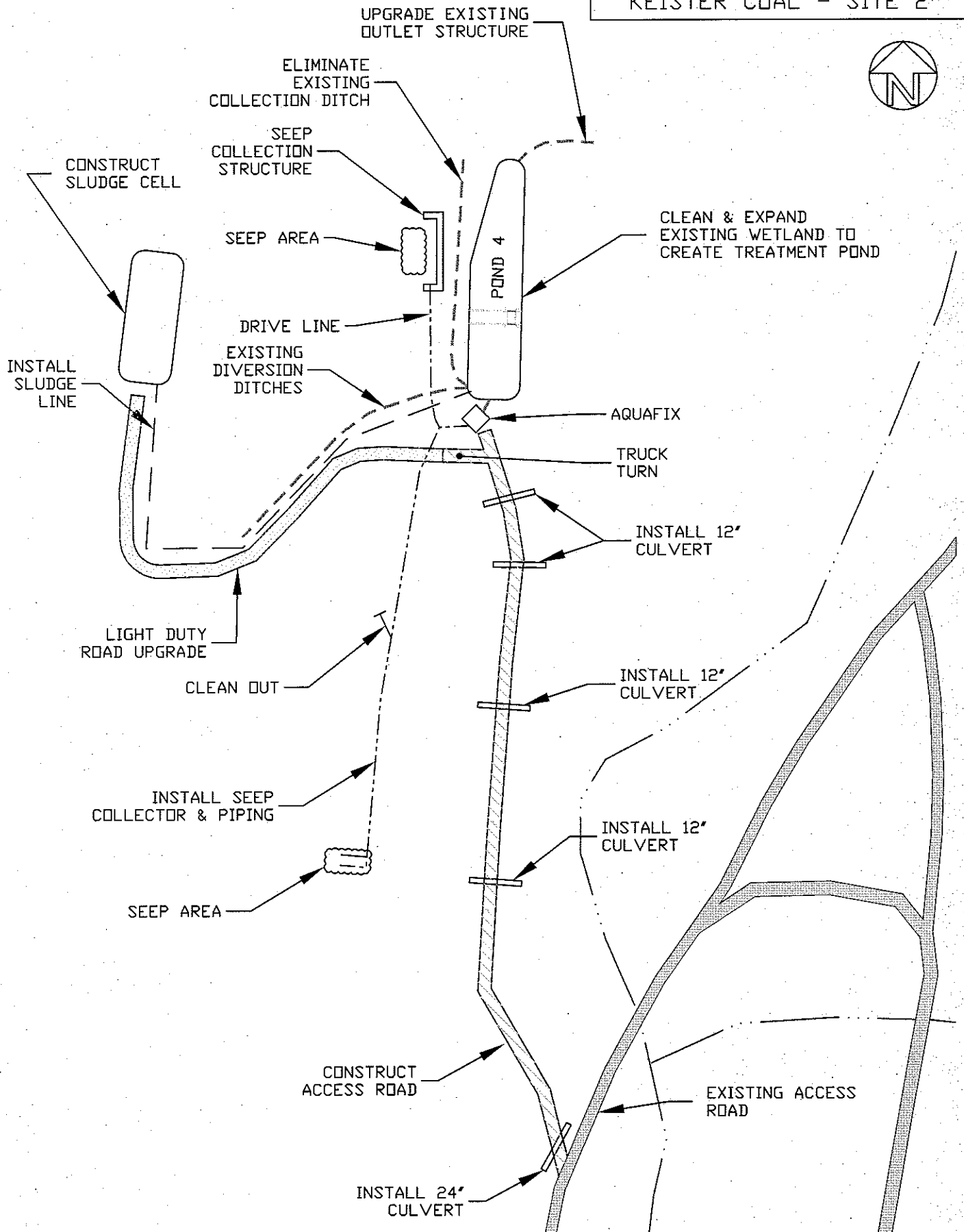


SECTION B-B

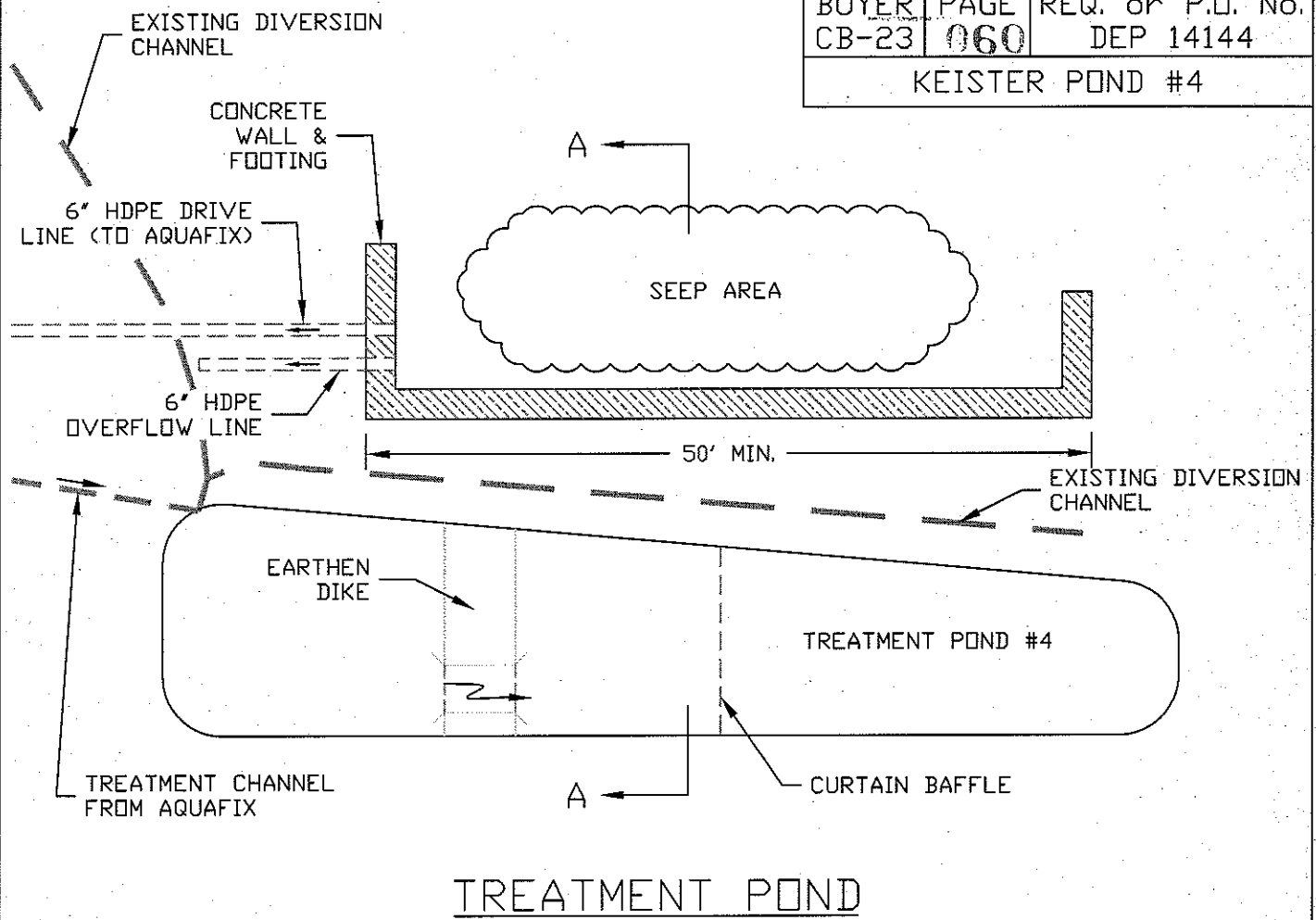
*NOTES:

1. Clean existing pond and expand to the dimensions shown.
2. The water depth shall be eight (8') feet at the southwest end of the pond and six (6') feet at the northeast end of the pond with two (2') feet of freeboard.
3. The existing water level elevation must be lowered three feet (3') to accommodate the elevation of the seep collector, shown on the site map.

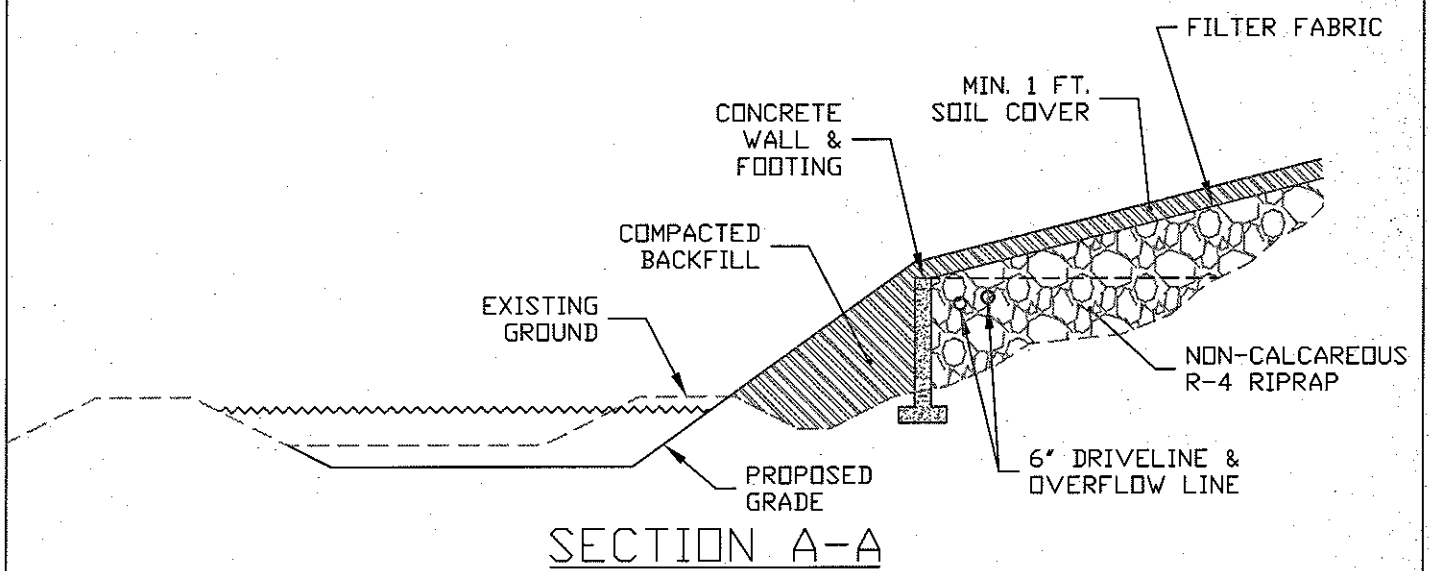
KEISTER COAL - SITE 2



KEISTER POND #4



TREATMENT POND

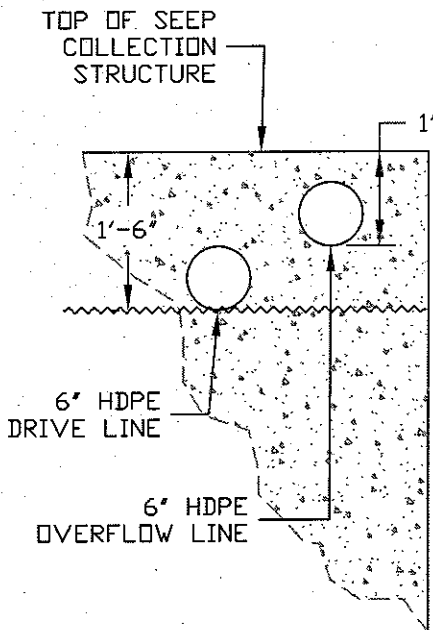
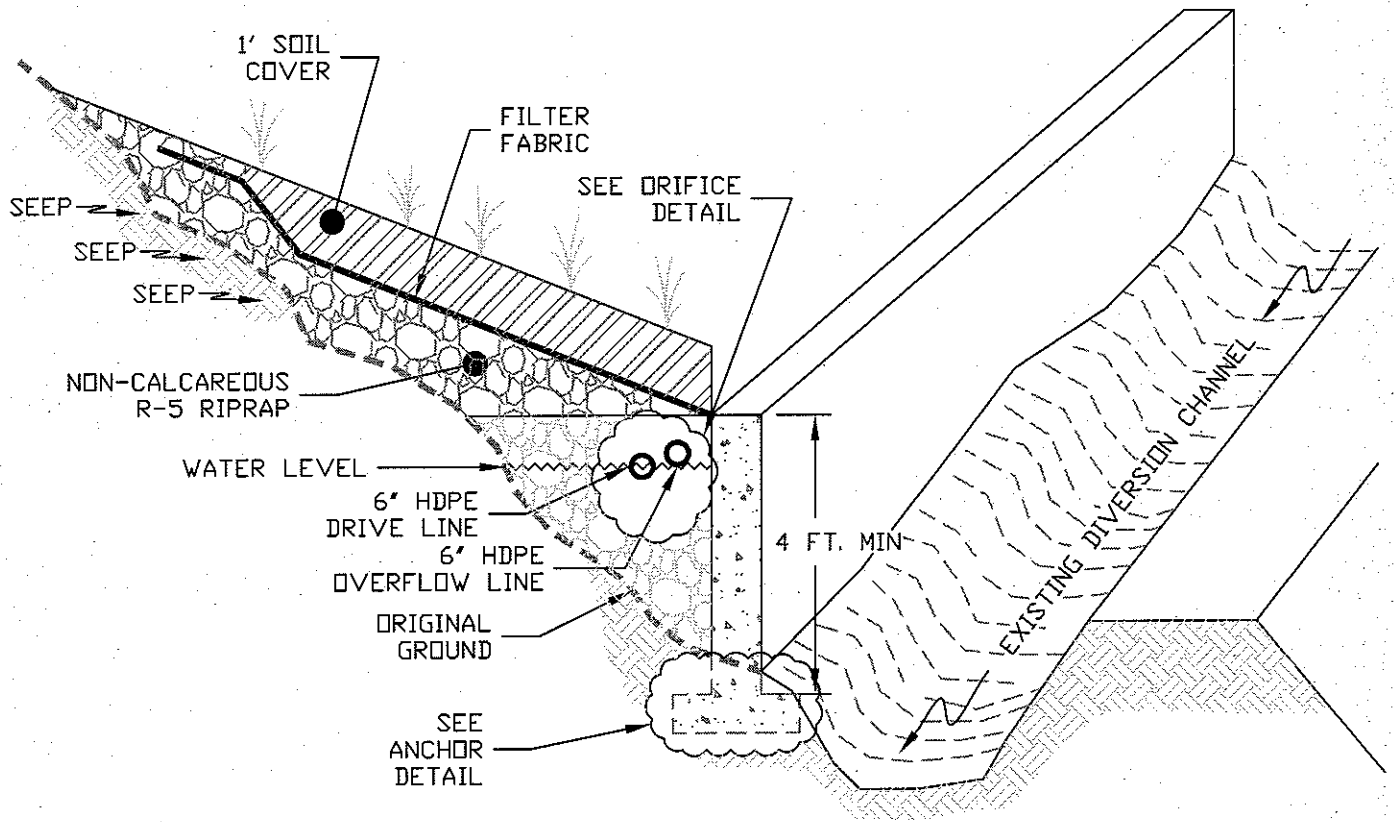


SECTION A-A

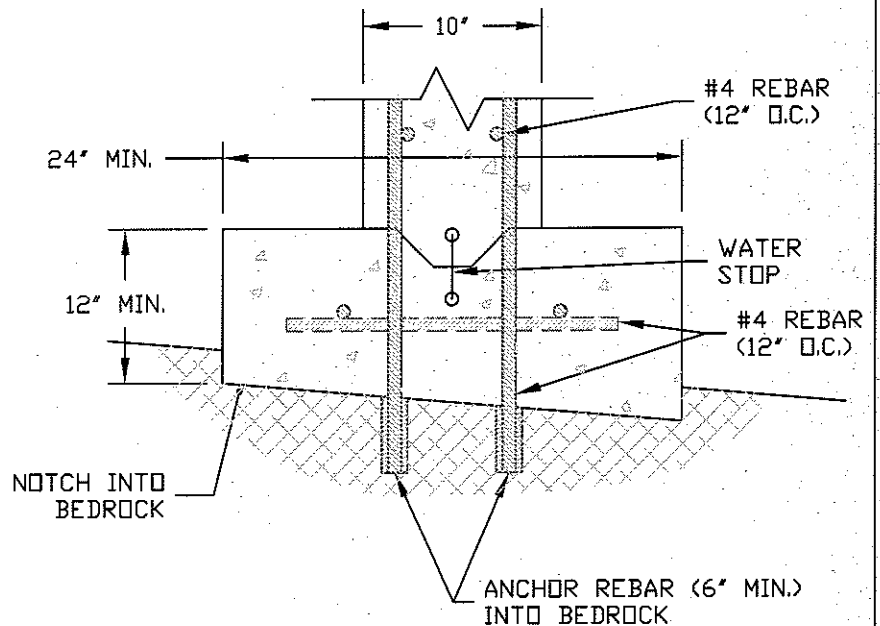
*NOTES:

1. Clean constructed wetlands, to obtain a water depth of six (6') feet and two (2') feet of freeboard, to create the treatment pond.
2. Eliminate the sediment forebay berm and include that area in the treatment pond.
3. Expand pond approximately 25 ft in length, on the southern end, and 15 feet in width to maximize treatment volume or as directed by on-site DEP inspector.
4. Anchor concrete footing into bedrock with vertical rebar. (See Seep Containment Structure Detail.)

