



The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at *wvOASIS.gov*. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at *WVPurchasing.gov* with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

Header @ 1

List View

- General Information
- Contact
- Default Values
- Discount
- Document Information
- Clarification Request

Procurement Folder: 1047664

Procurement Type: Central Purchase Order

Vendor ID: 000000209609

Legal Name: CIVIL TECH ENGINEERING INC

Alias/DBA:

Total Bid: \$0.00

Response Date: 06/28/2022

Response Time: 9:47

Responded By User ID: cte_01

First Name: Mark

Last Name: Pennington

Email: civiltech1@frontier.com

Phone: 304-757-8094

SO Doc Code: CEOI

SO Dept: 0313

SO Doc ID: DEP2200000018

Published Date: 6/1/22

Close Date: 6/28/22

Close Time: 13:30

Status: Closed

Solicitation Description: EOI - 2022 AML Contract 9 Project North

Total of Header Attachments: 1

Total of All Attachments: 1



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

**State of West Virginia
 Solicitation Response**

Proc Folder: 1047664
Solicitation Description: EOI - 2022 AML Contract 9 Project North
Proc Type: Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2022-06-28 13:30	SR 0313 ESR06282200000008121	1

VENDOR
 000000209609
 CIVIL TECH ENGINEERING INC

Solicitation Number: CEOI 0313 DEP2200000018
Total Bid: 0
Response Date: 2022-06-28
Response Time: 09:47:43
Comments:

FOR INFORMATION CONTACT THE BUYER

Joseph E Hager III
 (304) 558-2306
 joseph.e.hageriii@wv.gov

Vendor Signature X **FEIN#** **DATE**

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Professional Svcs - Three Fork Creek Watershed Restoration				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

Commodity Line Comments:

Extended Description:

Professional Svcs - Three Fork Creek Watershed Restoration

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Professional Svcs - Abram Creek AMD Treatment Phase II				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

Commodity Line Comments:

Extended Description:

Professional Svcs - Abram Creek AMD Treatment Phase II

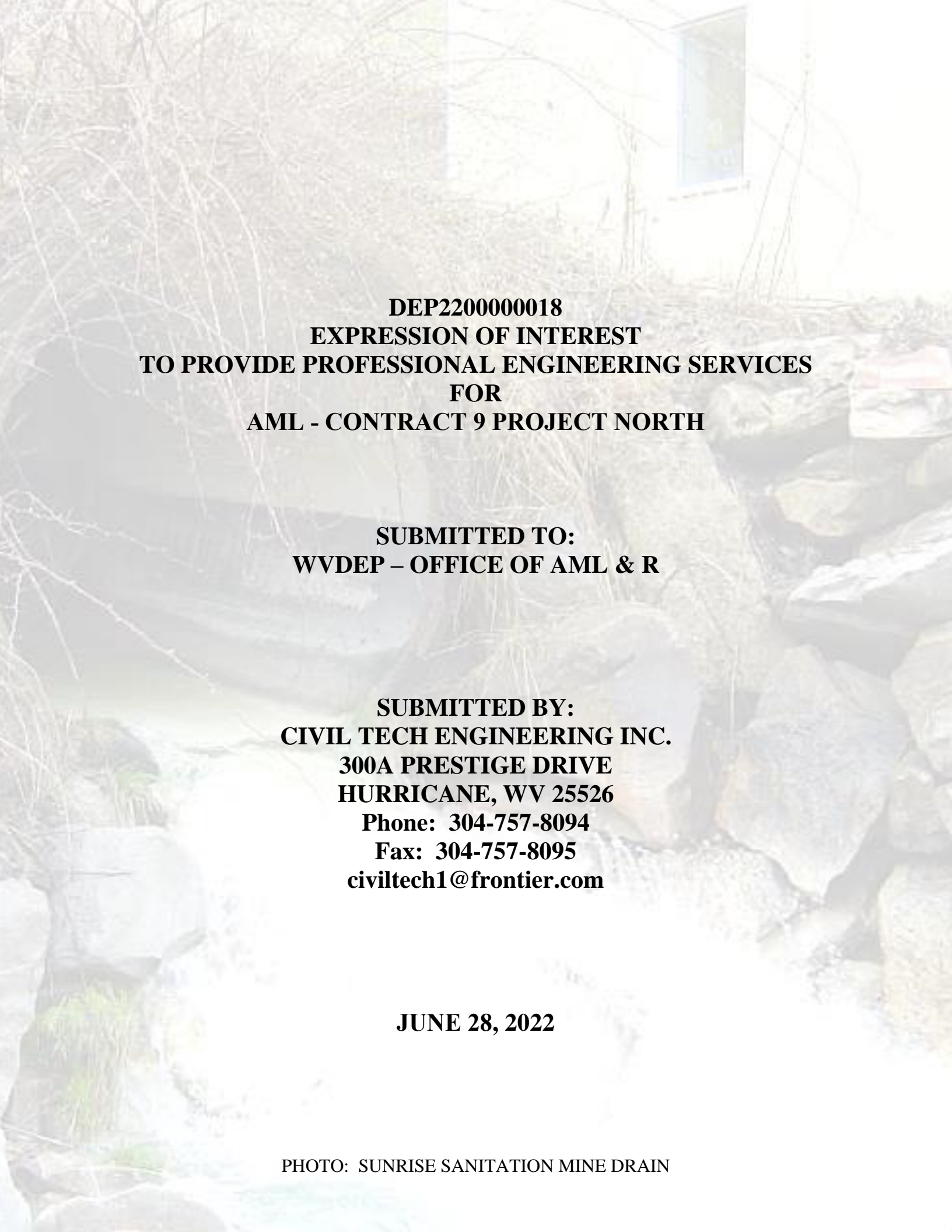
Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	Professional Svcs - Richard (Shaver) Drainage				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

Commodity Line Comments:

Extended Description:

Professional Svcs - Richard (Shaver) Drainage

The background of the document is a faded photograph of a mine drain. The drain is a narrow channel of water flowing over a bed of large, grey, angular rocks. In the upper right corner, a portion of a white building with a window is visible. The overall scene is somewhat overcast and the image has a soft, semi-transparent appearance.

**DEP2200000018
EXPRESSION OF INTEREST
TO PROVIDE PROFESSIONAL ENGINEERING SERVICES
FOR
AML - CONTRACT 9 PROJECT NORTH**

**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**

JUNE 28, 2022

CIVIL TECH ENGINEERING, INC.

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

June 28, 2022

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

Subject: **Expression of Interest for DEP22*18
AML Contract 9 Project North**

To Whom it May Concern:

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

- 50 + years of combined experience with AML projects.
- 25 AML projects completed since 2008.
- All projects completed on time and within budget.

Our firm and principals have been responsible for remediation of all types of AML projects including portals, AMD, landslides, drainage and erosion, subsidence, refuse, mine spoil, highwalls, burning refuse and mine fires throughout West Virginia. Most recent experience includes:

- Lake (Bell) Portals, Logan County, WV
- Pine Bluff (Wilson) Refuse, Harrison County, WV
- Chaffey Run, Tucker County, Davis, WV
- Lost Creek (Siders) Dangerous Landslide, Lost Creek, WV

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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ADDITIONAL INFORMATION

The Acquisitions and Contract Administration Section of the Purchasing Division is soliciting an Expression of Interest ("EOI" or "Bids") for the West Virginia Department of Environmental Protection, Division of Land Restoration, Office of Abandoned Mine Lands and Reclamation per the attached specifications and terms and conditions.

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue
1	Professional Svcs - Three Fork Creek Watershed Restoration		

Comm Code	Manufacturer	Specification	Model #
81100000			

Extended Description:

Professional Svcs - Three Fork Creek Watershed Restoration

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue
2	Professional Svcs - Abram Creek AMD Treatment Phase II		

Comm Code	Manufacturer	Specification	Model #
81100000			

Extended Description:

Professional Svcs - Abram Creek AMD Treatment Phase II

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue
3	Professional Svcs - Richard (Shaver) Drainage		

Comm Code	Manufacturer	Specification	Model #
81100000			

Extended Description:
Professional Svcs - Richard (Shaver) Drainage

SCHEDULE OF EVENTS

<u>Line</u>	<u>Event</u>	<u>Event Date</u>
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EXPRESSION OF INTEREST

2022 AML Contract 9 Projects – North

Disclaimer: Effective July 1, 2020, the Purchasing Division will accept electronic proposals for Expressions of Interest via the Vendor Self-Service portal within wvOASIS. Paper submissions after this date are still acceptable.

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4. Section Three: Project Specifications
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6. Section Five: Terms and Conditions
7. Certification and Signature Page

SECTION ONE: GENERAL INFORMATION

1. **PURPOSE:** The Acquisitions and Contract Administration Section of the Purchasing Division is soliciting an Expression of Interest (“EOI” or “Bids”) for the West Virginia Department of Environmental Protection, Division of Land Restoration, Office of Abandoned Mine Lands and Reclamation (WVDEP-DLR-AML), from qualified firms to provide architectural/engineering services (“Vendors”) as defined herein.
2. **PROJECTS:** The mission or purpose of the Group of Projects (as listed below 1 through 3) for which bids are being solicited is to provide the subsequent planning, realty, design, and construction services for each; including but not limited to (as may be applicable to each project):
 - 1) Three Fork Creek Watershed Restoration project
 - 2) Abram Creek AMD Treatment Phase II project
 - 3) Richard (Shaver) Drainage project
 - National Environmental Policy Act (NEPA) consultations and documentation
 - Public Participation
 - Infrastructure Investment Jobs Act (IIJA) compliance
 - Determine legal ownership of properties
 - Obtain exploratory and construction rights of entry
 - Provide legal documentation to substantiate legal ownership findings
 - Provide current mapping, perform survey and other related services
 - Perform Site and Geotechnical Investigations

EXPRESSION OF INTEREST

2022 AML Contract 9 Projects – North

- Design temporary and permanent access or accesses for construction and future maintenance
- Design demolition and disposal of existing systems and facilities
- Design replacement, fully automated in-stream, auger-feeding hydrated lime dosing active treatment systems and facilities
- Provide site redesigns and/or create new site designs
- Design to extend and provide utility services, including electric lines, fiber/telephone lines and/or cellular based communications systems.
- Design to install, repair or replace existing drainage structures/systems
- Design to mitigate AMD drainage
- Design of AMD pumping system to existing treatment facility (including a stream crossing)
- Design reclamation of exposed coal refuse and mine spoil
- Design of drainage conveyances, including drainage channels, underdrains, and/or other controls to safely convey water off-site
- Condition and revegetate all disturbed areas
- Construction quality assurance and quality control (QA/QC)
- Provide resident project representative/inspector
- Prepare daily construction activity logs summarizing activities
- Provide engineering support and services throughout construction
- Provide Engineers certification report

3. SCHEDULE OF EVENTS:

Release of the EOI.....	06/01/2022
Written Questions Submission Deadline.	06/21/2022
Addendum Issued	TBD
Expressions of Interest Opening Date.....	6/28/2022
Evaluation Committee List of the Highest Qualified Firms Provided.....	TBD
Estimated Date for Interviews of the Firms.....	TBD
Price Negotiations Commence with Highest Ranked Firm	TBD

EXPRESSION OF INTEREST

2022 AML Contract 9 Projects – North

SECTION TWO: INSTRUCTIONS TO VENDORS SUBMITTING BIDS

Instructions begin on the next page.

INSTRUCTIONS TO VENDORS SUBMITTING BIDS

1. REVIEW DOCUMENTS THOROUGHLY: The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.

2. MANDATORY TERMS: The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

3. PREBID MEETING: The item identified below shall apply to this Solicitation.

A pre-bid meeting will not be held prior to bid opening

A **MANDATORY PRE-BID** meeting will be held at the following place and time:

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one individual is permitted to represent more than one vendor at the pre-bid meeting. Any individual that does attempt to represent two or more vendors will be required to select one vendor to which the individual's attendance will be attributed. The vendors not selected will be deemed to have not attended the pre-bid meeting unless another individual attended on their behalf.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing.

Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

4. VENDOR QUESTION DEADLINE: Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are nonbinding.

Submitted emails should have the solicitation number in the subject line.

Question Submission Deadline: 06/21/2022 @ 4:00 PM ET

Submit Questions to: Josh Hager
2019 Washington Street, East
Charleston, WV 25305
Fax: (304) 558-3970
Email: Joseph.E.HagerIII@wv.gov

5. VERBAL COMMUNICATION: Any verbal communication between the Vendor and any State personnel is not binding, including verbal communication at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.

6. BID SUBMISSION: All bids must be submitted on or before the date and time of the bid opening listed in section 7 below. Vendors can submit bids electronically through wvOASIS, in paper form delivered to the Purchasing Division at the address listed below either in person or by courier, or in facsimile form by faxing to the Purchasing Division at the number listed below. Notwithstanding the foregoing, the Purchasing Division may prohibit the submission of bids electronically through wvOASIS at its sole discretion. Such a prohibition will be contained and communicated in the wvOASIS system resulting in the Vendor's inability to submit bids through wvOASIS. The Purchasing Division will not accept bids, modification of bids, or addendum acknowledgment forms via email. Bids submitted in paper or facsimile form must contain a signature. Bids submitted in wvOASIS are deemed to be electronically signed.

Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason.

For Request for Proposal ("RFP") Responses Only: Submission of a response to a Request for Proposal is not permitted in wvOASIS. In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal prior to the bid opening date and time identified in Section 7 below, plus NA convenience copies of each to the Purchasing Division at the address shown below. Additionally, the Vendor should clearly identify and segregate the cost proposal from the technical proposal in a separately sealed envelope.

Bid Delivery Address and Fax Number:

Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130
Fax: 304-558-3970

A bid submitted in paper or facsimile form should contain the information listed below on the face of the submission envelope or fax cover sheet. Otherwise, the bid may be rejected by the Purchasing Division.

