

**RFQ DEP15605  
EXPRESSION OF INTEREST  
TO PROVIDE PROFESSIONAL ENGINEERING SERVICES  
FOR  
MILAM RIDGE REFUSE PILE DESIGN**

**SUBMITTED TO:  
WVDEP – OFFICE OF AML & R**

**SUBMITTED BY:  
CIVIL TECH ENGINEERING INC.  
300A PRESTIGE DRIVE  
HURRICANE, WV 25526  
Phone: 304-757-8094  
Fax: 304-757-8095  
civiltech1@frontier.com**

**DATE SUBMITTED: MARCH 6, 2012**

**PHOTO: SUNRISE SANITATION MINE DRAIN**

RECEIVED  
2012 FEB 29 PM 1:16  
PURCHASING

CIVIL TECH ENGINEERING, INC.  
300A Prestige Drive  
Hurricane, West Virginia 25526  
Phone: 304-757-8094 Fax: 304-757-8095  
civiltech1@frontier.com

March 6, 2012

Department of Administration  
Purchasing Division  
2019 Washington Street East  
P.O. Box 50130  
Charleston, West Virginia 25305-0130

Subject: **Expression of Interest for RFQ - DEP15605**  
**Milam Ridge Refuse Pile Design**  
Wyoming County, West Virginia  
Civil Tech Proposal No. P12510

To Whom it May Concern:

**CIVIL TECH ENGINEERING INC.** is pleased to present this EOI for the subject RFQ. This EOI has been prepared to illustrate our recent and pertinent experience with AML and civil design projects. Important and pertinent experience is summarized below:

- 35 years of combined experience with AML projects.
- 12 recent AML projects.
- Constructed AML projects: Thomas Sunrise Sanitation Mine Drainage and Blowout Projects, Prospect Valley Highwall No. 4, Zebb's Creek HW#2, and Winifrede (McFann) Portals Project.
- AML design projects complete and either ready or under construction: Birds Creek Portals, Douglas WL Extension, Cambria Portals, Nellis Smith Drainage, and Hawkinberry Hollow Portals and Subsidence.
- Awaiting contract for Stowe Refuse Piles.
- Selected for Braeholm and Ridenour Projects. Awaiting initial site meeting.
- Conceptual engineering complete and preliminary engineering started for the Pines Country Club (Ponds) Subsidence Project. (Project Cancelled due to cost).

**We believe our past and recent experience makes our company uniquely qualified for AML design projects.** We look forward to meeting with the selection committee to discuss the project and our qualifications.

Very truly yours,

**CIVIL TECH ENGINEERING INC.**



Mark E. Pennington MS, PE  
Principal Engineer

CIVIL TECH ENGINEERING, INC.  
300A Prestige Drive  
Hurricane, West Virginia 25526  
Phone: 304-757-8094 Fax: 304-757-8095  
civiltech1@frontier.com

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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  
**DEP15605**

PAGE  
**1**

ADDRESS CORRESPONDENCE TO ATTENTION OF:  
**GUY NISBET**  
**304-558-8802**

VENDOR

RFQ COPY  
 TYPE NAME/ADDRESS HERE  
**Civil Tech Engineering Inc.**  
**300A Prestige Drive**  
**Hurricane, WV 25526**

SHIP TO

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

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
01/30/2012				

BID OPENING DATE: **03/06/2012**      BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-29		
	MILAM RIDGE	REFUSE PILE		DESIGN		
EXPRESSION OF INTEREST						
<p>THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES AT THE MILAM RIDGE REFUSE PILE PROJECT IN WYOMING COUNTY, WEST VIRGINIA PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS.</p>						
<p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THIS CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.</p>						
<p>ANY INDIVIDUAL SIGNING THIS BID IS CERTIFYING THAT: (1) HE OR SHE IS AUTHORIZED BY THE BIDDER TO EXECUTE THE BID OR ANY DOCUMENTS RELATED THERE TO ON BEHALF OF THE BIDDER, (2) THAT HE OR SHE IS AUTHORIZED TO BIND THE BIDDER IN A CONTRACTUAL RELATIONSHIP, AND (3) THAT THE BIDDER HAS PROPERLY REGISTERED WITH ANY STATE AGENCIES THAT MAY REQUIRE REGISTRATION.</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
	304-757-8094	March 6, 2012
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
President	55-0757403	

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

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

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

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

**INSTRUCTIONS TO BIDDERS**

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



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  
**DEP15605**

PAGE  
**2**

ADDRESS CORRESPONDENCE TO ATTENTION OF:  
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**304-558-8802**

VENDOR

**RFQ COPY**  
 TYPE NAME/ADDRESS HERE  
 Civil Tech Engineering Inc.  
 300A Prestige Drive  
 Hurricane, WV 25526

SHIP TO

ENVIRONMENTAL PROTECTION  
 DEPARTMENT OF  
 OFFICE OF AML&R  
 601 57TH STREET SE  
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DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
01/30/2012				

BID OPENING DATE: **03/06/2012**                      BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
***** THIS IS THE END OF RFQ DEP15605 ***** TOTAL:						_____

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE <b>304-757-8094</b>	DATE <b>March 6, 2012</b>
TITLE <b>President</b>	FEIN <b>55-0757403</b>	ADDRESS CHANGES TO BE NOTED ABOVE

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

**EXPRESSION OF INTEREST  
MILAM RIDGE REFUSE PILE  
Requisition DEP15605**

**Part 1 GENERAL INFORMATION**

**1.1 Purpose:**

The Acquisition and Contract Administration Section of the Purchasing Division "State" is soliciting Expression(s) of Interest (EOI) for the West Virginia Department of Environmental Protection (WVDEP), Office of Abandoned Mine Lands & Reclamation (AML), from qualified firms to provide architectural/engineering services as defined in section two (2) and three (3) and construction monitoring services during the construction phase of the project as defined by the **Scope of Work**. Construction Inspection by the firm will be at the option of WVDEP/AML.

**1.2 Project:**

The mission or purpose of the project described in sections 2 & 3 is to provide design services for the following:

**MILAM RIDGE REFUSE PILE**

- Installation of drainage conveyances.
- Installation of mine seals.
- Re-grading of refuse.
- Re-vegetation of all disturbed areas.

**1.3 Format:**

All responses should be submitted in a loose-leaf, three ring binder. The response should be presented in concise format which defines the corporation history and the experience, qualifications, and performance data of the firm's staff as requested by the AML Consultant Qualification Questionnaire (CQQ), Attachment "B" and the AML and Related Project Experience Matrix (RPEM). Attachment "C".

**Electronic copies of the above referenced documents Attachment "B" and Attachment "C" are available online for registered vendors at:  
<http://www.state.wv.us/admin/purchase/newbul.htm>.**

**1.4 Inquiries:**

Additional information inquiries regarding this EOI must be submitted in writing to the State Buyer with the exception of questions regarding proposal submission, which may be oral. The deadline for written inquiries is identified in the Schedule of Events, Section 1.16. All inquiries of specification clarification must be addressed to:

Guy L. Nisbet, Buyer Supervisor  
Purchasing Division  
P.O. Box 50130  
Charleston, WV 25305-0130  
Fax: (304) 558-8802  
Email: Guy.L.Nisbet@wv.gov

The firm, or anyone on the firm's behalf, is not permitted to make any contact whatsoever with any member of the evaluation committee. Violation may result in rejection of the EOI. The State Buyer named above is the sole contact for any and all inquiries after this EOI has been released.

**1.5 Vendor Registration:**

Firms participating in this process should complete and file a **Vendor Registration and Disclosure Statement** (Form WV-1) and remit the registration fee. Firm is not required to be a registered vendor in order to submit an EOI, but the **successful firm must register and pay the fee prior to the issuance of an actual contract.**

**1.6 Oral Statements and Commitments:**

Firm must clearly understand that any verbal representations made or assumed to be made during any oral discussions held between firm's representatives and any State personnel are **not binding**. Only the information issued in writing and added to the Expression of Interest specifications file by an official written addendum is binding.

**1.7 Economy of Preparation:**

EOI's should be prepared simply and economically, providing a straightforward, concise description of firm's abilities to satisfy the requirements of the EOI. Emphasis should be placed on completeness and clarity of content. Example projects referred to in a firm's EOI's submittal should address projects that are similar in scope to that of the EOI. **Firms must complete the CQQ and RPEM as included in Section 4.2 of this EOI. (Proposals must be no more than 100 pages).**

**1.8 Labeling of the Sections:** The response sections should be labeled for ease of evaluation.



**1.9 Submission:**

1.9.1 State law requires that the original expression shall be submitted to the Purchasing Division. All copies to the Purchasing Division must be submitted prior to the date and time stipulated as the opening date. All expressions will be date and time stamped on the Purchasing Division official time clock to verify time and date of receipt.

1.9.2 Firms mailing expressions should allow sufficient time for mail delivery to ensure timely arrival. The Purchasing Division **CANNOT** waive or excuse late receipt of an expression which is delayed and late for any reason according West Virginia State Code §5A-3-11. Any EOI received after the bid opening time and date will be immediately disqualified in accordance with State law and the Legislative Rule 148-CSR-1.

**Submit:**

One original plus one convenience copy and one copy on CD to:

Purchasing Division  
2019 Washington Street, East  
P.O. Box 50130  
Charleston, WV 25305-0130

The outside of the envelope or package(s) should be clearly marked:

Buyer: 23  
Req #: DEP15605  
Opening Date: 03/06/2012  
Opening Time: 01:30 pm

**1.10 Rejection of Expressions:**

The State shall select the best value solution according to §5G-1-3 of the West Virginia State Code. However, the State reserves the right to accept or reject any or all expressions and to reserve the right to withdraw this Expression of Interest at any time and for any reason. Submission of, or receipt by the State of Expressions confers no rights upon the firm nor obligates the State in any manner.

**1.11 Incurring Costs:**

The State and any of its employees or officers shall not be held liable for any expenses incurred by any firm responding to this EOI for expenses to prepare, deliver, or to attend the short-list interviews.

**1.12 Addenda:**

If it becomes necessary to revise any part of this EOI, an official written addendum will be issued by the State to all potential firms of record.

**1.13 Independent Price Determination:**

A contract will not be considered for award if the negotiated price was not arrived at independently without collusion, consultation, communication, or agreement as to any matter relating to prices with any competitor.

**1.14 Price Quotations:** No "price" or "fee" quotation is requested or permitted in the response.**1.15 Public Record:****1.15.1 Submissions are Public Record.**

All documents submitted to the State Purchasing Division related to purchase orders/contracts are considered public records. All EOI's submitted by firms shall become public information and are available for inspection during normal official business hours in the Purchasing Division Records and Distribution center after the expressions have been opened.

**1.15.2 Written Release of Information.**

All public information may be released with or without a Freedom of Information request, however, only a written request will be acted upon with duplication fees paid in advance. Duplication fees shall apply to all requests for copies of any document. Currently the fees are \$0.50/page, or a minimum of \$10.00 per request, whichever is greater.

**1.15.3 Risk of Disclosure.**

The only exemptions to disclosure of information are listed in West Virginia Code §29B-1-4. Primarily, only trade secrets as submitted by a firm are the only exemption to public disclosure. The submission of any information to the State by a firm puts the risk of disclosure on the firm. The submission of any information to the State by a vendor puts the risk of disclosure on the vendor. The State does not guarantee non-disclosure of any information to the public.

**1.16 Schedule of Events:**

Release of EOI: 02/03/2012

EOI Opening Date : 03/06/2012

**1.17 Mandatory Pre-bid Conference: N/A****1.18 Bond Requirements: N/A**

### 1.19 Purchasing Affidavit:

West Virginia State Code §5A-3-10a (3) (d) requires that all firms submit an Affidavit regarding any debt owed to the State and licensing and confidentiality certifications. The Affidavit **must** be signed and submitted prior to award. It is preferred that the Affidavit be submitted with the EOI.

## PART 2

## OPERATING ENVIRONMENT

### 2.1 Location:

#### Directions to the Milam Ridge Refuse Pile project:

Directions to Site 1: From Garwood in Wyoming County on Route 10, travel south 3.6 miles to the top of the mountain towards the Mercer County line. Just before the Mercer County line turn left onto County Route 1. Travel ¼ mile, look for the second gravel road to the left. Take this left and travel to the first fork in the road, at this fork take the road to the left and down a hill. Take this road down this hill to the first old surface mine bench. Take the first dirt road to the left and down a hill to the site of the portals. The portals are located to the left and to the right of this access road.

Approximate Site 1 portal coordinates:

P1:	37° 28' 55", 81° 17' 18"
P2:	37° 28' 53", 81° 17' 17"
P3:	37° 28' 52", 81° 17' 16"
P4:	37° 28' 50", 81° 17' 16"
P5:	37° 28' 50", 81° 17' 18"
P6:	37° 28' 50", 81° 17' 20"
P7:	37° 28' 52", 81° 17' 21"
P8:	37° 28' 53", 81° 17' 22"

Directions to Site 2: From Garwood in Wyoming County on Route 10, travel south 3.6 miles to the top of the mountain towards the Mercer County line. Just before the Mercer County line turn left onto County Route 1. Travel 2 miles to the small community of Black (no signs). At the top of the road turn left by white double wide home and out building. Travel down this gas well road (dirt and gravel road), approximately a ¼ mile to the first well site on the left. Park here and walk down gas line right away to the project site.

Approximate Site 2 portal coordinates:

P1:	37° 29' 28", 81° 16' 29"
P2:	37° 29' 29", 81° 16' 29"
P3:	37° 29' 00", 81° 16' 29"
P4:	37° 29' 29", 81° 16' 29"

P5: 37° 29' 29", 81° 16' 29"

P6: 37° 29' 29", 81° 16' 30"

## 2.2 Background:

Firms are to be licensed Architectural/Engineering Firms (A/E) and should be familiar with, and have a successful track record of design of similar projects. The anticipated contract will be for "full-service" A/E design. Aspects of the design are to include, but not be limited to, Civil, Structural, Geological and Hydrological.

*The successful A/E will be responsible for **Design** of the following:*

Fourteen portals exist at this site - one open non-draining portal, two totally collapsed non-draining portals, and eleven totally collapsed draining portals.

Preliminary design documents will be due 60 days from the issuance of the Purchase Order.

## PART 3 PROCUREMENT SPECIFICATIONS

### 3.1 General Requirements:

Firm must submit a completed CQQ (Attachment "B") and RPEM (Attachment "C") as per Section 4.2

### 3.2 Project Description:

#### Scope of Work for the Milam Ridge Refuse Pile project:

Installation of drainage conveyances.

Installation of mine seals.

Re-grading of refuse.

Re-vegetation of all disturbed areas.

### 3.3 Special Terms and Conditions:

#### 3.3.1 Bid and Performance Bonds:

3.3.2 *Insurance Requirements:* \$1,000,000 General Liability per Occurrence  
\$2,000,000 Aggregate  
\$1,000,000 Automobile Liability  
\$1,000,000 Professional Liability  
Workers Compensation Certificate Upon Award  
West Virginia Statutory requirements including  
West Virginia Code §23-4-2 (Mandolidis)  
DEP15605 must be listed on Insurance Cert.

3.4 **General Terms and Conditions:**

By signing and submitting the EOI, the successful firm agrees to be bound by all the terms contained in Section Three (3) of this EOI.

3.4.1 *Conflict of Interest:*

Firm affirms that it, its officers or members or employees presently have no interest and shall not acquire any interest, direct or indirect which would conflict or compromise in any manner or degree with the performance or its services hereunder. The firm further covenants that in the performance of the contract, the firm shall periodically inquire of its officers, members and employees concerning such interests. Any such interests discovered shall be promptly presented in detail to the Agency.

3.4.2 *Prohibition Against Gratuities:*

Firm warrants that it has not employed any company or person other than a bona fide employee working solely for the firm or a company regularly employed as its marketing agent to solicit or secure the contract and that it has not paid or agreed to pay any company or person any fee, commission, percentage, brokerage fee, gifts or any other consideration contingent upon or resulting from the award of the contract. For breach or violation of this warranty, the State shall have the right to annul this contract without liability at its discretion, and/or to pursue any other remedies available under this contract or by law.

3.4.3 *Certifications Related to Lobbying:*

Firm certifies that no federal appropriated funds have been paid or will be paid, by or on behalf of the company or an employee thereof, to any person for purposes of influencing or attempting to influence an officer or employee of any Federal entity, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement.

If any funds other than federally appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee or any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the firm shall complete and submit a disclosure form to report the lobbying.

Firm agrees that this language of certification shall be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub recipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this contract was made and entered into.

#### 3.4.4 *Vendor Relationship:*

The relationship of the firm to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by the parties to this contract. The firm as an independent contractor is solely liable for the acts and omissions of its employees and agents.

Firm shall be responsible for selecting, supervising and compensating all individuals employed pursuant to the terms of this EOI and resulting contract. Neither the firm nor any employees or contractors of the firm shall be deemed to be employees of the State for any purposes whatsoever.

The Firm shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension or other deferred compensation plans, including but not limited to Workers' Compensation and Social Security obligations, and licensing fees, etc. and the filing of all necessary documents, forms and returns pertinent to all of the foregoing.

The Firm shall hold harmless the State, and shall provide the State and Agency with a defense against all claims including but not limited to the foregoing payments, withholdings, contributions, taxes, social security taxes and employer income tax returns.

The firm shall not assign, convey, transfer or delegate any of its responsibilities and obligations under this contract to any person, corporation, partnership, association or entity without expressed written consent of the Agency.

#### 3.4.5 *Indemnification:*

The firm agrees to indemnify, defend and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person or firm performing or supplying services, materials or supplies in connection with the performance of the contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the firm, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use or disposition of any data used under the contract in a manner not authorized by the contract, or by Federal or State statutes or regulations; (3) Any failure of the firm, its officers, employees or subcontractors to observe State and Federal laws, including but not limited to labor and wage laws.

#### 3.4.6 *Contract Provisions:*

After the most qualified firm is identified, and fee negotiations are concluded, a formal contract document will be executed between the State and the firm. The order of precedence is the contract, the EOI and the firm's response to the EOI.

#### 3.4.7 *Governing Law:*

This contract shall be governed by the laws of the State of West Virginia. The firm further agrees to comply with the Civil Rights Act of 1964 and all other applicable laws (Federal, State or Local Government) regulations.

#### 3.4.8 *Compliance with Laws and Regulations:*

The firm shall procure all necessary permits and licenses to comply with all applicable laws, Federal, State or municipal, along with all regulations, and ordinances of any regulating body.

The firm shall pay any applicable sales, use, or personal property taxes arising out of this contract and the transactions contemplated thereby. Any other taxes levied upon this contract, the transaction, or the equipment, or services delivered pursuant here to shall be borne by the contractor. It is clearly understood that the State of West Virginia is exempt from any taxes regarding performance of the scope of work of this contract.

#### 3.4.9 *Subcontracts/Joint Ventures:*

The State will consider the firm to be the sole point of contact with regard to all contractual matters. The firm may, with the prior written consent of the State, enter into written subcontracts for performance of work under this contract; however, the firm is totally responsible for payment of all subcontractors.

#### 3.4.10 *Term of Contract:*

This contract will be effective (date set upon award) and shall extend until the scope of work is complete or for one (1) consecutive twelve (12) month period. The contract may be renewed upon mutual consent for two (2) consecutive years one (1) year periods or until such reasonable time as may be necessary to obtain a new contract or to complete work.