SEEP CONTAINMENT
STRUCTURE DETAIL

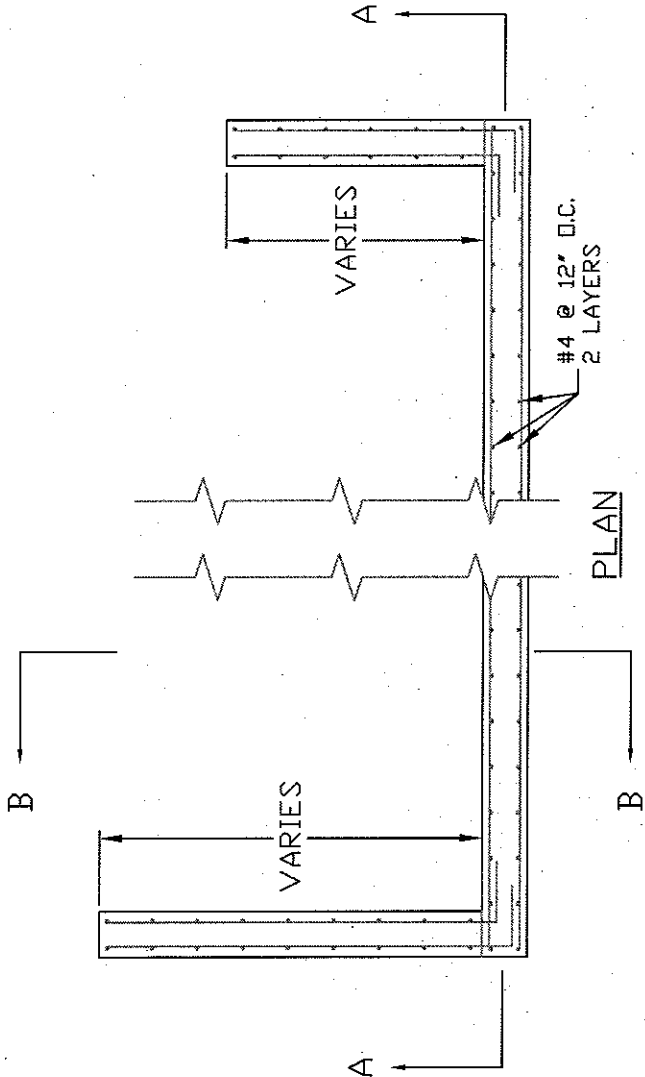
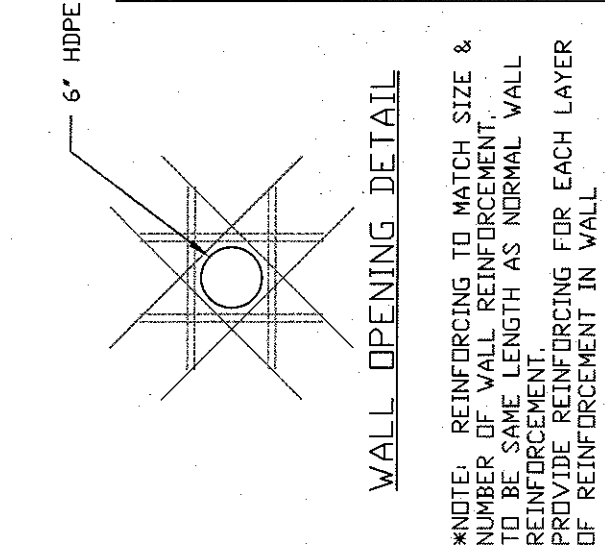
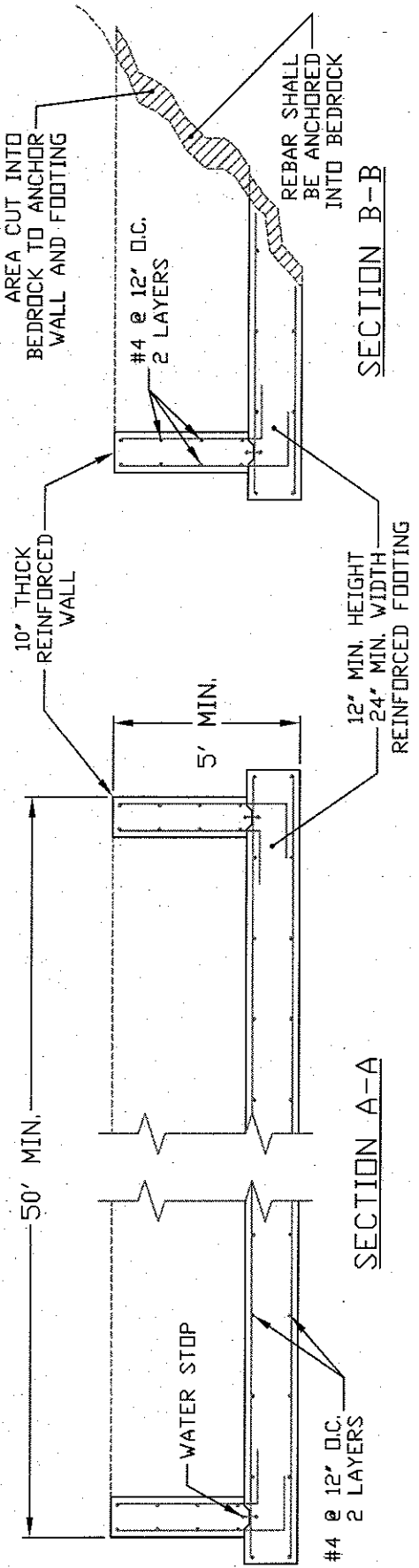


DRIFICE DETAIL

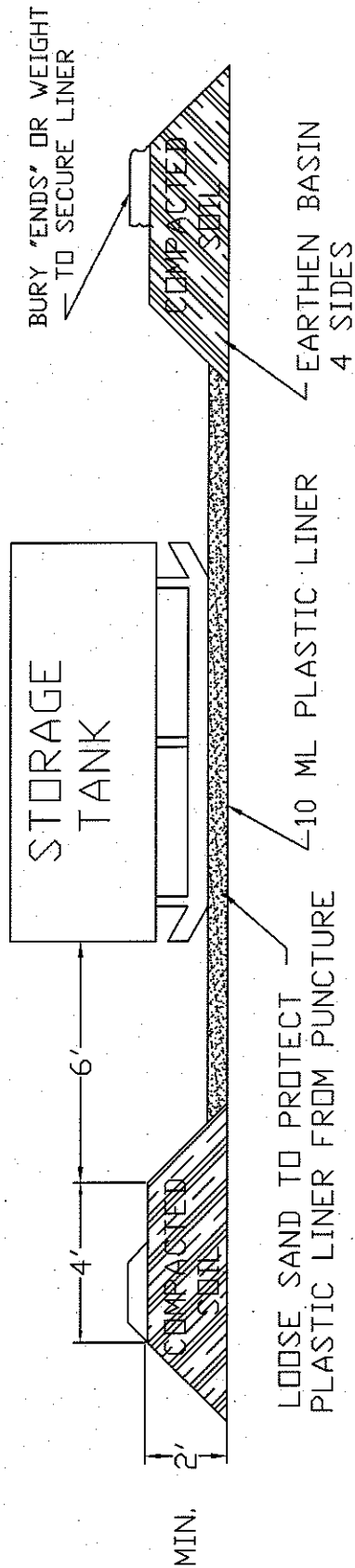


ANCHOR DETAIL

SEEP CONTAINMENT
STRUCTURAL DETAIL



SPILL CONTAINMENT

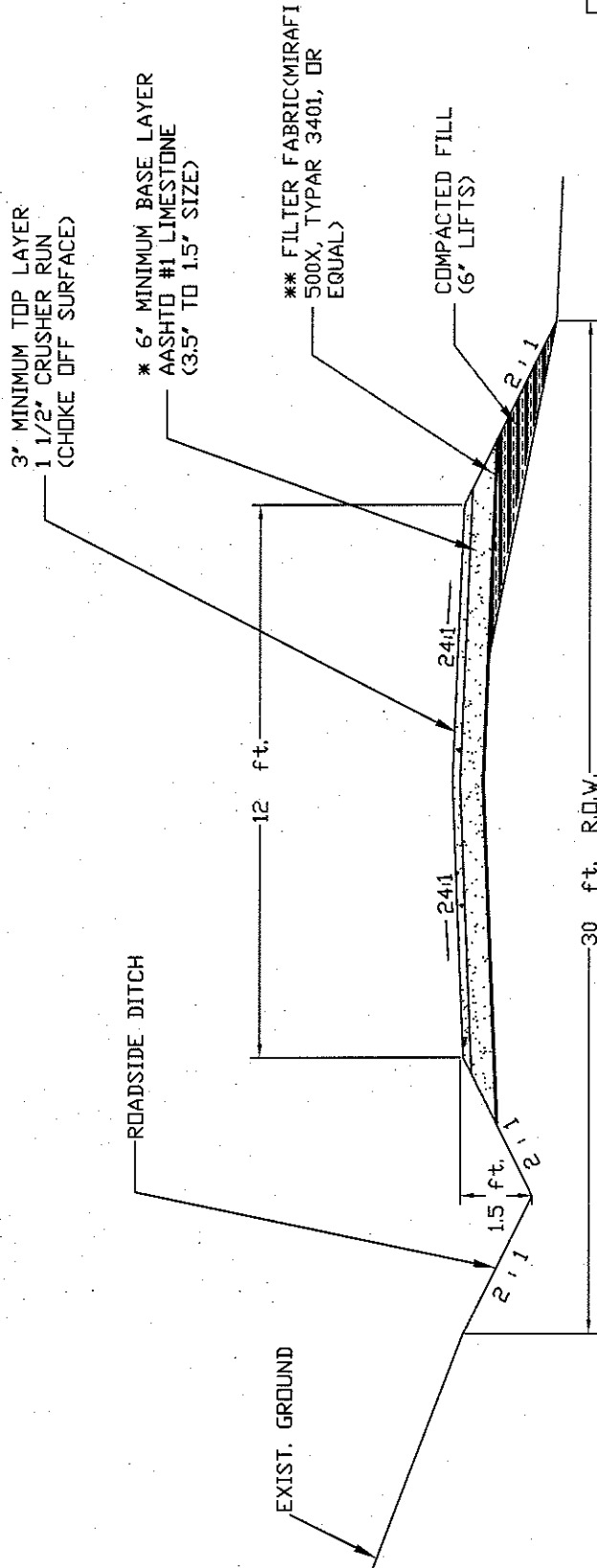


SELECTED HEIGHT OF EARTHEN BERM IS TO BE A TWO (2') FOOT MINIMUM OR ONE HUNDRED TEN PERCENT (110%) OF THE CAPACITY OF THE TANK(S) TOTAL VOLUME WITHIN THE BERM. A SIX (6") INCH FREEBOARD MUST BE INCLUDED.

NOTE: A TWO INCH (2") WATER REMOVAL DRAIN SHALL BE LOCATED AT THE LOWEST POINT IN THE BOTTOM OF THE CONTAINMENT VOLUME. IT SHALL CONNECT TO A NORMALLY CLOSED VALVE OUTSIDE THE DIKE. THE VALVE SHALL BE MANUALLY OPERATED AND PROTECTED FROM UNAUTHORIZED OPERATION. RAINWATER CONTAINED WITHIN THIS DIKE SHALL BE EXAMINED PRIOR TO RELEASE TO ENSURE THAT HARMFUL QUANTITIES OF FUELS AND LUBRICANTS ARE NOT DISCHARGED. ALTERNATE METHODS OF WATER REMOVAL WILL BE CONSIDERED FOR APPROVAL.

TANKS WITH SECONDARY CONTAINMENT MAY BE USED AS AN ALTERNATIVE.

ACCESS ROAD UPGRADE



TYPICAL SECTION

NOTES: THE EXISTING ROAD SHALL BE REGRADED, SHAPED, AND ROCKED AS NECESSARY TO MEET THESE SPECIFICATIONS.

ANY TREES OR BRUSH WITHIN THE 30 FEET R.O.W. OF THE ROAD SHALL BE REMOVED.

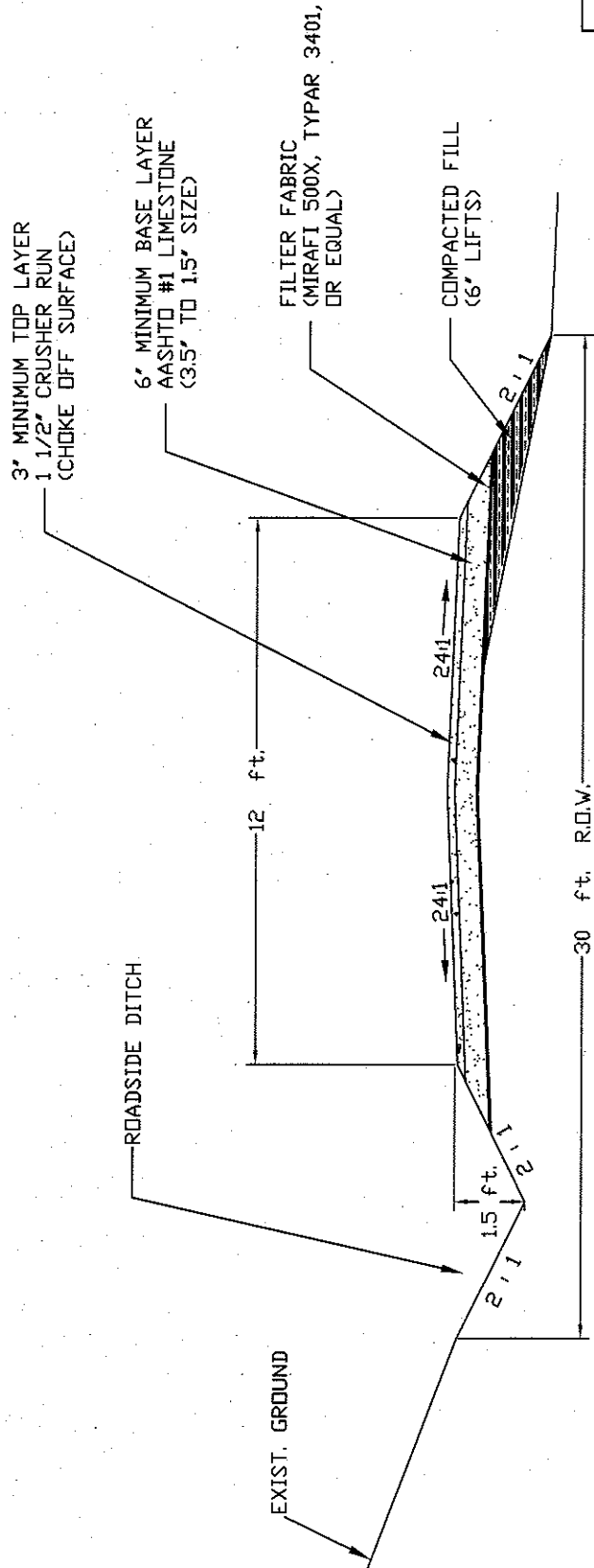
ANY OVERHANGING TREE LIMBS IN THE R.O.W. AT A HEIGHT OF 15 FEET OR LESS SHALL BE REMOVED.

* THE 6" BASE LAYER OF STONE SHALL BE USED AS NEEDED, AND SHALL BE PAID BY THE TON.

** THE FILTER FABRIC SHALL BE USED AS NEEDED, AND SHALL BE PAID BY THE LINEAR FOOT OF ROAD SECTION.

BUYER CB-23	PAGE 064	REQ. or P.O. No. DEP 14144
ACCESS ROAD UPGRADE		

NEW ACCESS ROAD

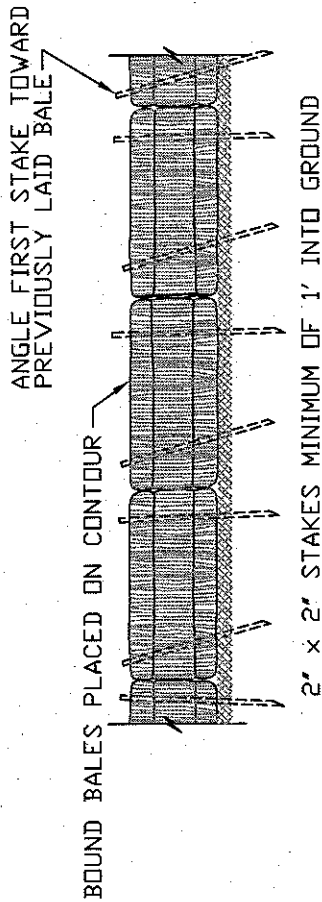


TYPICAL SECTION

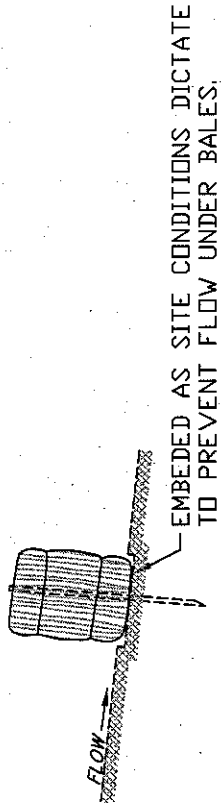
NOTES: ANY TREES OR BRUSH WITHIN THE 30 FEET R.O.W. OF THE ROAD SHALL BE REMOVED.
ANY OVERHANGING TREE LIMBS IN THE R.O.W. AT A HEIGHT OF 15 FEET OR LESS SHALL BE REMOVED.