VENDOR NAME:

BUYER: Josh Hager

SOLICITATION NO.: CEOI 0313 DEP2200000018

BID OPENING DATE: See next page

BID OPENING TIME: See next page

FAX NUMBER: 304-558-3970

7. BID OPENING: Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when confirmation of delivery is provided by wvOASIS (in the case of electronic submission) or when the bid is time stamped by the official Purchasing Division time clock (in the case of hand delivery).

Bid Opening Date and Time: 06/28/2022 @ 1:30 PM ET

Bid Opening Location: Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

8. ADDENDUM ACKNOWLEDGEMENT: Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

9. BID FORMATTING: Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

10. ALTERNATE MODEL OR BRAND: Unless the box below is checked, any model, brand, or specification listed in this Solicitation establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's

specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.

This Solicitation is based upon a standardized commodity established under W. Va. Code § 5A-3-61. Vendors are expected to bid the standardized commodity identified. Failure to bid the standardized commodity will result in your firm's bid being rejected.

11. EXCEPTIONS AND CLARIFICATIONS: The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

12. COMMUNICATION LIMITATIONS: In accordance with West Virginia Code of State Rules §148-1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.

13. REGISTRATION: Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee, if applicable.

14. UNIT PRICE: Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.

15. PREFERENCE: Vendor Preference may be requested in purchases of motor vehicles or construction and maintenance equipment and machinery used in highway and other infrastructure projects. Any request for preference must be submitted in writing with the bid, must specifically identify the preference requested with reference to the applicable subsection of West Virginia Code § 5A-3-37, and must include with the bid any information necessary to evaluate and confirm the applicability of the requested preference. A request form to help facilitate the request can be found at: www.state.wv.us/admin/purchase/vrc/Venpref.pdf.

15A. RECIPROCAL PREFERENCE: The State of West Virginia applies a reciprocal preference to all solicitations for commodities and printing in accordance with W. Va. Code § 5A-3-37(b). In effect, non-resident vendors receiving a preference in their home states, will see that same preference granted to West Virginia resident vendors bidding against them in West Virginia. Any request for reciprocal preference must include with the bid any information necessary to evaluate and confirm the applicability of the preference. A request form to help facilitate the request can be found at: www.state.wv.us/admin/purchase/vrc/Venpref.pdf.

16. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES: For any solicitations publicly advertised for bid, in accordance with West Virginia Code §5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or

minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to contract award to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.

17. WAIVER OF MINOR IRREGULARITIES: The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.

18. ELECTRONIC FILE ACCESS RESTRICTIONS: Vendor must ensure that its submission in wvOASIS can be accessed and viewed by the Purchasing Division staff immediately upon bid opening. The Purchasing Division will consider any file that cannot be immediately accessed and viewed at the time of the bid opening (such as, encrypted files, password protected files, or incompatible files) to be blank or incomplete as context requires and are therefore unacceptable. A vendor will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening to make a file viewable if those documents are required with the bid. A Vendor may be required to provide document passwords or remove access restrictions to allow the Purchasing Division to print or electronically save documents provided that those documents are viewable by the Purchasing Division prior to obtaining the password or removing the access restriction.

19. NON-RESPONSIBLE: The Purchasing Division Director reserves the right to reject the bid of any vendor as Non-Responsible in accordance with W. Va. Code of State Rules § 148-1-5.3, when the Director determines that the vendor submitting the bid does not have the capability to fully perform or lacks the integrity and reliability to assure good-faith performance.”

20. ACCEPTANCE/REJECTION: The State may accept or reject any bid in whole, or in part in accordance with W. Va. Code of State Rules § 148-1-4.5. and § 148-1-6.4.b.”

21. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor’s entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled “confidential,” “proprietary,” “trade secret,” “private,” or labeled with any other claim against public disclosure of the documents, to include any “trade secrets” as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

22. WITH THE BID REQUIREMENTS: In instances where these specifications require documentation or other information with the bid, and a vendor fails to provide it with the bid, the Director of the Purchasing Division reserves the right to request those items after bid opening and prior to contract award pursuant to the authority to waive minor irregularities in bids or specifications under W. Va. CSR § 148-1-4.6. This authority does not apply to instances where state law mandates receipt with the bid.

23. EMAIL NOTIFICATION OF AWARD: The Purchasing Division will attempt to provide bidders with e-mail notification of contract award when a solicitation that the bidder participated in has been awarded. For notification purposes, bidders must provide the Purchasing Division with a valid email address in the bid response. Bidders may also monitor *wv*OASIS or the Purchasing Division's website to determine when a contract has been awarded.

24. ISRAEL BOYCOTT CERTIFICATION: Vendor's act of submitting a bid in response to this solicitation shall be deemed a certification from bidder to the State that bidder is not currently engaged in, and will not for the duration of the contract, engage in a boycott of Israel. This certification is required by W. Va. Code § 5A-3-63.

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SECTION THREE: PROJECT SPECIFICATIONS

- 1. Background:** Firms are to be licensed Architectural/Engineering Firms (A/E) in the State of West Virginia and should be familiar with and have 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, Geological and Hydrological.

The successful A/E Firm will be responsible for Design of the following (as may be applicable for each of the Projects as listed in Section One):

- Access or accesses as required.
- Geotechnical investigation and analyses.
- Hydrologic and hydraulic analyses.
- Clear and grub affected areas.
- Regrade / develop sites as necessary.
- Install drainage channels, underdrains, and/or other controls to safely convey water off-site (if applicable).
- Existing treatment systems and facilities demolition and disposal
- Fully automated, in-stream, auger-feeding hydrated lime dosing active treatment systems and facilities (including but not limited to silo’s, controls systems and buildings, utilities infrastructure, in-stream mixing systems, foundations, etc.).
- Condition and revegetate all disturbed areas.
- Obtain required permits as determined at the Pre-Design Meeting.

Preliminary design documents will be due 90 days from the issuance of the Purchase Order, unless specified otherwise during the Pre-Design Meeting.

Locations: Projects are in Monongalia, Preston, Mineral and Grant Counties.

Project 1: Three Fork Creek Watershed Restoration consists of a group of four (4) existing pelletized lime active treatment systems and facilities with sites located in Preston County, WV. These sites are all within the Three Fork Creek watershed, but they are on separate tributaries that converge to form Three Fork Creek or that discharge into it downstream of the formation. The proposed replacement treatment system sites are tentatively to be located at or adjacent to the existing system sites that are on and treat Raccoon Creek, North Birds Creek (Pell Road), South Birds Creek and Squires Creek (although the North Birds Creek (Pell Road) system and facilities was designed and/or is being or has been constructed under a previous contract and will not be a part of this contract). Even though the ‘Pell Road Doser’ system and facilities is not a part of this contract, the complete integration of that system into the other treatment systems and

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2022 AML Contract 9 Projects – North

controls included under this contract will be required.

Project 2: Abrams Creek AMD Treatment Phase II consists of a group of three (3) existing pelletized lime active treatment systems and facilities with sites located in Mineral and Grant Counties, WV. These sites are all within the Abram Creek watershed, but they are on separate tributaries. The system sites are on and treat Abram Creek and Little Creek, and one is on an unnamed tributary of Abram Creek (which is impacted by AMD draining off the AML Morgan 46 mine site). These existing treatment systems are to be replaced with similar technologies and equipment as is being provided for the proposed Three Fork Creek systems and facilities, which are tentatively to be located at or adjacent to the existing treatment system sites. Systems integration will be required for all the treatment systems and controls.

Project 3: Richard (Shaver) Drainage project is located southeast of City of Sabraton in Monongalia County, WV, along WV Route 7 (Earl Core Road), in the community of Richard, and near Dellslow, WV. AMD is impacting multiple homes and businesses and is impounding in several locations; as well as is emanating off the site(s) discharging directly into Decker Creek. The project is for the mitigation and reclamation of collapsed and draining portals, installation of additional drainage controls and systems, subsurface drain systems, and an AMD pumping system to the existing AML Richard Treatment facility. Remote terminal systems shall be provided and integration with the Richard Treatment facility systems.

The Sites are around multiple residences; potential vendors are not to show up on occupied residences. A site visit will be performed with the Highest Scoring Vendor during the Negotiation Phase of this solicitation.

2. **Projects and Goals:** The project goals and objectives include but are not limited to that as listed below. Vendors should discuss any anticipated concepts and proposed methods of approach for achieving each of the listed goals and objectives:
 - 2.1. NEPA tasks and IJA compliance.
 - 2.2. Determine legal ownership of properties and provide legal documentation to substantiate legal ownership findings (if required).
 - 2.3. Develop construction plans and technical specifications for all aspects to reclaim mine portals, drainage controls and systems, slope stabilization, coal refuse reclamation, stream restoration, highwall reclamation, limits of disturbance, storm water and erosion and sediment control, regrade and revegetation, and all

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other conditions encountered on the project sites.

- 2.4. Obtain/maintain/release all required permits.
- 2.5. Provide resident project representative, QA/QC certification, and prepare daily field activity logs summarizing construction activities.

3. **Qualifications, Experience, and Past Performance:** Vendors should provide information regarding its employees, such as staff qualifications and experience in completing similar projects; references; copies of any staff certifications or degrees applicable to this project; proposed staffing plan; descriptions of past projects completed entailing the location of the project, project manager name and contact information, type of project, and the project goals and objectives and how they were met.

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 "A" and the AML and Related Project Experience Matrix (RPEM), Attachment "B".

AML Consultant Qualification Questionnaire (CQQ) should be completed and submitted with Vendor's submitted response to be eligible (**See Attachment "A"**).

AML and Related Project Experience Matrix (RPEM) should also be completed and submitted with Vendor's submitted response to be eligible (**See Attachment "B"**).

4. **Oral Presentations/Interviews:** The Agency will conduct individual interviews with the vendors that are determined to be the most qualified to provide the required service. During oral presentations/interviews, vendors may not alter or add to their submitted proposal, but only clarify information already submitted. A description of the materials and information to be presented is provided below:

- 4.1. Materials and Information Required at Oral Presentation/Interviews:

An Oral Presentation will be conducted with the 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 to 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

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- Key personnel available for the proposed work
- Proposed subcontractors (mapping, geotechnical, etc.)
- Product quality control
- Project cost control
- Project Schedule

SECTION FOUR: VENDOR PROPOSAL, EVALUATION, & AWARD

- 1. Economy of Preparation:** EOIs should be prepared simply and economically, providing a straight-forward, concise description of the firm’s abilities to satisfy the requirements and goals and objectives of the EOI. Emphasis should be placed on completeness and clarity of content. The response sections should be labeled for ease of evaluation.
- 2. BIDS MUST NOT CONTAIN PRICE INFORMATION:** The State shall select the best value solution according to W. Va. Code §5G-1-3. In accordance with Code requirements, no “price” or “fee” information is permitted in the Vendor’s EOI response.
- 3. Evaluation and Award Process:** Expressions of Interest for projects estimated to cost \$250,000 or more will be evaluated and awarded in accordance with W.Va. Code §5G-1-3. That Code section requires the following related to evaluation and award:
 - 3.1. Selection Committee Evaluation and Negotiation:** A committee comprised of three to five representatives of the agency initiating the request shall:
 - 3.1.1. evaluate the statements of qualifications and performance data and other material submitted by the interested firms and select the firms which in their opinion are the best qualified to perform the desired service.
 - 3.1.2. conduct interviews with each of the firms selected.
 - 3.1.3. rank the selected firms in order of preference
 - 3.1.4. and commence scope of service and price negotiations with the highest qualified professional firm.

If negotiations are successful, the contract documents will be forwarded to the WV Purchasing Division for review and approval, and then to the WV Attorney General’s office for review and approval as to form. Once approved, a formal contract will be issued to the Vendor.

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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, the agency will then commence negotiations with the second most qualified firm, and so on, until an agreement is reached, or the solicitation is cancelled.

3.2. Firm Evaluation Rankings: The Agency will evaluate the firms that have been determined most qualified to perform the desired service. The evaluation criteria are defined in the Procurement Specifications section and based on a 100-point total score. Points shall be assigned based upon the Vendor’s response to the evaluation criteria as follows:

- Understanding of Project Scope (25) Points Possible
 - Relevant Experience (25) Points Possible
 - Available Resources
 - a. Current Staffing
 - b. Surveying/Mapping
 - c. Drilling/Geotechnical (25) Points Possible
 - Performance History (25) Points Possible
- Total** 100

3.3 Contractor Information Form (AVS): Vendor must complete an AVS (Applicant Violator System) form to request an eligibility evaluation from the Office of Surface Mining Reclamation and Enforcement. This requirement applies to contractors and their sub-contractors and is found under OSMRE's regulations at 30 CFR 874.16. Vendor must sign and date it. Form must be completed within 30 days of award to be considered for award. The completion of the form will be requested by the Agency after evaluation and prior to award of the purchase order.

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SECTION FIVE: TERMS AND CONDITIONS

Terms and conditions begin on the next page.

GENERAL TERMS AND CONDITIONS:

1. CONTRACTUAL AGREEMENT: Issuance of an Award Document signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance by the State of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid, or on the Contract if the Contract is not the result of a bid solicitation, signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

2. DEFINITIONS: As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.

2.1. "Agency" or "Agencies" means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.

2.2. "Bid" or "Proposal" means the vendors submitted response to this solicitation.

2.3. "Contract" means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.

2.4. "Director" means the Director of the West Virginia Department of Administration, Purchasing Division.

2.5. "Purchasing Division" means the West Virginia Department of Administration, Purchasing Division.

2.6. "Award Document" means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the contract holder.

2.7. "Solicitation" means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.

2.8. "State" means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.

2.9. "Vendor" or "Vendors" means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

3. CONTRACT TERM; RENEWAL; EXTENSION: The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

Term Contract

Initial Contract Term: The Initial Contract Term will be for a period of _____ . The Initial Contract Term becomes effective on the effective start date listed on the first page of this Contract and the Initial Contract Term ends on the effective end date also shown on the first page of this Contract.