#### 3.4.11 *Non-Appropriation of Funds:*

If the Agency is not allotted funds in any succeeding fiscal year for the continued use of the service covered by this contract by the West Virginia Legislature, the Agency may terminate the contract at the end of the affected current fiscal period without further charge or penalty. The Agency shall give the firm written notice of such non-allocation of funds as soon as possible after the Agency receives notice. No penalty shall accrue to the Agency in the event this provision is exercised.

#### 3.4.12 *Contract Termination:*

The State may terminate any contract resulting from this EOI immediately at any time the firm fails to carry out its responsibilities or to make substantial progress under the terms of this EOI and resulting contract. The State shall provide the firm with advance notice of performance conditions, which are endangering the contract's continuation. If after such notice the firm fails to remedy the conditions contained in the notice, within the time contained in the notice, the State shall issue the firm an order to cease and desist all work immediately.

The State shall be obligated only for services rendered and accepted prior to the date of the notice of termination. The contract may also be terminated upon mutual agreement of the parties with thirty (30) days prior notice.

#### 3.4.13 *Changes:*

If changes to the original contract become necessary, a formal contract change order will be required. Prior to any work being performed, the change must be negotiated and approved by the State, the Agency and the firm. An approved contract change order is defined as one approved by the Purchasing Division and approved as to form by the West Virginia Attorney General's Office prior to the effective date of such amendment. **NO CHANGE SHALL BE IMPLEMENTED BY THE FIRM UNTIL THE FIRM RECEIVES AN APPROVED WRITTEN CHANGE ORDER.**

#### 3.4.14 *Invoices, Progress Payments, & Retainage:*

The Firm shall submit invoices, in arrears, to the Agency at the address on the face of the purchase order labeled "Invoice To" pursuant to the terms of the contract. Progress payments may be made at the option of the Agency based on percentage of work completed if so defined in the final contract. Any provision



for progress payments must also include language for a minimum 10% retainage until the final deliverable is accepted.

If progress payments are permitted, firm is required to identify points in the work plan at which compensation would be appropriate. Progress reports must be submitted to Agency with the invoice detailing progress completed or any deliverables identified. Payment will be made only upon approval of acceptable progress or deliverables as documented in the firm's report. Invoices may not be submitted more than once monthly and State law forbids payment of invoices prior to receipt of services.

*The firm will invoice for completed work on an approved WVDEP form.*

**3.4.15 Liquidated Damages:**

According to West Virginia State Code §5A-3-4(8), firm agrees that liquidated damages shall be imposed at the rate of N/A per workday, for failure to provide deliverables at the agreed upon date identified in the final contract. This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue to any other additional remedy to which the State or Agency may have legal cause for action including further damages against the firm.

**3.4.16 Record Retention (Access & Confidentiality):**

Firm shall comply with all applicable Federal and State of West Virginia rules and regulations, and requirements governing the maintenance of documentation to verify any cost of services or commodities rendered under this contract by the firm. The firm shall maintain such records a minimum of five (5) years and make available all records to Agency personnel at firm's location during normal business hours upon written request by Agency within 10 days after receipt of the request.

Firm shall have access to private and confidential data maintained by Agency to the extent required for firm to carry out the duties and responsibilities defined in this contract. Firm agrees to maintain confidentiality and security of the data made available and shall indemnify and hold harmless the State and Agency against any and all claims brought by any party attributed to actions of breach of confidentiality by the firm, subcontractors, or individuals permitted access by the firm.

**PART 4 EVALUATION & AWARD****4.1 Evaluation and Award Process:**

- a) Expressions of Interest will be evaluated and awarded in accordance with §5G-1-3 "Contracts for architectural and engineering services; selection process where total project costs are estimated to cost two hundred fifty thousand dollars or more."

"In the procurement of architectural and engineering services for projects estimated to cost two hundred and fifty thousand dollars or more the director of purchasing shall encourage such firms engaged in the lawful practice of the profession to submit an expression of interest, which shall include a statement of qualifications, and performance data and may include anticipated concepts and proposed methods of approach to the project. All such jobs shall be announced by public notice published as a Class II legal advertisement in compliance with the provisions of article three [§59-3-1et seq.] A committee comprised of three to five representatives of the agency initiating the request shall evaluate the statements of qualifications and performance data and other material submitted by the interested firms and select three firms which in their opinion are the best qualified to perform the desired service. Interviews with each firm selected shall be conducted and the committee shall conduct discussions regarding anticipated concepts and the proposed methods of approach to the assignment. The committee shall then rank in order of preference no less than three professional firms deemed to be the most highly qualified to provide the services required, and shall commence scope of service and price negotiations with the highest qualified professional firm for architectural or engineering services or both. Should the agency be unable to negotiate a satisfactory contract with the professional firm considered to be the most qualified, at a fee determined to be fair and reasonable, price negotiations with the firm of second choice shall commence. Failing accord with the second most qualified professional firm, the committee shall undertake price negotiations with the third most qualified professional firm. Should the agency be unable to negotiate a satisfactory contract with any of the selected professional firms, it shall select additional professional firms in order of their competence and qualifications and it shall continue negotiations in accordance with this section until an agreement is reached."

- b) The evaluation criteria and assigned point values are as follows:

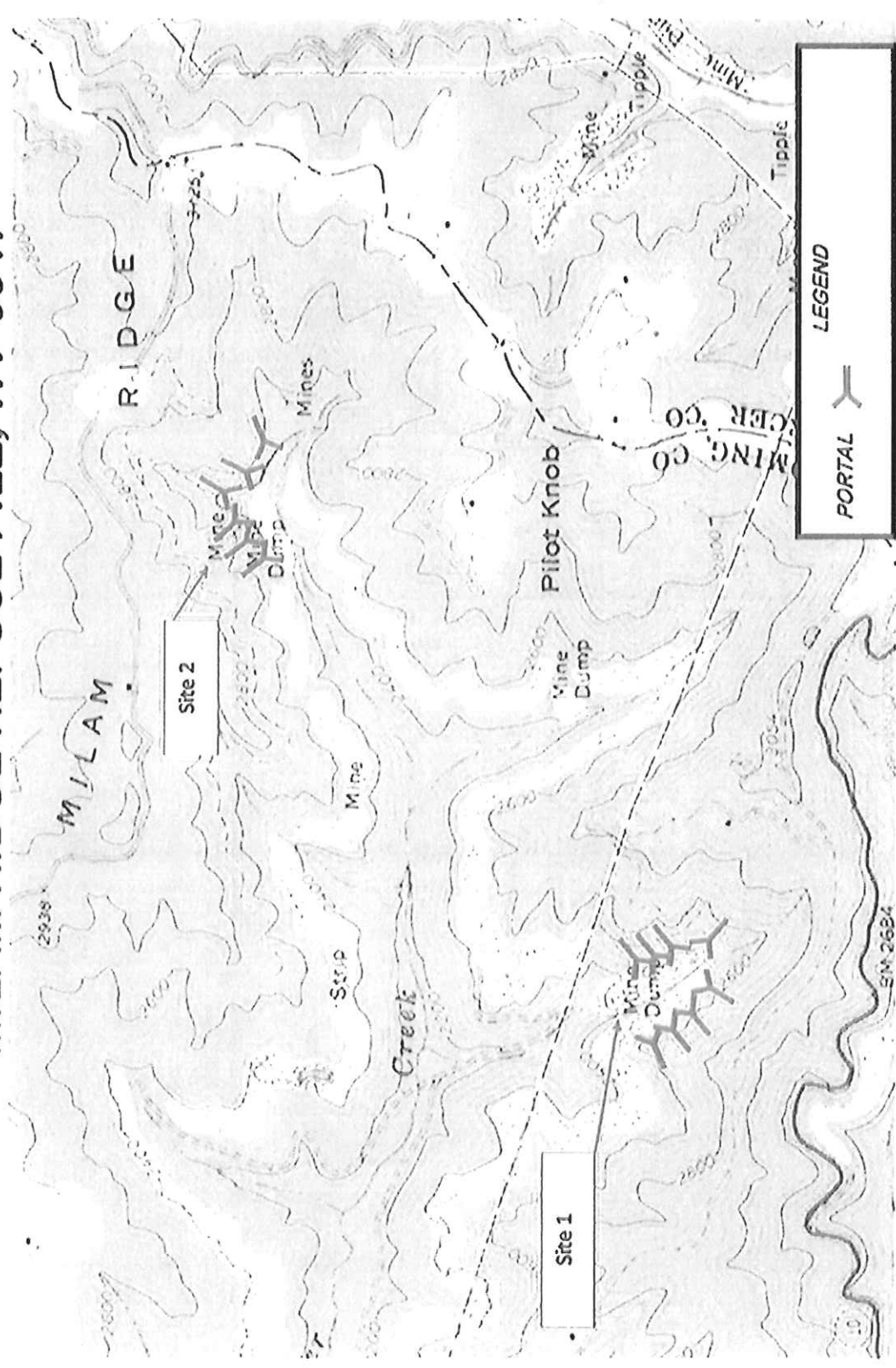
- A. WV Registered Professional Engineers (Civil or Mining)  
In the Primary Office:

- 20 points
- B. Reclamation Engineering design experience of the Primary Office's WVRPE as it relates to the specific project problem Areas:
- 25 points
- C. Available WV-AML Design Teams within the Primary office (A Design team should consist of one Project Engineer (Civil or Mining), one CAD person and availability of other support personnel as required by the particular project):
- 20 points
- D. The Oral Interview (See Section 4.3 of this EOI):
- 35 oints
- 4.2 (a) AML Consultant Qualification Questionnaire (CQQ) must be completed to be eligible (See Attachment "B")
- (b) AML and Related Project Experience Matrix (RPEM) must also be completed to be eligible (See Attachment "C").
- 4.2 Interviews as stated in 4.1 "Evaluation and Award Process" will be conducted with the three firms selected as the most qualified by the WVDEP Selection Committee. The Committee will schedule the interviews.

The format for the interviews will be a 15-30 minute PowerPoint presentation consisting, at a minimum, of the following:

- Corporate/personnel experience as it relates to the project or projects
- Proposed project management plan
- Key personnel available for the proposed work
- Proposed subcontractors (mapping, geotechnical, etc.)
- Product quality control
- Project cost control

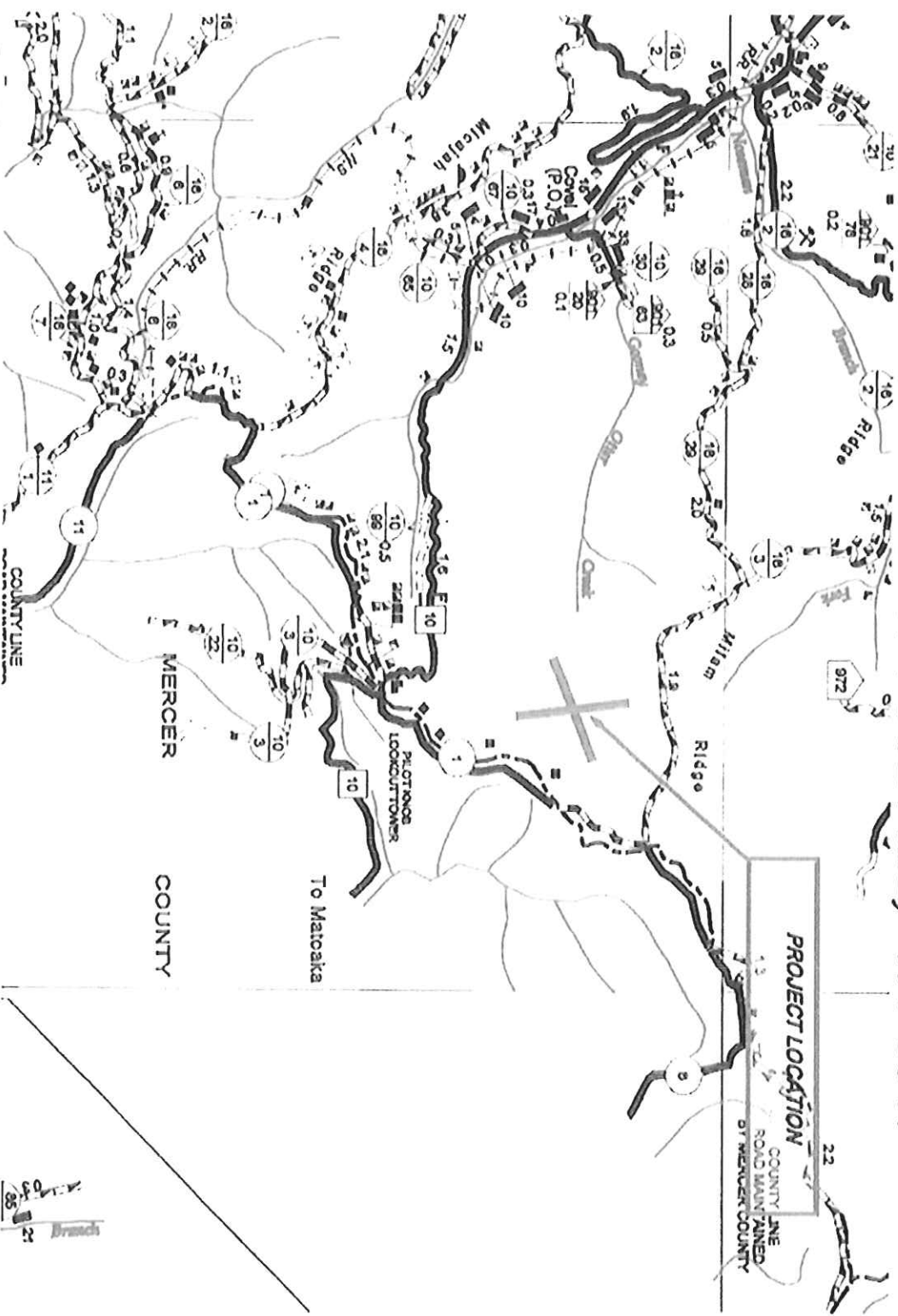
**PROJECT LOCATION MAP  
MILAM RIDGE REFUSE PILE, WV-0647**



**WYOMING COUNTY  
LONGITUDE: 81°16'30"**

**CRUMPLER QUAD  
LATITUDE: 37°29'29"**

# HIGHWAY LOCATION MAP MILAM RIDGE REFUSE PILE, WV-0647



**CRUMPLER QUAD**  
**LATITUDE : 37°29'29"**

**WYOMING COUNTY**  
**LONGITUDE : 81°16'30"**

**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
AML CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE Attachment "B"**

PROJECT NAME Milam Ridge Refuse Pile Design (DEP15605)		DATE (DAY, MONTH, YEAR) March 6, 2012	FEIN 55-0757403
1. FIRM NAME <b>CIVIL TECH ENGINEERING INC.</b>		3. FORMER FIRM NAME NA	
4. HOME OFFICE TELEPHONE 304-757-8094	5. ESTABLISHED (YEAR) 1996	6. TYPE OWNERSHIP Individual Partnership <u>Corporation</u> Joint-Venture	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES NO <b>XX</b>
7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE 300A Prestige Drive, Hurricane, WV 25526/Mark E. Pennington PE/Twelve			
8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM Mark E. Pennington MS, PE Jennifer E. Pennington PE		8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS NA	
9. PERSONNEL BY DISCIPLINE			
— ADMINISTRATIVE	— ECOLOGISTS	— LANDSCAPE ARCHITECTS	— STRUCTURAL ENGINEERS
— ARCHITECTS	— ECONOMISTS	— MECHANICAL ENGINEERS	— <b>1 SURVEYORS</b>
— <b>BIOLOGIST</b>	— ELECTRICAL ENGINEERS	— <b>MINING ENGINEERS</b>	— TRAFFIC ENGINEERS
2 <b>CADD OPERATORS</b>	1 ENVIRONMENTALISTS	— PHOTOGRAMMETRISTS	— OTHER (Technicians)
— CHEMICAL ENGINEERS	ESTIMATORS	— PLANNERS: URBAN/REGIONAL	
3 <b>CIVIL ENGINEERS</b>	1 <b>GEOLOGISTS</b>	— SANITARY ENGINEERS	12 TOTAL PERSONNEL
4 CONSTRUCTION INSPECTORS	— HISTORIANS	— SOILS ENGINEERS	
— DESIGNERS	— HYDROLOGISTS	— SPECIFICATION	
— DRAFTSMEN		— WRITERS	
TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: <u>3</u>			
*RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.			
10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? <input type="checkbox"/> YES <input type="checkbox"/> NO <b>NA</b>			

11. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED. Attach "AML Consultant Confidential Qualification Questionnaire".

NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
Novel Geo-Environmental PLLC 806 B Street St. Albans, WV 25177	Drilling and Laboratory Soils Testing	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS: Triad Engineering Inc. 219 Hartman Run Road Morgantown, WV 26505	SPECIALTY: Drilling and Laboratory Soils Testing	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS: Stantec 1 Moore Avenue Buckhannon, WV 26201	SPECIALTY: Mapping	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
12. A. Is your firm experienced in Abandoned Mine Lands Remediation/Mine Reclamation Engineering?		
YES	Description and Number of Projects: See Section A 148 AML Projects - Personnel Experience (Mark E. Pennington PE) 50+ Subsidence Claims - Corporate Experience	
NO		
B. Is your firm experienced in Soil Analysis?		
YES	Description and Number of Projects: See Sections B.2, B.3, and B.4 1200+ Projects - Corporate and Personnel Experience.	
NO		
C. Is your firm experienced in hydrology and hydraulics?		
YES	Description and Number of Projects: See Sections B.2, B.3, and B.4 50+ Projects involving storm water controls and dam spillway design.	
NO		

D. Does your firm produce its own Aerial Photography and Develop Contour Mapping?

YES

NO **XX**

E. Is your firm experienced in domestic waterline design? (Include any experience your firm has in evaluation of aquifer degradation as a result of mining.)

YES Description and Number of Projects: Douglas Water line\_ (DEP ID#303)

NO

F. Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design?

YES Description and Number of Projects: Design of Liming station and dams for Cranberry River.