NEW ACCESS ROAD

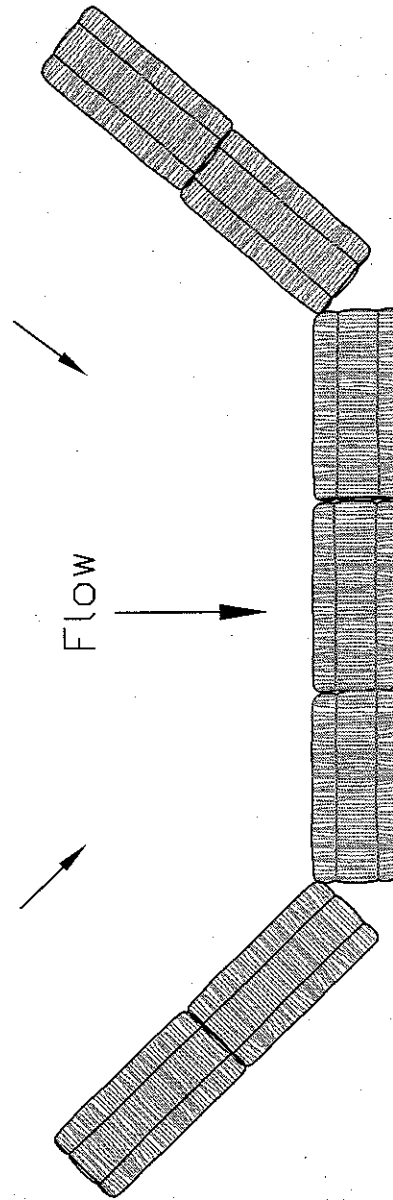
HAY/STRAW BALE DIKE
SEDIMENT CONTROL



ANCHORING DETAIL



END VIEW



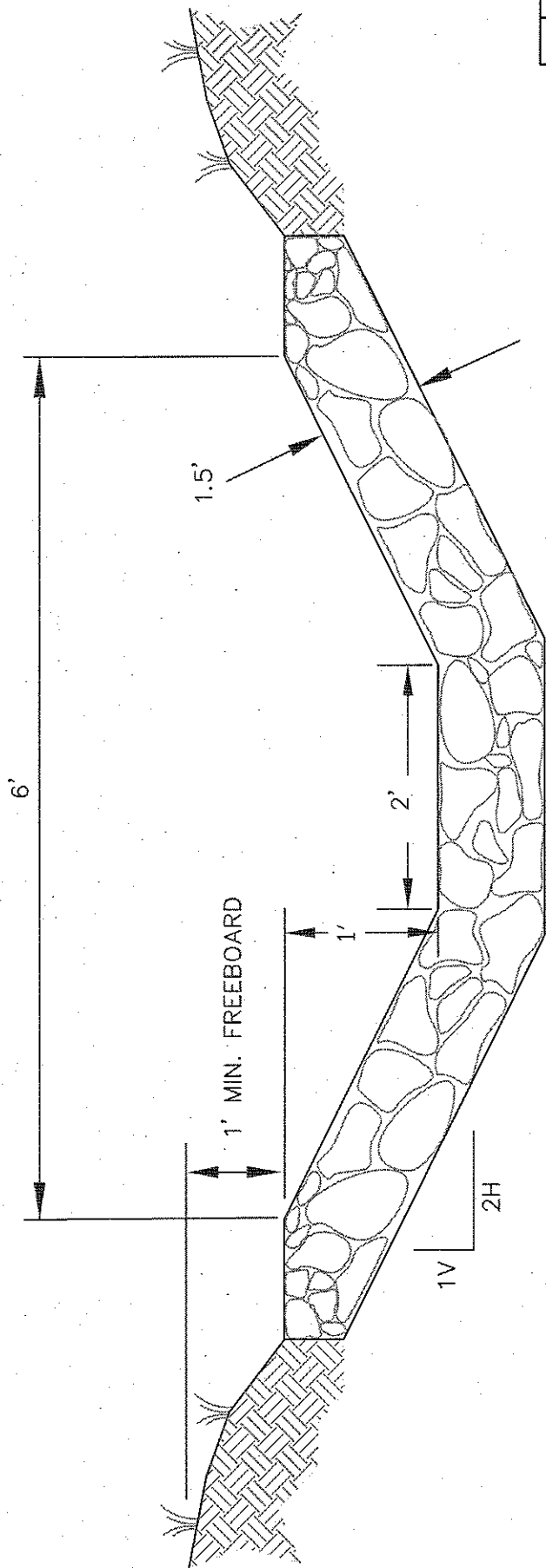
DESIGN TO FIT SITE CONDITIONS

SEDIMENT BARRIER
TOP VIEW

NOT TO SCALE

6' - TRAPEZOIDAL DITCH

6' - TRAPEZOIDAL DITCH

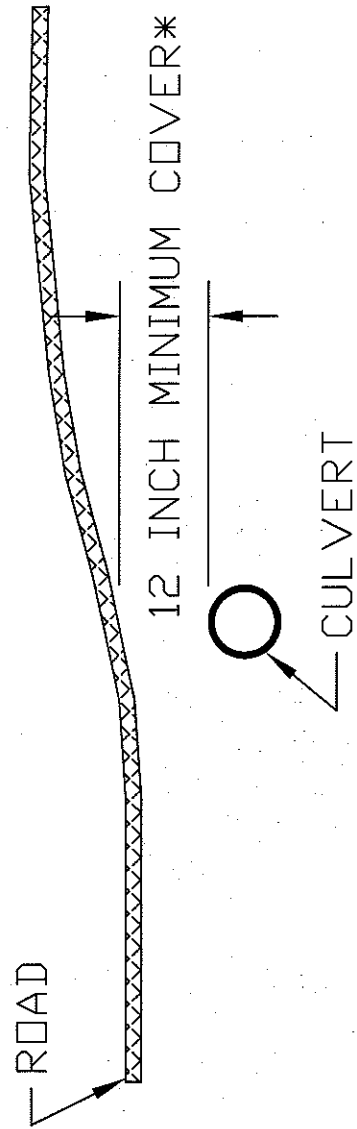
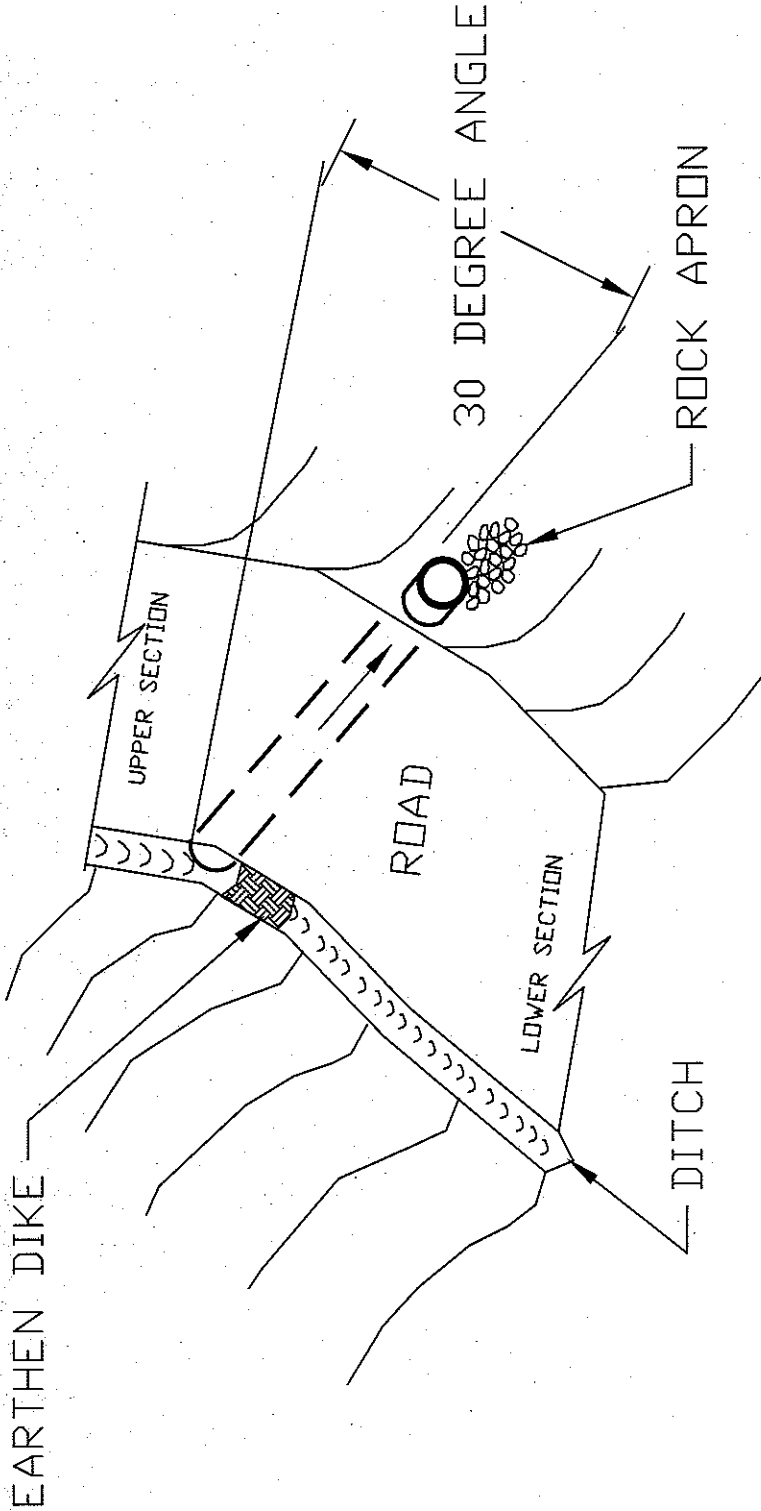


NOT TO SCALE

PAYMENT SHALL BE FOR ACTUAL LENGTH OF DITCH CONSTRUCTED.

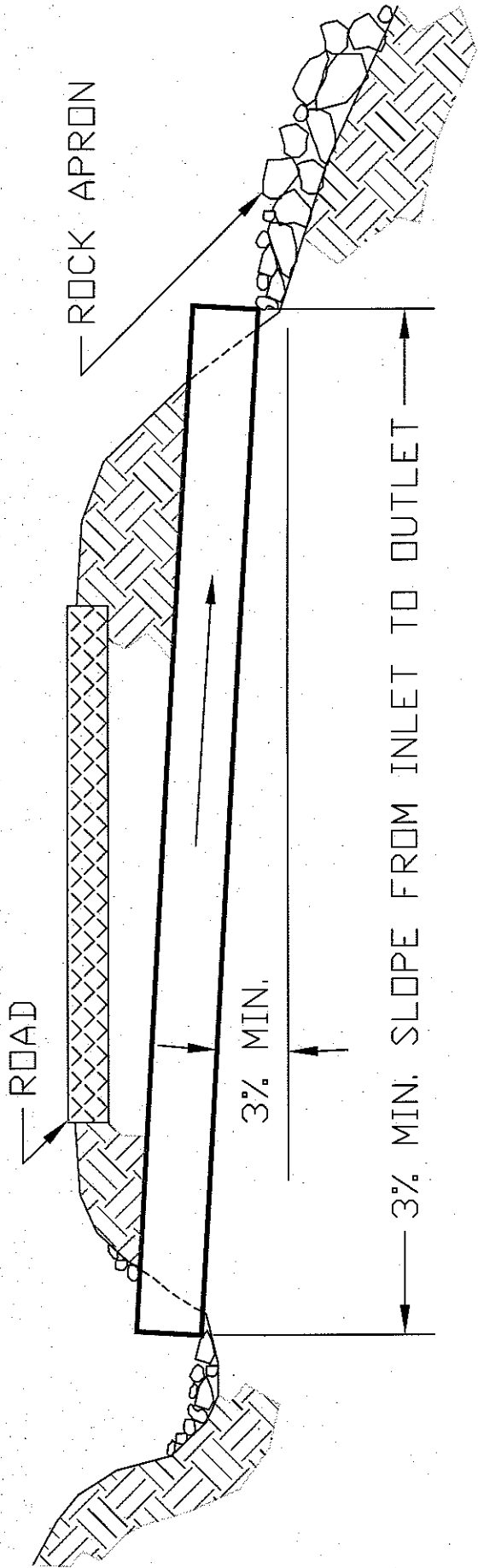
R-5 LIMESTONE RIPRAP (STANDARD) UNLESS OTHERWISE NOTED, RIPRAP SHALL BE DURABLE ROCK PLACED IN A 1.5 FOOT BLANKET. TWENTY-FIVE (25%) OF THE ROCK WILL BE OF 18 INCHES OR LARGER, THE REMAINING SEVENTY-FIVE (75%) SHALL BE WELL GRADED MATERIAL (MINIMUM 3 INCHES TO MAXIMUM 15 INCHES) OF SUFFICIENT ROCK SMALL ENOUGH TO FILL THE VOIDS BETWEEN THE LARGER ROCK. SHALE SHALL NOT BE USED FOR RIPRAP. IF RIPRAP STABILITY IS QUESTIONABLE, DURABILITY SHALL BE DETERMINED BY THE SODIUM SULPHATE TEST ASTM C 88/AASHTO T 104-77.

CULVERT INSTALLATION

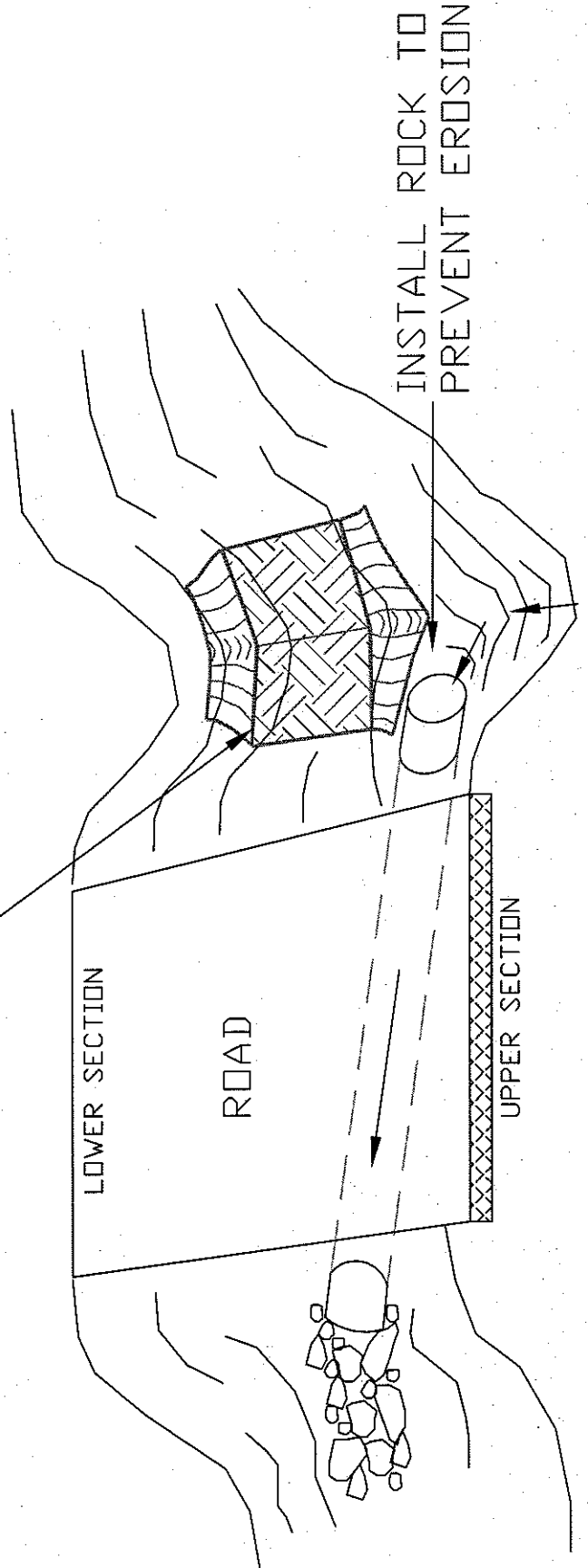


*OR 1/2 CULVERT DIAMETER, WHICHEVER IS GREATER.

CULVERT INSTALLATION



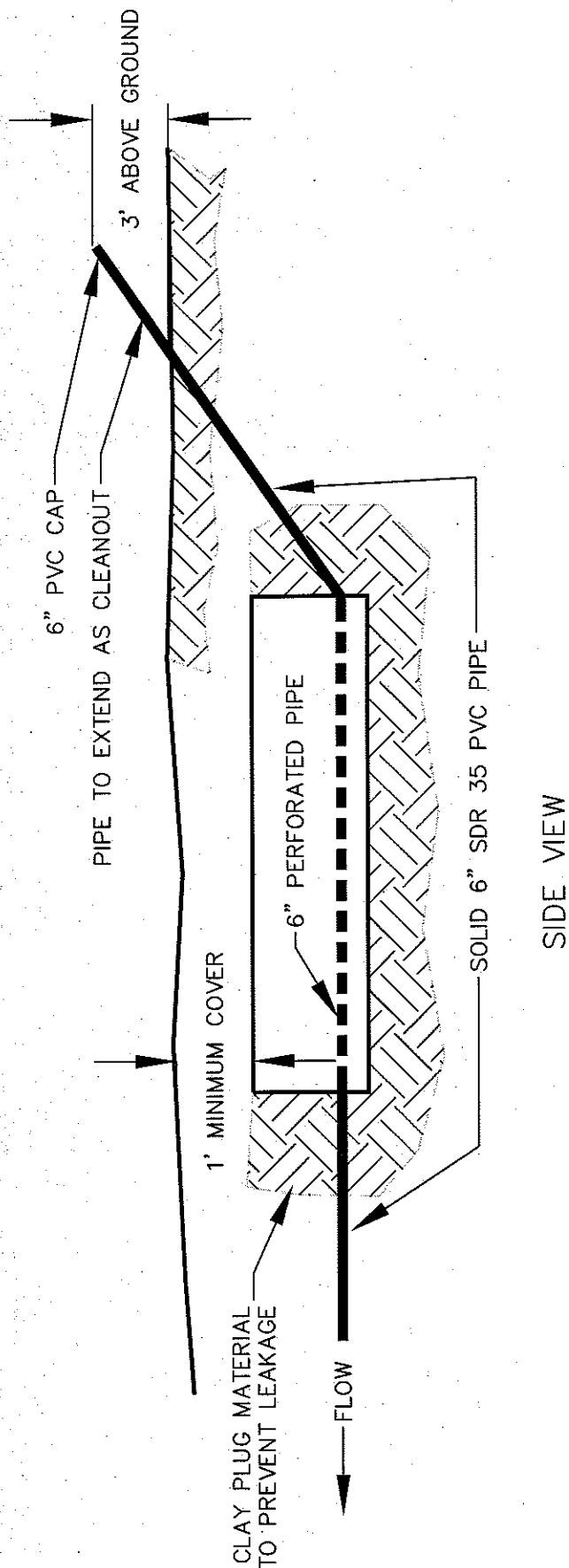
EARTHEN DIKE TO BE INSTALLED IN DITCH
LINE BELOW CULVERT INLET



SEEP COLLECTOR

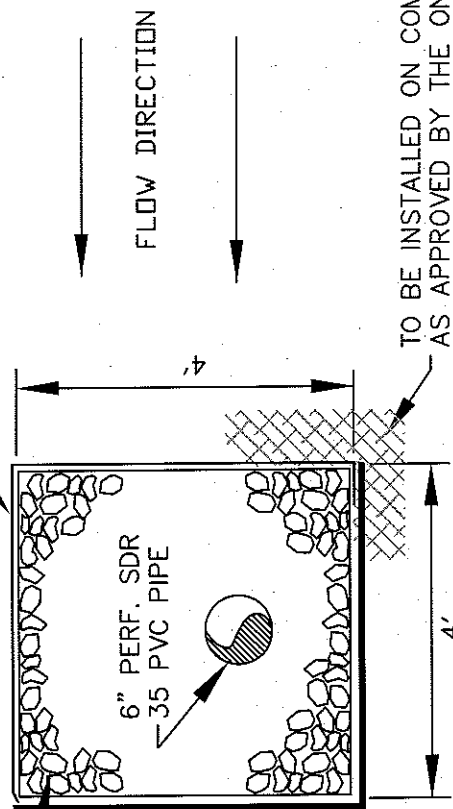
NOT TO SCALE

TO BE INSTALLED ON COMPETENT MATERIAL AS APPROVED BY THE ON-SITE DEP INSPECTOR.