Renewal Term: This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal should be delivered to the Agency and then submitted to the Purchasing Division thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Unless otherwise specified below, renewal of this Contract is limited to _____ successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed the total number of months available in all renewal years combined. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

Alternate Renewal Term – This contract may be renewed for _____ successive _____ year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

Delivery Order Limitations: In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired.

Fixed Period Contract: This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within One Thousand Ninety Five (1,095) days.

Fixed Period Contract with Renewals: This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within _____ days. Upon completion of the work covered by the preceding sentence, the vendor agrees that:

the contract will continue for _____ years;

the contract may be renewed for _____ successive _____ year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney

General's Office (Attorney General approval is as to form only).

One-Time Purchase: The term of this Contract shall run from the issuance of the Award Document until all of the goods contracted for have been delivered, but in no event will this Contract extend for more than one fiscal year.

Other: Contract Term specified in _____

4. AUTHORITY TO PROCEED: Vendor is authorized to begin performance of this contract on the date of encumbrance listed on the front page of the Award Document unless either the box for "Fixed Period Contract" or "Fixed Period Contract with Renewals" has been checked in Section 3 above. If either "Fixed Period Contract" or "Fixed Period Contract with Renewals" has been checked, Vendor must not begin work until it receives a separate notice to proceed from the State. The notice to proceed will then be incorporated into the Contract via change order to memorialize the official date that work commenced.

5. QUANTITIES: The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

Open End Contract: Quantities listed in this Solicitation/Award Document are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

Service: The scope of the service to be provided will be more clearly defined in the specifications included herewith.

Combined Service and Goods: The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

One-Time Purchase: This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.

6. EMERGENCY PURCHASES: The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute a breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One-Time Purchase contract.

7. REQUIRED DOCUMENTS: All of the items checked in this section must be provided to the Purchasing Division by the Vendor as specified:

BID BOND (Construction Only): Pursuant to the requirements contained in W. Va. Code § 5-22-1(c), All Vendors submitting a bid on a construction project shall furnish a valid bid bond in the amount of five percent (5%) of the total amount of the bid protecting the State of West Virginia. The bid bond must be submitted with the bid.

PERFORMANCE BOND: The apparent successful Vendor shall provide a performance bond in the amount of 100% of the contract. The performance bond must be received by the Purchasing Division prior to Contract award.

LABOR/MATERIAL PAYMENT BOND: The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be delivered to the Purchasing Division prior to Contract award.

In lieu of the Bid Bond, Performance Bond, and Labor/Material Payment Bond, the Vendor may provide certified checks, cashier's checks, or irrevocable letters of credit. Any certified check, cashier's check, or irrevocable letter of credit provided in lieu of a bond must be of the same amount and delivered on the same schedule as the bond it replaces. A letter of credit submitted in lieu of a performance and labor/material payment bond will only be allowed for projects under \$100,000. Personal or business checks are not acceptable. Notwithstanding the foregoing, West Virginia Code § 5-22-1 (d) mandates that a vendor provide a performance and labor/material payment bond for construction projects. Accordingly, substitutions for the performance and labor/material payment bonds for construction projects is not permitted.

MAINTENANCE BOND: The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Purchasing Division prior to Contract award.

LICENSE(S) / CERTIFICATIONS / PERMITS: In addition to anything required under the Section of the General Terms and Conditions entitled Licensing, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits upon request and in a form acceptable to the State. The request may be prior to or after contract award at the State's sole discretion.

The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications regardless of whether or not that requirement is listed above.

8. INSURANCE: The apparent successful Vendor shall furnish proof of the insurance identified by a checkmark below and must include the State as an additional insured on each policy prior to Contract award. The insurance coverages identified below must be maintained throughout the life of this contract. Thirty (30) days prior to the expiration of the insurance policies, Vendor shall provide the Agency with proof that the insurance mandated herein has been continued. Vendor must also provide Agency with immediate notice of any changes in its insurance policies, including but not limited to, policy cancelation, policy reduction, or change in insurers. The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether that insurance requirement is listed in this section.

Vendor must maintain:

Commercial General Liability Insurance in at least an amount of: \$1,000,000.00 per occurrence.

Automobile Liability Insurance in at least an amount of: \$1,000,000.00 per occurrence.

Professional/Malpractice/Errors and Omission Insurance in at least an amount of: \$1,000,000.00 per occurrence. Notwithstanding the forgoing, Vendor's are not required to list the State as an additional insured for this type of policy.

Commercial Crime and Third Party Fidelity Insurance in an amount of: _____ per occurrence.

Cyber Liability Insurance in an amount of: _____ per occurrence.

Builders Risk Insurance in an amount equal to 100% of the amount of the Contract.

Pollution Insurance in an amount of: _____ per occurrence.

Aircraft Liability in an amount of: _____ per occurrence.

Notwithstanding anything contained in this section to the contrary, the Director of the Purchasing Division reserves the right to waive the requirement that the State be named as an additional insured on one or more of the Vendor's insurance policies if the Director finds that doing so is in the State's best interest.

9. WORKERS' COMPENSATION INSURANCE: Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

10. [Reserved]

11. LIQUIDATED DAMAGES: This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy. Vendor shall pay liquidated damages in the amount specified below or as described in the specifications:

_____ for _____.

Liquidated Damages Contained in the Specifications.

Liquidated Damages Are Not Included in this Contract.

12. ACCEPTANCE: Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.

13. PRICING: The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification. Notwithstanding the foregoing, Vendor must extend any publicly advertised sale price to the State and invoice at the lower of the contract price or the publicly advertised sale price.

14. PAYMENT IN ARREARS: Payments for goods/services will be made in arrears only upon receipt of a proper invoice, detailing the goods/services provided or receipt of the goods/services, whichever is later. Notwithstanding the foregoing, payments for software maintenance, licenses, or subscriptions may be paid annually in advance.

15. PAYMENT METHODS: Vendor must accept payment by electronic funds transfer and P-Card. (The State of West Virginia's Purchasing Card program, administered under contract by a banking institution, processes payment for goods and services through state designated credit cards.)

16. TAXES: The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

17. ADDITIONAL FEES: Vendor is not permitted to charge additional fees or assess additional charges that were not either expressly provided for in the solicitation published by the State of West Virginia, included in the Contract, or included in the unit price or lump sum bid amount that Vendor is required by the solicitation to provide. Including such fees or charges as notes to the solicitation may result in rejection of vendor's bid. Requesting such fees or charges be paid after the contract has been awarded may result in cancellation of the contract.

18. FUNDING: This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available. If that occurs, the State may notify the Vendor that an alternative source of funding has been obtained and thereby avoid the automatic termination. Non-appropriation or non-funding shall not be considered an event of default.

19. CANCELLATION: The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-5.2.b.

20. TIME: Time is of the essence regarding all matters of time and performance in this Contract.

21. APPLICABLE LAW: This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code, or West Virginia Code of State Rules is void and of no effect.

22. COMPLIANCE WITH LAWS: Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances.

SUBCONTRACTOR COMPLIANCE: Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to comply with all applicable laws, regulations, and ordinances. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

23. ARBITRATION: Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.

24. MODIFICATIONS: This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any change to existing contracts that adds work or changes contract cost, and were not included in the original contract, must be approved by the Purchasing Division and the Attorney General's Office (as to form) prior to the implementation of the change or commencement of work affected by the change.

25. WAIVER: The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.

26. SUBSEQUENT FORMS: The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

27. ASSIGNMENT: Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments.

28. WARRANTY: The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.

29. STATE EMPLOYEES: State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.

30. PRIVACY, SECURITY, AND CONFIDENTIALITY: The Vendor agrees that it 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/default.html>.

31. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

32. LICENSING: In accordance with West Virginia Code of State Rules § 148-1-6.1.e, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.

SUBCONTRACTOR COMPLIANCE: Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to be licensed, in good standing, and up-to-date on all state and local obligations as described in this section. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

33. ANTITRUST: In submitting a bid to, signing a contract with, or accepting a Award Document from any agency of the State of West Virginia, the Vendor agrees to 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 Vendor.

34. VENDOR CERTIFICATIONS: By signing its bid or entering into this Contract, Vendor certifies (1) that its bid or offer was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid or offer for the same material, supplies, equipment or services; (2) that its bid or offer is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this Solicitation in its entirety; understands the requirements, terms and conditions, and other information contained herein.

Vendor's signature on its bid or offer also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency. The individual signing this bid or offer on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or offer or any documents related thereto on Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

35. VENDOR RELATIONSHIP: The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor 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, licensing fees, etc. and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing.

Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

36. INDEMNIFICATION: The Vendor 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 Vendor, 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; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

37. NO DEBT CERTIFICATION: In accordance with West Virginia Code §§ 5A-3-10a and 5-22-1(i), the State is prohibited from awarding a contract to any bidder that owes a debt to the State or a political subdivision of the State. By submitting a bid, or entering into a contract with the State, Vendor is affirming that (1) for construction contracts, the Vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, neither the Vendor nor any related party owe a debt as defined above, and neither the Vendor nor any related party are in employer default as defined in the statute cited above unless the debt or employer default is permitted under the statute.

38. CONFLICT OF INTEREST: Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

39. REPORTS: Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at purchasing.division@wv.gov.

40. BACKGROUND CHECK: In accordance with W. Va. Code § 15-2D-3, the State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check. Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

41. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS: Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

- a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.
- b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process.

- c. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:
 - 1. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or
 - 2. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

42. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL: In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a “substantial labor surplus area”, as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products. This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

43. INTERESTED PARTY SUPPLEMENTAL DISCLOSURE: W. Va. Code § 6D-1-2 requires that for contracts with an actual or estimated value of at least \$1 million, the Vendor must submit to the Agency a disclosure of interested parties prior to beginning work under this Contract. Additionally, the Vendor must submit a supplemental disclosure of interested parties reflecting any new or differing interested parties to the contract, which were not included in the original pre-work interested party disclosure, within 30 days following the completion or termination of the contract. A copy of that form is included with this solicitation or can be obtained from the WV Ethics Commission. This requirement does not apply to publicly traded companies listed on a national or international stock exchange. A more detailed definition of interested parties can be obtained from the form referenced above.

44. PROHIBITION AGAINST USED OR REFURBISHED: Unless expressly permitted in the solicitation published by the State, Vendor must provide new, unused commodities, and is prohibited from supplying used or refurbished commodities, in fulfilling its responsibilities under this Contract.

45. VOID CONTRACT CLAUSES – This Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

46. ISRAEL BOYCOTT: Bidder understands and agrees that, pursuant to W. Va. Code § 5A-3-63, it is prohibited from engaging in a boycott of Israel during the term of this contract.

**ADDITIONAL TERMS AND CONDITIONS
(Architectural and Engineering Contracts Only)**

1. PLAN AND DRAWING DISTRIBUTION: All plans and drawings must be completed and available for distribution at least five business days prior to a scheduled pre-bid meeting for the construction or other work related to the plans and drawings.

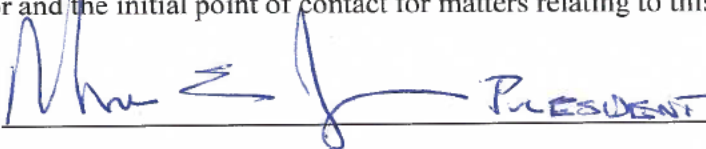
2. PROJECT ADDENDA REQUIREMENTS: The Architect/Engineer and/or Agency shall be required to abide by the following schedule in issuing construction project addenda. The Architect/Engineer shall prepare any addendum materials for which it is responsible, and a list of all vendors that have obtained drawings and specifications for the project. The Architect/Engineer shall then send a copy of the addendum materials and the list of vendors to the State Agency for which the contract is issued to allow the Agency to make any necessary modifications. The addendum and list shall then be forwarded to the Purchasing Division buyer by the Agency. The Purchasing Division buyer shall send the addendum to all interested vendors and, if necessary, extend the bid opening date. Any addendum should be received by the Purchasing Division at least fourteen (14) days prior to the bid opening date.

3. PRE-BID MEETING RESPONSIBILITIES: The Architect/Engineer shall be available to attend any pre-bid meeting for the construction or other work resulting from the plans, drawings, or specifications prepared by the Architect/Engineer.

4. AIA DOCUMENTS: All construction contracts that will be completed in conjunction with architectural services procured under Chapter 5G of the West Virginia Code will be governed by the attached AIA documents, as amended by the Supplementary Conditions for the State of West Virginia, in addition to the terms and conditions contained herein. The terms and conditions of this document shall prevail over anything contained in the AIA Documents or the Supplementary Conditions.

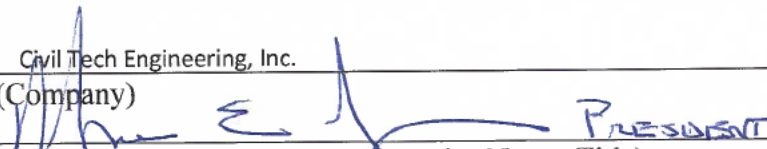
5. GREEN BUILDINGS MINIMUM ENERGY STANDARDS: In accordance with West Virginia Code § 22-29-4, all new building construction projects of public agencies that have not entered the schematic design phase prior to July 1, 2012, or any building construction project receiving state grant funds and appropriations, including public schools, that have not entered the schematic design phase prior to July 1, 2012, shall be designed and constructed complying with the ICC International Energy Conservation Code, adopted by the State Fire Commission, and the ANSI/ASHRAE/IESNA Standard 90.1-2007: Provided, That if any construction project has a commitment of federal funds to pay for a portion of such project, this provision shall only apply to the extent such standards are consistent with the federal standards.