NO

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)

**Pennington, Mark E.  
President - Principal Engineer**

YEARS OF AML DESIGN EXPERIENCE:

13

YEARS OF AML RELATED DESIGN EXPERIENCE:

34

YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 2



Brief Explanation of Responsibilities:

**COMPANY RESPONSIBILITIES**

- COMPANY MANAGEMENT
- BUSINESS DEVELOPMENT
- PROJECT PLANNING AND DIRECTION

- RECENT AND ONGOING PROJECTS
- THOMAS SUNRISE SANITATION MINE DRAINAGE - AML
- THOMAS MINE BLOWOUT - EMERGENCY AML
- PROSPECT VALLEY HIGHWALL #4 - AML
- WINIFREDE (MCFANN) PORTALS - AML
- DOUGLAS WL DESIGN - AML
- CAMBRIA PORTALS & DESIGN - AML
- ZEBB'S CREEK HW #2 - AML
- HAWKINBERRY HOLLOW PORTALS - AML

**PROJECT RESPONSIBILITIES**

- ENVIRONMENTAL PERMITTING
- TOPOGRAPHIC MAPPING
- HYDROLOGY AND HYDRAULICS
- FLOOD ASSESSMENT
- EROSION CONTROL
- STORM WATER CONTROLS
- SANITARY SEWER DESIGN
- GEOTECHNICAL ANALYSIS
- SUBSIDENCE ABATEMENT
- LANDSLIDE ANALYSIS AND DESIGN
- RETAINING WALL DESIGN
- DAM MODIFICATIONS
- ANNUAL DAM INSPECTIONS
- COMMERCIAL CIVIL SITE DEVELOPMENT
- CONSTRUCTION CONTRACT ADMINISTRATION

As the former manager of the St. Albans Office of Triad Engineering and a founder of Civil Tech, Mr. Pennington has gained a broad knowledge of most civil engineering disciplines involving abandoned mine lands, storm water and erosion controls, dams, as well as private, industrial, and municipal projects involving topographic mapping, geotechnical analysis, and civil site development. He has been responsible for 147 AML projects, 44 dam modification projects, and many large commercial, private, and industrial projects. Mr. Pennington has a working knowledge of AML projects including; subsidence, landslides, mine drainage/portals, erosion, shafts, burning refuse, and surface/subsurface drainage. He recently served as project manager for the Thomas Sunrise Sanitation Mine Drainage Project and the Thomas Blowout Emergency AML project. Design work is complete for the Winifrede McFann Portals Project Cambria Portals, Prospect Valley Highwall No. 4, and Zebbs Creek projects. Hawkinberry hollow is in the final review stage. He served as project manager on the Pines Country Club (Ponds) Subsidence project (cancelled) and serves as project manager for the Douglas Waterline Extension (DEP Project ID#303). Mr. Pennington has substantial construction experience gained while administering the construction contract on over 100 projects and while serving as the Assistant Project Manager on the USACOE Moorefield Flood Levee Project as an employee of Heeter Construction of Spencer, West Virginia. EDUCATION (Degree, Year, Specialization)

BSCCE/1977/Civil Engineering Undergraduate Degree - WVU  
 MSCE/1985/Soils and Foundations/WVCOG

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Society of Civil Engineers (ASCE)  
 Association of State Dam Safety Officials (ASDSO)

REGISTRATION (Type, Year, State)

CE/1981/WV CE/1995/NC CE/1988/KY CE/1988/OH  
 PS/1995/WV

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.) <b>Pennington, Jennifer E. Vice President - Principal Engineer</b>	YEARS OF AML DESIGN EXPERIENCE: <b>12</b>	YEARS OF AML RELATED DESIGN EXPERIENCE: <b>22</b>	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: <b>0</b>
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Brief Explanation of Responsibilities

**COMPANY RESPONSIBILITIES**

- COMPANY MANAGEMENT
- PROJECT PLANNING AND DIRECTION

**PROJECT RESPONSIBILITIES**

- HYDROLOGY AND HYDRAULICS
- FLOOD ASSESSMENT
- EROSION CONTROL
- STORM WATER CONTROLS
- GEOTECHNICAL ANALYSIS
- LANDSLIDE ANALYSIS AND DESIGN
- RETAINING WALL DESIGN
- DAM MODIFICATIONS
- ANNUAL DAM INSPECTIONS
- COMMERCIAL CIVIL SITE DEVELOPMENT

Ms. Pennington is a multi-disciplined engineer who has served as project manager on many large and complex civil and geotechnical engineering projects involving subsurface investigation, geotechnical analysis, dam design/rehabilitation, civil site development, storm water controls, etc. She is a former senior engineer with Triad Engineering. While with Triad, she performed geotechnical analysis for many AML projects and was directly responsible for the analysis of the Rock Branch Landslide Project in Kanawha County. Ms. Pennington has also been responsible for design engineering associated with recent AML projects including Thomas Sunrise Sanitation, Prospect Valley, Cambria, and Zebb's Creek. Ms. Pennington's duties and responsibilities at Civil Tech include planning, direction, and performance of geotechnical analysis, civil site design, dam modification design, and hydrologic/hydraulic analysis. She has expertise in the use of HEC1, HEC2, Dams2, Flowmaster, Hydrocad, SPW911, PCstable 5 and 6, Autocad, and Eaglepoint computer modeling software.

EDUCATION (Degree, Year, Specialization)

**BSCE/1988/Civil Engineering Undergraduate Degree - University of Kentucky**

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

**American Society of Civil Engineers (ASCE)  
Association of State Dam Safety Officials (ASDSO)**

REGISTRATION (Type, Year, State)

**CE/1992/WV  
PS/1995/WV**

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE
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<b>Kessler, Robert R. - Geologist</b>		YEARS OF AML DESIGN EXPERIENCE: 0	YEARS OF AML RELATED DESIGN EXPERIENCE: 12	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0
Brief Explanation of Responsibilities:  Mr. Kessler is responsible for all geologic studies/investigations required to support engineering services for Civil Tech. Projects include mining subsidence investigations, blasting studies, and geologic studies for nearly 40 dam modifications throughout West Virginia.				
EDUCATION (Degree, Year, Specialization)  B.S. - Geology - 1965 - Ohio University Post Graduate Work - 1965 to 1966 - Geology - Ohio University B.S. - Mathematics - 1980 - University of Charleston				
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  REGISTRATION (Type, Year, State)				
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)				
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE		
<b>Arthur, Charles D. - CADD Designer &amp; Survey Crew Party Chief</b>		YEARS OF AML DESIGN EXPERIENCE: 0	YEARS OF AML RELATED DESIGN EXPERIENCE: 8	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0
Brief Explanation of Responsibilities Senior designer responsible for direction of other draftsmen and preparation of design drawings using Autocad and Eagle Point modeling software, survey party chief, and evaluation of mine maps and subsidence. Mr. Arthur has served as a senior designer for the following recent projects. <ul style="list-style-type: none"> <li><input type="checkbox"/> Thomas Mine Drainage and Blowout AML Projects, Thomas, WV</li> <li><input type="checkbox"/> Prospect Valley Highway No. 4, Shinnston, WV</li> <li><input type="checkbox"/> Winifred McFann Portals, Winifrede, Kanawha County, WV</li> <li><input type="checkbox"/> Nellis (Smith) Drainage, Nellis, WV</li> <li><input type="checkbox"/> Zebb's Creek HW#2, Barbour County, WV</li> <li><input type="checkbox"/> Cambria Portals, Harrison County, WV</li> <li><input type="checkbox"/> Hawkinberry Hollow Portals, Marion County, WV</li> <li><input type="checkbox"/> Thomas Sewer-Stormwater Segregation Project, Thomas, WV</li> <li><input type="checkbox"/> Thomas Stormwater Improvements, Thomas, WV</li> <li><input type="checkbox"/> Nearly 40 dam modification projects throughout WV</li> <li><input type="checkbox"/> Holiday Inn Express, Mineral Wells, WV</li> <li><input type="checkbox"/> Fairfield Inn &amp; Suites, Weirton, WV</li> </ul> Mr. Arthur also performs field surveying necessary to support engineering services and develop topographic mapping required for all civil project performed by our company.				
EDUCATION (Degree, Year, Specialization) Pre-blast Surveyor Training - May 2003 - WVDEP Computer-aided Drafting/1080 hours - June 2000 - Ben Franklin Career and Tech. Ed. Ctr., Dunbar, WV Welding/1,320 hours - June 1997 - Ben Franklin Career and Tech. Ed. Ctr., Dunbar, WV				

14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE AML DESIGN SERVICES

Software:

- Autocivil 2010
- Microstation
- Eaglepoint 2009
- HEC-1
- HEC-2
- HECRAS
- HEC-HMS
- Dams2
- Hydrocad version 9
- Flowmaster
- Sewercad
- Watercad
- PCstable 5
- SPW911 - Pile Buck Sheet Pile Wall Design Program
- Word Perfect, Excel, and other office support programs.

Equipment:

- 1 4WD Pickup
- 1 Jeep Grand Cherokee
- 1 Jeep Cherokee
- 4 Desktop Computers
- 3 Laptop Computers
- 4 Digital Cameras
- 1 HP Designjet 1050C Plotter
- 2 HP Deskjet Printers
- 1 Color Laser Printer
- 1 Leica TC600 Total Station
- 1 Leica Level
- Rods, prisms, tripods, targets, and survey support equipment

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE

Cacapon State Park Dam Modifications	Brad Leslie WVDNR Parks & Recreation Section Capitol Complex, Building 3, Room 723 Charleston, WV 25305	Topographic Mapping Design Permitting Bidding Construction Monitoring Contract Administration	\$ 1,500,000	Mapping 100% Design 30% Permitting 0% Bidding 0% Const. Monitoring 0% Contract Admin 0% Construction expected 2012 season.
Bards Creek Portals Preston County, WV	Gregg Smith WVDEP-AML 209 South Main Street Phillippi, WV	Mapping Subsurface Investigation Design Permitting Bidding Construction Monitoring	\$ 1,000,000	Design 100% Permitting 100% Bidding 0% Const. Monitoring 0% Construction expected 2012.
Douglas WL Extension Coketon to Douglas, WV City of Thomas Thomas, Tucker County, WV	Steve McBrayer WVDEP-AML 601 57 <sup>th</sup> Street Charleston, WV 25304	Design Services Subsurface Investigation	\$ 500,000	Design 100% Bidding 0% Const. Monitoring 0% Construction expected 2012.
Pipestem and Berwind Dam Modifications	Brad Leslie WVDNR Parks & Recreation Section Capitol Complex, Building 3, Room 723 Charleston, WV 25305	Topographic Mapping Design Permitting Bidding Construction Monitoring Contract Administration	\$ 1,750,000	Mapping 100% Design 100% Permitting 100% Bidding 50% Const. Monitoring 30% Contract Admin 30% Construction Pipestem underway. Berwind expected 2012 season.
Hawkinberry Hollow Portals and Drainage Marion County, WV	Tim Lemasters WVDEP-AML 209 South Main Street Phillippi, WV 26416	Topographic Mapping Design Subsurface Investigation Permitting Bidding	\$ 350,000	Mapping 100% Design 85% Permitting 50% Bidding 0% Construction expected 2012
Nellis (Smith) Drainage Nellis, Boone County, WV	Mark Proctor WVDEP - Oak Hill, WV	Mapping Design Permitting Bidding	\$ 1,000,000	Mapping 100% Design 95% Permitting 100% Bidding 0% Construction expected 2012
White Dam Dam Modifications Sissonville, WV	Don White HC 83 Box 27A Sissonville, WV 25320	Topographic Mapping Design Permitting Bidding Construction Monitoring Contract Administration	\$ 30,000	Mapping 100% Design 100% Permitting 100% Bidding 0% Const. Monitoring 0% Contract Admin 0% Construction expected 2012 season.
TOTAL NUMBER OF PROJECTS: Five		TOTAL ESTIMATED CONSTRUCTION COSTS: \$ 6,130,000		

16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUB-CONSULTANT TO OTHERS **None**

PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
<b>Thomas Sunrise Sanitation Mine Drainage</b> Thomas, Tucker County, WV	<b>Gregg Smith</b> WVDEP-AML 209 South Main Street Philippi, WV 26416	\$ 250,000	2009	YES
<b>Thomas Sunrise Sanitation Mine Blowout</b> Thomas, Tucker County, WV	<b>Gregg Smith</b> WVDEP-AML 209 South Main Street Philippi, WV 26416	\$ 250,000	2009	YES
<b>Prospect Valley Highway #4</b> Shinnston, Harrison County, WV	<b>Tim Lemasters</b> WVDEP-AML 105 South Railroad Street Philippi, WV 26416	\$ 1,000,000	2011	YES
<b>Winifred (McFann) Portals</b> Winifrede, Kanawha County, WV	<b>Dean Stiltner</b> WVDEP-AML 116 Industrial Drive Oak Hill, WV 25901	\$ 250,000	2011	YES
<b>Zebb's Creek Highway #2</b> Junior WV, Barbour County, WV	<b>Gregg Smith</b> WVDEP-AML 209 South Main Street Philippi, WV 26416	\$ 200,000	2011	YES
<b>Cambria Portals &amp; Drainage Design</b> Cambria, Harrison County, WV	<b>Tim Lemasters</b> WVDEP-AML 209 South Main Street Philippi, WV 26416	UNKNOWN	2011	YES

<b>Mt. Storm Gate Modification</b> Mt. Storm Power Station	<b>Mr. Patrick Flaughter</b> Dominion Generation Mt. Storm Power Station Dominion Energy Inc. HC 76 Box 430 Mt. Storm, WV 26739	UNKNOWN	2011	YES
<b>Drain Pipe and Gate Repair</b> Jimmy Lewis Dam Pinnacle Rock SP Mercer Co., WV	<b>Brad Leslie</b> WVDNR Parks & Recreation Section Capitol Complex, Building 3, Room 723 Charleston, WV 25305	\$ 280,000	2011	YES
<b>Thomas (Sunrise Sanitation) Mine</b> Blowout City of Thomas, Tucker County, WV	<b>Ron Lane</b> WVDEP-AML 105 South Railroad Street Philippi, WV 26416	\$ 250,000	2009	YES
<b>Stony River Dam</b> Breach Dam to Remove from WVDEP Jurisdiction Grant County, WV	<b>Sterlin Rebeck</b> NewPage Corporation 300 Pratt Street Luke, MD 21540	\$ 250,000	2009	YES
<b>Phase I - Unit 3 Ash Handling Area</b> Pavement Replacement Design Mt. Storm Power Station Mt. Storm, WV	<b>Patrick W. Flaughter</b> Dominion Energy Inc. HC 76 Box 430 Mt. Storm, WV 26739	\$ 500,000	2009	YES
<b>Flow &amp; Temperature Monitoring Weir</b> Stony River Mt. Storm Power Station Mt. Storm, WV	<b>Patrick W. Flaughter</b> Dominion Energy Inc. HC 76 Box 430 Mt. Storm, WV 26739	\$ 250,000	2009	YES
<b>Fairfield Inn &amp; Suites</b> Weirton, WV	<b>Michael Holtz</b> MPH Hotels 490 East Route 22 North Barrington, IL 60010	\$ 2,500,000 (Estimated)	2009	YES
<b>Deegan &amp; Hinkle Dams</b> Dam Modifications Bridgeport, WV	<b>Tom Brown - City Engineer</b> City of Bridgeport 515 West Main Street Bridgeport, WV 26330	\$ 1,500,000	2008	YES
<b>Flip Bucket Stabilization</b> Mt. Storm Lake Dam Mt. Storm Power Station Mt. Storm, WV	<b>Patrick W. Flaughter</b> Dominion Energy Inc. HC 76 Box 430 Mt. Storm, WV 26739	\$ 750,000	2008	YES

<p><b>Stormwater Improvements</b> Ditch and Piping Design City of Thomas, WV</p>	<p><b>Mayor Dorothy Wilson</b> City of Thomas P.O. Box 463 Thomas, WV 26292</p>	<p>\$ 750,000</p>	<p>2007</p>	<p>YES</p>
<p><b>Parking Lot Expansion</b> Civil Design &amp; Permitting Mt. Vernon Baptist Church Hurricane, WV</p>	<p><b>Mr. Brad Leslie</b> Mt. Vernon Baptist Church 2050 Mt. Vernon Road Hurricane, WV 25526</p>	<p>\$ 50,000</p>	<p>2007</p>	<p>YES</p>
<p><b>Holiday Inn Express</b> Civil Design for Hotel &amp; Permitting Mineral Wells, WV</p>	<p><b>Michael Holtz</b> MPH Hotels 490 East Route 22 North Barrington, IL 60010</p>	<p>\$ 2,500,000 (Estimated)</p>	<p>2007</p>	<p>YES</p>
<p><b>Bailey and Lemley Dams</b> Dam Modifications &amp; Access Improvements Core, WV</p>	<p><b>Dennis Kincer</b> WV Division of Natural Resources Wildlife Resources Section Capitol Complex Building 3, Room 816 1900 Kanawha Blvd., East Charleston, WV 25305</p>	<p>\$ 1,000,000</p>	<p>2007</p>	<p>YES</p>
<p><b>Burches Run Dam</b> Height Reduction Below Jurisdiction Moundsville, WV</p>	<p><b>Dennis Kincer</b> WV Division of Natural Resources Wildlife Resources Section Capitol Complex Building 3, Room 816 1900 Kanawha Blvd., East Charleston, WV 25305</p>	<p>\$ 450,000</p>	<p>2005</p>	<p>YES</p>
<p><b>Wilson Dam</b> Dam Modification Romney, WV</p>	<p><b>Mr. James Wilson</b> 17 Running Brook Lane Sterling, VA 20164</p>	<p>\$ 250,000 (Estimated)</p>	<p>2005</p>	<p>YES</p>
<p><b>Moncove Dam</b> Dam Modification Moncove State Park</p>	<p><b>Mr. Brad Leslie</b> WV Division of Natural Resources Parks and Recreation Section Capitol Complex, Building 3, Room 723 Charleston, WV 25305</p>	<p>\$ 400,000</p>	<p>2005</p>	<p>YES</p>
<p>18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE) <b>None</b></p>				
<p>PROJECT NAME, TYPE AND LOCATION</p>	<p>NAME AND ADDRESS OF OWNER</p>	<p>ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION</p>	<p>YEAR</p>	<p>CONSTRUCTED (YES OR NO) FIRM ASSOCIATED WITH</p>



19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program. Civil Tech provides engineering services to wide range of clients including, the Phillippi, Charleston, and Oak Hill Offices of the WVDEP-AML, the City of Thomas, City of Bridgeport, NewPage Corporation, Mt. Top PSD, Dominion Generation - Mt. Storm & North Branch Power Stations, Duke Energy, Huntersville, NC, WVDNR Parks and Wildlife Sections, American Electric Power - John Amos Plant, WV American Water, and other private concerns and contractors. Current and recent AML projects include AMD, Highwall Reclamation, Portals, Subsidence Abatement, and a waterline extension. Our experience with impoundments, dam breach/reclamation, civil site design, infrastructure, & site grading combined with our AML experience and environmental/permitting knowledge makes our firm most qualified for AML Design Projects.

20. The foregoing is a statement of facts.



Date: March 6, 2012

Signature: \_\_\_\_\_ Title: President

Printed Name: Mark E. Pennington

**AML and RELATED PROJECT EXPERIENCE MATRIX**

PROJECT	Exp. Basis C=Corp. P=Personal	Additional Info Provided in Section (5) **	PROJECT EXPERIENCE REQUIREMENTS													PRIMARY STAFF PARTICIPATION/CAPACITY *** M=Management P=Professional																									
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Eval.	Reming Evaluation	Mine/Reuse Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/ Replacement	Construction Inspection/Manageme nt	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Mark Pennington	Jennifer Pennington	Robert Kessler	Charles Arthur Jr.	H Thomas Brown																			
Thomas Sunrise Sanitation Mine Drain	C	A	X			X								X					M/P	P						P															
Thomas Sunrise Sanitation Mine Blowout	C	A	X			X								X					M/P	P								P													
Prospect Valley Highwall No. 4	C	A	X			X								X					M/P	P							P														
Winifred (McFann) Portals	C	A	X			X								X					M/P	P							P														
Douglas W.L. Extension	C	A												X					M/P	P							P														
Pines CC Subsidence	C	A				X								X					M/P	P							P														
Cambria Portals & Drainage	C	A	X			X													M/P	P							P														
Zebbs Creek HW#2	C	A	X			X													M/P	P							P														
Nellis (Smith) Drainage	C	A				X								X					M/P	P							P														
Burford Slide	P	A	X			X													M/P	P							P														
Pine Creek Shaft	P	A	X			X													M/P	P							P														
Milburn Refuse	P	A	X			X													M/P	P							P														
Oxley Subsidence	C	A												X					M/P	P							P														
Basedre Subsidence	C	A												X					M/P	P							P														
Conn Subsidence	C	A												X					M/P	P							P														
Turner Slide	P	A	X			X													M/P	P							P														
Thomas Stormwater Improvements	C	B.2				X													M/P	P							P														
Thoms Stormwater/Sewer Segregation	C	B.2				X													M/P	P							P														
Deegan and Hinkle Dam Modifications	C	B.3				X													M/P	P							P														
Bailey and Lemley Dam Modifications	C	B.3				X													M/P	P							P														
Fleming Street Stabilization	C	B.4				X													M/P	P							P														
Mt Storm Flip Bucket Stabilization	C	B.3				X													M/P	P							P														

\* List whether project experience is corporate or personnel based or both.