SIDE VIEW

WRAP WITH FILTER FABRIC (NONWOVEN) TYPAR 3401 or EQUIVALENT

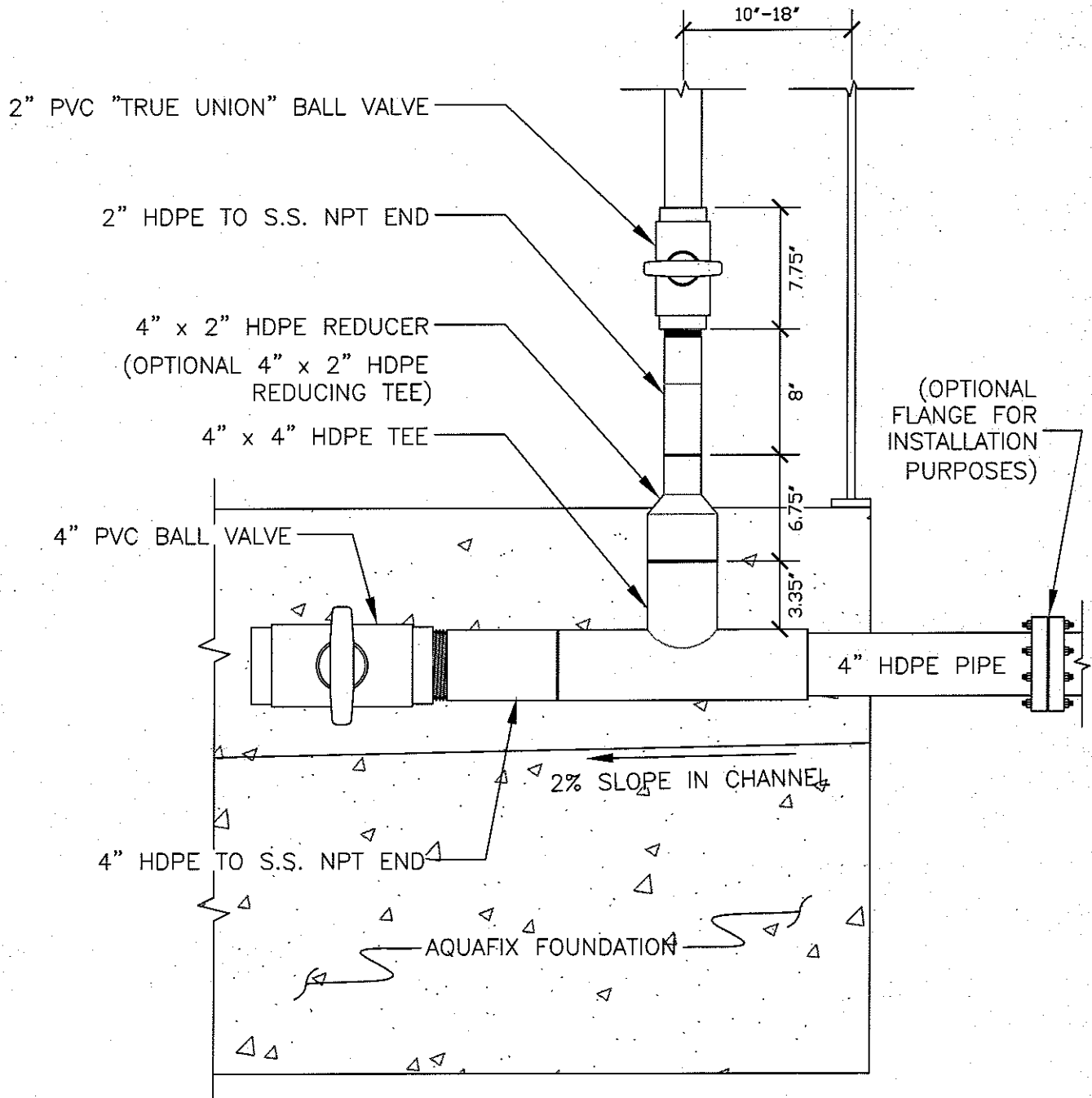


END VIEW

3" TO 6" STONE NON-CALCAREOUS (R-3 SIZE)

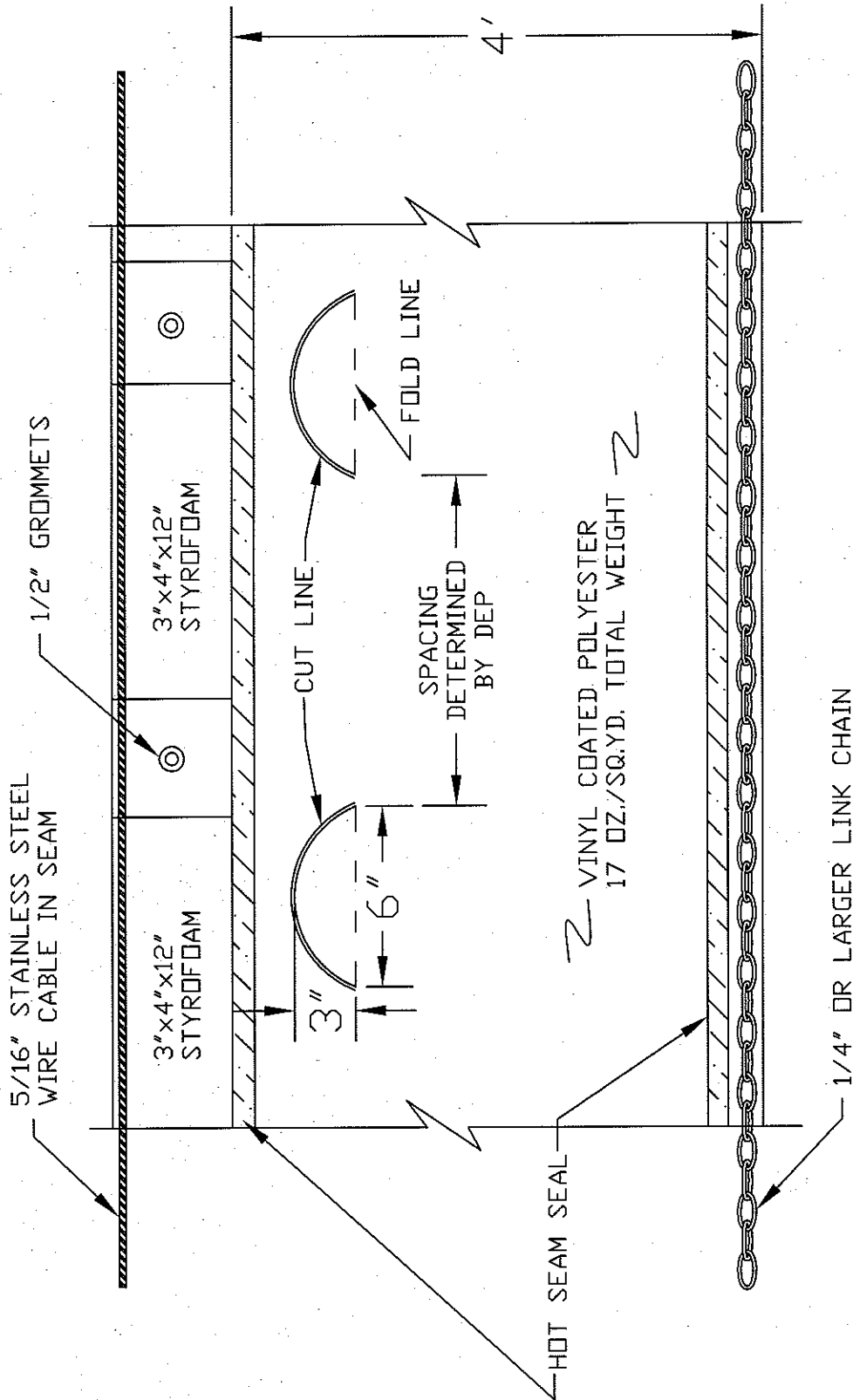
WRAP BOTTOM AND SIDE WITH 40 MIL. HDPE LINER

DRIVE LINE SCHEMATIC



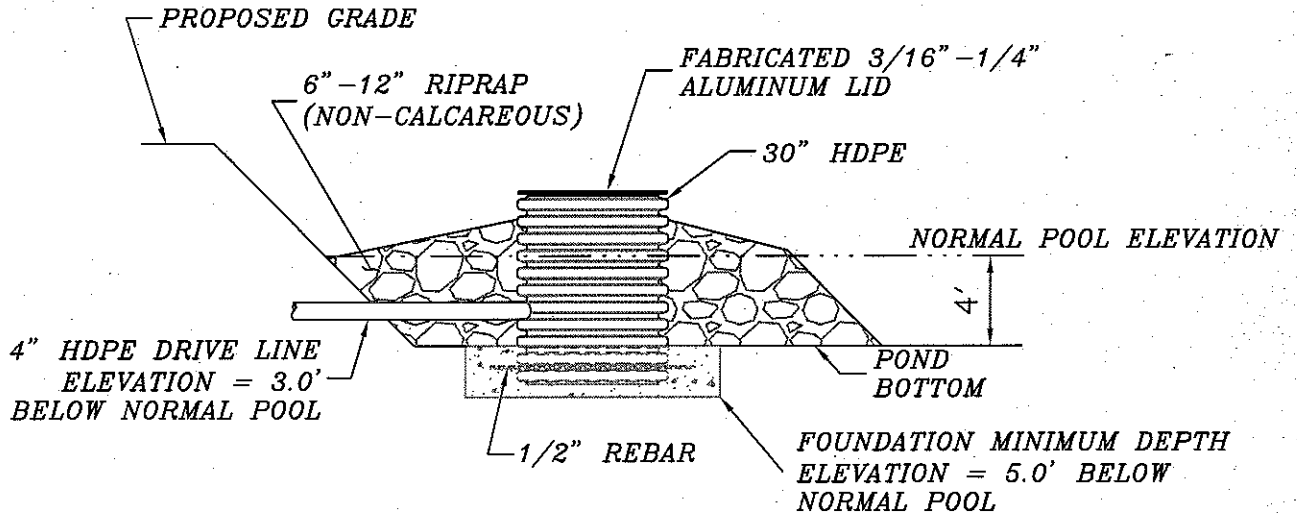
NOT TO SCALE

CURTAIN BAFFLE DETAIL



NOTE: THE CABLE MUST EXTEND 10 FEET PAST THE BAFFLE MATERIAL ON EACH END.

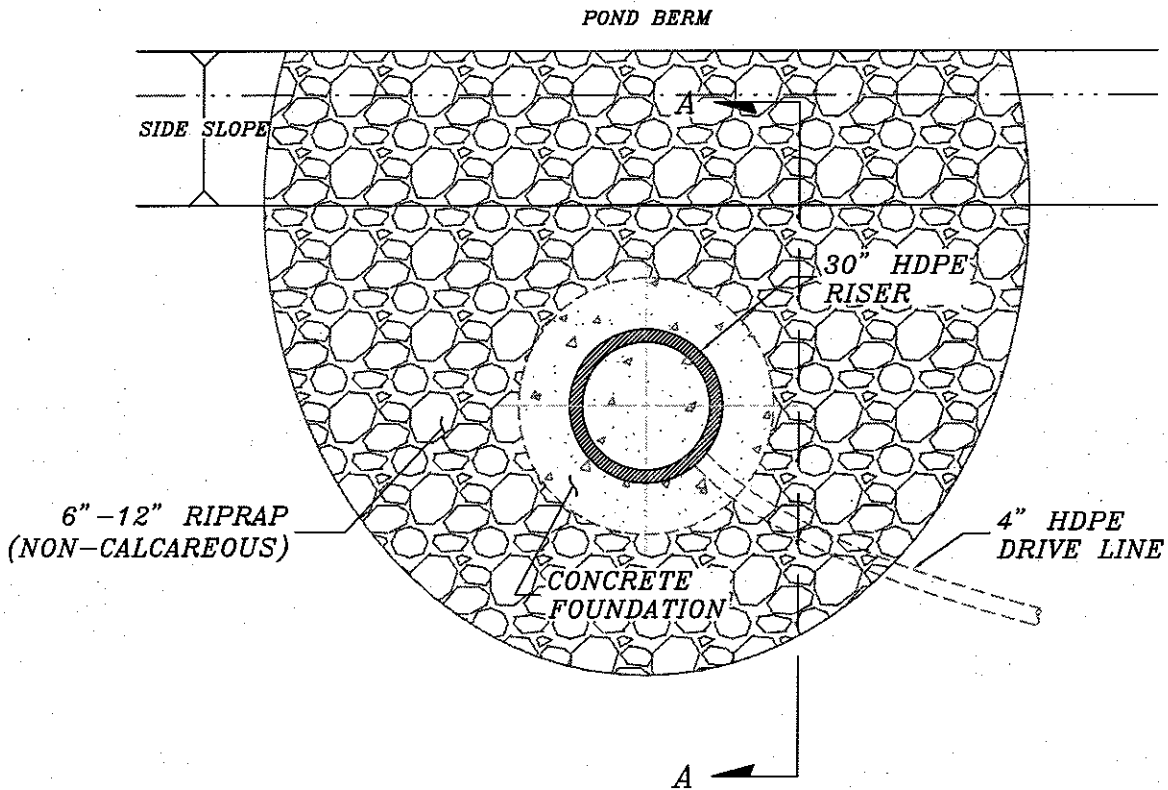
WATER INTAKE RISER



SECTION A'-A'

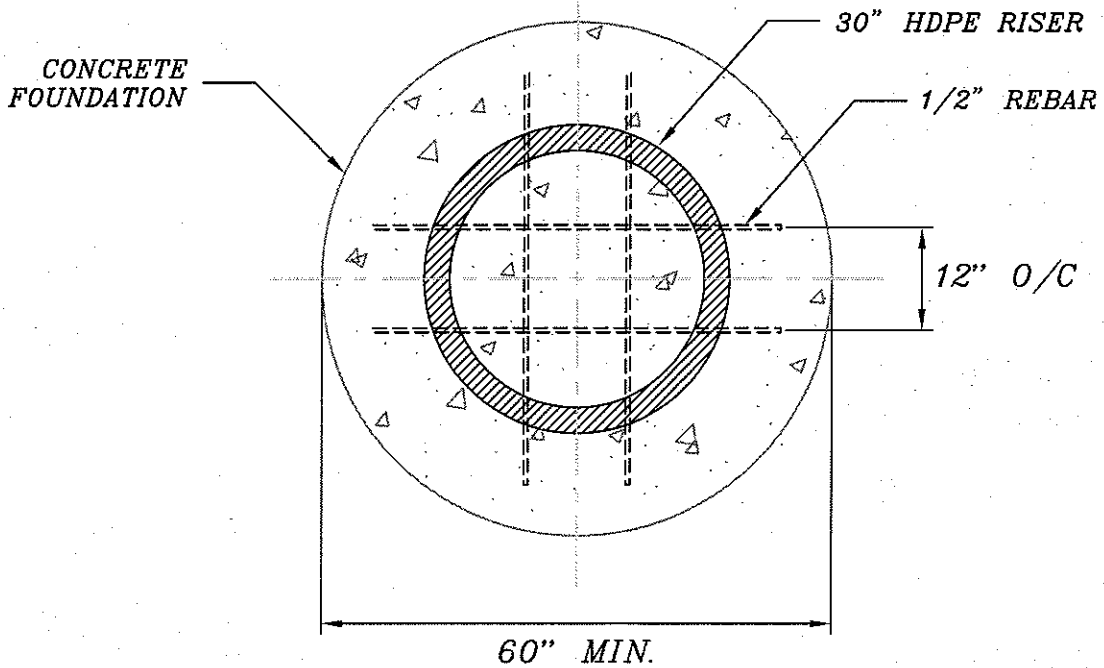
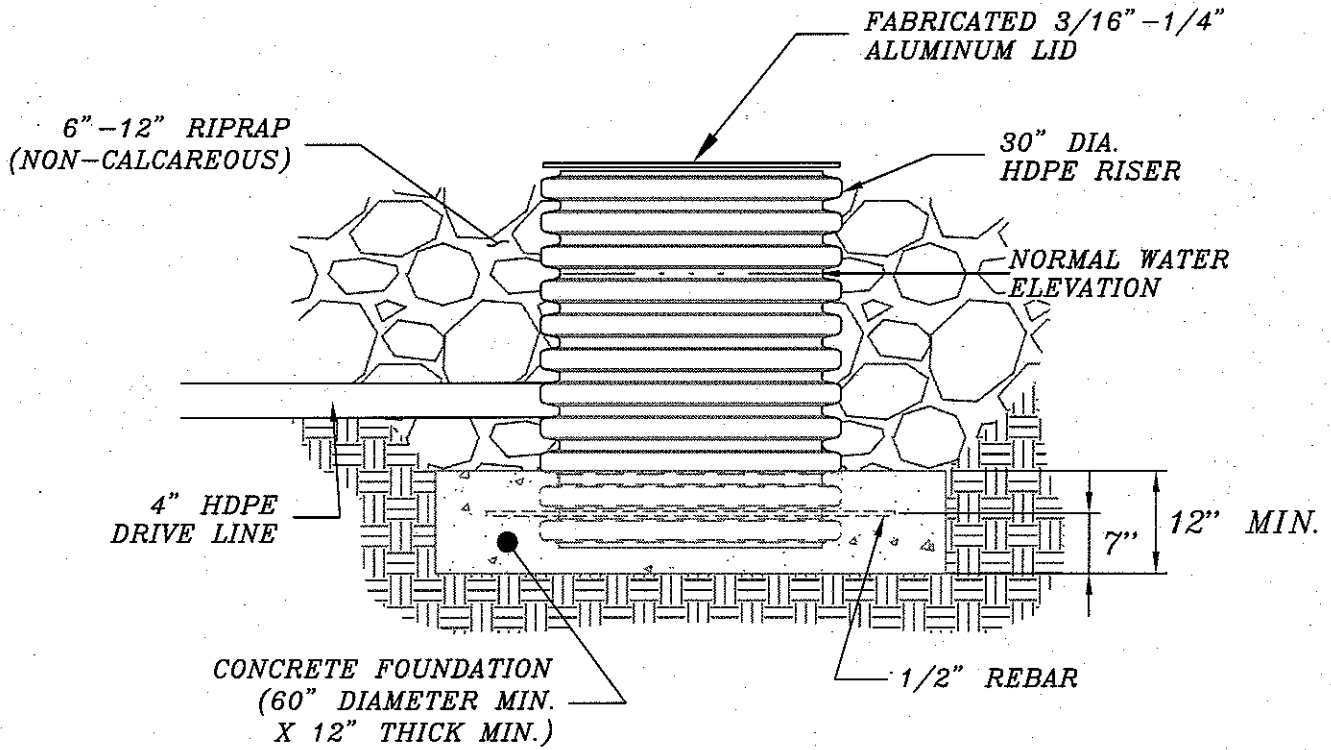
NOTES:

- * FOUNDATION DEPTH MAY VARY BASED ON SUITABLE FOUNDATION MATERIAL.
- * NORMAL POOL ELEVATION WILL BE A MINIMUM OF EIGHT (8) FEET ABOVE TREATMENT BUILDING FINISH FLOOR ELEVATION.



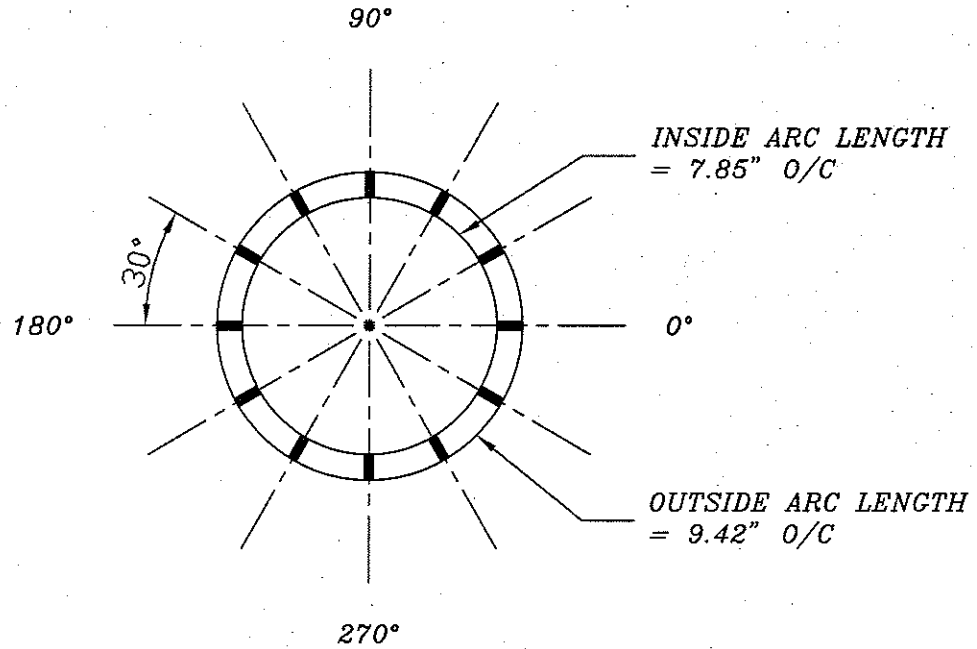
NOT TO SCALE

RISER INTAKE
FOUNDATION PLAN

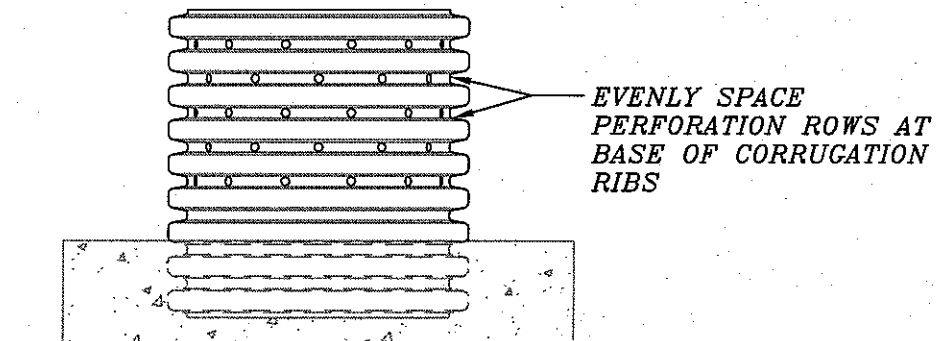


RISER PERFORATIONS

30" HDPE RISER
HOLE SPACING



12 - 1" DIAMETER HOLES PER ROW
5 ROWS MINIMUM
(PERFORATE ENTIRE HEIGHT OF RISER)



NOTE: HEIGHT OF RISER
MAY VARY BASED ON DEPTH
OF CONCRETE FOUNDATION

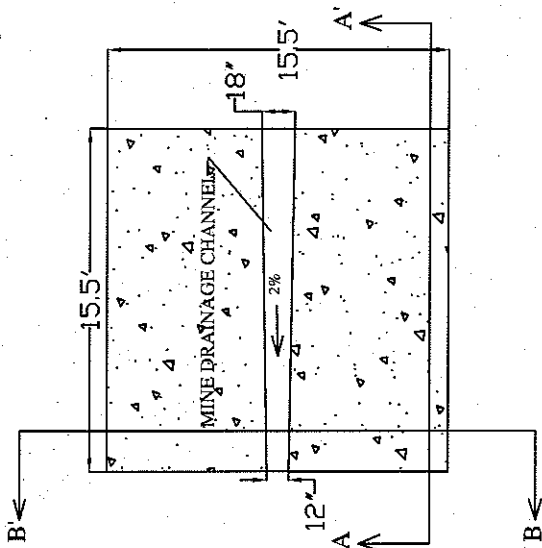
4 - 1" DIAMETER STAINLESS STEEL ANCHOR BOLTS EXTENDED BELOW THE UPPER REBAR MAT.

18" BY 18" STAINLESS STEEL BEARING PLATES WELDED TO THE SILO POSTS

3 MATS OF #5 REBAR ON A 6' X 6' GRID.

BACKFILL TO TOP OF CONCRETE PAD WITH COHESIVE SOILS COMPACTED IN 8" LIFTS.

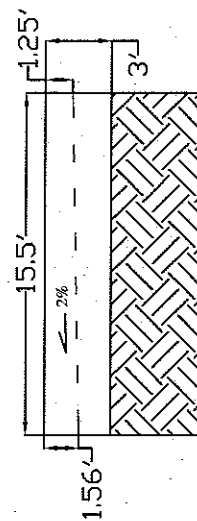
EXCAVATE TO CONSOLIDATED MATERIAL AND COMPACT WITH 3/4" CRUSHER RUN LIMESTONE IN 6" LIFTS USING A HAND DIRECTED TAMPER UNTIL THE DESIGN ELEVATION IS ACHIEVED.



PLAN VIEW

CROSS -SECTION B-B'

DIRECTION OF WATER FLOW



CROSS -SECTION A-A'

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DEP 14144

FOUNDATION DETAILS

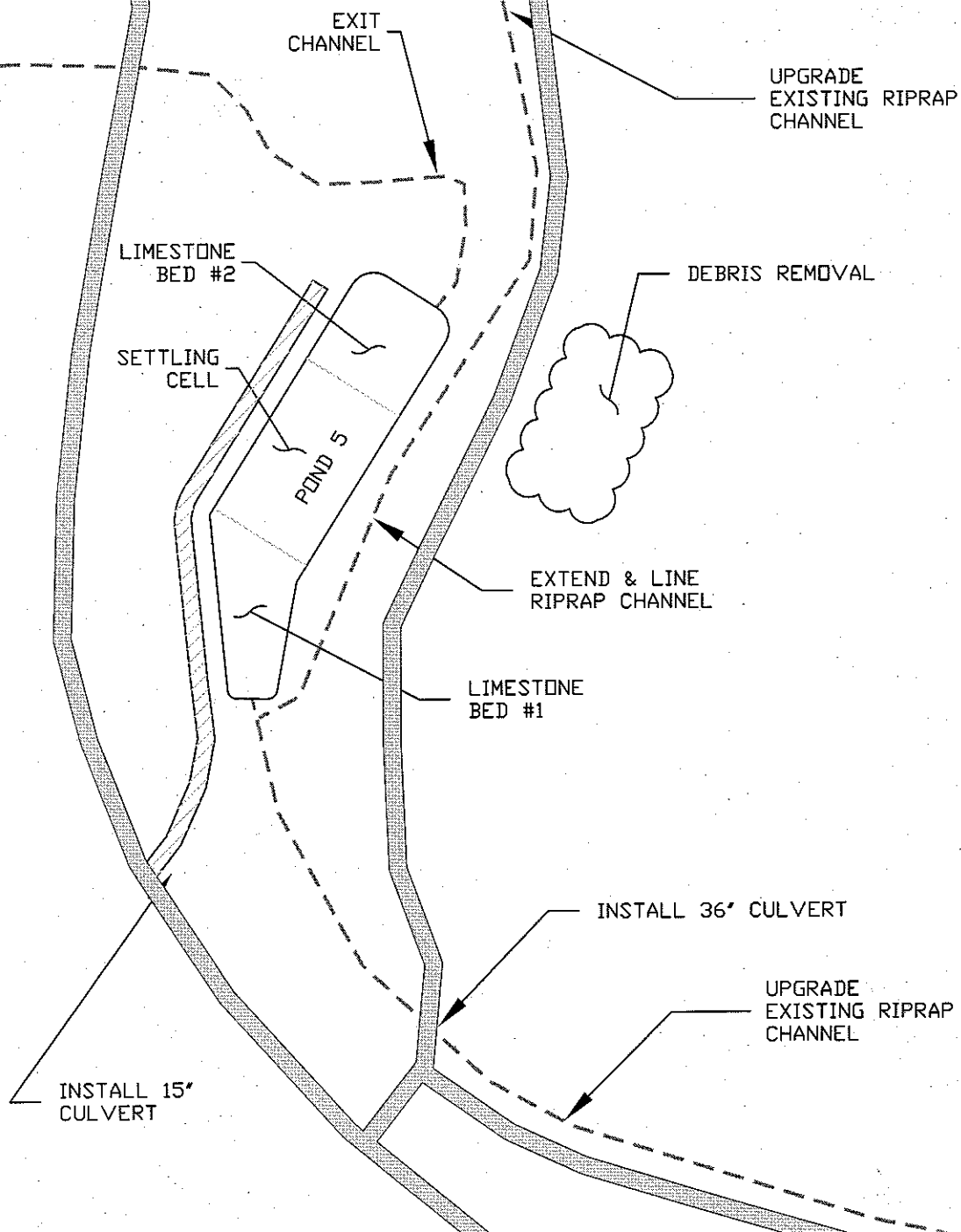
MOUNTING PLATE DETAILS

ANCHOR BOLTS ARE SPACED 15' APART MEASURED FROM CENTER TO CENTER.

STAINLESS STEEL PLATES ARE 18" BY 18" BY 1" THICK

HOLES ARE 1 1/8" IN DIAMETER.

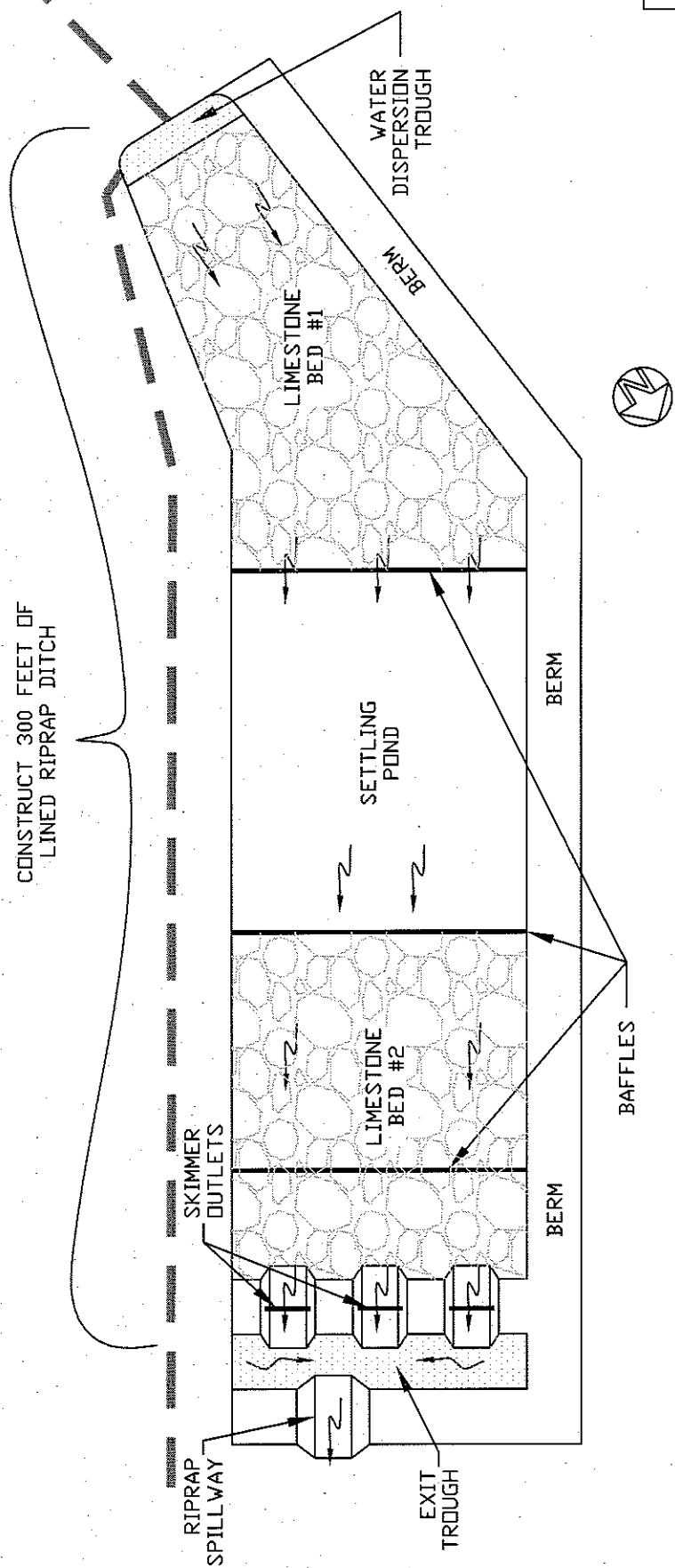
ANCHOR BOLT SPACING TEMPLATE TO BE PROVIDED BY LIME SILO MANUFACTURER.



Approximate Dimensions	Limestone Bed #1	Limestone Bed #2	Settling Pond
Top of Pond Length	140'	85'	135'
Top of Pond Width	45'	84'	84'
Top of Rock Length	136'	71'	-
Top of Rock Width	40'	70'	-
Depth of Rock	2.5'	4.5'	-
Depth of Water	2.0'	4.0'	6
Freeboard	1.0'	3.5'	3.0'

Note: All associated slopes are 2:1.