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

(Name, Title)  PRESIDENT
(Printed Name and Title) Mark E Pennington, PE, President
(Address) 300A Prestige Drive, Hurricane, WV 25526
(Phone Number) / (Fax Number) 304-757-8094/304-757-8095
(email address) civiltech1@frontier.com

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

Civil Tech Engineering, Inc.
(Company)  PRESIDENT
(Authorized Signature) (Representative Name, Title)
Mark E Pennington, PE, President June 28, 2022
(Printed Name and Title of Authorized Representative) (Date)
304-757-8094/304-757-8095
(Phone Number) (Fax Number)
civiltech1@frontier.com
(Email Address)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: CEOI 0313 DEP22*18

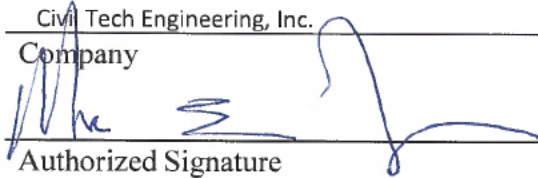
Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:
(Check the box next to each addendum received)

- | | | | |
|--------------------------|----------------|--------------------------|-----------------|
| <input type="checkbox"/> | Addendum No. 1 | <input type="checkbox"/> | Addendum No. 6 |
| <input type="checkbox"/> | Addendum No. 2 | <input type="checkbox"/> | Addendum No. 7 |
| <input type="checkbox"/> | Addendum No. 3 | <input type="checkbox"/> | Addendum No. 8 |
| <input type="checkbox"/> | Addendum No. 4 | <input type="checkbox"/> | Addendum No. 9 |
| <input type="checkbox"/> | Addendum No. 5 | <input type="checkbox"/> | Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Civil Tech Engineering, Inc.
Company

Authorized Signature

June 28, 2022
Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

AML CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE

Attachment "B"

PROJECT NAME AMLContract 9 Project North DEP22*18	DATE (DAY, MONTH, YEAR) June 28, 2022	FEIN 55-0757403
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1. FIRM NAME CIVIL TECH ENGINEERING INC.	2. HOME OFFICE BUSINESS ADDRESS 300A Prestige Drive Hurricane, West Virginia 25526	3. FORMER FIRM NAME NA
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4. HOME OFFICE TELEPHONE 304-757-8094	5. ESTABLISHED (YEAR) 1996	6. TYPE OWNERSHIP Individual <u>Corporation</u> Partnership Joint-Venture	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES NO XX
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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
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9. PERSONNEL BY DISCIPLINE

— ADMINISTRATIVE	— ECOLOGISTS	— LANDSCAPE ARCHITECTS	— STRUCTURAL ENGINEERS
— ARCHITECTS	— ECONOMISTS	— MECHANICAL ENGINEERS	1 SURVEYORS
— BIOLOGIST	— ELECTRICAL ENGINEERS	— MINING ENGINEERS	— TRAFFIC ENGINEERS
2 CADD OPERATORS	1 ENVIRONMENTALISTS	— PHOTOGRAMMETRISTS	OTHER (Technicians)
— CHEMICAL ENGINEERS	— ESTIMATORS	— PLANNERS: URBAN/REGIONAL	
3 CIVIL ENGINEERS	1 GEOLOGISTS	— 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: 3
***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? YES NO **NA**

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

NAME AND ADDRESS: Novel Geo-Environmental PLLC 806 B Street St. Albans, WV 25177	SPECIALTY: Drilling and Laboratory Soils Testing	WORKED WITH BEFORE <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	WORKED WITH BEFORE <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE <input 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
163 AML Projects - Personnel & Corporate Experience
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
2000+ 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
100+ Projects involving storm water controls and dam spillway
Design/analysis.

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 EXPERIENCE

YEARS OF AML DESIGN EXPERIENCE:

25

YEARS OF AML RELATED DESIGN EXPERIENCE:

45

YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 9

Brief Explanation of Responsibilities:

PROJECT RESPONSIBILITIES

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

COMPANY RESPONSIBILITIES

- COMPANY MANAGEMENT
- BUSINESS DEVELOPMENT
- PROJECT PLANNING AND SUPERVISION

RECENT AND ONGOING PROJECTS

- 2021 GROUP C DESIGN PROJECTS
- CHAFEY RUN STRIP – AML
- LOST CREEK (SIDERS) DS
- THOMAS SUNRISE SANITATION - 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
- WITCHER CREEK PORTALS – AML
- STOWE REFUSE PILES – AML
- RIDENOUR COMPLEX – AML
- LAKE (BELL) PORTALS – AML
- PINE BLUFF (WILSON) REFUSE - AML
- GRAFTON #4 REFUSE AND HW - AML
- LITTLE DAYCAMP BRANCH – AML
- OLDHOUSE BRANCH REFUSE – AML
- BOOTHS CREEK MINES – AML
- RT. 49 GOOLSBY LANDSLIDE - AML

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 163 AML projects, 65 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 has served as project manager on 25 AML projects since 2008. These projects have included; the Thomas Sunrise Sanitation Mine Drainage Project, Prospect Valley HW #4, Cambria Portals, Winifrede Portals, Douglas WL, Chaffey Run, and Witcher Creek Portals. Most of these projects are complete and all have been successfully completed on time and within budget. Mr. Pennington has substantial construction experience gained while administering the construction contract on over 150 projects and while serving as the Assistant Project Manager on the USACE Moorefield Flood Levee Project as an employee of Heeter Construction of Spencer, West Virginia.

EDUCATION (Degree, Year, Specialization)

BSCE/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
 CE/2013/VA 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		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Pennington, Jennifer E. Vice President - Principal Engineer	25	33	0

Brief Explanation of Responsibilities

COMPANY RESPONSIBILITIES

- COMPANY MANAGEMENT
- PROJECT PLANNING AND DIRECTION

PROJECT RESPONSIBILITIES

- LANDSLIDE ANALYSIS AND DESIGN
- HYDROLOGY AND HYDRAULICS
- FLOOD ASSESSMENT
- EROSION CONTROL
- STORM WATER CONTROLS
- GEOTECHNICAL ANALYSIS
- 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, Zebb's Creek, Birds Creek, Oldhouse Branch, Little Daycamp, Montecarlo, Chaffey Run, Lost Creek DS, and Booths 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 Eagle Point 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
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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.) Kessler, Robert R. - Geologist	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE: 12	YEARS OF AML RELATED DESIGN EXPERIENCE: 20	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 more than 48 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)
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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.) Arthur, Charles D. - CADD Designer & Survey Crew Party Chief	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE: 12	YEARS OF AML RELATED DESIGN EXPERIENCE: 20	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 2

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.

- Thomas Mine Drainage and Blowout AML Projects, Thomas, WV
- Prospect Valley Highwall No. 4, Shinnston, WV
- Winifred McFann Portals, Winifrede, Kanawha County, WV
- Nellis (Smith) Drainage, Nellis, WV
- Zebb's Creek HW#2, Barbour County, WV
- Cambria Portals, Harrison County, WV
- Hawkinberry Hollow Portals, Marion County, WV
- Thomas Sewer-Stormwater Segregation Project, Thomas, WV

- Thomas Stormwater Improvements, Thomas, WV
- Nearly 40 dam modification projects throughout WV
- Holiday Inn Express, Mineral Wells, WV
- Fairfield Inn & Suites, Weirton, WV
- Birds Creek Portals, Preston County, WV
- Witcher Creek Portals, Kanawha County, WV
- Montecarlo Complex, Wyoming County, WV
- Grafton#4 Refuse and Highwall, Taylor County, WV
- Little Daycamp Branch, McDowell County, WV
- Oldhouse Branch Refuse - Wyoming County, WV
- Booths Creek Browning Farm Mines, Marion County, WV
- Rt. 49 Goolsby Landslide, Mingo County, WV
- Chaffey Run Strip, Tucker County, WV
- Monarch Portals, Kanawha County, WV
- Lost Creek (Siders) Dangerous Slide, Harrison County, WV

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

Welding/72 hours - Dec 1993 - Richmond Technical Center, Richmond, VA

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

Software:

- Autocad Civil3D
- Microstation
- Carlson Civil and Survey
- HEC-1
- HEC-2
- HECRAS
- HEC-HMS
- Dams2
- Hydrocad version 9
- Flowmaster
- Sewercad
- Watercad
- PCstable
- SPW911 - Pile Buck Sheet Pile Wall Design Program
- Word Perfect, Excel, and other office support programs.

Equipment:

- 2 4WD Pickup
- 1 Jeep Grand Cherokee
- 1 Jeep Cherokee
- 4 Desktop Computers
- 5 Laptop Computers
- 4 Digital Cameras
- 1 HP Designjet 1050C Plotter
- 4 HP Deskjet Printers
- 1 Color Laser Printer
- GPS and 1 Topcon Total Station & Carlson Controller
- 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
Six Dam Modifications Rollins 1 and 2 Fairfax Pond Upper Decker 3 and 7 Dams Turkey Run Dam	Brad Leslie WVDNR Parks & Recreation Section 324 Fourth Ave. South Charleston, WV 25303	Topographic Mapping Design Permitting Bidding Construction Monitoring Contract Administration	\$ 4,000,000 to 5,000,000 (Estimated)	Mapping 100% Design 100% Permitting 100% Bidding 100% Const. Monitoring 50% Contract Admin 50% Construction ongoing
Chaffey Run Strip Tucker County, WV	Sheldon Holbert WVDEP-AML Bridgeport, WV	Subsurface Investigation Design Permitting Bidding Construction Assistance	\$ 2,000,000 - 3,000,000 (Estimated)	Design 90% (scope revised) Permitting 100% Bidding 0% Const. Assistance 0% Construction expected 2022.
MS Lake Access Improvements Grant County, WV	Brad Leslie WVDNR Parks & Recreation Section 324 Fourth Ave. South Charleston, WV 25303	Design Permitting Bidding Construction Assistance	Est. \$ 1,000,000	Design 100% Permitting 100% Bidding 0% Const. Assistance 0% Construction expected 2022.
Winfield Water Supply Dam Modification	Mr. Gary Young G&G Builders 135 Corporate Center Drive Scott Depot, WV 25526	Topographic Mapping Design Permitting Bidding Construction Monitoring Contract Administration	\$ 250,000 (Estimated)	Mapping 100% Design 100% Permitting 100% Bidding 0% Const. Monitoring 100% Contract Admin 0% Construction complete 2021
Hazel Run Dam Modification Preston County, WV	Mr. James Collins 1316 Summers School Road Morgantown, WV 26508	Topographic Mapping Design Permitting Bidding Construction Monitoring Contract Administration	\$ 250,000 (Estimated)	Mapping 100% Design 50% Permitting 50% Bidding 0% Const. Monitoring 0% Contract Admin 0% Construction TBA

Lake Dredging Project Beech Fork Lake Beech Fork State Park	Brad Leslie WVDNR Parks & Recreation Section 324 Fourth Ave. South Charleston, WV 25303	Mapping Design Permitting Bidding	\$ 1,000,000 (Estimated)	Mapping 100% Design 100% Permitting 100% Bidding 0% Const. Monitoring 0% Contract Admin 0% Construction expected 2021-2024
Dickinson & Brood Pond Dam Modifications FMC Sportsman's Club Hurricane, WV	Mr. James Pringle FMC Sportsman's Club Hurricane, WV	Topographic Mapping Design Permitting Bidding Construction Monitoring Contract Administration	\$ 300,000 (Estimated)	Mapping 100% Design 100% Permitting 100% Bidding 0% Const. Monitoring 40% Contract Admin 0% Construction underway
TOTAL NUMBER OF PROJECTS: Seven			TOTAL ESTIMATED CONSTRUCTION COSTS: \$ 10,800,000	

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)	
Conaway Run Dam Modification Tyler County, WV	Donald Bailey III WVDNR Parks & Recreation Section 324 Fourth Ave. South Charleston, WV 25303	Topographic Mapping Design Permitting Bidding Construction Monitoring Contract Administration	2017	YES	
Lake Bell Portals Kanawha County, WV	Jonathan Holbert WVDEP-AML Charleston, WV	Design Permitting Bidding Construction Assistance	2019	YES	

Reservoir Dam Breach Repair Palestine Fish Hatchery Wirt County, WV	Mark Proctor WVDNR Parks & Recreation Section 324 Fourth Ave. South Charleston, WV 25303	Design Permitting Bidding Construction Monitoring Contract Administration	2018	YES
MM16 Culvert Collapse Repair North Bend Rail Trail Wirt County, WV	Mark Proctor WVDNR Parks & Recreation Section 324 Fourth Ave. South Charleston, WV 25303	Design Permitting Bidding Construction Monitoring \$ 160,000	2019	YES
Cacapon Dam Modifications - Park and Reservoir Dams	Mr. Brad Leslie WVDNR Parks and Recreation Section 324 4 th Avenue South Charleston, WV	\$ 1,700,000	2017	YES
MM32 Culvert Collapse Repair North Bend Rail Trail Wirt County, WV	Mark Proctor WVDNR Parks & Recreation Section 324 Fourth Ave. South Charleston, WV 25303	Design Permitting Bidding Construction Monitoring \$ 200,000	2021	YES
Culloden PSD Dam Modification Reduction Below Jurisdiction Culloden, WV	Mr. Brian Tucker WV American Water Charleston, WV	\$ 500,000	2017	YES
Booths Creek (Browning Farm) Mines Marion County, WV	Gregg Smith WVDEP-AML Bridgeport, WV	\$ 750,000 (Estimated)	2017	YES
Grafton #4 Refuse & HW Taylor County, WV	Gregg Smith WVDEP-AML Bridgeport, WV	\$ 750,000 (Estimated)	2016	YES
Oldhouse Branch Refuse Piles Wyoming County, WV	Mark Proctor WVDEP-AML Oak Hill, WV	\$ 750,000 (Estimated)	2017	YES
Erosion and Landslide Repairs North Bend Rail Trail	Mr. Brad Leslie WVDNR Parks and Recreation Section 324 4 th Avenue South Charleston, WV	\$ 200,000	2016	YES

Erosion and Landslide Repairs Greenbrier River Trail	Mr. Brad Leslie WVDNR Parks and Recreation Section 324 4 th Avenue South Charleston, WV	\$ 200,000	2016	YES
Railroad Embankment Repair McGuire Nuclear Station Huntersville, NC	Mr. Evan Katzke Duke Power McGuire Nuclear Station Huntersville, NC	\$ 1,500,000	2013	YES
Stowe Refuse Piles Logan County, WV	Roger Earle WVDEP - AML Charleston, WV	\$ 750,000	2013	YES
Ridenour Complex Monongalia County, WV	Gregg Smith WVDEP-AML Bridgeport, WV	\$ 250,000	2013	YES
Braeholm (Evans) Portals and Drainage Logan County, WV	Roger Earle WVDEP - AML Charleston, WV	\$ 250,000	2013	YES
Douglas Waterline Extension Tucker County, WV	Jonathan Holbert WVDEP-AML Charleston, WV	\$ 250,000	2013	YES

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) **None**

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH

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 Bridgeport, Charleston, and Fayetteville 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 Power, 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, landslides, 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.