\*\* Use this area to provide specific sections or pages if needed for reference.

\*\*\* List Primary Design personnel and their functional capacity for the projects listed.

STATE OF WEST VIRGINIA  
Purchasing Division

**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 owned 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 exceeds 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.

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

**WITNESS THE FOLLOWING SIGNATURE**

Vendor's Name: Civil Tech Engineering Inc.

Authorized Signature: [Signature] Date: 2/28/12

State of West Virginia

County of Putnam, to-wit:

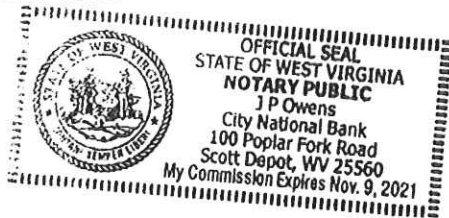
Taken, subscribed, and sworn to before me this 28<sup>th</sup> day of Feb., 2012.

My Commission expires 11/9/2021 ~~20~~

NOTARY PUBLIC

[Signature]

**AFFIX SEAL HERE**



## **SECTION A - ABANDONED MINE LANDS EXPERIENCE**

1. **More than 25 years combined experience with AML Projects:** The principals of Civil Tech Engineering, Inc. have gained AML experience providing professional services to the OSM, WVDEP, and BRIM on abandoned mine lands projects including: Subsidence, Landslides, Mine Drainage, Mine and Refuse Fires, Mine Shafts, Water Impoundments, and Pollution of Ground and Surface Water. **Recent AML Projects performed for the WVDEP AML&R Offices located in Philippi, Oak Hill, and Charleston, WV includes:**
  - Thomas (Sunrise Sanitation) Mine Drainage Project (DEP14171). Complete June, 2010.
  - Thomas Sunrise Sanitation Mine Blowout (Emergency Project). Complete Spring, 2009.
  - Prospect Valley Highwall #4 (DEP 14433). Complete 2011.
  - Winifrede (McFann) Portals (DEP 14479). Complete 2011.
  - Pines County Club (Ponds) Subsidence (DEP14633). Preliminary Design – Project Cancelled.
  - Douglas Water Line Extension (DEP14951). Design Complete awaiting permits.
  - Cambria Portals & Drainage Design (DEP 14845). Construction started fall 2011.
  - Birds Creek Portals (DEP 15065). Final Design Complete. Awaiting Prebid.
  - Nellis (Smith) Drainage (DEP15002). Design Complete. Prebid Scheduled 2.22.12
  - Zebb's Creek Highwall #2 (DEP14991). Construction Complete Fall 2011.
  - Hawkinberry Hollow Portals and Drainage (DEP 15220). Final Design Complete and awaiting pre-bid.
  - Stowe Refuse Piles (DEP15586). Awaiting Contract
2. **Principals of Civil Tech were responsible for planning, performing, and managing past AML work performed by Triad prior to February of 1996:** Prior to forming Civil Tech, Mark Pennington managed the branch office of Triad Engineering in St. Albans, West Virginia. Jennifer Pennington was a senior engineer in that office. While employed by Triad, our principals were responsible for the performance and/or management of virtually all AML projects performed until February of 1996 when we resigned from Triad. **A total of approximately 137 AML projects were completed during the period of 1990 to early 1996.**
3. **Civil Tech Mine Subsidence Determinations:** Our corporate AML experience is detailed on the enclosed CCQQ forms. Our recent corporate experience includes examination of structures to determine cause of damage and mining relatedness. We have performed these mine subsidence determinations using information on file with the WVGS, and with the assistance of AML personnel and records. Services have been provided for insurance companies and BRIM.
4. **Civil Tech has demonstrated experience and professional capability in all aspects of engineering and support services required to successfully complete AML Projects.** Since forming Civil Tech, our staff has successfully completed over 1200 projects. Services provided have included: surveying and mapping, subsurface investigations, laboratory analysis, geotechnical engineering, structural design and assessment, environmental engineering, sewer & stormwater projects, land use/planning, reclamation, hydraulic/hydrologic studies, flood routing, dam break analysis and risk assessment, design engineering, plans, specifications, bidding, contract administration, and construction monitoring. See enclosed CCQQ forms for Civil Tech Engineering, Inc. and Sections B.1 thru B.4.
5. **As highlighted in this submittal, our experience with the design of civil infrastructure and dam design combined with our AML experience makes our company uniquely qualified for AML Design Projects.**

**A partial listing of AML experience gained while employed by Triad during 1990 to 1996 is presented in this submittal along with other related projects which include**

**photographs to showcase our capability to provide services for AML projects.**

### **AML Projects Performed in 1990**

- Approximately 20 projects were completed.
- These projects included: mine drainage, subsidence, and landslides.
- Typical Projects included:

#### **Carbondale Portals, Smithers, WV**

- < AML Representative: Neil Robinson
- < Services Provided: Drilling, Sampling, Engineering

#### **Tuppers Creek (Burford) Landslide, Kanawha Co., WV**

- < AML Representative: Michael Richardson
- < Services Provided: Surveying, Mapping, Drilling, Stability Analysis, Mine Drainage Control, Mine Seals, Plans, Specifications, Bidding Assistance.

### **AML Projects Performed in 1991**

- Approximately 20 projects were completed.
- These projects included: landslides, mine shafts, subsidence, mine and refuse fires, and mine drainage.
- Typical Projects included:

#### **Pine Creek Mine Shaft, Logan Co., WV**

- < Work Performed for AML
- < Services Provided: Surveying, Mapping, Drilling, Plans, Specifications, Bidding Assistance.

#### **Monaville School Subsidence Determination, Logan Co., WV**

- < Work Performed for AML
- < Services Provided: Drilling and Engineering

### **AML Projects Performed in 1992**

- Approximately 25 projects were completed.
- These projects included: landslides, subsidence, mine shafts, refuse fires, and mine drainage.
- Typical Projects included:

#### **McMillian Drainage, Davis Creek, Kanawha Co., WV**

- < Work Performed for AML
- < Services Provided: Surveying, Mapping, Drilling, Lab, Engineering.

#### **Millburn Burning Refuse, Kanawha Co., WV**

- < Work Performed for AML
- < Services Provided: Surveying, Mapping, Drilling, Lab, and Engineering

### **AML Projects Performed in 1993**

- Approximately 26 projects were completed.
- These projects included: aerial surveying and mapping, landslides, subsidence, and mine drainage.

- Typical Projects included:

**Eckman Refuse Pile, McDowell Co., WV**

- < Work Performed for AML
- < Services Provided: Ground Control, Aerial Photography, Aerial Mapping.

**Oxley Subsidence and Slide, Davis Creek, Kanawha Co., WV**

- < AML Representative: Michael Richardson
- < Services Provided: Surveying, Drilling, Engineering

**AML Projects Performed in 1994**

- Approximately 27 projects were completed.
- These projects included: aerial surveying and mapping, landslides, subsidence, and mine drainage.
- Typical Projects included:

**Turner Landslide, Belle, WV**

- < Work Performed for AML
- < Services Provided: Surveying, Mapping, Drilling, Sampling, Plans, Specifications, Bidding Assistance

**Sammons Drainage, Chauncey, WV**

- < Work Performed for AML
- < Services Provided: Drilling and Engineering

**AML Projects Performed in 1995**

- Approximately 19 projects were completed.
- These projects included: aerial surveying and mapping, landslides, subsidence, burning refuse, and mine drainage.
- Typical Projects included:

**Mullins Subsidence, Crab Orchard, WV**

- < AML Representative: Michael Richardson
- < Services Provided: Drilling, Sampling and Engineering

**Big Cub Creek Refuse Pile**

- < AML Representative: Dean Stiltner
- < Services Provided: Aerial Photography, Ground Control, Aerial Mapping

**Sample design drawings and photographs from our recent AML Projects follow this page.**



**Thomas Sunrise Sanitation – DEP14171**



**Thomas Sunrise Sanitation – DEP14171**



**Prospect Valley Highwall #4 – DEP14433**



**Prospect Valley Highwall #4 – DEP14433**

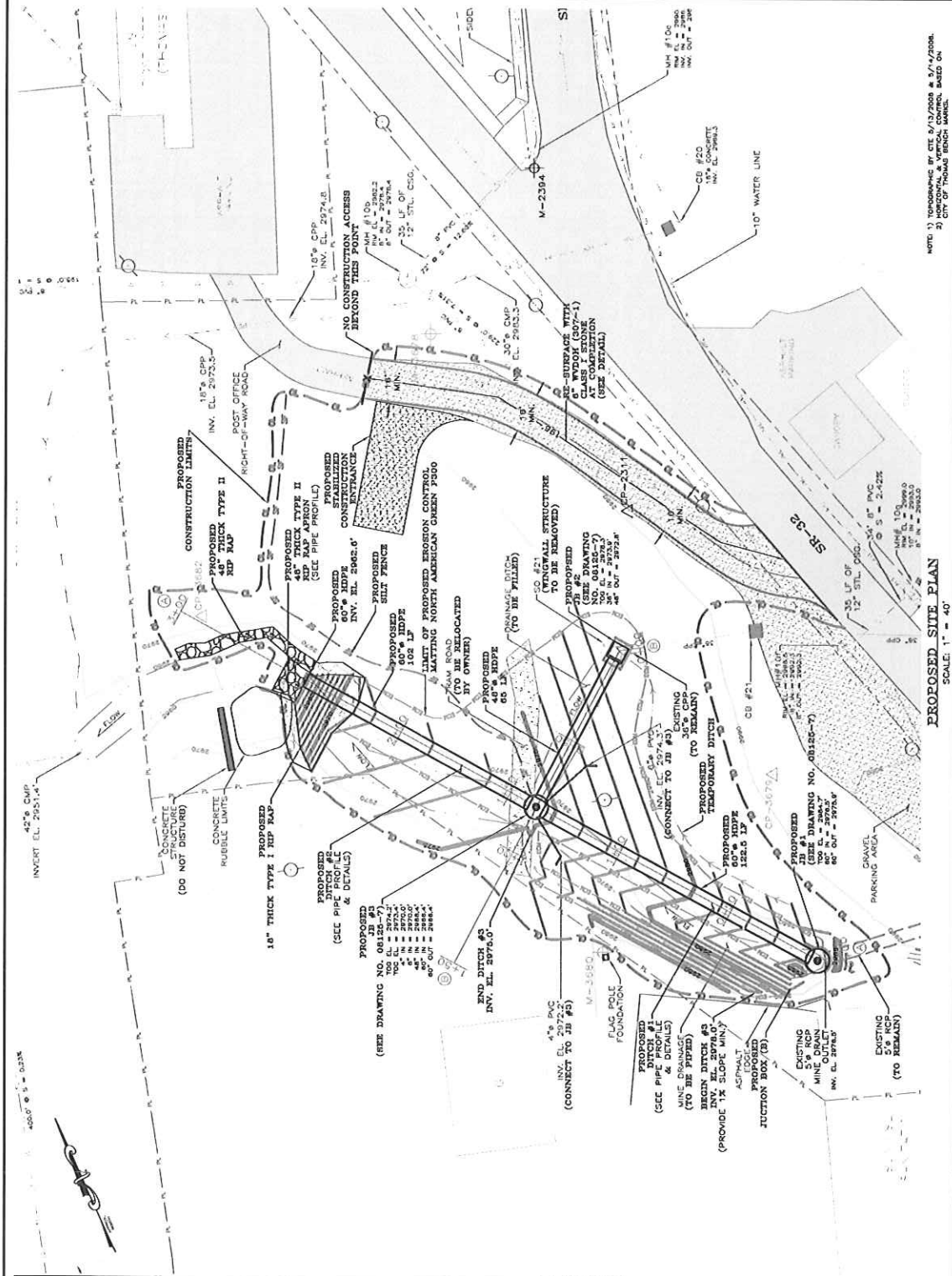




**Prospect Valley Highwall #4 – DEP14433**



**Prospect Valley Highwall #4 – DEP14433**



**LEGEND**

- SPOT ELEVATION
- UTILITY POLE
- DITCH
- TRAIL LINE
- PROPERTY LINE (TAX MAP)
- RIGHT-OF-WAY
- PROPERTY CORNER
- SANITARY SEWER MANHOLE
- CLEAN OUT
- FIRE HYDRANT
- WATER VALVE
- WATER LINE MARKER
- GAS VALVE
- GAS LINE MARKER
- STRUCTURE
- ASPHALT/GRAVEL SURFACE
- EXISTING STORM SEWER
- ABANDONED WATER LINE
- WATER VALVE
- GAS VALVE
- FENCE LINE
- GAS LINE
- SANITARY SEWER LINE
- SANITARY SEWER/STORM WATER LINE
- UNKNOWN PIPE ALIGNMENT
- UNDERGROUND ELECTRIC
- SURVEY MONUMENT
- TOP OF GRADE ELEVATION
- INV. INVERT ELEVATION
- BASELINE
- ORIGINAL CONTOUR
- PROPOSED EROSION CONTROL MATING
- PROPOSED DITCH
- JB #1 PROPOSED JUNCTION BOX
- PROPOSED TYPE I RIP RAP
- PROPOSED TYPE II RIP RAP
- PROPOSED GABION WALL

**SURVEY CONTROL INFORMATION**

POINT NO.	POINT DESCRIPTION	ELEVATION
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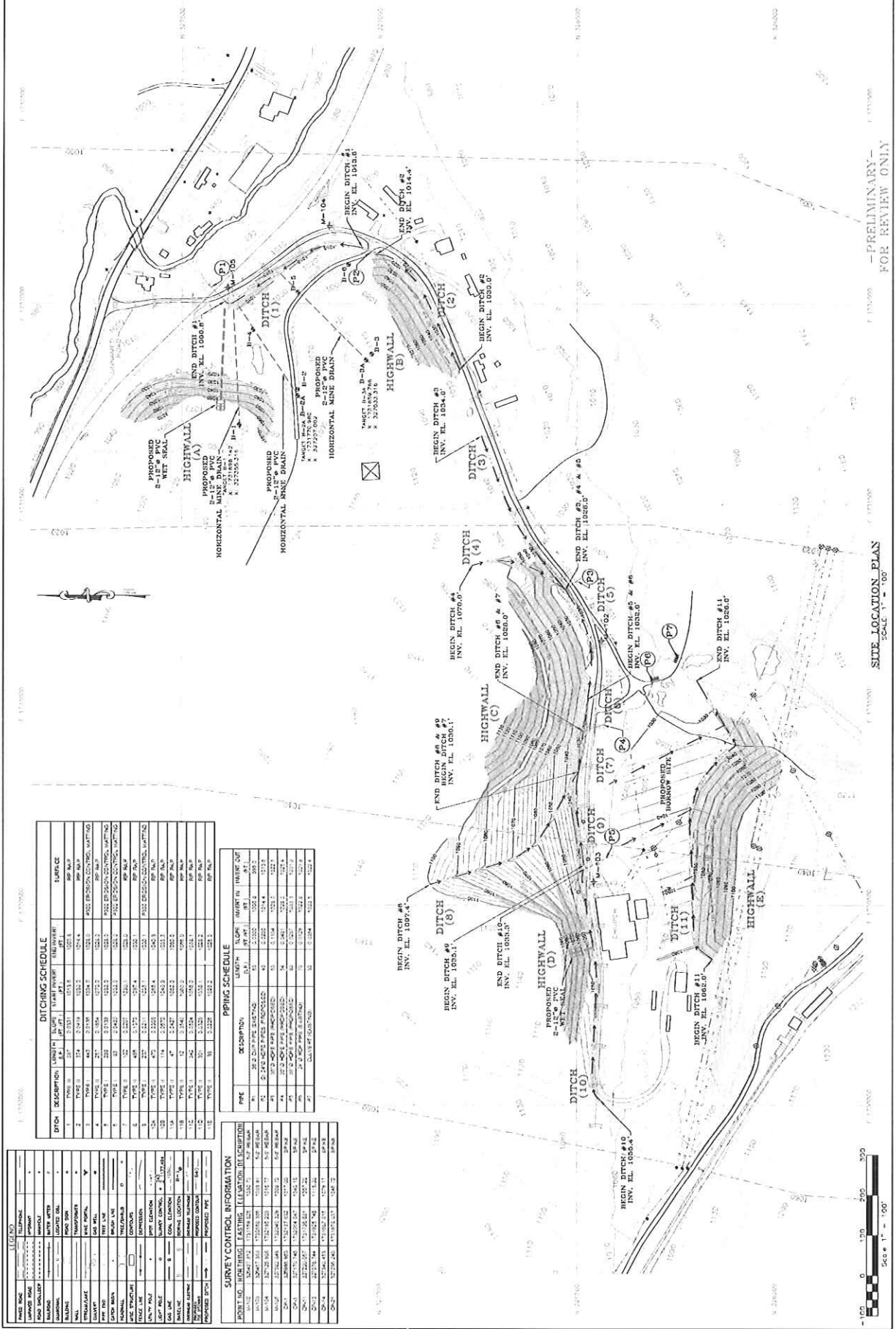
**MINE DRAIN LOCATION**  
 N39° 08' 47.273"  
 W79° 29' 56.279"

**Scale 1" = 40'**

FIGURE 1

NOTE 1) TOPOGRAPHIC BY CTE 5/13/2008 & 5/14/2008.  
 2) CITY OF THOMAS COUNTY RECORD, BASED ON  
 08123-1

FIGURE 2



DITCHING SCHEDULE			
DITCH	DESCRIPTION	LENGTH (L)	SURFACE
1	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
2	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
3	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
4	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
5	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
6	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
7	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
8	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
9	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
10	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
11	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
12	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
13	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
14	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
15	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
16	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
17	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
18	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
19	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0
20	PROPOSED 2'-12" PVC HORIZONTAL MINE DRAIN	1075.0	RP 76.0

PIPING SCHEDULE			
PPE	DESCRIPTION	LENGTH (L)	INVERT TO FINISH TOP
1	24" RCP PIPE	1075.0	RP 76.0
2	24" RCP PIPE	1075.0	RP 76.0
3	24" RCP PIPE	1075.0	RP 76.0
4	24" RCP PIPE	1075.0	RP 76.0
5	24" RCP PIPE	1075.0	RP 76.0
6	24" RCP PIPE	1075.0	RP 76.0
7	24" RCP PIPE	1075.0	RP 76.0
8	24" RCP PIPE	1075.0	RP 76.0
9	24" RCP PIPE	1075.0	RP 76.0
10	24" RCP PIPE	1075.0	RP 76.0
11	24" RCP PIPE	1075.0	RP 76.0
12	24" RCP PIPE	1075.0	RP 76.0
13	24" RCP PIPE	1075.0	RP 76.0
14	24" RCP PIPE	1075.0	RP 76.0
15	24" RCP PIPE	1075.0	RP 76.0
16	24" RCP PIPE	1075.0	RP 76.0
17	24" RCP PIPE	1075.0	RP 76.0
18	24" RCP PIPE	1075.0	RP 76.0
19	24" RCP PIPE	1075.0	RP 76.0
20	24" RCP PIPE	1075.0	RP 76.0

SURVEY CONTROL INFORMATION			
POINT NO.	HIGHWALL EASTING	ELEVATION (FEET)	DESCRIPTION
1	1075.0	76.0	RP 76.0
2	1075.0	76.0	RP 76.0
3	1075.0	76.0	RP 76.0
4	1075.0	76.0	RP 76.0
5	1075.0	76.0	RP 76.0
6	1075.0	76.0	RP 76.0
7	1075.0	76.0	RP 76.0
8	1075.0	76.0	RP 76.0
9	1075.0	76.0	RP 76.0
10	1075.0	76.0	RP 76.0
11	1075.0	76.0	RP 76.0
12	1075.0	76.0	RP 76.0
13	1075.0	76.0	RP 76.0
14	1075.0	76.0	RP 76.0
15	1075.0	76.0	RP 76.0
16	1075.0	76.0	RP 76.0
17	1075.0	76.0	RP 76.0
18	1075.0	76.0	RP 76.0
19	1075.0	76.0	RP 76.0
20	1075.0	76.0	RP 76.0

SURVEY CONTROL INFORMATION			
POINT NO.	HIGHWALL EASTING	ELEVATION (FEET)	DESCRIPTION
1	1075.0	76.0	RP 76.0
2	1075.0	76.0	RP 76.0
3	1075.0	76.0	RP 76.0
4	1075.0	76.0	RP 76.0
5	1075.0	76.0	RP 76.0
6	1075.0	76.0	RP 76.0
7	1075.0	76.0	RP 76.0
8	1075.0	76.0	RP 76.0
9	1075.0	76.0	RP 76.0
10	1075.0	76.0	RP 76.0
11	1075.0	76.0	RP 76.0
12	1075.0	76.0	RP 76.0
13	1075.0	76.0	RP 76.0
14	1075.0	76.0	RP 76.0
15	1075.0	76.0	RP 76.0
16	1075.0	76.0	RP 76.0
17	1075.0	76.0	RP 76.0
18	1075.0	76.0	RP 76.0
19	1075.0	76.0	RP 76.0
20	1075.0	76.0	RP 76.0

FIGURE 2

## **SECTION B.1 - HISTORY OF FIRM**

- Services:** Civil Tech Engineering, Inc. has provided in-house professional engineering services since 1996 in the following areas of expertise.
  - AML Design Services
  - Civil Design/Consulting
  - Wastewater Treatment and Collection
  - Dam Safety, Design, and Rehabilitation
  - Geotechnical Engineering
  - Surveying & Mapping
  - Construction Contract Administration/Construction Monitoring
  
- Background:** Civil Tech Engineering Inc. was formed in 1996 by our principals, Mark and Jennifer Pennington. Prior to forming Civil Tech, Mark Pennington managed the branch office of Triad Engineering in St. Albans, West Virginia. Jennifer Pennington was a senior engineer at Triad. Our principals have a combined experience of 55 years in civil and geotechnical engineering.
  