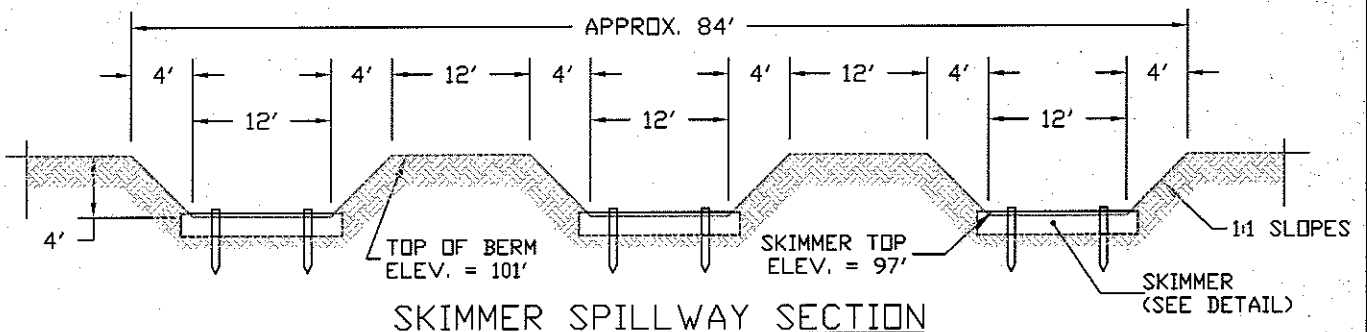
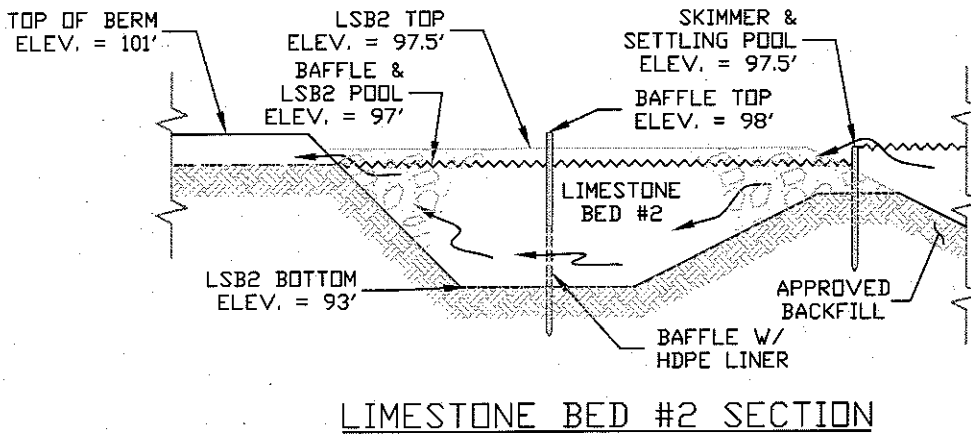
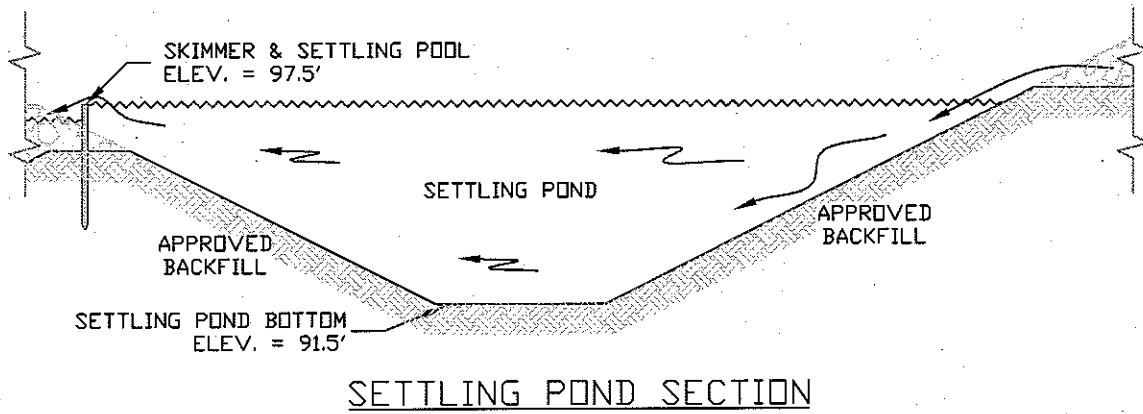
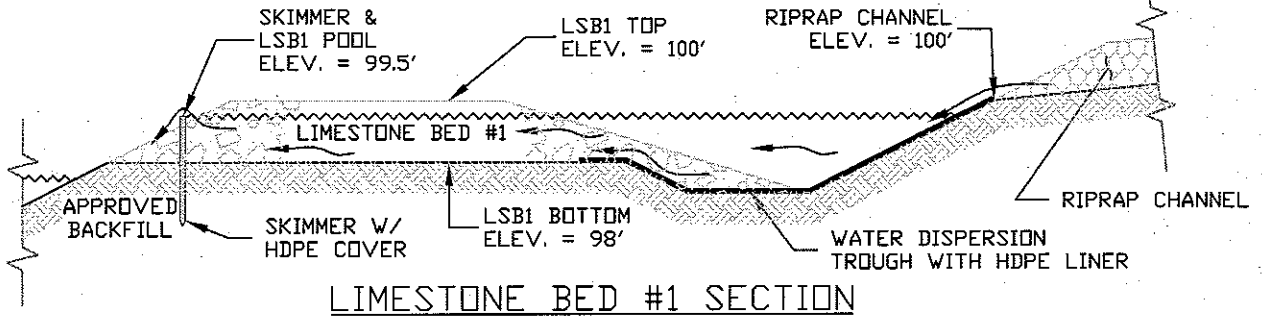
CONSTRUCT 300 FEET OF
LINED RIPRAP DITCH



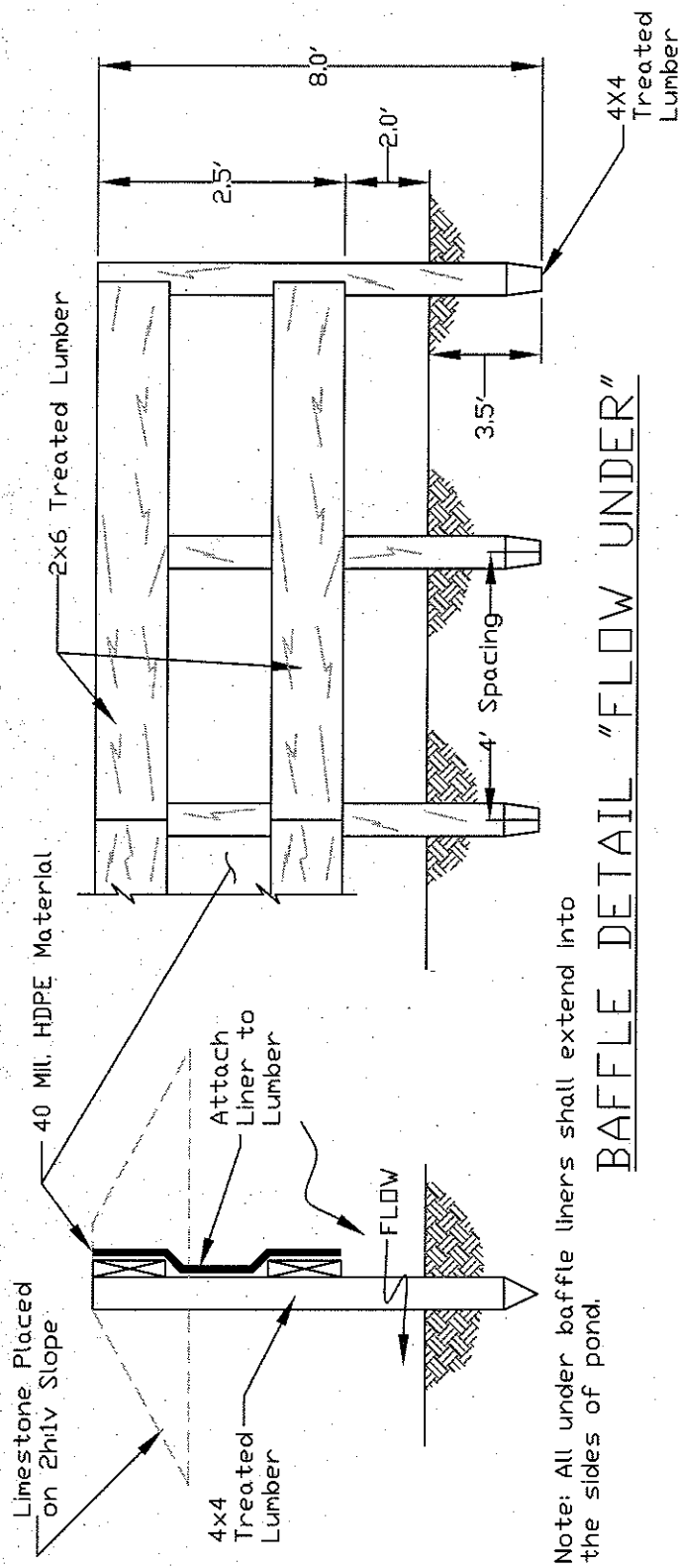
*NOTES:

1. Limestone bed #1 shall have a volume of approximately 600 tons of limestone @ 85% purity.
2. Limestone bed #2 shall have a volume of approximately 900 tons of limestone @ 85% purity.
3. Install an entrance trough and an exit trough.
4. Maintain an outer berm of 12' minimum top width.

NATIONAL - POND SECTIONS

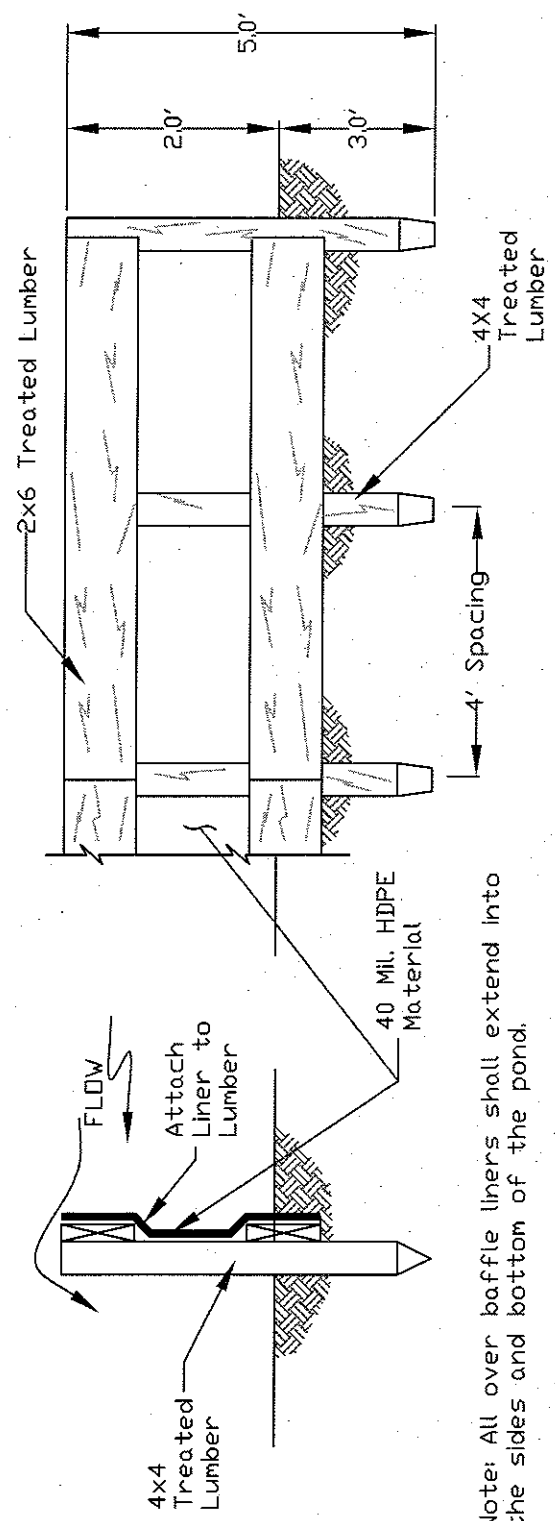


BAFFLE DETAILS



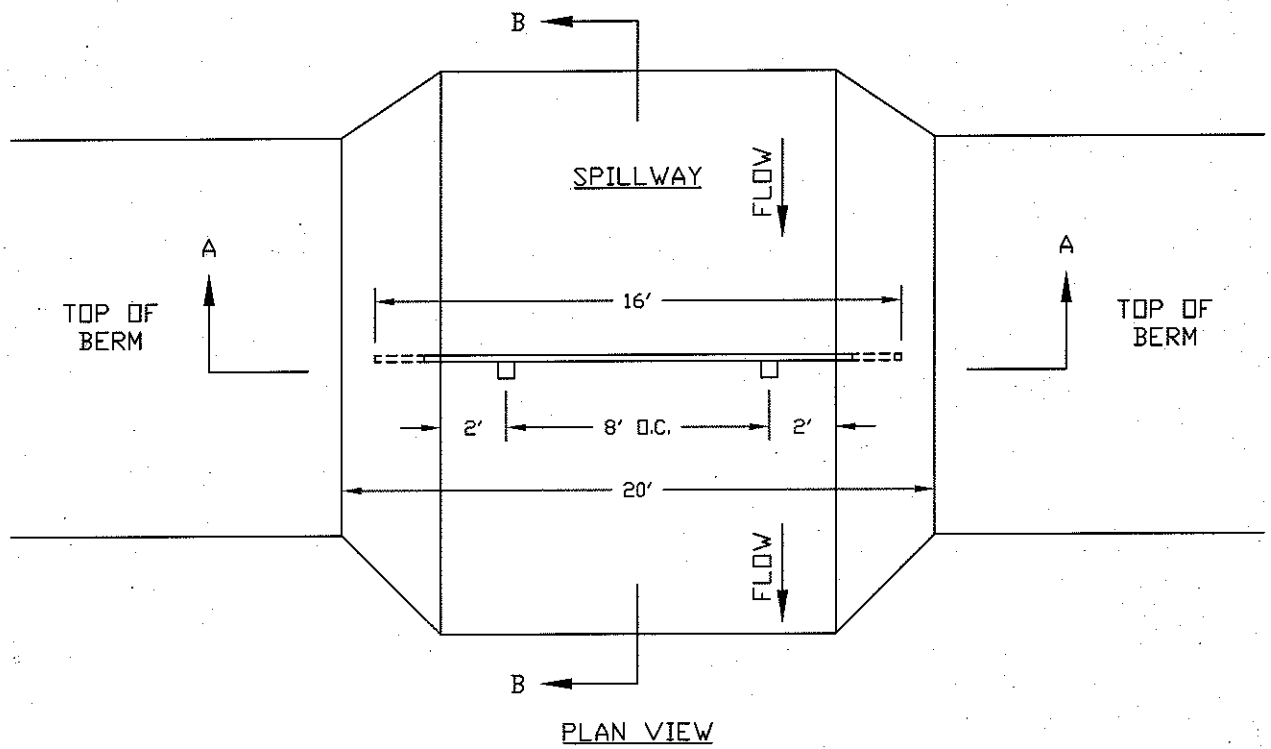
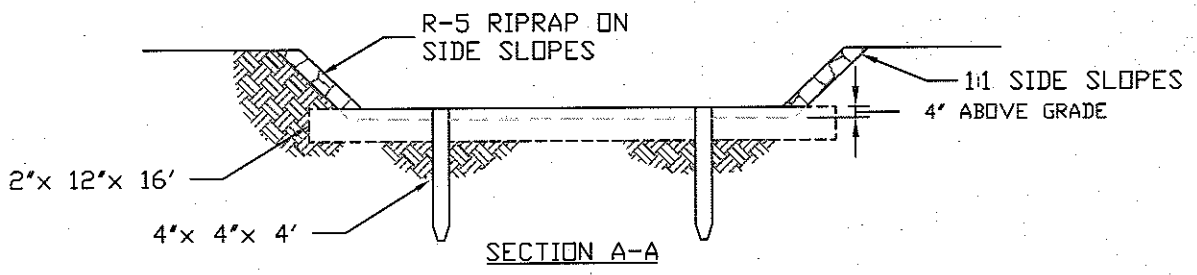
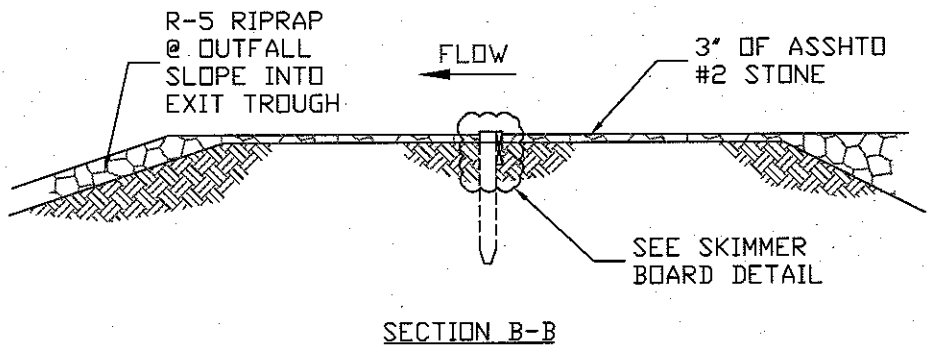
Note: All under baffle liners shall extend into the sides of pond.

BAFFLE DETAIL "FLOW UNDER"



Note: All over baffle liners shall extend into the sides and bottom of the pond.