A handwritten signature in blue ink, appearing to read 'Mark E. Pennington', written in a cursive style.

Signature: _____

Title: President

Printed Name: Mark E. Pennington

Date: June 28, 2022

AML and RELATED PROJECT EXPERIENCE MATRIX																					
PROJECT	Exp. Basis C Corp. P Personal	Additional Info Provided in Section (s) **	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.	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Nitigation/ Replacement	Construction Inspection/Management	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Mark Pennington	Jennifer Pennington	Robert Kessler	Charles Arthur Jr.
Thomas Sunrise Sanitation Mine Drain	C	A		X		X					X		X				M/P	P		P	
Thomas Sunrise Sanitation Mine Blowout	C	A		X	X	X					X		X		X		M/P	P		P	P
Prospect Valley Highwall #4	C	A	X	X	X	X					X		X		X		M/P	P	P	P	P
Winifred (McFann) Portals	C	A		X	X	X					X		X				M/P	P	P	P	P
Douglas WL Extension	C	A									X	X	X				M/P	P	P	P	P
Pines CC Subsidence	C	A				X				X	X	X			X		M/P	P	P	P	P
Cambria Portals & Drainage	C	A		X	X	X					X	X	X		X		M/P	P	P	P	P
Zebbs Creek HW#2	C	A	X			X					X		X		X		M/P	P	P	P	P
Nellis (Smith) Drainage	C	A				X					X		X				M/P	P	P	P	P
Hawkinberry Hollow	C	A	X	X	X	X			X		X	X	X				M/P	P	P	P	P
Birds Creek Portals	C	A	X	X	X	X					X	X	X		X		M/P	P	P	P	P
Stowe Refuse Piles	C	A	X	X		X					X		X		X		M/P	P	P	P	P
Ridenour Complex	C	A	X	X	X	X			X		X		X		X		M/P	P	P	P	P
Breaholm (Evans) Portals	C	A	X	X	X	X					X		X		X		M/P	P	P	P	P
Witcher Creek Portals	C	A	X	X	X	X					X	X	X	X	X		M/P	P	P	P	P
Turner Slide	P	A	X	X		X					X				X		M/P	P			
Montecarlo Complex	C	A	X	X	X	X			X		X		X		X		M/P	P	P	P	P
Grafton #4 Refuse and HW	C	A	X	X	X	X			X		X		X		X		M/P	P	P	P	P
Little Daycamp Branch	C	A	X	X	X	X					X		X		X		M/P	P	P	P	P
Oldhouse Branch	C	A	X	X	X	X					X			X	X		M/P	P	P	P	
Booths Creek Mines	C	A		X	X	X					X			X	X		M/P	P	P	P	
Lake Bell Portals	C	A	X	X	X	X					X		X		X		M/P	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.

ABANDONED MINE LANDS (AML) CONTRACTOR INFORMATION FORM

You must complete this form for your AML contracting officer to request an eligibility evaluation from the Office of Surface Mining Reclamation and Enforcement (OSMRE) to determine if you are eligible to receive an AML contract. This requirement can be found under OSMRE's regulations at 30 CFR 874.16. **NOTE:** This form must be signed and **dated within 30 days** of submission to be considered for a current bid.

Part A: General Information

Business Name: Civil Tech Engineering, Inc.
 Tax ID #: 55-0757403
 Address: 300A Prestige Drive
 City, State, & Zip: Hurricane, WV 25526
 Phone Number: 304-757-8094
 Email Address: civiltech1@frontier.com

Part B: Obtain an Organizational Family Tree (OFT) from the Applicant Violator System (AVS)

If you plan to certify the existing AVS information or submit updates under Part C, you must include an OFT. Instructions for downloading an OFT from the AVS can be found at:

<https://www.osmre.gov/resources/forms/OMB1029-0119instructions.pdf>

If you require assistance you may contact the AVS Office by phone at: 800-643-9748, or by email at: avshelp@osmre.gov.

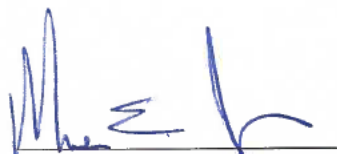
Part C: Certifying and updating information in the AVS

Select one of the options, follow the instructions for the selected option, sign, and date below.

I, _____, have express authority to certify that:
 (Print Name)

1. Our business is listed in the AVS. The information is accurate, complete, and up to date. (If you select this option, you must attach an Entity OFT from the AVS to this form). Do not complete Part D.
2. Our business is in the AVS. The information needs to be updated. (If you select this option, you must attach an Entity OFT from the AVS to this form). Complete Part D to provide the missing or corrected information.
3. Our business is not listed in the AVS. The information needs to be added. Complete Part D to provide the information.

June 28, 2022
Date


Signature

President
Title

Part D: OFT Information

Contractor's Business Name: Civil Tech Engineering, Inc.

If the current Entity OFT information for your business is incomplete in the AVS, or if there is no information in the AVS for your business, you must provide all of the following information as it applies to your business. Please include additional copies of this page if the space below is not sufficient to capture all information.

- Every officer (President, Vice President, Secretary, Treasurer, etc.);
- All Directors, Partners, and Members;
- All persons performing a function similar to a Director;
- Every person or business that owns 10% or more of the voting stock in your business;
- Any other person(s) who has the ability to determine the manner in which the AML reclamation project is being conducted.
- **Please list an end date for any person who is no longer with your business.**

Name: Mark E Pennington, PE
 Address: 300A Prestige Drive
 City, State, Zip: Hurricane, WV, 25526
 Begin Date: March 1996
 End Date: NA
 % Ownership: 100
 Position/Title: President/Principal Engineer
 Phone Number: 304-757-8094

Name: _____
 Address: _____
 City, State, Zip: _____
 Begin Date: _____
 End Date: _____
 % Ownership: _____
 Position/Title: _____
 Phone Number: _____

Name: _____
 Address: _____
 City, State, Zip: _____
 Begin Date: _____
 End Date: _____
 % Ownership: _____
 Position/Title: _____
 Phone Number: _____

Name: _____
 Address: _____
 City, State, Zip: _____
 Begin Date: _____
 End Date: _____
 % Ownership: _____
 Position/Title: _____
 Phone Number: _____

PAPERWORK REDUCTION STATEMENT

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

Public reporting burden for this form is estimated to range from 15 minutes to one hour, with an average of 30 minutes per response, including time for reviewing instructions, gather and maintaining data, and completing and reviewing the form. You may direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Office of Surface Mining Reclamation and Enforcement, 1849 C Street, NW, Room 4559, Washington, DC 20240.

SECTION A – AML EXPERIENCE

SECTION A - ABANDONED MINE LANDS EXPERIENCE

1. **More than 50 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 Bridgeport, Fayetteville, and Charleston, WV include:**

- 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). Construction Complete 2013.
- Cambria Portals & Drainage Design (DEP 14845). Construction Complete 2012.
- Birds Creek Portals (DEP 15065). Construction complete 2012.
- Nellis (Smith) Drainage (DEP15002). Construction complete 2012
- Zebb's Creek Highwall #2 (DEP14991). Construction complete 2011.
- Hawkinberry Hollow Portals and Drainage (DEP 15220). Construction complete 2012.
- Stowe Refuse Piles (DEP15586). Construction Complete 2014.
- Witcher Creek Portals and Refuse (DEP15601). Construction Complete 2014.
- Ridenour Complex (DEP15598). Construction complete 2013.
- Braeholm (Evans) Portals & Drainage (DEP15634). Construction complete 2013.
- Montecarlo Complex (DEP16032). Complete through bidding 2014 Cancelled after bidding.
- Grafton #4 Refuse & Highwall (DEP16073) – Construction Complete.
- Little Daycamp Project (DEP16033) – Construction Complete 2015
- Oldhouse Branch Refuse (DEP16395) – Construction Complete
- Booths Creek Browning Farm Mines (DEP16430) – Construction Complete
- Rt. 49 (Goolsby) Landslide (Emergency Project) – Construction Complete
- Monarch Portals – Construction Complete
- Chaffey Run Strip – Construction Anticipated 2021
- Lake Bell Portals – Construction Complete 2019
- Pine Bluff (Wilson) Refuse – Design Complete, Permitting Underway – Construction Complete 2020

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 nearly 2000 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-

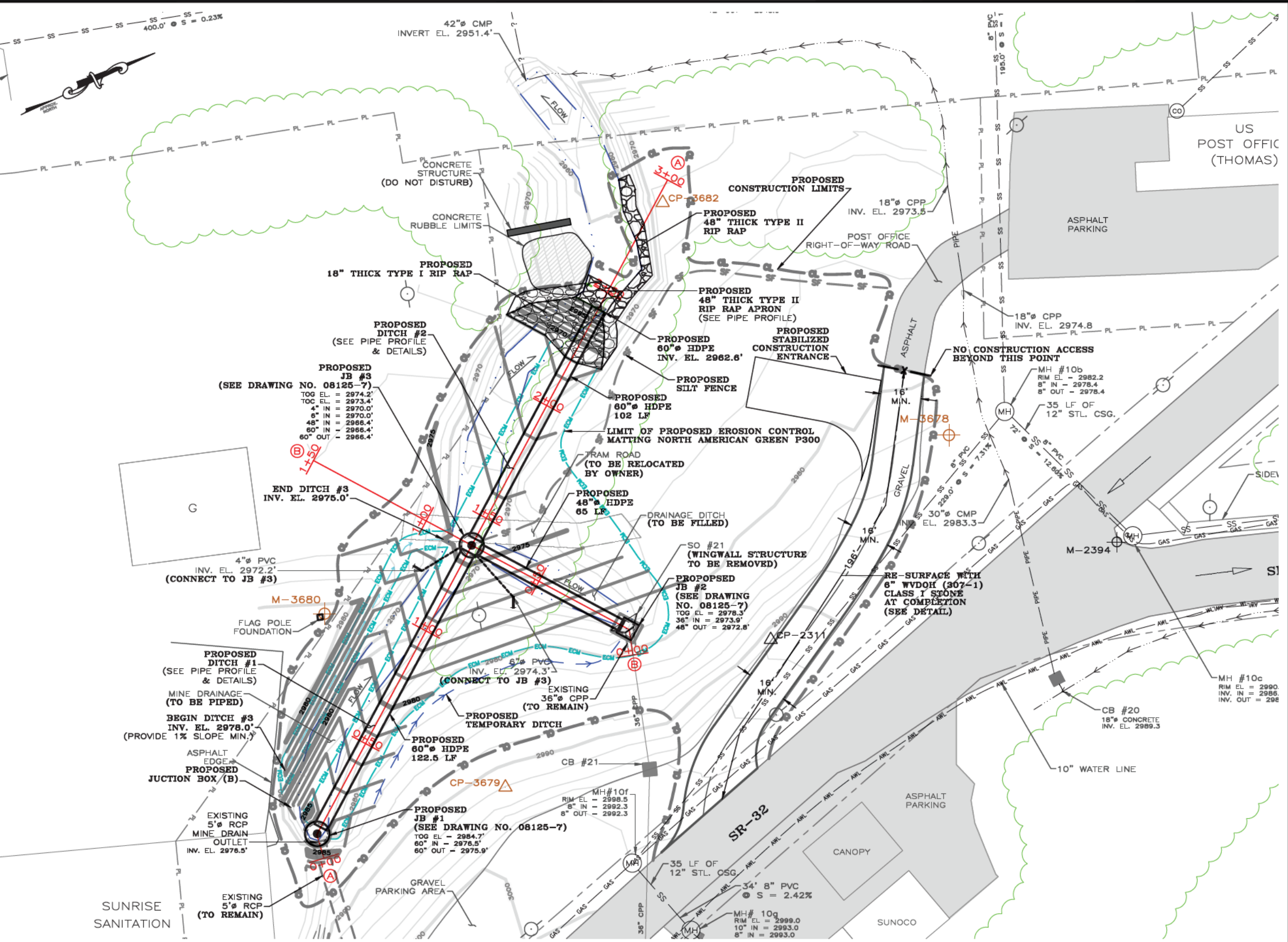
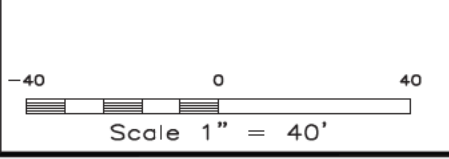
- 2976.8 SPOT ELEVATION
- UTILITY POLE
- EXISTING DITCH
- TREE LINE
- PL PROPERTY LINE (TAX MAP)
- RIGHT-OF-WAY
- PROPERTY CORNER
- ELECTRIC METER
- SANITARY SEWER MANHOLE
- CLEAN OUT
- FIRE HYDRANT
- WATER METER
- WATER VALVE
- WATER LINE MARKER
- GAS METER
- GAS VALVE
- GAS LINE MARKER
- STRUCTURE
- ASPHALT/GRAVEL SURFACE
- EXISTING STORM SEWER
- ABANDONED WATER LINE
- WATER VALVE
- GAS VALVE
- FENCE
- WATER LINE
- GAS LINE
- SANITARY SEWER LINE
- SANITARY SEWER/STORM WATER LINE
- UNKNOWN PIPE ALIGNMENT
- UNDERGROUND ELECTRIC
- CP-47 CONTROL POINT
- M-3 SURVEY MONUMENT
- TOG INV. TOP OF GRATE ELEVATION INVERT ELEVATION
- BASELINE
- 2980 ORIGINAL CONTOUR
- 2960 PROPOSED CONTOUR
- PROPOSED EROSION CONTROL MATTING
- PROPOSED DITCH
- JB #1 PROPOSED JUNCTION BOX
- PROPOSED CONSTRUCTION LIMITS
- PROPOSED TYPE I RIP RAP
- PROPOSED TYPE II RIP RAP
- PROPOSED GABION WALL

SURVEY CONTROL INFORMATION

POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
M-3678	9678.94	10980.81	2982.7	1/2 REBAR
M-3680	9900.88	10880.94	2981.0	1/2 REBAR
CP-3676	9889.37	10858.31	3005.7	HUB/TAC
CP-3679	10309.54	9817.46	2992.1	HUB/TAC
CP-3682	9905.45	11104.93	2972.6	SPIKE
CP-3684	9927.56	11112.92	2966.3	HUB/TAC



MINE DRAIN LOCATION
 N39° 08' 47.273"
 W79° 29' 56.279"



PROPOSED SITE PLAN
 SCALE: 1" = 40'

NOTE: 1) TOPOGRAPHIC BY CTE 5/13/2008 & 5/14/2008.
 2) HORIZONTAL & VERTICAL CONTROL BASED ON CITY OF THOMAS BENCH MARKS.