- Typical Projects and Capability:** Since forming Civil Tech, our staff has provided professional engineering services for a variety of clients and projects involving:
  - AML Design Services
  - 48 Dam rehabilitation and design projects
  - Site planning, development, and permitting
  - Sanitary sewer/storm water segregation
  - Storm water evaluation and design
  - Foundation investigation and design for buildings, water tanks, etc.
  - Landslide investigation and design
  - Construction storm water pollution prevention plans and permitting
  - USACOE 404 Permitting.
  - Topographic mapping to support our engineering projects
  - Construction monitoring and testing for our design projects
  - Construction contract administration for our design projects
  - Cause of damage assessment of residential and commercial structures for insurance companies
  - Subsidence Claims for BRIM
  
- Submittal:** We have prepared this submittal to illustrate our complete capabilities in civil engineering. The reader will find information on a variety of projects intended to illustrate the quality of our work, complete capability, and qualifications to provide the engineering services for most civil engineering projects.

**SECTION B.1 - OFFICE, STAFF, &  
EQUIPMENT**

- Office:** All work is performed from our office located in Hurricane, West Virginia. The physical address, telephone number, email address and staff information is provided below:

**CIVIL TECH ENGINEERING, INC.**  
300A Prestige Drive  
Hurricane, West Virginia 25526

Phone 304-757-8094  
Fax 304-757-8095  
email [civiltech1@frontier.com](mailto:civiltech1@frontier.com)



- Principals:**  
Mark E. Pennington MS, PE, PLS  
Jennifer E. Pennington PE, PLS

- Staff:**  
H Tom Brown PE – Senior Engineer  
Robert Kessler - Senior Geologist  
Charles Arthur Jr. - CADD  
H Neal Craig - CADD



- Resumes:** Resumes for key personnel and staff follow this section.

- Equipment:** Civil Tech Engineering, Inc. maintains complete in-house computer equipment and software to support our engineering services. This equipment is complimented by our electronic survey instruments with onboard data collectors. Pertinent equipment and software are summarized below:

- Software:** HEC1, HEC2, HECHMS, HECRAS, Dams2, WaterCad, SewerCad, HydroCad, Flowmaster, PCStable5, AutoCivil2010, Eagle Point Design Software, and office support programs including Word and Excel.
- Equipment:** Seven computers, Two Digital Cameras, HP 1050C Plotter, HP inkjet and laser printers, fax, copier, and necessary office support.
- Vehicles:** Three 4 wheel drive

- Survey: Leica TC600 Total Station, Leica Automatic Level, Rods, Tripods, Prisms as required to support our survey crew.

**RESUME OF MARK E. PENNINGTON**  
**PRESIDENT – CIVIL TECH ENGINEERING INC.**  
**04 - 06 - 11**

**EDUCATION:**

B.S.C.E. - Civil Engineering - 1977 - West Virginia University  
M.S.C.E. - Civil Engineering - 1985 - West Virginia College of Graduate Studies

**PROFESSIONAL REGISTRATION:**

Registered Professional Engineer - West Virginia, Ohio, Kentucky, and North Carolina  
Professional Land Surveyor - West Virginia

**EMPLOYMENT HISTORY:**

Principal Engineer President	-	<b>CIVIL TECH ENGINEERING, INC.</b> March 1, 1996 to Present
Chief Engineer Vice President	-	<b>Heeter Construction, Inc., Spencer, WV</b> February 1996 to April 1997
Principal Engineer Vice President	-	<b>Triad Engineering, Inc., St. Albans, WV</b> September 1980 to February 1996
Staff Engineer	-	<b>American Electric Power Service Corporation</b> -Civil Engineering Laboratory - May 1977 thru July 1978 -Ash Utilization & Research - August 1978 to Sept. 1980

**PERTINENT EXPERIENCE:**

**General:** Mr. Pennington is one of the founding principals and president of Civil Tech Engineering Inc. In this capacity, he is responsible for overall management of the company, business development, proposal preparation, and the direction/technical review of all engineering work produced by the company.

After graduation from college, Mr. Pennington worked as a staff engineer for American Electric Power. He initially performed various engineering tasks for the Civil Engineering Lab in New Haven, West Virginia. He later joined the ash utilization and research section where was involved with landfill design and testing. Mr. Pennington authored the "Fly Ash Structural Fill Inspection and Training Manual" dated February 15, 1979 which is still in use today in the AEP system. Mr. Pennington currently manages ongoing compaction testing at the John Amos Plant Quarrier Landfill.

Prior to establishing Civil Tech Engineering, Mr. Pennington served as Branch Manager of the St. Albans Office of Triad Engineering, Inc. In this capacity, he supervised and coordinated all projects performed by the St. Albans Office and managed over 60 employees including; engineers, geologists, technicians, designers, draftsmen, environmental, surveyors, drillers, marketing, and clerical personnel. Mr. Pennington's areas of expertise include: general civil design, dam design/rehabilitation/safety, geotechnical engineering, hazardous and municipal waste

design/permitting, hydraulics, hydrology, groundwater studies, laboratory testing, surveying and mapping, drilling, construction inspection/testing, and construction project/contract administration. Mr. Pennington also reviewed and approved mine permits for the Logan Office of Triad Engineering.

Mr. Pennington has provided and directed engineering services on over 1500 projects since forming Civil Tech Engineering, Inc. These projects have been performed for clients including: WVDEP-AML, BRIM, Steel of West Virginia, FMC, WVDNR, WVDEP, Dominion Generation, Huntington Area Development Authority, City of Belington, Culloden PSD, City of South Charleston, City of Thomas, Cedar Lakes Conference Center, Middleport Terminals, Contractors, Architects, Private Home Owners, and insurance companies. Mr. Pennington has been responsible for a wide range of engineering projects and services including:

- § Abandoned Mine Land Projects
- § Dam Inspection, Design, and Rehabilitation
- § Foundation Investigations for Industrial, Commercial, and Residential Structures
- § Civil Design for Residential/Commercial Projects.
- § Damage Investigation/Evaluation of Commercial/Residential Structures.
- § Mine Subsidence Claims
- § Municipal Landfill Design/Permitting
- § Municipal Sewage Design and Permitting
- § Hazardous Waste Landfill Design/Permitting
- § Groundwater Contamination Studies
- § Stormwater Design and Control
- § Erosion and Sediment Control Design and Permitting
- § Surveying and Mapping
- § Construction Quality Control
- § Construction Contract Administration

**Insurance and BRIM Investigation:** During Mr. Pennington's 33 year career, he has provided professional engineering services to insurance companies including State Farm, Nationwide, St. Paul, Westfield, Travelers, Allstate, Prudential, and Hartford. Since 2002, Mr. Pennington has also investigated numerous mine subsidence claims for BRIM. Services provided have included examination/evaluation of damage to various structures including:

- § Light Commercial Buildings
- § Residential Houses
- § Manufactured Houses
- § Small Bridges
- § Retaining/Basement Walls
- § Pavements/parking lot surfaces
- § Chimneys/fireplaces
- § Municipal Concerns

Mr. Pennington is experienced in the assessment of damage caused by wind, flood, snow, erosion, fire, leaking utility lines, earth movement (problem clay soils, settlement, landslides, etc.), vehicle impact, structural defects/failure, and manufacturing defects (related to housing), blasting and subsidence related to mining.



**Civil Design, Municipal Sewage and Water Service:** Mr. Pennington is the design engineer currently working on a \$ 3,000,000 sanitary sewer/storm water segregation project for the City of Thomas, West Virginia. He routinely assists the city of Thomas with the evaluation of storm water problems and has been responsible for the design and construction of a \$ 750,000 storm water improvement project which was completed in 2006. Past experience with general civil engineering including utility and roadway infrastructure, site grading, storm water, and permitting has included large commercial and private projects such as Southridge Centre (100 acres), First Church of God (10 acres), Ridgeline Developments (100 acres), Dudley Farms (50 acres), and recent 2 acre developments for hotel sites in Mineral Wells, and Weirton, West Virginia.

**Dam Safety:** Mr. Pennington is qualified in the field of dam safety, rehabilitation, and design. He is responsible for performing over 65 annual safety inspections for various dams and clients throughout West Virginia and surrounding states. Mr. Pennington has been responsible for the design of over 44 dam design and rehabilitation projects. His areas of expertise include the use of Roller Compacted Concrete (RCC) in the rehabilitation of dams. Mr. Pennington made a presentation at the ASCE fall technical conference in 1994 discussing the use of Roller Compacted Concrete as overtopping protection at the Anawalt Lake Dam. A partial list of typical dam design and rehabilitation projects for which Mr. Pennington has been responsible include:

- § No. 2 Impoundment Dam Modification - Union Carbide, Sistersville, WV
- § Anawalt Lake Dam (new construction) - WVDNR - McDowell Co, WV
- § Warden Lake Dam Modification - WVDNR - Hardy Co., WV
- § Seneca Lake Dam Modification - WVDNR - Pocahontas Co., WV
- § Teter Creek Lake Dam Modifications - WVDNR - Barbour Co., WV
- § Belington Water Supply Dam Modifications - City of Belington - Barbour Co., WV
- § FMC Tailings Pond Dam Modifications - FMC Corp.- Bessemer City, NC
- § Water Supply Dam Modifications - Culloden PSD - Culloden, WV
- § Joyce Lake Dam Modifications - Joyce Properties - Clarksburg, WV
- § Handley Dam - WVDNR - Pocahontas Co., WV
- § Thomas Dam Rehabilitation - City of Thomas, WV
- § Old Pond 11 - McClintic Wildlife Management Area
- § Wells Lock and Dam Emergency Repairs, Elizabeth, WV
- § Rollins Dam Emergency Repairs, Ripley, WV
- § Handley Dam Modifications, Pocahontas County, WV
- § Winterplace Dam, Raleigh County, WV
- § Anawalt Flood Damage Repairs, McDowell County, WV
- § Bailey and Lemley Dams, Monongalia County, WV
- § Wilson Big Hollow Dam, Hampshire County, WV
- § Burches Run Dam Height Reduction, Marshall County, WV
- § Mt. Storm Power Station Dam, Grant County, WV
- § Deegan and Hinkle Dam Modifications, Bridgeport, WV
- § Mill Run Water Supply Dam, Mt. Top PSD, Mt. Storm, WV
- § Canaan Valley Resort Water Supply Reservoir, Davis, WV

**Construction:** Mr. Pennington provided engineering and construction management services to Heeter Construction of Spencer, West Virginia in 1996 and 1997. He assisted Heeter with bidding, project management, and any technical problems requiring engineering expertise. During 1996 and early 1997 while with Heeter Construction, he served as the assistant project manager for the

construction of a 10 million dollar flood control levee designed by the US Army Corps of Engineers for the City of Moorefield, West Virginia. Mr. Pennington continues to provide bidding and construction consultation as well as value engineering proposals, waste site design, and other engineering services for Heeter Construction.

**US Army Corps of Engineers:** While with Triad Engineering, Mr. Pennington managed the Huntington District Corps of Engineers indefinite delivery geotechnical contract for a period of 3 years. During this time, he was responsible for the design of Charleston Haddad Riverfront Park, certification of Pond 16 (a small dam designed by the COE at McClintic WMA), landslide investigations, seepage/stability analysis for flood levees, and numerous re-analysis investigations for dams including Dillon and Beech City Dams in the State of Ohio.

**Mine Permitting/Surveying:** While employed by Triad Engineering, Mr. Pennington was responsible for review and approval of mine permitting and surveying operations conducted in the Logan, West Virginia Office of Triad.

**WVDEP-AML Experience:** Mr. Pennington was responsible for the recent completion of the Thomas (Sunrise Sanitation) Mine Drain Project located in the City of Thomas, Tucker County, West Virginia. He recently completed the design of an emergency project for AML involving a mine blowout which was threatening an existing commercial structure in Thomas, West Virginia. Since 2008, he has been responsible for and has successfully completed 8 AML projects. He was also responsible for all AML work produced by the St. Albans office of Triad Engineering prior to resigning from the company in early 1996. His work included proposal preparation, planning, direction, management, and performance of all engineering activity associated with Triad's AML contract. Mr. Pennington was responsible for the successful completion of approximately 137 projects during the period from 1990 to 1996. His expertise includes the abatement of mine related problems associated with subsidence, blasting, landslides, mine drainage, refuse fires, mine fires, mine shafts, drainage, impoundments, and groundwater/surface water pollution. Since leaving Triad and forming Civil Tech, he has been responsible for the investigation of mine subsidence claims throughout West Virginia for BRIM and various insurance companies including State Farm and Nationwide. Prior to working with the WVDEP - AML, he worked with the Office of Surface Mining on similar projects. Mr. Pennington has 25 years of pertinent experience with the abatement of mine related problems.

**RESUME OF JENNIFER E. PENNINGTON**  
**PRINCIPAL ENGINEER**  
10-19-11

**EDUCATION**

BSCE - Civil Engineering - 1988 - University of Kentucky

**CERTIFICATION/REGISTRATION**

Registered Professional Engineer - West Virginia  
Licensed Land Surveyor - West Virginia

**EMPLOYMENT HISTORY**

<b>Principal Engineer</b>	Civil Tech Engineering, Inc., St. Albans, WV March 1996 to Present
<b>Senior Engineer</b>	Triad Engineering, Inc., St. Albans, WV, 1988 to 1996

**PERTINENT EXPERIENCE**

Ms. Pennington has served as a team member and project manager on AML, civil design, and geotechnical projects involving abandoned mine land reclamation, subsurface investigation, geotechnical analysis, and dam design. She has been responsible for technical analysis and review of all AML projects completed by Civil Tech since 2008. She was responsible for all dam design and rehabilitation projects, and projects performed for the Huntington District Corps of Engineers (HDCOE) while employed by Triad Engineering during 1988- 1996. Work performed on those projects and current projects for which she is responsible at Civil Tech Engineering include:

- § Geotechnical Investigation and Analysis
- § Civil Design
- § Hydrologic/hydraulic analysis using HEC-1, HEC-2, and Dams2 Computer Programs
- § Stability Analysis using UTEXAS2, PCStable5, and HDCOE Hand Check Methods
- § Seepage Analysis using graphical flow net and HDCOE mathematical methods
- § Preparation of Project Narratives, Design Drawings, Specifications, Construction Schedules, Erosion and Sediment Control Plans, and Construction Cost Estimates.

Since the company was formed, Civil Tech Engineering has performed numerous dam safety inspections, dam breach analysis and risk assessments, geotechnical studies, and dam rehabilitation design projects. Civil Tech has also completed 8 AML projects since 2008. Ms. Pennington has been responsible for project management on these and many other large scale projects including design and extensive geotechnical/foundation investigations. She is proficient in organizing and maintaining scheduling during the course of long term projects. She has complete familiarity with all of the above mentioned in house computer programs as well as Word, Excel, AutoCad, Eagle Point, Flowmaster, Dams2, HEC1 and II, HECRAS, and Hydrocad.

Ms. Pennington is responsible for technical review of all work produced by Civil Tech. In this capacity, she reviews and approves all work produced by the company including AML, civil design, and dam safety projects.