BAFFLE DETAIL "FLOW OVER"



SKIMMER BOARD DETAILS

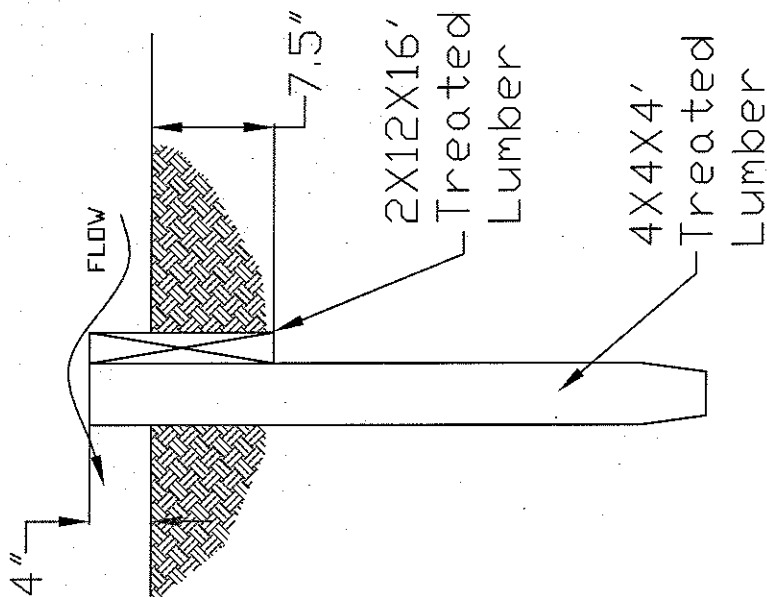
Cut Slot In 2X12
For Adjustment

2X12X16'
Treated
Lumber

Stainless Steel
Bolts And Nuts
With Flat Washers

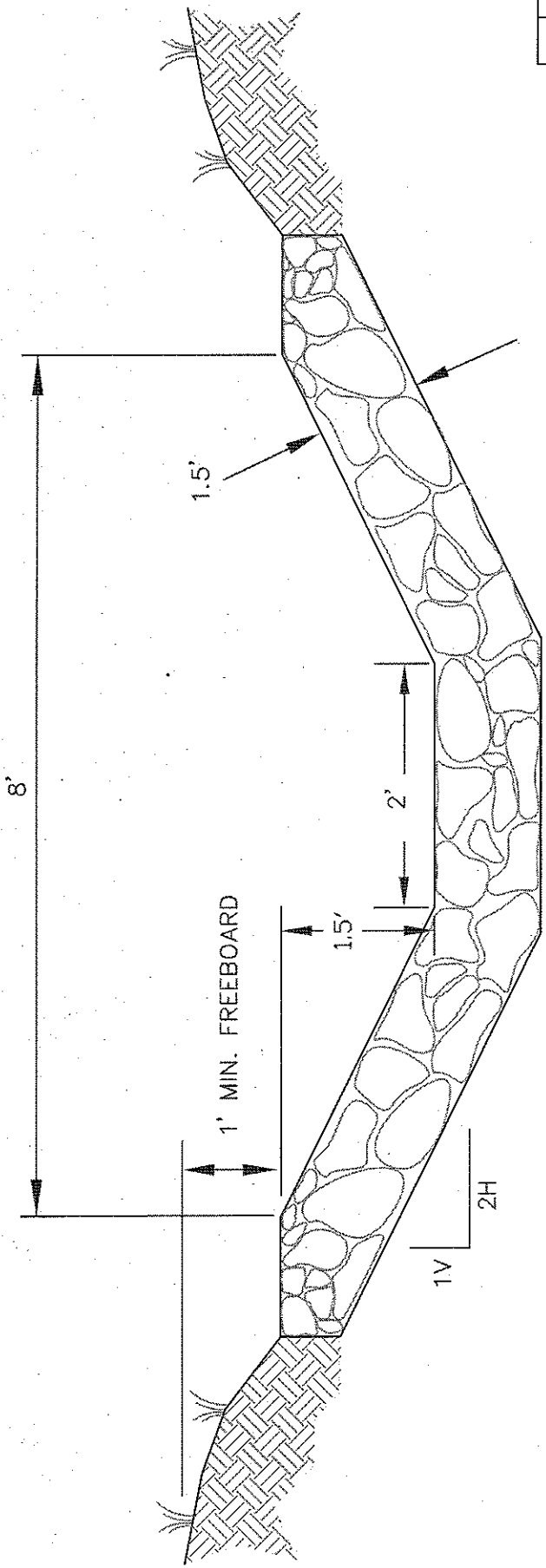
4X4X4'
Treated
Lumber

8' Spacing



8' - TRAPEZOIDAL DITCH

8' - TRAPEZOIDAL DITCH

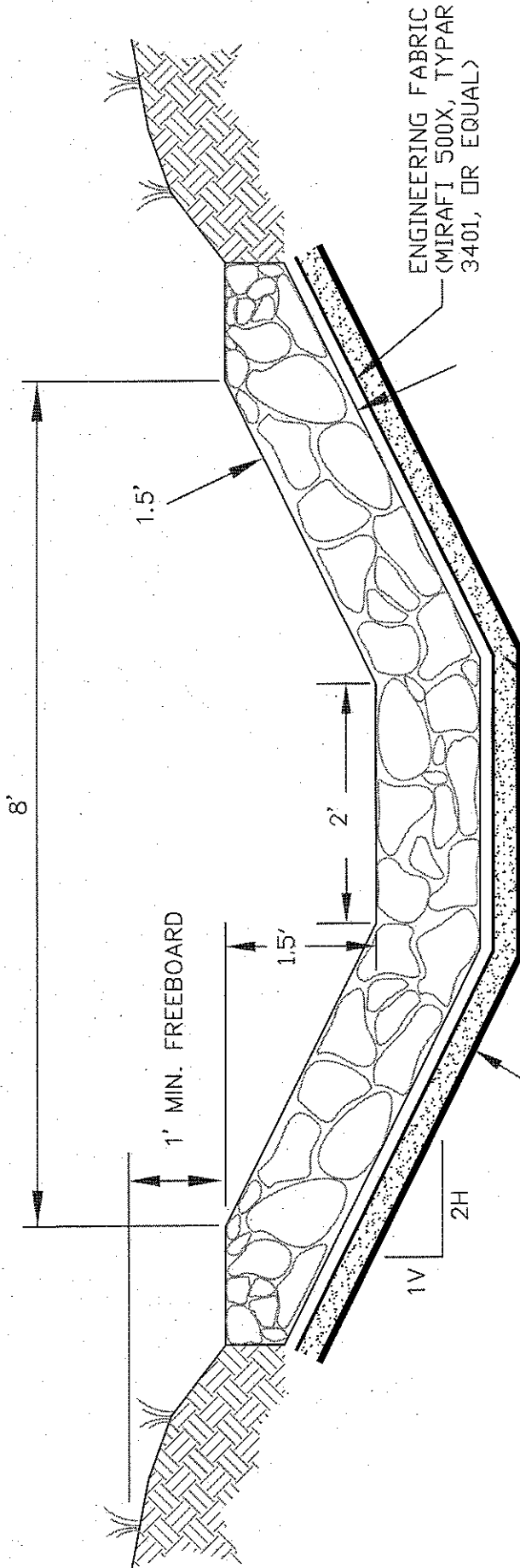


NOT TO SCALE

PAYMENT SHALL BE FOR ACTUAL LENGTH OF DITCH CONSTRUCTED.

R-5 LIMESTONE RIPRAP (STANDARD) UNLESS OTHERWISE NOTED, RIPRAP SHALL BE DURABLE ROCK PLACED IN A 1.5 FOOT BLANKET. TWENTY-FIVE (25%) OF THE ROCK WILL BE OF 18 INCHES OR LARGER, THE REMAINING SEVENTY-FIVE (75%) SHALL BE WELL GRADED MATERIAL (MINIMUM 3 INCHES TO MAXIMUM 15 INCHES) OF SUFFICIENT ROCK SMALL ENOUGH TO FILL THE VOIDS BETWEEN THE LARGER ROCK. SHALE SHALL NOT BE USED FOR RIPRAP. IF RIPRAP STABILITY IS QUESTIONABLE, DURABILITY SHALL BE DETERMINED BY THE SODIUM SULPHATE TEST ASTM C 88/AASHTO T 104-77.

8' - TRAPEZOIDAL DITCH WITH LINER



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8' - TRAPEZOIDAL DITCH WITH LINER

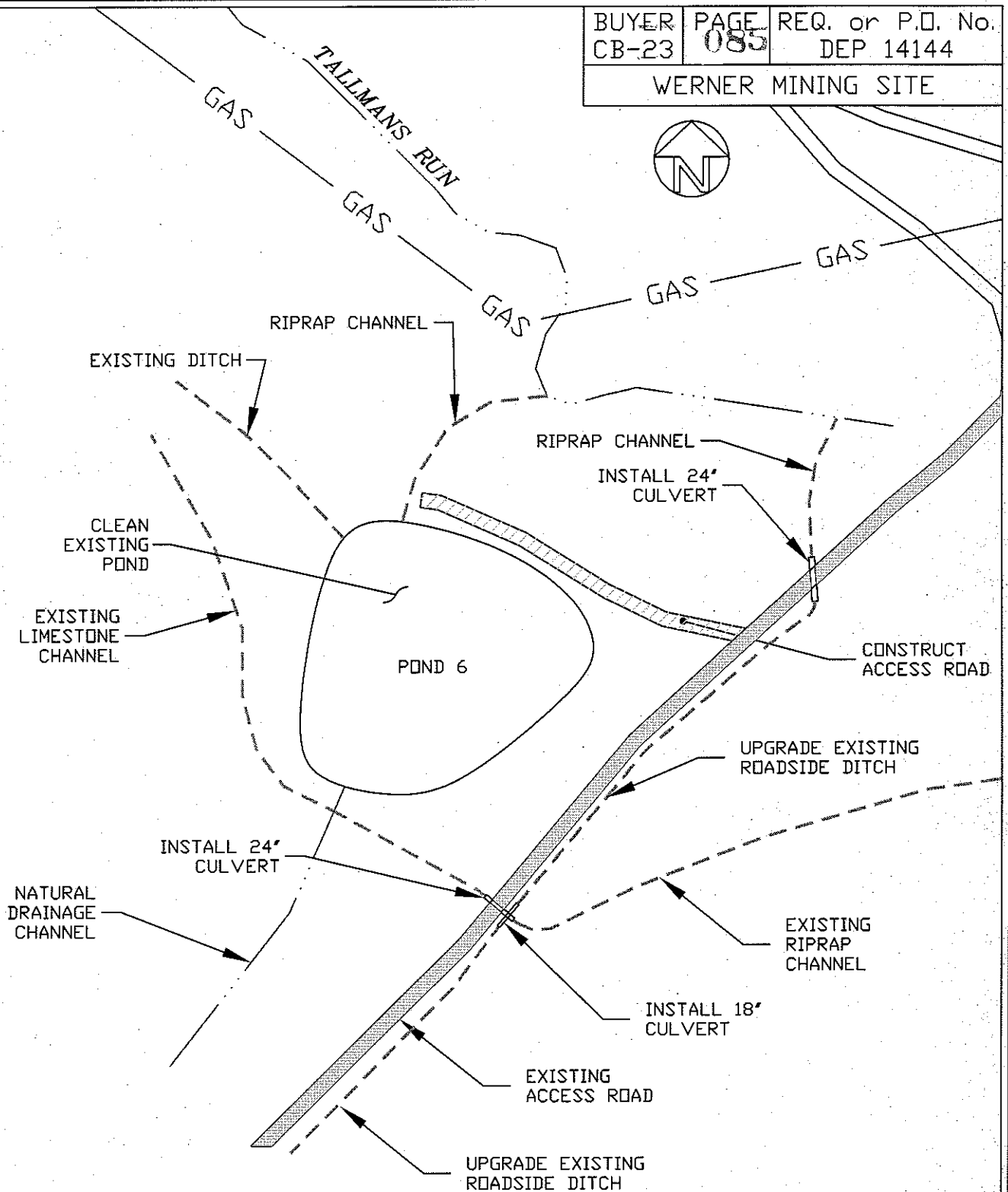
NOT TO SCALE
PAYMENT SHALL BE FOR ACTUAL LENGTH OF DITCH CONSTRUCTED.

40 MIL. HDPE LINER.
LINER SHALL BE PLACED ON ROCK FREE MATERIAL, OR A LAYER OF SAND SHALL BE APPLIED BELOW LINER.

3 INCH LAYER LIMESTONE SAND

R-5 LIMESTONE RIPRAP (STANDARD) UNLESS OTHERWISE NOTED, RIPRAP SHALL BE DURABLE ROCK PLACED IN A 1.5 FOOT BLANKET. TWENTY-FIVE (25%) OF THE ROCK WILL BE OF 18 INCHES OR LARGER, THE REMAINING SEVENTY-FIVE (75%) SHALL BE WELL GRADED MATERIAL (MINIMUM 3 INCHES TO MAXIMUM 15 INCHES) OF SUFFICIENT ROCK SMALL ENOUGH TO FILL THE VOIDS BETWEEN THE LARGER ROCK. SHALE SHALL NOT BE USED FOR RIPRAP. IF RIPRAP STABILITY IS QUESTIONABLE, DURABILITY SHALL BE DETERMINED BY THE SODIUM SULPHATE TEST ASTM C 88/AASHTO T 104-77.

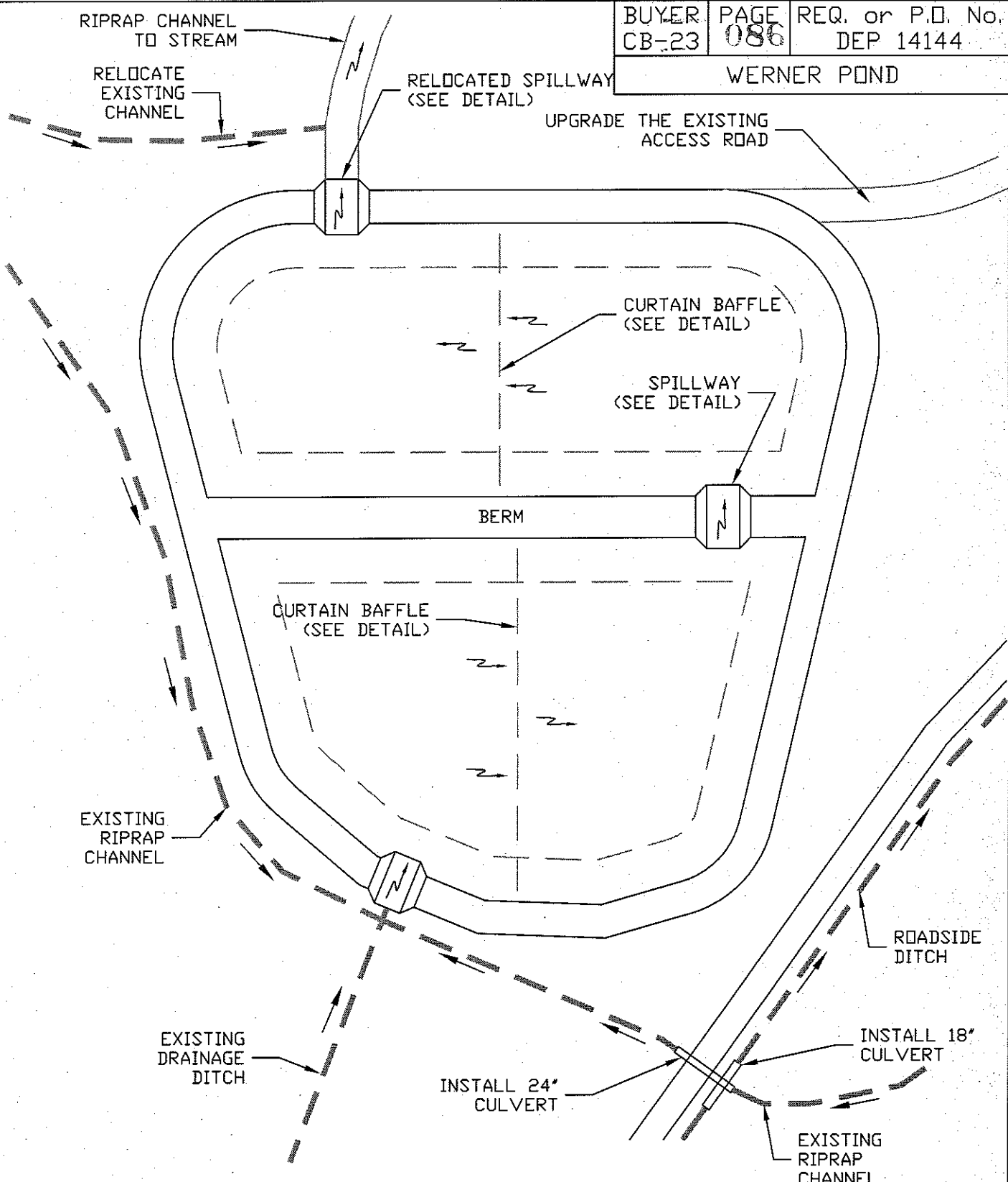
WERNER MINING SITE



*NOTES:

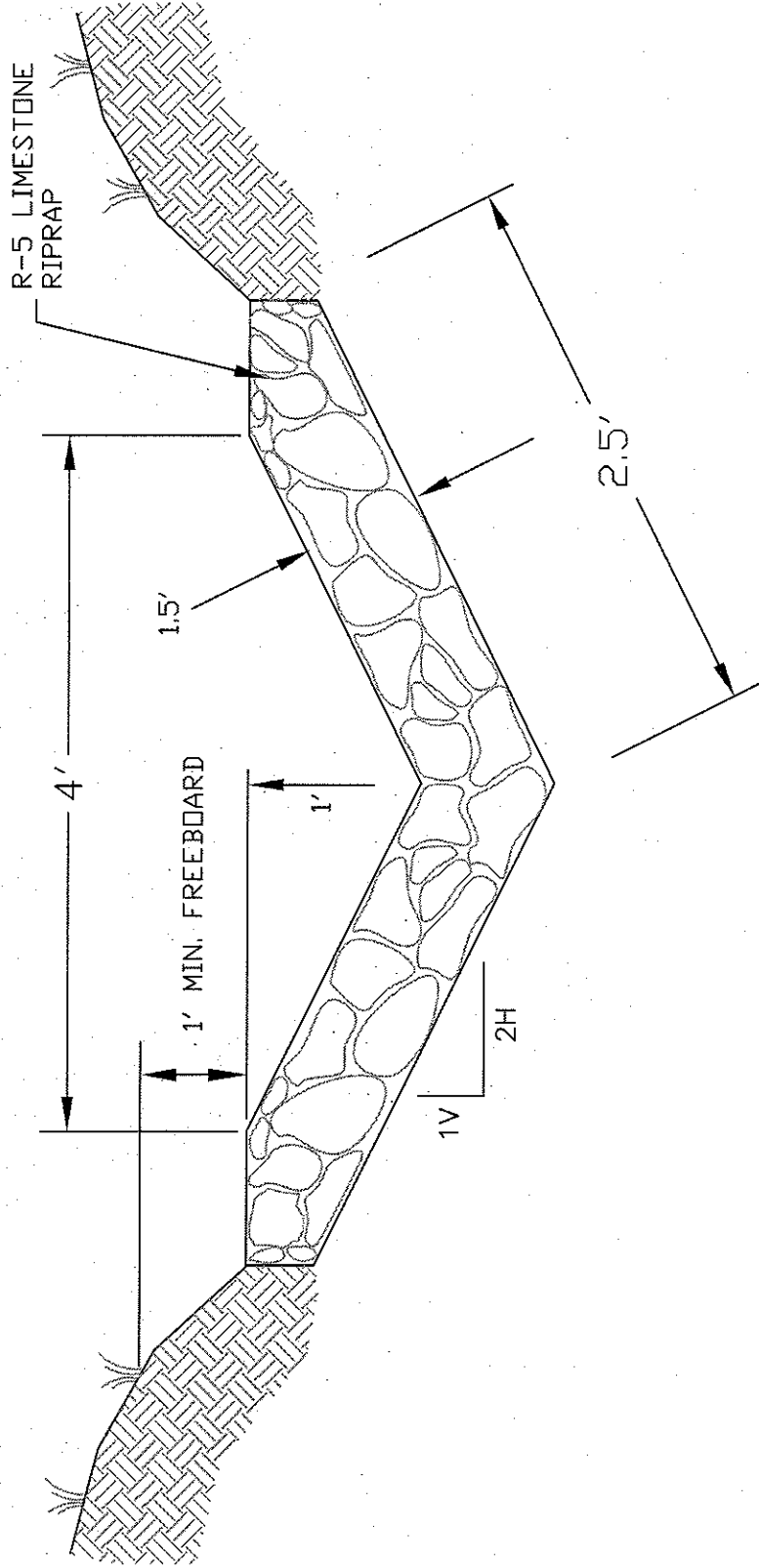
1. Clean and expand existing wetland to create a pond with a water depth of 6' and 2' of freeboard.
2. Move the spillway from the Northeast corner to the Northwest corner of the treatment pond.
3. Install a riprap channel from the new spillway location to the existing stream.
4. Upgrade roadside diversion ditch and install an 18" culvert over the 24" culvert in the existing riprap channel feeding into the treatment pond.