REVISIONS

DATE	BY	DESCRIPTION
8/04/08	COA	ELIMINATED DITCH FROM JB #2 TO JB #3.
8/04/08	COA	ADDED EROSION CONTROL MATTING.
8/17/08	COA	CHANGED CONSTRUCTION LIMITS

SCALE: AS SHOWN
 DRAWN BY: COA
 CHECKED BY: MEP

AML & R
 WVDWP

SITE PLAN
 PROPOSED MINE DRAIN
 THOMAS (SUNRISE) SANITATION

CIVIL TECH ENGINEERING, INC.
 HURRICANE, WEST VIRGINIA

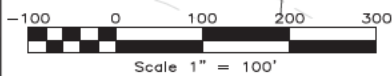
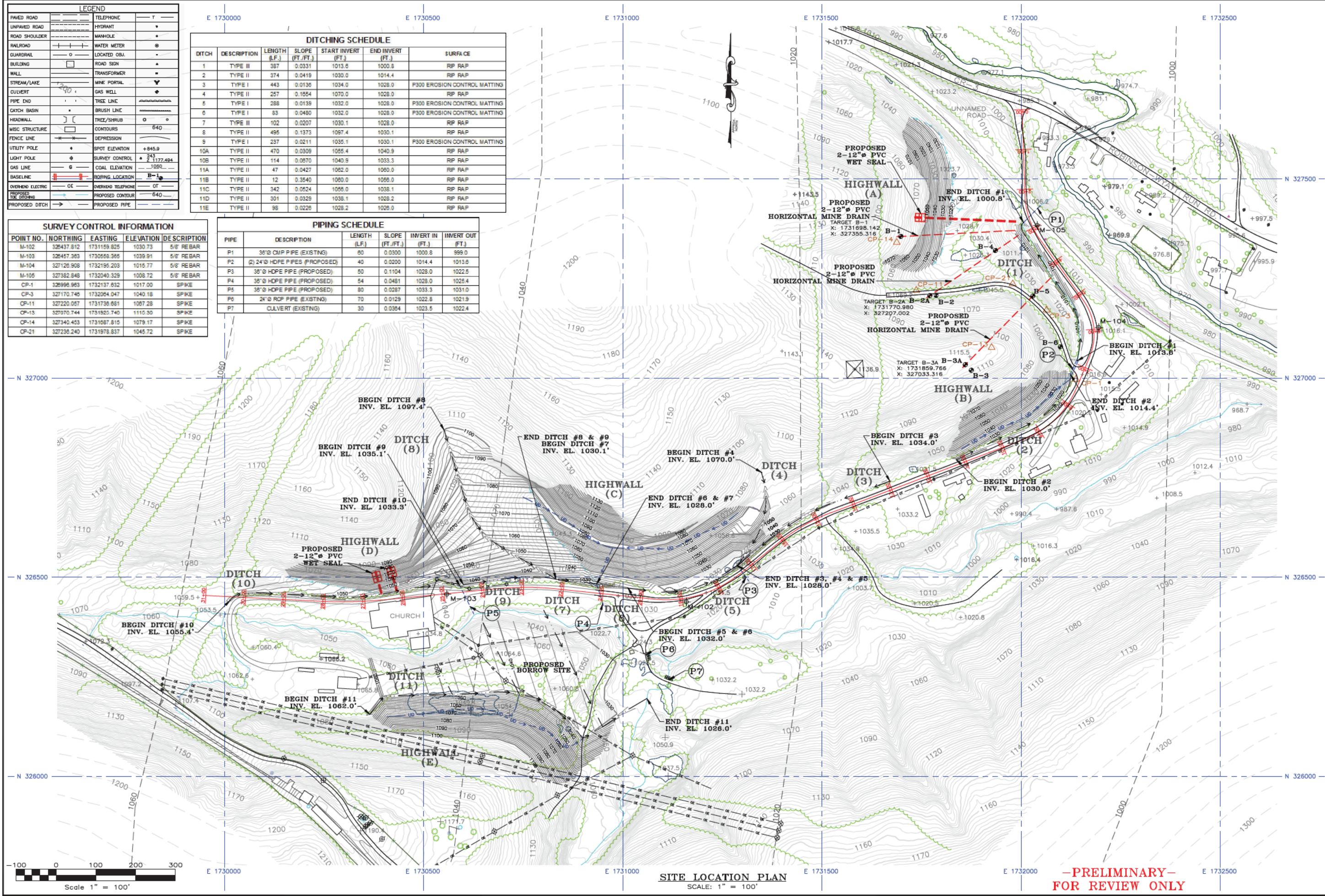
DATE: 8/04/08
 DRAWING NO. 08125-1

LEGEND	
PAVED ROAD	TELEPHONE
UNPAVED ROAD	HYDRANT
ROAD SHOULDER	MANHOLE
RAILROAD	WATER METER
GUARDRAIL	LOCATED OBJ.
BUILDING	ROAD SIGN
WALL	TRANSFORMER
STREAM/LAKE	MINE PORTAL
CULVERT	GAS WELL
PIPE END	TRIE LINE
CATCH BASIN	BRUSH LINE
HEADWALL	TREE/SHRUB
MISC. STRUCTURE	CONTOURS
FENCE LINE	DEPRESSION
UTILITY POLE	SPOT ELEVATION
LIGHT POLE	SURVEY CONTROL
GAS LINE	COAL ELEVATION
BASELINE	BORING LOCATION
OVERHEAD ELECTRIC	OVERHEAD TELEPHONE
PROPOSED THE SIGNS	PROPOSED CONTOUR
PROPOSED DITCH	PROPOSED PIPE

DITCHING SCHEDULE						
DITCH	DESCRIPTION	LENGTH (L.F.)	SLOPE (FT./FT.)	START INVERT (FT.)	END INVERT (FT.)	SURFACE
1	TYPE III	387	0.0331	1013.6	1000.8	RIP RAP
2	TYPE II	374	0.0419	1030.0	1014.4	RIP RAP
3	TYPE I	443	0.0136	1034.0	1028.0	P300 EROSION CONTROL MATTING
4	TYPE II	257	0.1854	1070.0	1028.0	RIP RAP
5	TYPE I	288	0.0138	1032.0	1028.0	P300 EROSION CONTROL MATTING
6	TYPE I	83	0.0480	1032.0	1028.0	P300 EROSION CONTROL MATTING
7	TYPE III	102	0.0207	1030.1	1028.0	RIP RAP
8	TYPE II	495	0.1373	1097.4	1030.1	RIP RAP
9	TYPE I	237	0.0211	1035.1	1030.1	P300 EROSION CONTROL MATTING
10A	TYPE II	470	0.0309	1055.4	1040.9	RIP RAP
10B	TYPE II	114	0.0670	1040.9	1033.3	RIP RAP
11A	TYPE II	47	0.0427	1082.0	1090.0	RIP RAP
11B	TYPE II	12	0.3540	1080.0	1066.0	RIP RAP
11C	TYPE II	342	0.0524	1056.0	1038.1	RIP RAP
11D	TYPE II	301	0.0328	1038.1	1028.2	RIP RAP
11E	TYPE II	98	0.0228	1028.2	1026.0	RIP RAP

SURVEY CONTROL INFORMATION				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
M-102	328437.812	1731159.825	1030.73	5/8" REBAR
M-103	328457.383	1730558.385	1039.91	5/8" REBAR
M-104	327126.908	1732195.203	1015.77	5/8" REBAR
M-105	327382.848	1732040.329	1008.72	5/8" REBAR
CP-1	328998.983	1732137.832	1017.00	SPIKE
CP-3	327170.746	1732054.047	1040.18	SPIKE
CP-11	327220.057	1731736.861	1067.28	SPIKE
CP-13	327070.744	1731825.740	1110.30	SPIKE
CP-14	327340.403	1731087.815	1079.17	SPIKE
CP-21	327238.240	1731978.837	1045.72	SPIKE

PIPING SCHEDULE					
PIPE	DESCRIPTION	LENGTH (L.F.)	SLOPE (FT./FT.)	INVERT IN (FT.)	INVERT OUT (FT.)
P1	36" CMP PIPE (EXISTING)	80	0.0300	1000.8	999.0
P2	24" HDPE PIPES (PROPOSED)	40	0.0200	1014.4	1013.8
P3	36" HDPE PIPE (PROPOSED)	50	0.1104	1028.0	1022.5
P4	36" HDPE PIPE (PROPOSED)	54	0.0481	1028.0	1026.4
P5	36" HDPE PIPE (PROPOSED)	80	0.0287	1033.3	1031.0
P6	24" RCP PIPE (EXISTING)	70	0.0129	1022.8	1021.9
P7	CULVERT (EXISTING)	30	0.0364	1023.5	1022.4



SITE LOCATION PLAN
SCALE: 1" = 100'

**-PRELIMINARY-
FOR REVIEW ONLY**

REVISIONS DESCRIPTION DATE BY	
SCALE: AS SHOWN DRAWN BY: CDA CHECKED BY: MEP	
AML & R WDEP	
SITE LOCATION PLAN PROSPECT VALLEY HIGHWALL #4 SHENNSTON, WEST VIRGINIA	
CIVIL TECH ENGINEERING, INC. HURRICANE, WEST VIRGINIA	
DATE 9/18/09 DRAWING NO. 09107-2	

**SECTION B.1 – HISTORY OF FIRM, OFFICE, STAFF, AND
EQUIPMENT**

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 more than 70 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
 - 60 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



- **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
Scott Barnes – Senior Engineering Technician



- ❑ **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 and data collectors.

RESUME OF MARK E. PENNINGTON
PRESIDENT – CIVIL TECH ENGINEERING INC.
11 - 20 - 17

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, Virginia, Ohio, and North Carolina

Professional Surveyor - West Virginia

EMPLOYMENT HISTORY:

Principal Engineer -**CIVIL TECH ENGINEERING, INC.**
President February 1996 to Present

Chief Engineer -**Heeter Construction, Inc., Spencer, WV**
Vice President February 1996 to April 1997

Principal Engineer -**Triad Engineering, Inc., St. Albans, WV**
Vice President September 1980 to February 1996

Staff Engineer -**American Electric Power Service Corporation**
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 founders 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. Recently, Mr. Pennington managed compaction testing at the John Amos Plant Quarrier Landfill under contract with AEP.

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 technicians, surveyors, drillers, marketing, and clerical personnel. Mr. Pennington's areas of expertise include: general civil design, dam design/rehabilitation/safety, abandoned mine lands reclamation, 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.

RESUME OF MARK E. PENNINGTON CONTINUED

Mr. Pennington has provided and directed engineering services on nearly 2000 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, Duke Energy, Huntington Area Development Authority, City of Belington, Culloden PSD, City of South Charleston, City of Thomas, City of Pennsboro, 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:

- Non Nuclear Power Plant Civil Design Services
- Dam Inspection, Design, and Rehabilitation
- Surveying and Mapping
- Abandoned Mine Land Reclamation Projects
- 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
- Water Line Extension
- Hazardous Waste Landfill Design/Permitting
- Groundwater Contamination Studies
- Stormwater Design and Control
- Erosion and Sediment Control Design and Permitting
- Construction Quality Control
- Construction Contract Administration

Non-Nuclear Power Plant Engineering Services: Mr. Pennington started his career as an employee of AEP working as a staff engineer in the civil engineering lab and ash utilization sections where he gained experience with civil design, materials testing, and geotechnical engineering associated with dam and power plant construction. Since forming Civil Tech he has been the engineer of record on power plant projects for clients including AEP, Dominion Generation, and Duke Energy. Typical services have included civil design, geotechnical engineering, surveying, permitting, and construction phase services. Projects have included: dams, railroad spurs, pavements, walls, dams, ammonia unloading, coal handling, ponds, cooling towers, and ash landfills. Mr. Pennington has also managed projects for Dominion at Mt. Storm Power Station since 2000.

Civil Design, Municipal Sewage and Water Service: Mr. Pennington was the design engineer for 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. Phase I of the sanitary sewer/stormwater segregation project for the City of Thomas was completed in 2009. 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. He was recently responsible for the design of a 1 ½ mile water service extension for the town of Douglas, West Virginia.