Rt. 5 Box 122K  
Bridgeport, WV 26330

Phone 304-842-3052  
Fax 304-842-3052  
E-mail [henry.t.brown@gte.net](mailto:henry.t.brown@gte.net)

# H. Thomas Brown

## Objective

Engineering Management

## Work experience

2004-Present City of Bridgeport Bridgeport, WV

### **Director of Community and Public Works**

- Managed City Departments: Engineering & GIS, Public Works, Public Utilities, Community Development and Parks & Recreation.
- Employee Evaluations: GIS Manager, Office Manager, Department Directors
- Prepared Annual Budget for Engineering/GIS Department
- Reviewed and Recommended Department Directors Budgets
- Managed Engineering Consultants and Contracts
- Prepared, Reviewed, Managed and Inspected all Construction Contracts

1991-2003 Harman Construction, Inc/West Virginia Paving, Inc  
Grafton/Charleston, WV

### **Senior Estimator (2001-2004)**

- Prepare and sign construction cost estimates: Paving, Roadway Repair & New Construction, Excavation, Utility (water, sewer & storm drainage) construction & repair and Retaining wall.
- Review and sign Contracts, Change orders, and Sub-Contracts
- Purchase Materials

### **Grafton Office Manager (1998-2001)**

- Prepare, review, and sign: Cost proposals, Contracts, Change Orders, and Sub-Contracts
- Purchase Materials
- Schedule: Crews and Sub –Contractors
- Close Branch Office

### **Senior/Chief Estimator (1991-1998)**

- Prepare, review and recommend for signature: Cost proposals, Contracts, Change Orders, and Sub-Contracts
- Manage: Company Safety Program, Equipment Maintenance and repair, and
- Schedule: Crews and Equipment

1987-1991                      Advanced Surveys, Inc                      Prince Fredrick, MD

**Project Engineer**

- Prepare, review and recommend for signature: Engineering Proposals and Contracts
- Manage: Engineer, Technicians, inspectors and CAD system
- Schedule: Project designs, Project Inspections, and Sub-Consultants
- Prepare plans, specifications and contract documents: Commercial and Residential developments, Roadway and Intersection modifications and improvements, utility improvements and drainage improvements; including all studies and calculations required for excavation, grading, water, sewer, storm drain, storm water management, paving, side walk, curb and sediment control plans

1986-1987                      Tribble Construction, Inc..                      Manassas, VA

**Estimator**

- Prepare, review and recommend for signature: Cost proposals, Contracts, Change Orders, and Sub-Contracts : Utility, Grading and Site Construction
- Purchase Materials
- Market Company

1986-1986                      The Driggs Corporation.                      Capitol Heights, MD

**Estimator**

- Prepare, review and recommend for signature: Cost proposals for excavation and utility projects

1985-1986                      Marvaco, Inc..                      Capitol Heights, MD

**Senior/Chief Estimator**

- Prepare, review and recommend for signature: Cost proposals for excavation and utility projects

1984-1985                      CMX Industrial Ceramics..                      Bridgeport, WV

**Manager**

- Manage: Coal preparation plant rebuild shop

1983-1984                      Hopke Company, Inc...                      Alexandria, VA

**Estimator**

- Prepare, review and recommend for signature: Cost proposals for utility projects

1981-1983                      Soil Conservation Service                      Morgantown, WV

**Technician**

- Economic and hydraulic study preparation

1972-1981

Various

- Construction, Retail and Church Service

**Education**

December 1982

West Virginia University

Morgantown, WV

**Civil Engineering**

- BSCE

**Accreditations**

West Virginia Professional Engineer License

West Virginia Professional Surveyor License

**Professional memberships**

American Society of Civil Engineers

North Central West Virginia Highway Engineers

**RESUME OF CHARLES D. ARTHUR, Jr.**  
**SENIOR DESIGNER**  
**10 - 18 - 11**

**EDUCATION:**

- June 2000      **Benjamin Franklin Career and Technical Education Center**      Dunbar, WV  
*Computer-aided Drafting/1080 hours*  
Honor roll in computer drafting, experience with MicroStation 95/SE, AutoCAD 2000, Windows 98 SE, 3D drawings, mechanical/architecture drawings, isometric/oblique drawings and orthographic projections
- June 1997      **Benjamin Franklin Career and Technical Education Center**      Dunbar, WV  
*Welding/1,320 hours*  
Honors included a second place finish in the State Welding Competition, Elkins, WV, April 1997 sponsored by the Vocational Industrial Clubs of America, Certificate of Recognition and experience with SMAW, GMAW, GTAW and TB
- Dec 1993      **Richmond Technical Center**      Richmond, VA  
*Welding/72 hours*  
Honor roll in welding, experience with SMAW, GMAW, GTAW and TB
- June 1990      **Dunbar High School**      Dunbar, WV  
*Diploma*

**EMPLOYMENT HISTORY**

- June 2000 to      **Civil Tech Engineering, Inc.**      Hurricane, WV  
Present      *Senior Designer*  
Responsible for preparation of design drawings using Autocad 2000 and 2004, design modeling using Eagle Point 99 software, survey party chief, and evaluation of mine maps and subsidence.
- July 1999 to      **Custom Upholstery**      St. Albans, WV  
June 2000      *Helper/Deliverer Part Time*  
Experience keeping track of shop inventory and related sales, tearing down furniture to be upholstered and transporting furniture
- Aug 1997 to      **American Commercial Barge Line**      Jeffersonville, IN  
June 1999      *Deck Hand*  
Experience rigging barges together, making locks, chipping, grinding, painting, working in close quarters and maintaining tug boats/chemical barges
- Jan 1995 to      **Pizza Hut Inc.**      South Charleston, WV  
Aug 1997 and      *Shift Manager*

## RESUME OF CHARLES D. ARTHUR, Jr. Continued

- July 1989 to June 1993 Experience updating customer data, completing close of daily receipts, insuring that paperwork balances, operating computerized cash register and possessing exemplary customer and employee relations
- June 1993 to Dec 1994 **First Choice Equipment** Ashland, VA  
*Mechanic*  
Experience maintaining tractor-trailers, various welding jobs, paint preparation and painting

### PERTINENT EXPERIENCE:

Since joining Civil Tech in 2000, Mr. Arthur has been responsible for preparation of design drawings using Autocad for a variety of civil engineering, AML, mine subsidence claims, hotel site development, and dam modification projects. A partial list of projects including recent AML experience follows:

- **Thomas (Sunrise Sanitation) Mine Drainage Project (DEP14171).**
- **Thomas Sunrise Sanitation Mine Blowout (Emergency Project).**
- **Prospect Valley Highwall #4 (DEP 14433).**
- **Winifrede (McFann) Portals (DEP 14479).**
- **Pines County Club (Ponds) Subsidence (DEP14633).**
- **Douglas Water Line Extension (DEP14951).**
- **Cambria Portals & Drainage Design (DEP 14845).**
- **Birds Creek Portals (DEP 15065).**
- **Nellis (Smith) Drainage (DEP15002).**
- **Zebb's Creek Highwall #2 (DEP14991).**
- **Hawkinberry Hollow Portals and Drainage (DEP 15220).**
- Fairfield Inn and Suites, Weirton, WV
- Holiday Inn Express, Mineral Wells, WV
- Thomas Sunrise Sanitation Mine Drain
- Old Pond 11 Dam Rehabilitation
- Anawalt Flood Damage Repair
- Teter Creek Dam Modification
- Wells Lock and Dam Repair
- Wilson Big Hollow Dam
- Winterplace Dam Modification 1 and 2.
- Cedar Lakes Dam No. 2 Flood Damage Repair
- Bailey and Lemley Dam Modifications
- Deegan and Hinkle Dam Modifications
- Thomas Storm Water Improvements
- Thomas Sewer/Storm Water Segregation Project
- Amish Exchange
- Mine Subsidence and Insurance Investigations
- Landslide corrections
- Geotechnical Investigations



Mr. Arthur also serves as survey crew chief for property and topographic mapping projects for Civil Tech Engineering. During his employment he has also provided construction inspection and testing services for civil and dam modification projects and has inspected subsurface investigation projects for geotechnical projects.

Mr. Arthur is also certified by the State of West Virginia as a pre-blast inspector.

## RESUME OF H. THOMAS DIBACCO

### ENVIRONMENTAL ENGINEER

#### EDUCATION:

B.S. Environmental Engineering-2000-Kennedy Western University.  
Electronic Systems-DeVRY Institute of Technology  
Fairmont State College-1961-1963

#### CERTIFICATION/REGISTRATION:

Class 1 Public Water Supply Operator  
Supervisory Development Program  
Radiation Safety  
FCC General License  
Visual Emissions EPA Method 9

#### EMPLOYMENT HISTORY:

Virginia Power  
Environmental Compliance Coordinator Mt. Storm Power Station,  
North Branch Power Station 1966 to June 2000.

Civil Tech Engineering, Inc.  
Project Manager July 2000 to present.

#### PROFESSIONAL EXPERIENCE:

Air pollution permits PSD Title 5  
Water pollution control NPDES  
Hazardous waste management  
Lake management  
Dam safety inspections  
Alternate energy source development  
Consultant wind energy development  
Advisor for Dominion Energy  
Advisor wind energy program James Madison University  
Representative for Springhouse Energy Systems  
Biological studies with Ohio State University  
Engineering and development of ash storage facilities and haul roads

Environmental awareness training  
Supervised activities of GAI Engineering  
Ground water monitoring  
Environmental audits.  
Wastewater treatment (1500gpt to 150,000gpd)  
Storm water sampling  
Spill prevention control and countermeasures  
Solid waste management  
Environmental inspections with WV Office of Air Quality, EPA, WVDEP.

**PERTINENT EXPERIENCE:** Mr. DiBacco has worked extensively with water and wastewater treatment systems at Mt. Storm Power Station, the North Branch Power Station, and the City of Thomas. As Environmental Compliance Coordinator at both the Mt. Storm Power Station and the North Branch Power Station, Mr. DiBacco has considerable experience in all areas of Environmental Regulations. He is also experienced in dam safety requirements. Mr. DiBacco was Project Manager for the Thomas Dam Modifications Project and is currently working on the Teter Creek Dam Modification Project. He has worked as an advisor/consultant for Dominion Energy, Springhouse Energy Systems, James Madison University and Ohio State University. During his employment with Virginia Power he was involved with construction of haul roads and ash storage facilities and alternate energy development.

**RESUME OF ROBERT R. KESSLER  
GEOLOGIST  
11 - 11 - 10**

**EDUCATION:**

B.S. - Geology - 1965 - Ohio University  
Post Graduate Work - 1965 to 1966 - Geology - Ohio University  
B.S. - Mathematics - 1980 - University of Charleston

**CERTIFICATIONS:**

Certified Aggregate Inspector - WVDOH  
Certified Concrete Inspector - WVDOH  
Certificate of Completion - Wetland Training - WVDOH  
Certificate of Completion - Techniques for Pavement Rehabilitation - WVDOH  
Certificate of Completion - Aerial Photo Interpretation - WVDOH  
Certificate of Completion - Alkali Silica Reactivity in Concrete - FHWA

**EMPLOYMENT HISTORY:**

Geologist	-	Civil Tech Engineering, Inc. 1996 – present Responsible for all geologic studies/investigations. Typical projects include mining subsidence investigations, Teter Creek Dam, Thomas Dam, Old Pond 11 Dam, and Seneca Dam.
Geologist Group Leader	-	Aggregate Group, West Virginia Division of Highways August 1998 to Present, Materials Control Division  Division Reorganization
Geologist Testing Group Leader	-	All Materials Testing Sections & Roadway Analysis West Virginia Division of Highways April 1992 to August 1998, Materials Control Division  Division Reorganization
Geologist Technical Advisor	-	West Virginia Department of Transportation January 1986 to April 1992, Materials Control Division  Division Reorganization
Geologist Assistant Director	-	Aggregate Section, West Virginia Department of Highways May 1984 to January 1986, Materials Control Division

## **RESUME OF ROBERT KESSLER CONTINUED**

- Geologist - Aggregate Section, West Virginia State Road Commission  
Section Leader May 1969 to May 1984, Materials Control Division
- Geologist - Aggregate Section, West Virginia State Road Commission  
July 1966 to May 1969, Materials Control Division

### **PERTINENT EXPERIENCE**

Mr. Kessler has performed geologic study on eleven mine subsidence claims investigated by Civil Tech for BRIM since 1996. Geologic investigation has included review of available mining maps and the county geologic reports providing important information concerning mining history and geologic formations and mine subsidence potential.

In addition to his duties reviewing mine subsidence claims, Mr. Kessler has also been responsible for the geologic study and investigation for over 40 dam rehabilitation projects in West Virginia.

Mr. Kessler has an intimate knowledge of geologic formations in the state of West Virginia and has recently authored and published a book on the geology of the Kanawha Valley.

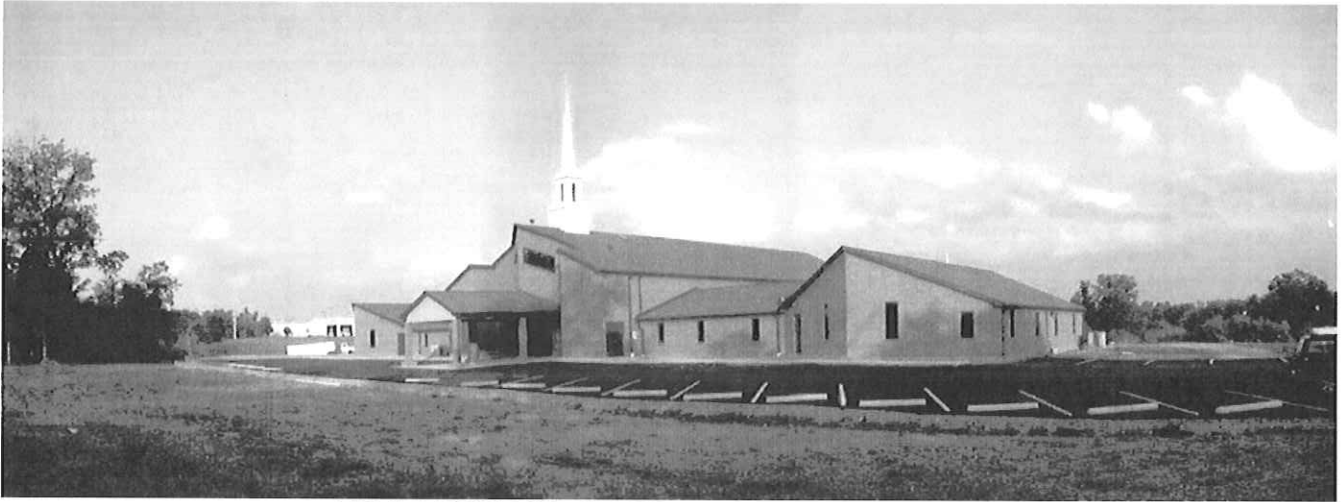
## **SECTION B.2 - CIVIL DESIGN**

- Design:** Our principals and key personnel have been responsible for developing civil design drawings including site grading plans, highway access, storm water and mine drain piping and controls, highwall and portal reclamation, storm water rail road crossings, erosion control, sanitary sewer collection and treatment, lift stations, retaining walls, parking layout, sidewalks, handicap access, utilities, permits, specifications, and bid documents for various projects including:
  - Thomas Sunrise Sanitation Mine Drain**
  - Thomas Sunrise Sanitation Mine Blowout**
  - Prospect Valley Highwall #4**
  - Winifrede (McFann) Portals**
  - Pines Country Club (Ponds) Subsidence.**
  - Douglas WL Extension**
  - Cambria Portals & Drainage**
  - Zebb's Creek Highwall #2**
  - Bird's Creek Portals Design**
  - Nellis (Smith) Drainage**
  - Hawkinberry Hollow Portals Design**
  - 48 Dam Rehabilitation Projects in WV and NC**
  - Storm/Sanitary Segregation, City of Thomas, WV**
  - Storm Water Improvements, Thomas, WV**
  - First Church of God, Charleston, WV**
  - Mt. Vernon Baptist Parking Lot Expansion**
  - Holiday Inn Express, Mineral Wells, WV**
  - Fairfield Inn & Suites, Weirton, WV**
  - Various large residential developments**
  - Robert C. Byrd Federal Court House Sidewalks, Utilities, and Drainage**
  - Haddad Riverfront Park, Charleston, WV**
  - Southridge Centre 100 acre Commercial Development**
  - Ridgeline 50 acre Commercial Development**
  - Commercial developments including: Amish Exchange, Wendy=s, Texas Steakhouse, Kenny Rogers, etc.**
  - Various Hazardous Waste and Sanitary Landfills**
  - Various Abandoned Mine Land Projects**
  - Various Landslide Stabilization Projects throughout West Virginia**
  - Means and Methods, Pipe Crossings – CSX Railroad, Rt. 10, Rita to Midway Plaza Highway Project**
  
- Cost Estimating:** Cost estimates are routinely prepared for our civil design projects. Most recent experience in preparing cost estimates includes:
  - Thomas Sunrise Sanitation Mine Drain – Project Cost \$ 325,000**
  - Thomas Sunrise Sanitation Mine Blowout – Project Cost \$ 250,000**
  - Pines Country Club (Ponds) Subsidence – Project Cost \$ 2.6 million**
  - Winifrede (McFann) Portals – Project Cost \$ 450,000.**
  - Cambria Portals - Project Cost \$ 682,000**

- Douglas WL Extension** – Project Cost \$ 250,000
- Storm/Sanitary Segregation Project, City of Thomas - Project Cost \$ 3 million
- Storm Water Improvements, City of Thomas - Project Cost \$ 750,000
- Ansinelli Retaining Wall Replacement, Private - Project Cost \$ 50,000
- Fleming Street Stabilization, City of Monongah - Project Cost \$ 70,000
- Mt. Vernon Baptist Parking Lot Expansion – Project Cost \$ 50,000
- Holiday Inn Express, Mineral Wells – Project Cost Unknown
- Teter Creek Dam Modifications, WVDNR, Wildlife Resources - Project Cost \$ 1.2 Million
- Old Pond 11, WVDNR, Wildlife Resources - Project Cost \$ 150,000
- Moncove Dam Rehabilitation, WVDNR - Project Cost \$ 600,000
- Burches Run Dam Rehabilitation, WVDNR - Project Cost \$ 600,000
- Deegan and Hinkle Dam Modifications – Project Cost \$ 1.5 Million
- Bailey and Lemley Dam Modifications – Project Cost \$ 1.2 Million
- Wilson Dam Modification – Project Cost \$ 250,000
- Belington Dam Modification – Project Cost \$ 50,000
- Mill Run Dam Modification – Project Cost \$ 200,000
- Stony River Dam Breach – Project Cost \$ 250,000.
- Temperature and Flow Monitoring Weir – Project Cost \$ 250,000
- Jimmy Lewis Dam Modification – Project cost \$ 500,000

Our engineers have extensive experience in cost estimating and bidding gained on projects which were bid and successfully constructed. This experience was gained by Mark Pennington estimating costs for construction projects for competitive bidding while working for Heeter Construction, of Spencer, West Virginia. See Resume for Mark Pennington. Hayward Phillips, our senior construction inspector, has over 55 years experience estimating and building all types of construction. Our construction experience is invaluable in the development of accurate cost estimates for budgeting, and development of practical designs which are Aconstructable@.

- Construction Contract Administration: We have, or are providing contract administration on virtually all of the civil projects listed herein. Our experience has been gained administering contracts on projects ranging in size and complexity from a few hundred thousand to upwards of 30 million plus for the Southridge Centre/Ridgeline developments. Mark Pennington also served as assistant project manager on a 10 million dollar flood levee construction project for the City of Moorefield, West Virginia in 1996, while employed with Heeter Construction.
- Civil Project Photographs: Photographs of some of our recent projects follow this section of the submittal.
- Sample Project Drawings: Typical design drawings from some of our projects are enclosed to illustrate our capabilities.



**FIRST CHURCH OF GOD – CHARLESTON, WV**  
**PROJECT COST UNKNOWN – COMPLETE 2001**

- TOPOGRAPHIC MAPPING
- SUBSURFACE INVESTIGATION
- STORM WATER CONTROLS
- PERMITTING
- UTILITY LOCATION & DESIGN
- WASTE WATER TREATMENT – RECIRCULATING SAND FILTER
- PAVEMENT AND WALKS
- PLANS AND SPECIFICATIONS



Erosion Repair – Rip Rap Armored Ditch



New Storm Drains and Catch Basins

**STORM WATER IMPROVEMENTS – THOMAS, WV**  
**PROJECT COST \$ 750,000 – COMPLETE 2007**

- TOPOGRAPHIC MAPPING
- STORM WATER CONTROLS & EROSION REPAIR
- PERMITTING
- PLANS AND SPECIFICATIONS
- BIDDING
- CONSTRUCTION CONTRACT ADMINISTRATION





**HOLIDAY INN EXPRESS – MINERAL WELLS, WV**  
**PROJECT COST UNKNOWN – COMPLETE 2007**

- TOPOGRAPHIC MAPPING
- STORM WATER CONTROLS
- PERMITTING
- UTILITY LOCATION & DESIGN
- WASTE WATER LIFT GRINDER STATION DESIGN
- PAVEMENT AND WALKS
- PLANS AND SPECIFICATIONS



**MT. VERNON BAPTIST PARKING LOT EXPANSION – HURRICANE, WV**  
**PROJECT COST \$ 50,000 – COMPLETE 2007**

- TOPOGRAPHIC MAPPING
- STORM WATER CONTROLS
- PERMITTING
- PAVEMENT AND WALKS
- PLANS AND SPECIFICATIONS





REVISIONS	
DATE	DESCRIPTION
8/15/00	REVISED WATER PIPE LOCATION DURING THE BUILDING
8/22/00	REVISED WATER AND SEWER LINES DURING/DURING
8/22/00	REVISED WATER TOWER/CHIMNEY LOCATION

1. Utility locations are approximate. Contractor to verify utility locations before any utility work is performed. Utility work shall be performed in accordance with the applicable codes and regulations. Utility work shall be performed in accordance with the applicable codes and regulations. Utility work shall be performed in accordance with the applicable codes and regulations.