WERNER POND



- *NOTES:
1. Construct a 12' berm around the pond and an earthen dike across the pond to create two settling cells.
 2. The earthen dike shall have a 12' top width with 2-to-1 side slopes and the location will be determined by the on-site DEP representative.
 3. Install curtain baffles in each settling cell at the locations and lengths determined by the on-site WV DEP representative.

V - DITCH



NOT TO SCALE

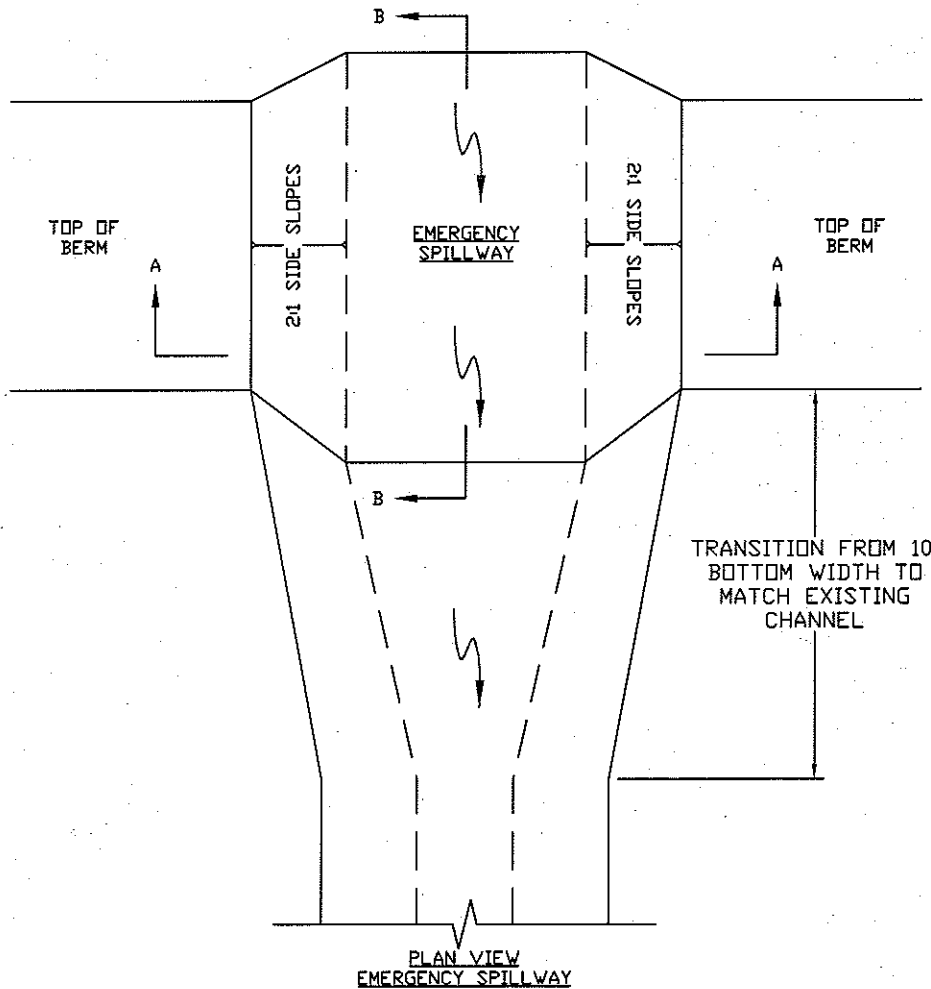
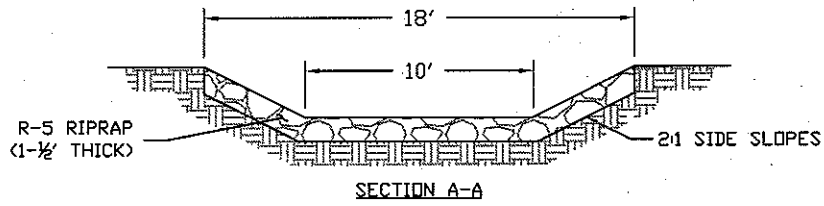
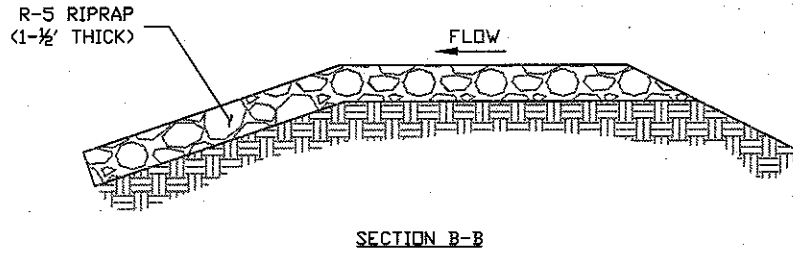
PAYMENT SHALL BE FOR ACTUAL LENGTH OF DITCH CONSTRUCTED.

R-5 LIMESTONE RIPRAP (STANDARD) UNLESS OTHERWISE NOTED, RIPRAP SHALL BE DURABLE ROCK PLACED IN A 1.5 FOOT BLANKET. TWENTY-FIVE (25%) OF THE ROCK WILL BE OF 18 INCHES OR LARGER, THE REMAINING SEVENTY-FIVE (75%) SHALL BE WELL GRADED MATERIAL (MINIMUM 3 INCHES TO MAXIMUM 15 INCHES) OF SUFFICIENT ROCK SMALL ENOUGH TO FILL THE VOIDS BETWEEN THE LARGER ROCK. SHALE SHALL NOT BE USED FOR RIPRAP. IF RIPRAP STABILITY IS QUESTIONABLE, DURABILITY SHALL BE DETERMINED BY THE SODIUM SULPHATE TEST ASTM C 88/AASHTO T 104-77.

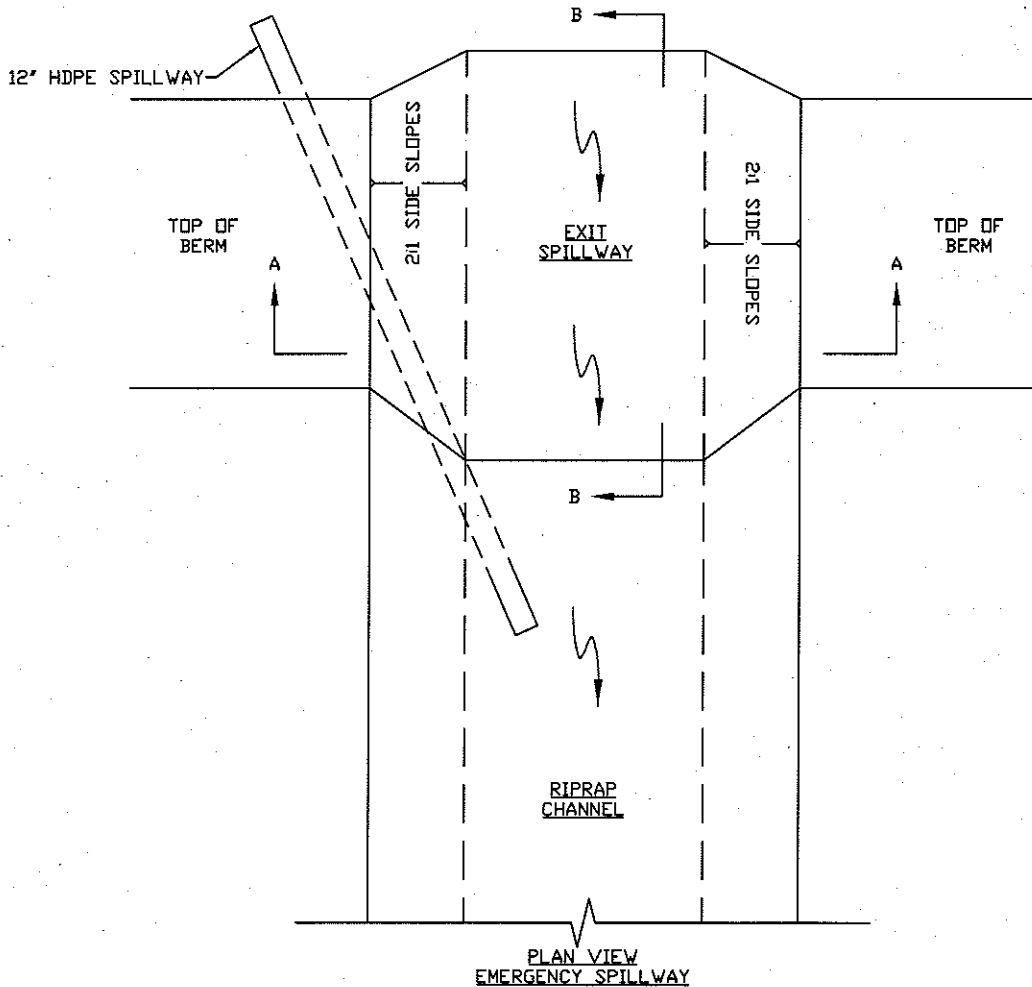
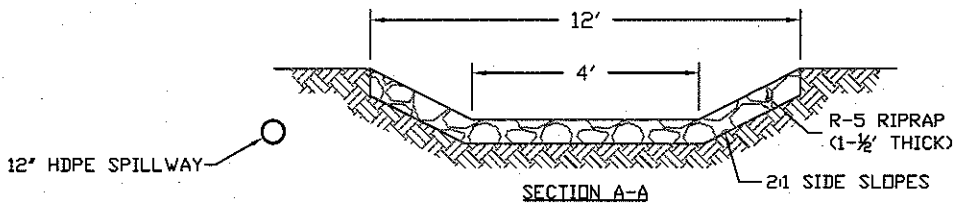
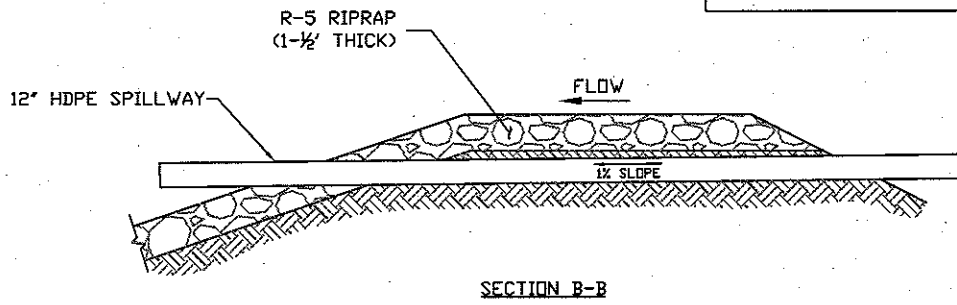
BUYER CB-23	PAGE 087	REQ. or P.D. No. DEP 14144
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V - DITCH 4' WIDE

EMERGENCY SPILLWAY



EXIT SPILLWAY WITH PIPE



STATE OF WEST VIRGINIA
Purchasing Division

090

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

LICENSING: Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

CONFIDENTIALITY: The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendors should visit www.state.wv.us/admin/purchase/privacy for the Notice of Agency Confidentiality Policies.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), it is hereby certified that the vendor acknowledges the information in this said affidavit and are in compliance with the requirements as stated.

Vendor's Name: _____

Authorized Signature: _____ Date: _____

BID BOND

091

KNOW ALL MEN BY THESE PRESENTS, That we, the undersigned, _____
of _____, _____, as Principal, and _____
of _____, _____, a corporation organized and existing under the laws of the State of _____
with its principal office in the City of _____, as Surety, are held and firmly bound unto the State
of West Virginia, as Obligee, in the penal sum of _____ (\$ _____) for the payment of which,
well and truly to be made, we jointly and severally bind ourselves, our heirs, administrators, executors, successors and assigns.

The Condition of the above obligation is such that whereas the Principal has submitted to the Purchasing Section of the
Department of Administration a certain bid or proposal, attached hereto and made a part hereof, to enter into a contract in writing for

NOW THEREFORE,

- (a) If said bid shall be rejected, or
- (b) If said bid shall be accepted and the Principal shall enter into a contract in accordance with the bid or proposal attached
hereto and shall furnish any other bonds and insurance required by the bid or proposal, and shall in all other respects perform the
agreement created by the acceptance of said bid, then this obligation shall be null and void, otherwise this obligation shall remain in full
force and effect. It is expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event,
exceed the penal amount of this obligation as herein stated.

The Surety, for the value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no
way impaired or affected by any extension of the time within which the Obligee may accept such bid, and said Surety does hereby
waive notice of any such extension.

IN WITNESS WHEREOF, Principal and Surety have hereunto set their hands and seals, and such of them as are corporations
have caused their corporate seals to be affixed hereunto and these presents to be signed by their proper officers, this
_____ day of _____, 20_____.

Principal Corporate Seal

(Name of Principal)

By _____
(Must be President or
Vice President)

(Title)

Surety Corporate Seal

(Name of Surety)

Attorney-in-Fact

**IMPORTANT – Surety executing bonds must be licensed in West Virginia to transact surety insurance. Raised corporate seals
must be affixed, a power of attorney must be attached.**

BID BOND PREPARATION INSTRUCTIONS

092 AGENCY (A)
RFQ/RFP# (B)

Bid Bond

- (A) WV State Agency
(Stated on Page 1 "Spending Unit")
Request for Quotation Number (upper
right corner of page #1)
- (C) Your Company Name
- (D) City, Location of your Company
- (E) State, Location of your Company
- (F) Surety Corporate Name
- (G) City, Location of Surety
- (H) State, Location of Surety
- (I) State of Surety Incorporation
- (J) City of Surety Incorporation
- (K) Minimum amount of acceptable bid
bond is 5% of total bid. You may state
"5% of bid" or a specific amount on
this line in words.
- (L) Amount of bond in figures
- (M) Brief Description of scope of work
- (N) Day of the month
- (O) Month
- (P) Year
- (Q) Name of Corporation
- (R) Raised Corporate Seal of Principal
- (S) Signature of President or Vice
President
- (T) Title of person signing
- (U) Raised Corporate Seal of Surety
- (V) Corporate Name of Surety
- (W) Signature of Attorney in Fact of the
Surety

NOTE: Dated, Power of Attorney with Raised
Surety Seal must accompany this bid
bond.

KNOW ALL MEN BY THESE PRESENTS, That we, the undersigned,
_____(C)_____ of _____(D)_____, _____(E)_____
as Principal, and _____(F)_____ of _____(G)_____,
_____(H)_____, a corporation organized and existing under the laws
of the State of _____(I)_____ with its principal office in the City of
_____(J)_____, as Surety, are held and firmly bound unto The State
of West Virginia, as Obligee, in the penal sum of _____(K)_____
(\$ _____(L)_____) for the payment of which, well and truly to be made,
we jointly and severally bind ourselves, our heirs, administrators, executors,
successors and assigns.

The Condition of the above obligation is such that whereas the Principal
has submitted to the Purchasing Section of the Department of Administration
a certain bid or proposal, attached hereto and made a part hereof to enter into a
contract in writing for _____(M)_____

NOW THEREFORE.

(a) If said bid shall be rejected, or

(b) If said bid shall be accepted and the Principal shall enter into a

contract in accordance with the bid or proposal attached hereto and shall furnish
any other bonds and insurance required by the bid or proposal, and shall in all
other respects perform the agreement created by the acceptance of said bid then
this obligation shall be null and void, otherwise this obligation shall remain in full
force and effect. It is expressly understood and agreed that the liability of the
Surety for any and all claims hereunder shall, in no event, exceed the penal
amount of this obligation as herein stated

The Surety for value received, hereby stipulates and agrees that the
obligations of said Surety and its bond shall be in no way impaired or affected by
any extension of time within which the Obligee may accept such bid: and said
Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, Principal and Surety have hereunto set their
hands and seals, and such of them as are corporations have caused their corporate
seals to be affixed hereto and these presents to be signed by their proper officers,
this _____(N)_____ day of _____(O)_____, 20 _____(P)_____.

Principal Corporate Seal

(R)

(U)
Surety Corporate Seal

_____(Q)_____
(Name of Principal)

By _____(S)_____
(Must be President or
Vice President)

_____(T)_____
Title

_____(V)_____
(Name of Surety)

_____(W)_____
Attorney-in-Fact

IMPORTANT – Surety executing bonds must be licensed in West Virginia to
transact surety insurance. Raised Corporate Seals must be affixed and a Power of
Attorney must be attached.