RESUME OF MARK E. PENNINGTON CONTINUED

Dam Safety: Mr. Pennington is qualified in the field of dam safety, rehabilitation, and design. He is responsible for performing over 70 annual safety inspections for various dams and clients throughout West Virginia and surrounding states. Mr. Pennington has been responsible for the design of over 48 dam 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 is provided below:

- Cacapon Park and Reservoir Dams, Cacapon State Park
- 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
- Dawson Dam Modification, Dawson, WV
- Plum Orchard Dam Seepage Collection and Maintenance Bench, Fayette Co. WV
- Palestine Hatchery Reservoir Dam Repair, Elizabeth, 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 has recently provided bidding and construction consultation as well as value engineering proposals, waste site design, and other engineering services for Heeter Construction.

RESUME OF MARK E. PENNINGTON CONTINUED

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 has been responsible for the completion of more than 25 AML projects for the WVDEP since 2008. These projects have ranged in size from under \$ 250,000 to over \$ 1,000,000. 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 also been responsible for the investigation of mine subsidence claims throughout West Virginia for the State Board of Risk and Insurance Management (BRIM) and various insurance companies including State Farm and Nationwide. Prior to working with the WVDEP - AML, he worked with the Federal Office of Surface Mining on similar projects.

Insurance and BRIM Investigation: During Mr. Pennington's career, he has provided professional engineering services to insurance companies including State Farm, Nationwide, St. Paul, Westfield, Travelers, Allstate, Prudential, Hartford, and others. From 2002 to 2005, Mr. Pennington also investigated numerous mine subsidence claims for BRIM. Services provided to insurance companies 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.

RESUME OF JENNIFER E. PENNINGTON
PRINCIPAL ENGINEER
11.20.17

EDUCATION

BSCE - Civil Engineering - 1988 - University of Kentucky

CERTIFICATION/REGISTRATION

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

EMPLOYMENT HISTORY

Principal Engineer	Civil Tech Engineering, Inc., St. Albans, WV March 1996 to Present
Senior Engineer	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 20 AML projects since 2008. Ms. Pennington has been responsible for project management on these and many other large scale projects including geotechnical and 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, HEC-HMS, 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.

H. Thomas Brown

Objective

Engineering Management

Work experience

2004-2017 (Retired) 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 ROBERT R. KESSLER
GEOLOGIST
11 - 11 - 17

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, Cacapon State Park Dam Modifications.

Geologist - Aggregate Group, West Virginia Division of Highways
Group Leader - August 1998 to Present, Materials Control Division

Division Reorganization

Geologist - All Materials Testing Sections & Roadway Analysis
Testing Group Leader - West Virginia Division of Highways
April 1992 to August 1998, Materials Control Division

Division Reorganization

Geologist - West Virginia Department of Transportation
Technical Advisor - January 1986 to April 1992, Materials Control Division

Division Reorganization

Geologist - Aggregate Section, West Virginia Department of Highways
Assistant Director - 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.

RESUME OF CHARLES D. ARTHUR, Jr.
SENIOR DESIGNER
10 - 01 - 14

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 Civil3D 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:

- Cacapon Dam Modifications
- Palestine Hatchery Reservoir Dam Repairs
- Dawson Dam Modifications
- Plum Orchard Seepage Collection and Maintenance Bench
- Greenbrier River Trail Landslide Repair
- North Bend Rail Trail Erosion Repairs
- 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 (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
- 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 SCOTT T. BARNES
SENIOR ENGINEERING TECHNICIAN – CONSTRUCTION MANAGER
11.20.17

EDUCATION:

Great Bridge High School

Great Bridge, Virginia 1973

North Carolina Commercial Contractor's License.

North Carolina Real Estate License.

North Carolina Department of Transportation Concrete Technician.

EMPLOYMENT HISTORY

Resident Technician

Civil Tech Engineering Inc.

September 2016 – Present

Resident Technician for Cacapon Dam Modifications. Responsible for daily oversight of a \$ 1.7 Million construction project and reporting. Served as owner and engineer's site representative. Project was completed on time and within budget.

Superintendent

Housecraft, LLC, College Park, Maryland.

June 2014 – May 2015

76 Kalorama Circle, Washington, D.C.; 3.2 million dollar renovation and addition which included a substantial amount of concrete work. The owners of the home terminated the contract with Housecraft in May of 2015, but requested that I help to complete the renovations. I remained on the job until January of 2016.

Superintendent

F.D. Neal Construction, Woodstock, Virginia

June 2012 – May 2013

Foundation repairs, soil retention, new construction utilizing A.B. Chance Helical piers

Superintendent

Southland Concrete, Dulles, Virginia

June 2004 – March 2012

Concrete construction subcontractor, superintendent on the following:

Tyson's II, ten floor, steel frame office building.

Steeplechase, four tilt-ups- office/warehouses. Tucon Construction.

Lafayette, two tilt-ups-office/warehouses. Utica Contracting.

Avalon, three tilt-ups – office/warehouses. Tucon Construction.

DEA Data Center, tilt-ups. Hitt Contracting.

US Pharmacopeia, concrete frame multi-story parking garage and office. DPR.

Northwoods, six tilt-ups, office/warehouses.

RESUME OF SCOTT T. BARNES CONTINUED

Wisconsin Place, concrete frame 15 story apartment and below grade parking. I was one of three Southland Concrete superintendents on this job. Turner Construction.

Woodgrove High school, steel frame and masonry. Davis Construction.

Nap of the Cap, two precast buildings on CIP walls and two story steel frame office. Hitt Contracting.

Vida Fitness, concrete frame three story. Forrester.

United Therapeutics, concrete frame, seven floors. I completed the last four months of this job. DPR.

Inova Fairfax Hospital, concrete frame, 11 floors. I completed the last five months of this job. Turner Construction.

Superintendent

Federal Concrete, Centerville, Virginia

August 2003 - June 2004

Residential stamped concrete.

Superintendent

Southland Concrete, Dulles, Virginia

October 2002 - August 2003

Five tilt-ups.

Superintendent

Cleveland Cement, Richmond, Virginia

May 2001 - September 2002

Richmond Convention Center, steel frame, concrete frame, column up to 76' tall, walls, SOG. Turner Construction.

Superintendent

Southland Concrete, Dulles, Virginia.

January 2000 - May 2001

Steel frame and tilt-ups.

Self Employed Concrete Subcontractor

S. T. Barnes, Inc., Jarvisburg, North Carolina.

1992 - January 2000

Commercial concrete construction with sales of 2 million per year. Owned a 28-meter concrete pump, thirty employees. Cell tower mat foundations, two museums, schools, foundation for the Cape Hatteras Lighthouse.

Manager, Concrete Division

Outer Banks Contractors, Kitty Hawk, North Carolina.

1983 - 1992

Commercial concrete, twenty employees, manager of two small ready mix plants, forming and finishing crew, curb and gutter crew.

RESUME OF SCOTT T. BARNES CONTINUED

Superintendent

Housecraft, LLC, College Park, Maryland.

June 2014 – May 2015

76 Kalorama Circle, Washington, D.C.; 3.2 million dollar renovation and addition which included a substantial amount of concrete work. The owners of the home terminated the contract with Housecraft in May of 2015, but requested that I help to complete the renovations. I remained on the job until January of 2016.

Superintendent

Southland Concrete, Dulles, Virginia

June 2004 – March 2012

Concrete construction subcontractor, superintendent on the following:

Tysons II, ten floor, steel frame office building.

Steeplechase, four tilt-ups- office/warehouses. Tucon Construction.

Lafayette, two tilt-ups-office/warehouses. Utica Contracting.

Avalon, three tilt-ups – office/warehouses. Tucon Construction.

DEA Data Center, tilt-ups. Hitt Contracting.

US Pharmacopeia, concrete frame multi-story parking garage and office. DPR.

Northwoods, six tilt-ups, office/warehouses.

Wisconsin Place, concrete frame 15 story apartment and below grade parking. I was one of three Southland Concrete superintendents on this job. Turner Construction.

Woodgrove High school, steel frame and masonry. Davis Construction.

Nap of the Cap, two precast buildings on CIP walls and two story steel frame office. Hitt Contracting.

Vida Fitness, concrete frame three story. Forrester.

United Therapeutics, concrete frame, seven floors. I completed the last four months of this job. DPR.

Inova Fairfax Hospital, concrete frame, 11 floors. I completed the last five months of this job. Turner Construction.

Superintendent

Federal Concrete, Centerville, Virginia

August 2003 - June 2004

Residential stamped concrete.

Superintendent

Southland Concrete, Dulles, Virginia

October 2002 – August 2003

Five tilt-ups.

Superintendent

Cleveland Cement, Richmond, Virginia

May 2001 – September 2002

RESUME OF SCOTT T. BARNES CONTINUED

Richmond Convention Center, steel frame, concrete frame, column up to 76' tall, walls, SOG.
Turner Construction.

Superintendent

Southland Concrete, Dulles, Virginia.

January 2000 - May 2001

Steel frame and tilt-ups.

Self Employed Concrete Subcontractor

S. T. Barnes, Inc., Jarvisburg, North Carolina.

1992 - January 2000

Commercial concrete construction with sales of 2 million per year. Owned a 28-meter concrete pump, thirty employees. Cell tower mat foundations, two museums, schools, foundation for the Cape Hatteras Lighthouse.

Manager, Concrete Division

Outer Banks Contractors, Kitty Hawk, North Carolina.

1983 - 1992

Commercial concrete, twenty employees, manager of two small ready mix plants, forming and finishing crew, curb and gutter crew.

SECTION B.2 – CIVIL DESIGN

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
 - Witcher Creek Portals & Refuse
 - Ridenour Complex
 - Breaholm (Evans) Portals & Drainage
 - 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
 - Bluestone Lake Boat Launch and Parking Design
 - Laurel Lake Fishing Pier Design
 - Dents Run WMA Shooting Range Design

- 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
- Pipestem and Berwind Dam Modifications – Project Cost \$ 1,200,000
- Cacapon Dam Modifications – Project Cost \$ 1,300,000

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

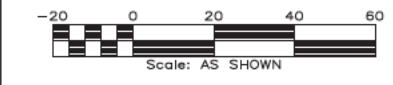
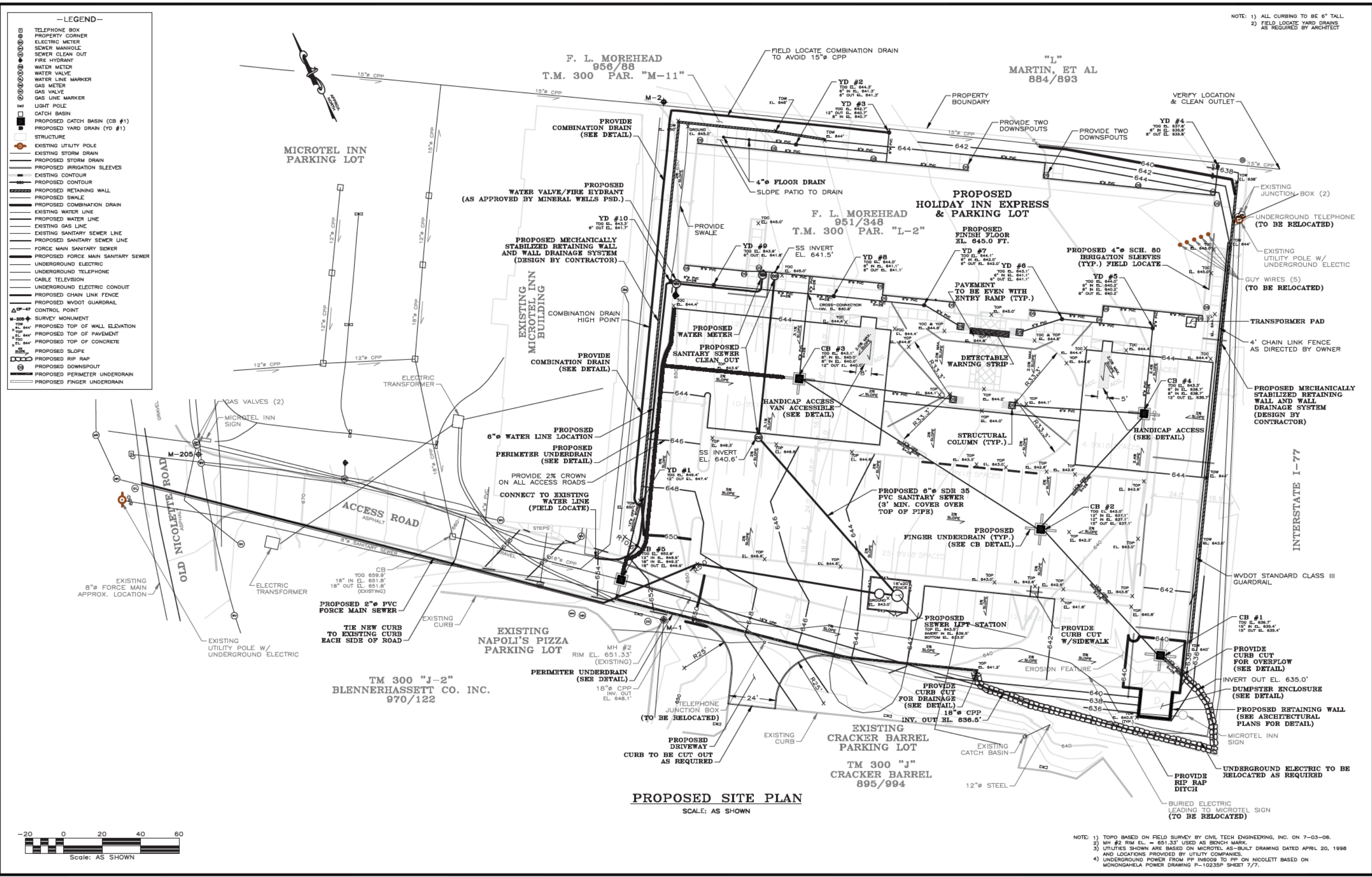