2. Foundation investigation. A foundation investigation was performed by CIVIL TECH ENGINEERS, INC. on 8/15/00. The investigation was performed in accordance with the applicable codes and regulations. The investigation was performed in accordance with the applicable codes and regulations. The investigation was performed in accordance with the applicable codes and regulations.

3. Excavation. Excavation of both old and new pits will be necessary to install the new pits. Excavation of both old and new pits will be necessary to install the new pits. Excavation of both old and new pits will be necessary to install the new pits.

4. Fill. Fill shall consist of subgrade and rock material available from the construction site. Fill shall consist of subgrade and rock material available from the construction site. Fill shall consist of subgrade and rock material available from the construction site.

5. Sewer. Sewer lines shall be installed in accordance with the applicable codes and regulations. Sewer lines shall be installed in accordance with the applicable codes and regulations. Sewer lines shall be installed in accordance with the applicable codes and regulations.

6. Water. Water service shall be installed in accordance with the applicable codes and regulations. Water service shall be installed in accordance with the applicable codes and regulations. Water service shall be installed in accordance with the applicable codes and regulations.

7. Electrical. Electrical service shall be installed in accordance with the applicable codes and regulations. Electrical service shall be installed in accordance with the applicable codes and regulations. Electrical service shall be installed in accordance with the applicable codes and regulations.

8. Foundation. Foundation shall be installed in accordance with the applicable codes and regulations. Foundation shall be installed in accordance with the applicable codes and regulations. Foundation shall be installed in accordance with the applicable codes and regulations.

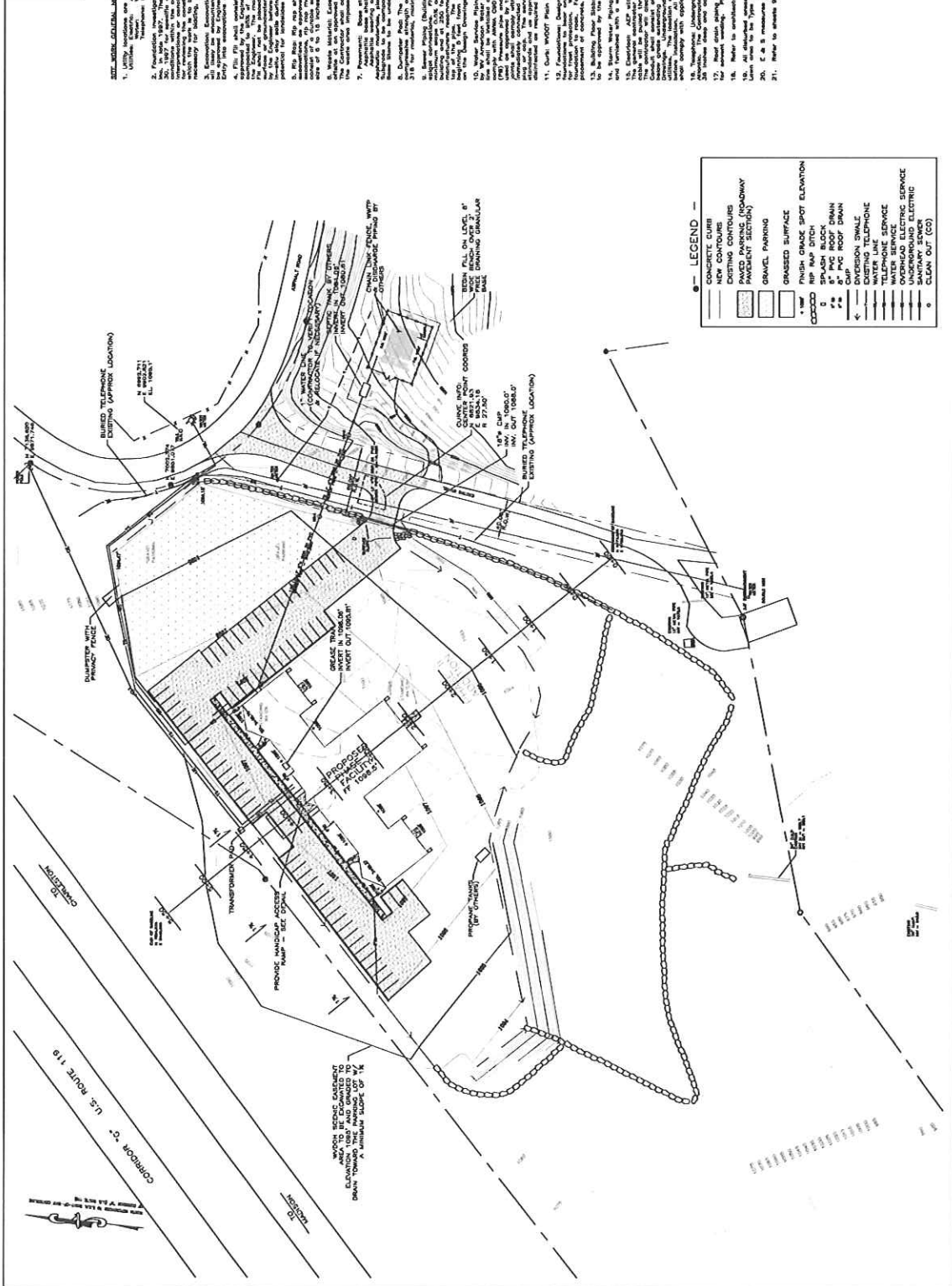
9. Storm Water. Storm water shall be installed in accordance with the applicable codes and regulations. Storm water shall be installed in accordance with the applicable codes and regulations. Storm water shall be installed in accordance with the applicable codes and regulations.

10. Water Service. Water service shall be installed in accordance with the applicable codes and regulations. Water service shall be installed in accordance with the applicable codes and regulations. Water service shall be installed in accordance with the applicable codes and regulations.

11. Electrical. Electrical service shall be installed in accordance with the applicable codes and regulations. Electrical service shall be installed in accordance with the applicable codes and regulations. Electrical service shall be installed in accordance with the applicable codes and regulations.

12. Foundation. Foundation shall be installed in accordance with the applicable codes and regulations. Foundation shall be installed in accordance with the applicable codes and regulations. Foundation shall be installed in accordance with the applicable codes and regulations.

13. Storm Water. Storm water shall be installed in accordance with the applicable codes and regulations. Storm water shall be installed in accordance with the applicable codes and regulations. Storm water shall be installed in accordance with the applicable codes and regulations.



**CIVIL TECH ENGINEERING, INC.**  
 ST. ALBANS, WEST VIRGINIA

**SITE PLAN**

**FIRST CHURCH OF GOD**  
 KANAWHA COUNTY, WEST VIRGINIA

DRAWING NO. 97208-5      DRAWN BY: RKM  
 DATE: APRIL, 2000      CHECKED BY: MFP

FIGURE 5

### **SECTION B.3 - DAM SAFETY EXPERIENCE**

- **Civil Tech Experience:** Civil Tech=s dam experience over the last 15 years has included 37 Dam Modification Projects ranging in cost from \$ 50,000 to \$ 1,500,000. **All dam projects involve civil, environmental, geotechnical, surveying/mapping, construction monitoring, and contract administration. We believe this experience makes our firm uniquely qualified for AML Design Work.** Civil Tech Dam Projects are listed below.

1. Rollins Dam, Evans, WV
2. Seneca Dam, Pocahontas Co., WV
3. Teter Creek Dam, Barbour Co. WV
4. Wells Lock and Dam, Elizabeth, WV
5. Handley Dam, Handley WMA, Pocahontas Co., WV
6. Anawalt Flood Damage Repair, Anawalt, WV
7. Old Pond 11, McClintic WMA, Mason Co., WV
8. Burches Run Breach Plan, Moundsville, WV
9. Edwards Run Dam, Cacapon Bridge, WV
10. Culloden PSD Dam, Culloden, WV
11. Belington Water Supply Dam, Belington, WV
12. Cedar Lakes Dam No.s 1 and 2, Ripley, WV
13. Joyce Lake Dam, Clarksburg, WV
14. Tailings Pond No. 2, Bessemer City, NC
15. City of Thomas Dam, Thomas, WV
16. Fly Ash Dam, FMC Peroxide Plant, So. Charleston, WV
17. Dickenson Dam, FMC Sportsman=s Club, Hurricane, WV
18. Brood Pond Dam, FMC Sportsman=s Club, Hurricane, WV
19. Winterplace Dam Modification, Winterplace Ski Resort
20. Wilson Big Hollow Dam, Hampshire Co. WV
21. Burches Run Dam, Marshall Co., WV
22. Moncove State Park Dam, Monroe Co., WV
23. Winterplace Dam Reservoir Enlargement, Winterplace Ski Resort
24. Bailey Dam Rehab, Monongalia Co. WV
25. Lemley Dam Rehab, Monongalia Co. WV
26. Deegan Dam Modification, Bridgeport, WV
27. Hinkle Dam Modification, Bridgeport, WV
28. Stony River Dam Breach, Grant Co., WV
29. Mill Run Dam Modification, Mt. Top PSD, Grant Co., WV
30. Mt. Storm Lake Dam Flip Bucket Stabilization, Dominion Generation
31. Temperature and Flow Measurement Weir Design, Dominion Generation
32. White Dam Modification, Private Owner, Sissonville, West Virginia
33. Berwind Dam Modification, Berwind WMA
34. Long Branch Dam Modification, Pipestem State Park

35. Mt. Storm Gate Modification, Mt. Storm Power Station
  36. Jimmy Lewis Drain Pipe Repairs, Pinnacle Rock State Park
  37. Reservoir and Park Dams, Cacapon State Park
- Certificates of approval have been applied for and approved by the WVDEP on 26 projects.
  - Our projects include; new dams, rehabilitation, flood damage repair, and emergency repair.
  - Periodic Safety Inspections are routinely performed on over 60 dams.
  - Past Experience: Prior to forming Civil Tech in 1996, our principals were responsible for:
    - 11 Dam Modification Projects ranging in cost from \$ 300,000 to \$ 1,300,000. These dams are listed below:
      1. Jimmy Lewis Dam, Mercer Co., WV
      2. Plum Orchard Dam, Fayette Co., WV
      3. Boley Dam, Babcock State Park
      4. Anawalt Dam, Anawalt, WV
      5. Warden Lake Dam, Hardy Co., WV
      6. Burches Run Dam, Moundsville, WV
      7. Castlemans Run Dam, Wheeling, WV
      8. No. 1 Impoundment, Union Carbide
      9. No. 2 Impoundment, Union Carbide
      10. No. 3, Impoundment, Union Carbide
      11. Mill Creek Dam, Columbia Gas
    - Certificates of Approval were obtained for all projects.
    - Numerous Safety Inspections were also performed.
  - Innovation: Civil Tech specializes in the use of innovative techniques including the use of Roller Compacted Concrete in dam rehabilitation. We have successfully completed seven dam rehabilitation projects using RCC in West Virginia.
  - Breach Analysis and Risk Assessment: Civil Tech has successfully used breach analysis and risk assessment to reduce the hazard classification of many of our dam projects. This analysis resulted in a reduction in the design storm and substantial savings for our clients.

- Facility Improvements: Our dam rehabilitation projects have resulted in facility improvements including:
  - Access For Fishermen.
  - Boat Launching Ramps.
  - Access Roads.
  - Parking Facilities.
  - Walkways
  - Handicap Access.
  - Toilet facilities.
  
- Maintenance of Facility: Our personnel are sensitive to the dam setting and make every effort to complete our projects with minimal disruption of the facility. Our designs are practical and planned to fit the site.
  
- Project Photographs: Representative photographs and sample drawings illustrating our Dam Rehabilitation experience are included herein.



**THOMAS DAM MODIFICATION, THOMAS, WV**



**TETER CREEK DAM MODIFICATION, BARBOUR CO., WV**



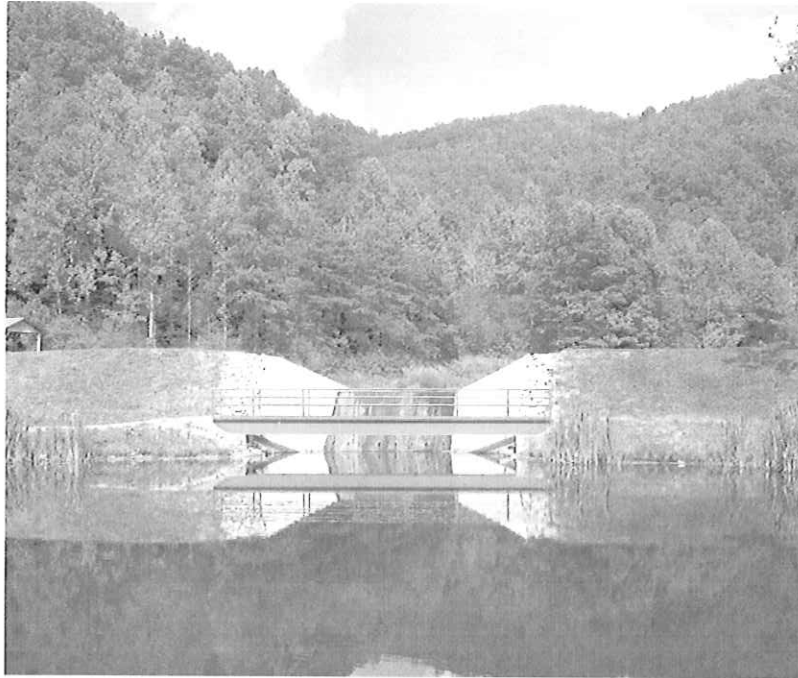


**BELINGTON DAM MODIFICATION, BELINGTON, WV**



**WILSON DAM MODIFICATION, HAMPSHIRE CO., WV**

CIVIL TECH ENGINEERING INC. *"Attention to Detail"*



**OLD ANAWALT DAM FLOOD DAMAGE REPAIR, MCDOWELL CO., WV**



**BAILEY DAM MODIFICATION, MONONGALIA CO., WV**



**LEMLEY DAM MODIFICATION, MONONGALIA CO., WV**



**MONCOVE DAM MODIFICATION, MONROE CO., WV**

CIVIL TECH ENGINEERING INC. "Attention to Detail"



SENECA DAM MODIFICATION, POCAHONTAS CO., WV



PLUM ORCHARD DAM MODIFICATION, FAYETTE CO., WV

CIVIL TECH ENGINEERING INC. "Attention to Detail"



JIMMY LEWIS DAM MODIFICATION, MERCER CO., WV



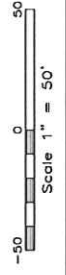
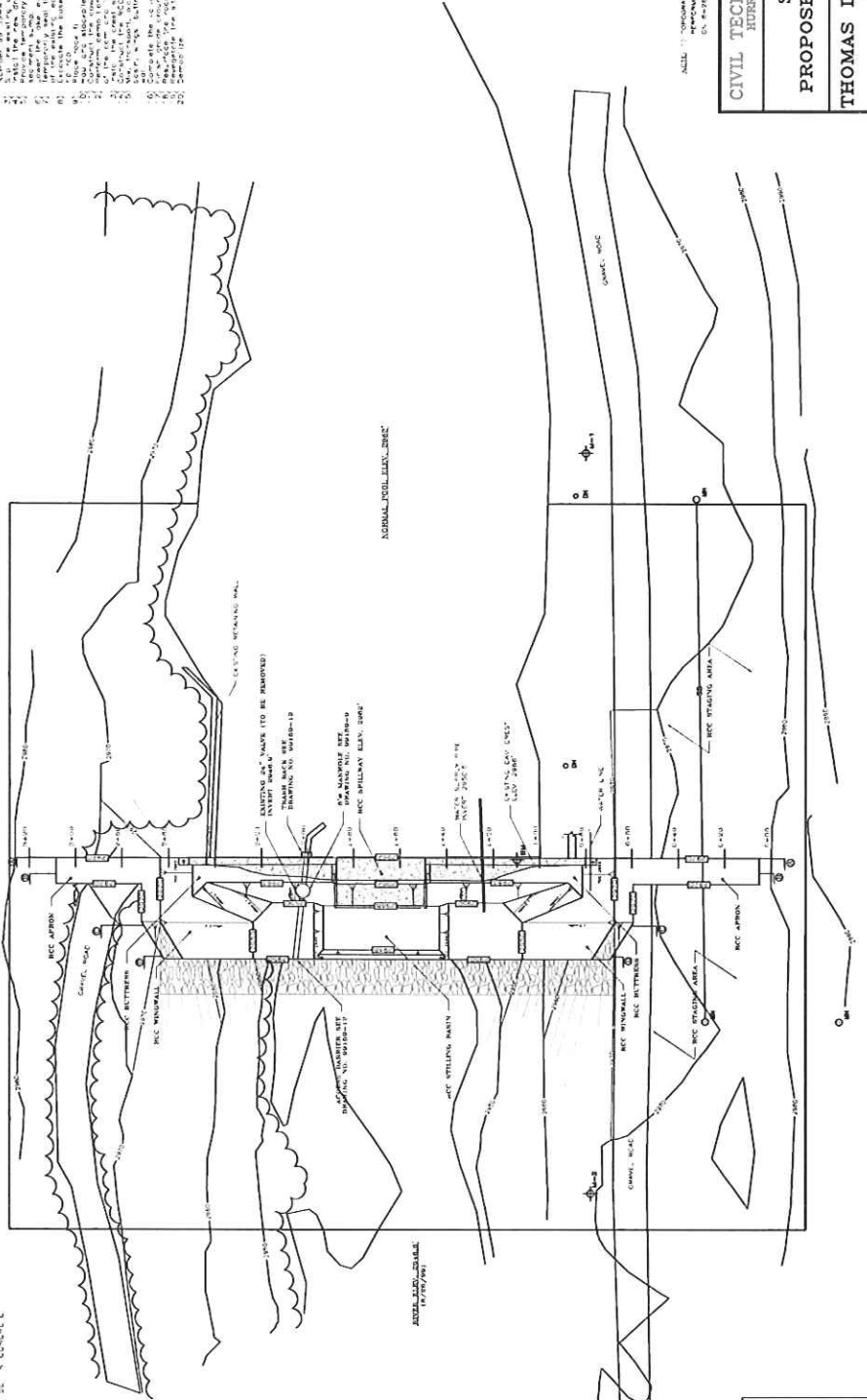
WARDEN LAKE DAM MODIFICATION, HARDY CO., WV

REVISIONS	
DATE	BY

- CONSTRUCTION SEQUENCE**
1. Clearing and grubbing of the site.
  2. Excavation and installation of the concrete apron.
  3. Installation of the concrete abutments.
  4. Installation of the concrete spillway.
  5. Installation of the concrete dam body.
  6. Installation of the concrete crest.
  7. Installation of the concrete spillway gates.
  8. Installation of the concrete spillway piers.
  9. Installation of the concrete spillway bents.
  10. Installation of the concrete spillway sills.
  11. Installation of the concrete spillway toe walls.
  12. Installation of the concrete spillway toe drains.
  13. Installation of the concrete spillway toe aprons.
  14. Installation of the concrete spillway toe slopes.
  15. Installation of the concrete spillway toe armor.
  16. Installation of the concrete spillway toe armor aprons.
  17. Installation of the concrete spillway toe armor toe drains.
  18. Installation of the concrete spillway toe armor toe aprons.
  19. Installation of the concrete spillway toe armor toe slopes.
  20. Installation of the concrete spillway toe armor toe armor.

NAME: BENCH MARK 3 A 7' IN THE RAPIDS' BRIDGE DECK MONUMENTS ARE 3/4" IRON PIPE & CONCRETE

SURVEY DATA			
MONUMENTS	NORTHING	EASTING	ELEVATION
BM	12528.892	12222.023	2146.150
A-1	12500.000	10 73 274	2096.012
A-2	12500.742	9885.262	2092.732



CIVIL TECH ENGINEERING, INC.  
HERRINGSPURG, WEST VIRGINIA

**SITE PLAN**  
**PROPOSED MODIFICATIONS**  
**THOMAS DAM MODIFICATIONS**  
**THOMAS, WV**

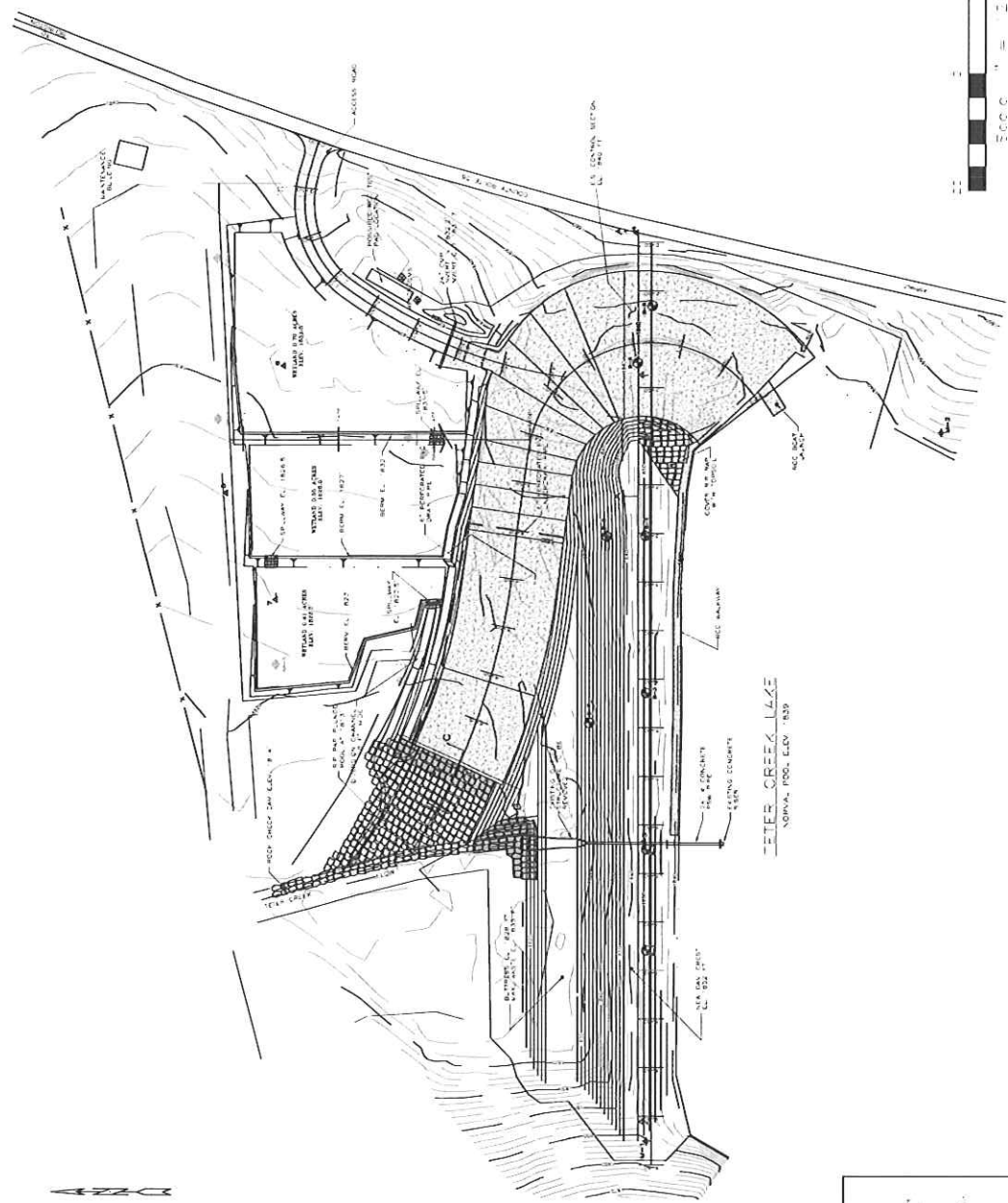
DESIGNED BY: [Name]  
DATE: JANUARY, 2000  
SCALE: 1" = 50'

CHECKED BY: [Name]  
DRAWN BY: [Name]  
CHECKED BY: [Name]

FIGURE 6

REVISIONS	
DATE	DESCRIPTION

NO.	DATE	BY	DESCRIPTION
1	10/1/57		
2	10/1/57		
3	10/1/57		
4	10/1/57		
5	10/1/57		
6	10/1/57		
7	10/1/57		
8	10/1/57		
9	10/1/57		
10	10/1/57		



**LEGEND**

—	EXISTING DAM
—	NEW DAM
—	SPILLWAY
—	DRAINAGE CANAL
—	ACCESS ROAD
—	PROPERTY LINE
—	CONCRETE
—	GRAVEL
—	ROCK
—	SOIL
—	WATER



CIVIL TECH. ENGINEERING, INC.  
 ST. ALBANS, WEST VIRGINIA

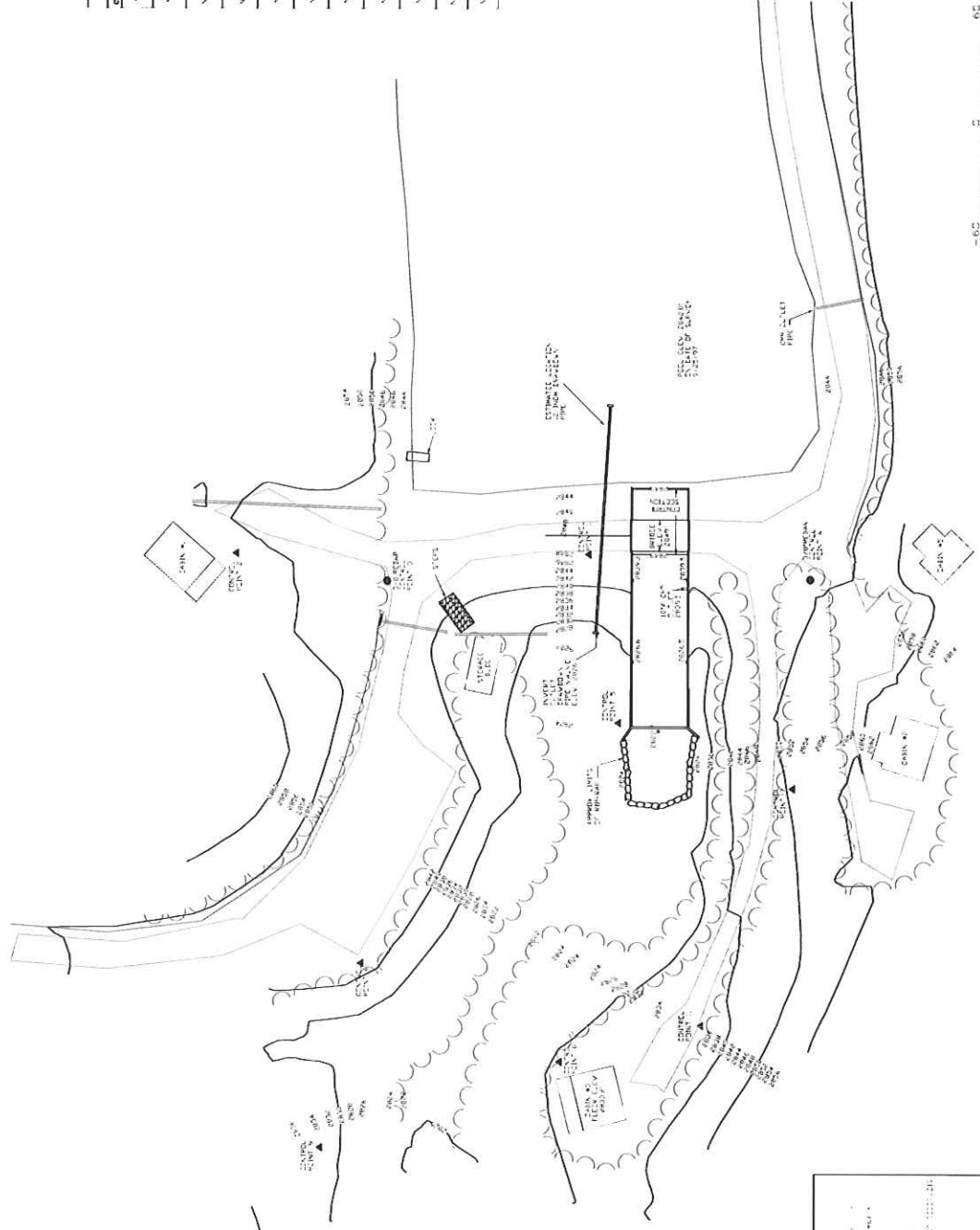
**SITE PLAN**  
**PROPOSED MODIFICATIONS**  
**TETER CREEK LAKE DAM**  
 BARBOUR COUNTY, WEST VIRGINIA

DRAWING NO. 8811-3-7  
 SCALE: 1" = 100'  
 DRAWN BY JOHN BOW  
 CHECKED BY JWB  
 DATE: APRIL 8, 1969

FIGURE 7

REVISIONS	
DATE	BY

CONTROL POINT SUMMARY		
CONTROL POINT NO.	EASTING	NORTHING
1	1222.22	2141.13
2	1222.22	2141.13
3	1222.22	2141.13
4	1222.22	2141.13
5	1222.22	2141.13
6	1222.22	2141.13
7	1222.22	2141.13
8	1222.22	2141.13
9	1222.22	2141.13
10	1222.22	2141.13
11	1222.22	2141.13
12	1222.22	2141.13
13	1222.22	2141.13
14	1222.22	2141.13
15	1222.22	2141.13
16	1222.22	2141.13
17	1222.22	2141.13
18	1222.22	2141.13
19	1222.22	2141.13
20	1222.22	2141.13



LEGEND	
▲	CONTROL POINT
●	UTILITY
—	ROAD
—	PROPERTY LINE
—	EXISTING CONCRETE
—	NEW CONCRETE
—	EXISTING GRAVEL
—	NEW GRAVEL
—	EXISTING ASPHALT
—	NEW ASPHALT
—	EXISTING CURB
—	NEW CURB
—	EXISTING SIDEWALK
—	NEW SIDEWALK
—	EXISTING FENCE
—	NEW FENCE
—	EXISTING DRIVEWAY
—	NEW DRIVEWAY
—	EXISTING UTILITY
—	NEW UTILITY
—	EXISTING EROSION CONTROL
—	NEW EROSION CONTROL
—	EXISTING VEGETATION
—	NEW VEGETATION
—	EXISTING WATER
—	NEW WATER
—	EXISTING DRAINAGE
—	NEW DRAINAGE
—	EXISTING FILL
—	NEW FILL
—	EXISTING EXCAVATION
—	NEW EXCAVATION
—	EXISTING EROSION CONTROL
—	NEW EROSION CONTROL
—	EXISTING VEGETATION
—	NEW VEGETATION
—	EXISTING WATER
—	NEW WATER
—	EXISTING DRAINAGE
—	NEW DRAINAGE
—	EXISTING FILL
—	NEW FILL
—	EXISTING EXCAVATION
—	NEW EXCAVATION



CIVIL TECH ENGINEERING, INC.  
HURRICANE, WEST VIRGINIA

**SITE PLAN**

SENECA LAKE DAM  
POCAHONTAS COUNTY, WV

DRAWING NO.: 1713-5  
DATE: OCTOBER, 1997  
SCALE: 1" = 60'

DESIGNED BY: [Name]  
CHECKED BY: [Name]

FIGURE 8



## **SECTION B.4 - GEOTECHNICAL/SURVEYING**

- Civil Tech Experience:** Geotechnical engineering is a small, but important part of our business because so much of our work related to dams depends on geotechnical sampling, testing, and analysis. Our principals have a very strong background in this discipline from our history at Triad Engineering. Civil Tech has provided geotechnical services on a variety of projects including; mechanically stabilized walls, water and asphalt storage tanks, commercial buildings, churches, industrial equipment and buildings, etc. Typical projects for which Civil Tech has provided geotechnical engineering services include:
  - Steel of West Virginia Expansion, Huntington, WV
  - Service Wire Building Damage Evaluation, Culloden, WV
  - First Church of God, Charleston, WV
  - Various Water Storage Tanks, WV American Water Company
  - Asphalt Storage Tanks, MTI, Gallipolis, Ohio
  - Bridge Replacement, Elkem Metals, Alloy, WV
  - Zim Bagging, Wayne County, WV
  - Wurtland Marine Harbor, Wurtland, KY
  - Steel of West Virginia Warehouse - Greenbottom, WV
  - HADCO Shell Building - Huntington, WV
  - Service Wire Warehouse Expansion, Culloden and Huntington, WV
  - Countless Landslides Throughout WV
  - Service Wire Warehouse Expansion, Huntington and Culloden, WV
  - Waste Site Design, Means and Methods RR Crossings, Rt. 10 Rita to Midway Plaza Highway Project, Man, WV
  
- Past Experience:** Our principals were directly responsible for large geotechnical projects including:
  - Southridge Centre, Charleston, WV
  - Ridgeline Development, Charleston, WV
  - Cabell East High School, Huntington, WV
  - Beckley Federal Prison, Beckley, WV
  - Rhodimet Plant, Rhone Poulenc, Institute, WV
  - Countless Highway Projects for the WVDOT
  - Hazardous and Sanitary Landfills throughout WV, KY, and Ohio
  - Over 120 Abandoned Mine Land Projects for the WVDEP
  
- Surveying and Mapping:** Surveying and mapping services are performed by our in-house crew using electronic instruments with onboard data collectors, and computer software to reduce data and develop drawings. The work is performed under the direction of one of our Professional Surveyors. Since forming Civil Tech, we have performed field surveying necessary to develop topographic mapping and locate existing site features for most of our ongoing and past engineering projects. Clients have included:

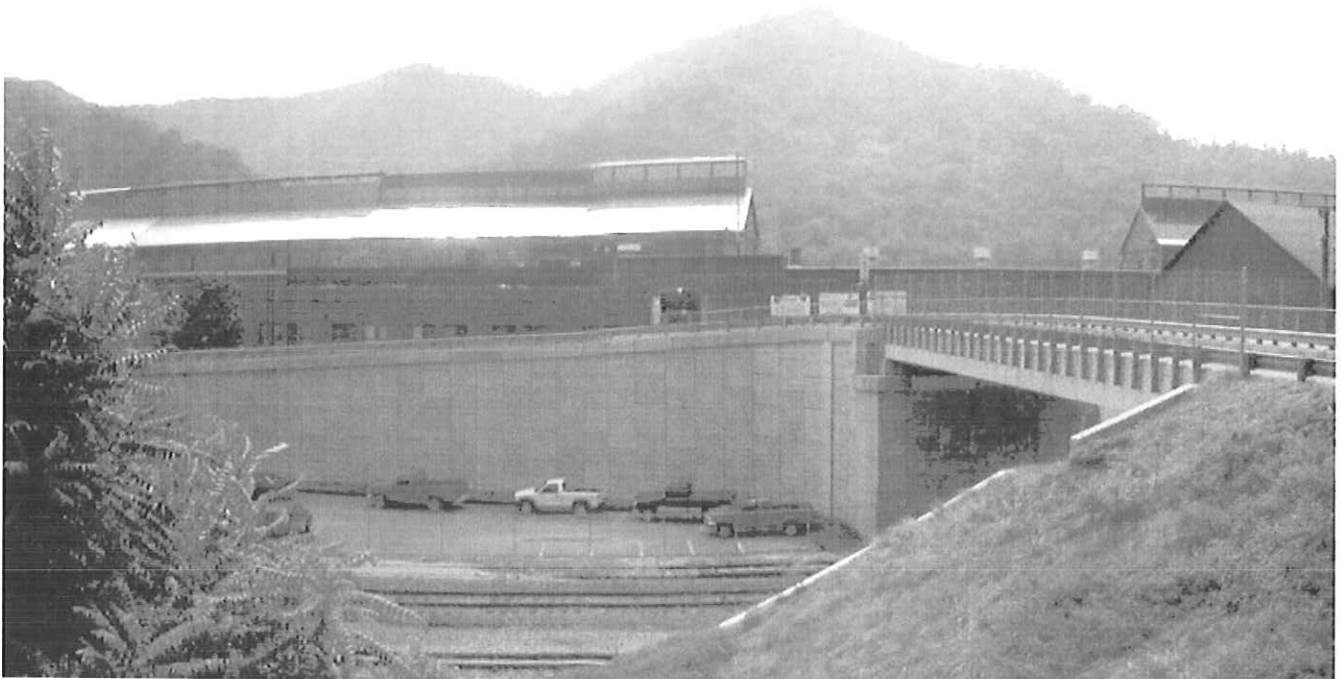
- Steel of West Virginia
- FMC Peroxide
- Simpson - Litman Builders
- WVDNR - Wildlife Section
- Joyce Properties
- City of Thomas
- City of Belington
- City of Culloden
- WVDNR - Parks & Recreation
- Winterplace Ski Resort
- Mt. Top PSD
- NewPage Corporation
- Dominion Generation
- WV American Water
- Private Concerns

CIVIL TECH ENGINEERING INC. "Attention to Detail"



**ASPHALT STORAGE TANK FARM – MIDDLEPORT TERMINALS INC.**

- SUBSURFACE INVESTIGATION
- GEOTECHNICAL ANALYSIS
- FOUNDATION DESIGN
- PLANS AND SPECIFICATIONS
- CONSTRUCTION CONSULTATION



**ELKEM METALS BRIDGE APPROACH – ALLOY, WV**

- SUBSURFACE INVESTIGATION
- GEOTECHNICAL ANALYSIS
- FOUNDATION RECOMMENDATIONNS
- CONSTRUCTION CONSULTATION



**FLEMING STREET PROJECT – MONONGAH, WV**

- TOPOGRAPHIC MAPPING
- SUBSURFACE INVESTIGATION
- EROSION AND SLIDE STABILIZATION
- PLANS AND SPECIFICATIONS
- BIDDING
- CONSTRUCTION CONTRACT ADMINISTRATION



**SARVER LANDSLIDE PROJECT – HURRICANE, WV**

- TOPOGRAPHIC MAPPING
- SUBSURFACE INVESTIGATION
- GEOTECHNICAL ANALYSIS
- DRILLED PILE WALL DESIGN AND GRADING OPTION
- PLANS AND SPECIFICATIONS
- BIDDING