MT. VERNON BAPTIST PARKING LOT EXPANSION – HURRICANE, WV
PROJECT COST \$ 50,000 – COMPLETE 2007

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

- LEGEND-**
- TELEPHONE BOX
 - PROPERTY CORNER
 - ELECTRIC METER
 - SEWER MANHOLE
 - SEWER CLEAN OUT
 - FIRE HYDRANT
 - WATER METER
 - WATER VALVE
 - WATER LINE MARKER
 - GAS METER
 - GAS VALVE
 - GAS LINE MARKER
 - LIGHT POLE
 - CATCH BASIN
 - PROPOSED CATCH BASIN (CB #1)
 - PROPOSED YARD DRAIN (YD #1)
 - STRUCTURE
 - EXISTING UTILITY POLE
 - EXISTING STORM DRAIN
 - PROPOSED STORM DRAIN
 - PROPOSED IRRIGATION SLEEVES
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - PROPOSED RETAINING WALL
 - PROPOSED SWALE
 - PROPOSED COMBINATION DRAIN
 - EXISTING WATER LINE
 - PROPOSED WATER LINE
 - EXISTING GAS LINE
 - EXISTING SANITARY SEWER LINE
 - PROPOSED SANITARY SEWER LINE
 - FORCE MAIN SANITARY SEWER
 - PROPOSED FORCE MAIN SANITARY SEWER
 - UNDERGROUND TELEPHONE
 - UNDERGROUND ELECTRIC
 - CABLE TELEVISION
 - UNDERGROUND ELECTRIC CONDUIT
 - PROPOSED CHAIN LINK FENCE
 - PROPOSED WYDOT GUARDRAIL
 - CONTROL POINT
 - SURVEY MONUMENT
 - PROPOSED TOP OF WALL ELEVATION
 - PROPOSED TOP OF PAVEMENT
 - PROPOSED TOP OF CONCRETE
 - PROPOSED SLOPE
 - PROPOSED RIP RAP
 - PROPOSED DOWNSPOUT
 - PROPOSED PERIMETER UNDERDRAIN
 - PROPOSED FINGER UNDERDRAIN

NOTE: 1) ALL CURBING TO BE 6" TALL.
2) FIELD LOCATE YARD DRAINS AS REQUIRED BY ARCHITECT



PROPOSED SITE PLAN
SCALE: AS SHOWN

NOTE: 1) TOPO BASED ON FIELD SURVEY BY CIVIL TECH ENGINEERING, INC. ON 7-03-06.
2) MH #2 RIM EL. = 651.33' USED AS BENCH MARK.
3) UTILITIES SHOWN ARE BASED ON MICROTREL AS-BUILT DRAWING DATED APRIL 20, 1998 AND LOCATIONS PROVIDED BY UTILITY COMPANIES.
4) UNDERGROUND POWER FROM PP IN6009 TO PP ON NICOLETTE BASED ON MONONGAHELA POWER DRAWING P-10235P SHEET 7/7.

REVISIONS		DATE	BY	DESCRIPTION
NO.	DATE			

SCALE: AS SHOWN	DRAWN BY: CDA
MPH HOTELS	CHECKED BY: MEP
NORTH BARRINGTON, ILLINOIS	
PROPOSED SITE PLAN	
HOLIDAY INN EXPRESS	
MINERAL WELLS, WV	
CIVIL TECH ENGINEERING, INC.	
HURRICANE, WEST VIRGINIA	
DATE:	9/15/06
DRAWING NO.	06138-3

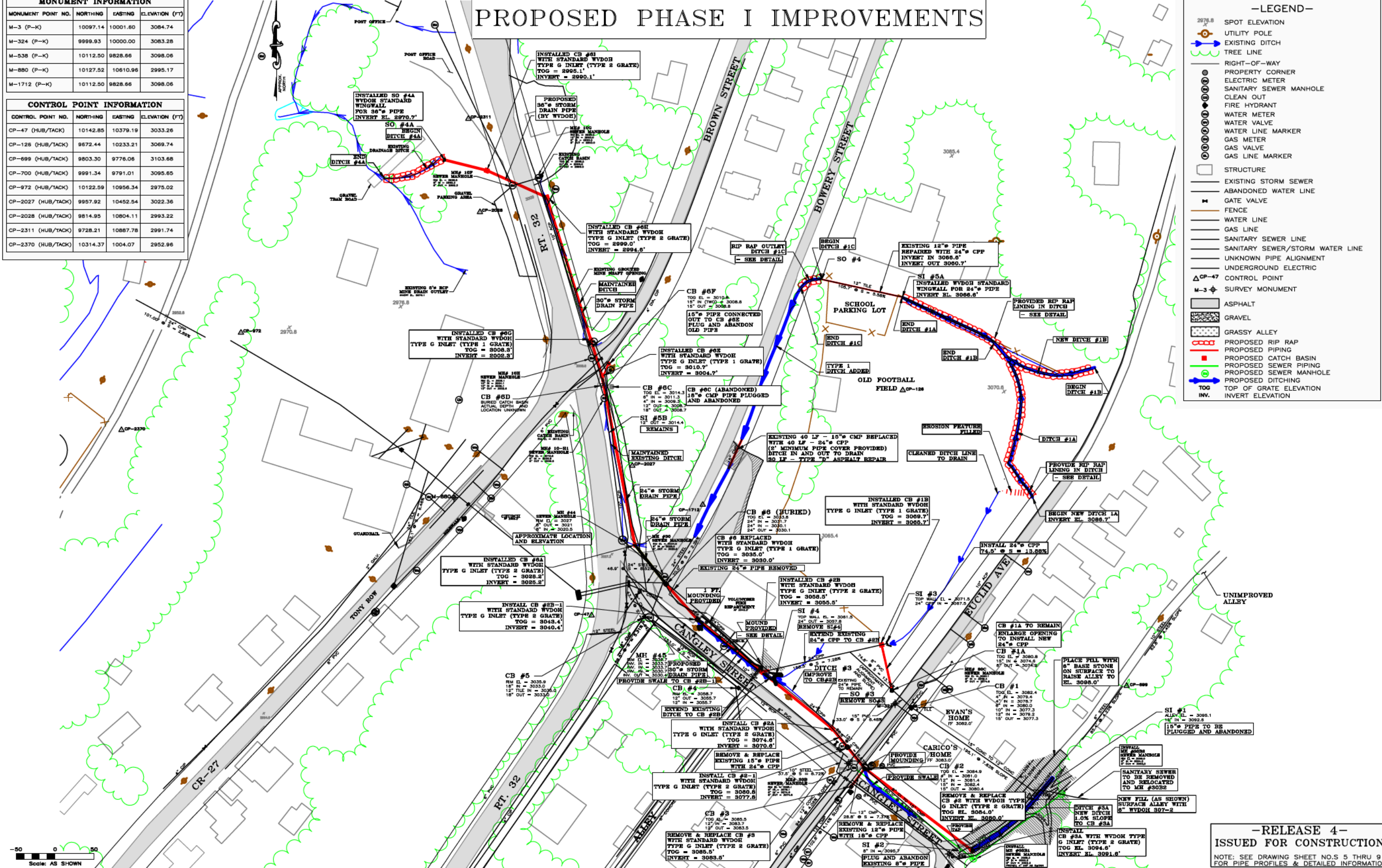
MONUMENT INFORMATION			
MONUMENT POINT NO.	NORTHING	EASTING	ELEVATION (FT)
M-3 (P-K)	10097.14	10001.60	3084.74
M-324 (P-K)	9999.93	10000.00	3083.28
M-538 (P-K)	10112.50	9828.86	3098.06
M-880 (P-K)	10127.52	10610.98	2995.17
M-1712 (P-K)	10112.50	9828.86	3098.06

CONTROL POINT INFORMATION			
CONTROL POINT NO.	NORTHING	EASTING	ELEVATION (FT)
CP-47 (HUB/TACK)	10142.85	10379.19	3033.26
CP-126 (HUB/TACK)	9672.44	10233.21	3069.74
CP-699 (HUB/TACK)	9803.30	9776.06	3103.86
CP-700 (HUB/TACK)	9991.34	9791.01	3095.85
CP-972 (HUB/TACK)	10122.59	10956.34	2975.02
CP-2027 (HUB/TACK)	9957.92	10452.54	3022.36
CP-2028 (HUB/TACK)	9814.95	10804.11	2993.22
CP-2311 (HUB/TACK)	9728.21	10887.78	2991.74
CP-2370 (HUB/TACK)	10314.37	1004.07	2952.96

PROPOSED PHASE I IMPROVEMENTS

-LEGEND-

- SPOT ELEVATION
- UTILITY POLE
- EXISTING DITCH
- TREE LINE
- RIGHT-OF-WAY
- PROPERTY CORNER
- ELECTRIC METER
- SANITARY SEWER MANHOLE
- CLEAN OUT
- FIRE HYDRANT
- WATER METER
- WATER VALVE
- WATER LINE MARKER
- GAS METER
- GAS VALVE
- GAS LINE MARKER
- STRUCTURE
- EXISTING STORM SEWER
- ABANDONED WATER LINE
- GATE VALVE
- FENCE
- WATER LINE
- GAS LINE
- SANITARY SEWER LINE
- SANITARY SEWER/STORM WATER LINE
- UNKNOWN PIPE ALIGNMENT
- UNDERGROUND ELECTRIC
- CONTROL POINT
- SURVEY MONUMENT
- ASPHALT
- GRAVEL
- GRASSY ALLEY
- PROPOSED RIP RAP
- PROPOSED PIPING
- PROPOSED CATCH BASIN
- PROPOSED SEWER PIPING
- PROPOSED SEWER MANHOLE
- PROPOSED DITCHING
- TOG
- INV.



REVISIONS

NO.	DATE	BY	DESCRIPTION

SCALE: AS SHOWN
 DRAWN BY: CDA
 CHECKED BY: MEP

CITY OF THOMAS
 THOMAS, WV

PROPOSED SITE PLAN
 STORM WATER IMPROVEMENTS
 PHASE I

CIVIL TECH ENGINEERING, INC.
 HURRICANE, WEST VIRGINIA

DATE: 5/22/06
 DRAWING NO. 02108-4

-RELEASE 4-
ISSUED FOR CONSTRUCTION
 NOTE: SEE DRAWING SHEET NO.S 5 THRU 9 FOR PIPE PROFILES & DETAILED INFORMATION

REVISIONS		
DATE	BY	DESCRIPTION
6/6/00	BDJ	CHANGED SEWER PIPE LOCATION EXITING THE BUILDING
9/20/00	RKM	RELOCATED WATER AND SEWER LINES ENTERING/EXITING BUILDING. ADDED WWTB SURVEY/PLANT LOCATION

SITE WORK GENERAL NOTES:

- Utility locations are approximate. Contractor to verify before beginning work.
Utilities: Electric: American Electric Power - Phone: 304-746-2655
Water: Wv American Water Co. - Phone: 304-345-9660
Telephone: Bell Atlantic - Phone: 304-954-6202
- Foundation Investigation: A foundation investigation was performed by Civil Tech Engineering, Inc. in late 1997. The reader is referred to the Foundation Investigation report dated December 30, 1997 for specific details. The results of the investigation is not a warranty of subsurface conditions within the construction area, and the Engineer or Owner will not be responsible for interpretations or conclusions drawn therefrom by the Contractor. The Contractor is responsible for reviewing the construction documents, examining the site, determining the conditions under which the work is to be performed, and conducting such additional investigations as he deems necessary for bidding, planning, and execution of the work.
- Excavation: Excavation of both soil and rock will be necessary to develop the site. Hard rock will likely be encountered in the excavation. Blasting to facilitate the excavation, if allowed, must be approved by Engineer. Trenching shall be performed in accordance with OSHA regulations. Entry into excavations deeper than 5 feet is not allowed without approved shoring or sloping.
- Fill: Fill shall consist of suitable soil or rock materials available from site excavations as approved by the Engineer. Fill shall be placed in maximum 9 inch loose level lifts and compacted to 95% of the maximum dry density as determined by ASTM D698, or as approved by the Engineer. The moisture content of the fill material shall be plus or minus 2% of optimum. Fill shall not be placed in standing water or on frozen ground. Control of water whether it be surface or groundwater shall be the responsibility of the Contractor. Subgrade must be approved by the Engineer before fill placement begins. Care shall be taken not to over-compact the in-situ clay soils during fill placement. Fill shall not be placed on existing fill areas due to potential for landslides to develop.
- Rip Rap: Rip rap shall consist of a durable hard rock material produced from on-site excavations as approved by the Engineer. If suitable rip rap material is not available from on-site excavations, rip rap may be obtained from an off-site or commercial source. Rip rap shall consist of a durable sandstone or limestone well graded with a maximum and minimum particle size of 6 to 18 inches.
- Waste Material: Excess soil/rock material not needed for site development shall be disposed of off-site at an approved borrow area, unless an on-site waste area is approved by the Engineer. The Contractor shall comply with all environmental and erosion/sediment control requirements for the waste area imposed by the regulatory agencies.
- Pavement: Base stone shall consist of of WVDOT 307-1 (Class 1) Stone.
Asphaltic base of mix shall consist of WVDOT 307-1 (Class 1) Stone.
Asphaltic wearing course shall consist of WVDOT Wearing 1 mix.
Asphaltic materials, placement, and compaction shall comply with WVDOT specifications. Subgrade to be compacted to 95% of the maximum dry density as determined by ASTM D698. Base Stone to be underlain by a suitable stabilization fabric as approved by the Engineer.
- Dumpster Pad: The dumpster pad shall be constructed of concrete with a minimum 28 day compressive strength of 4000 psi. Concrete shall be air entrained and shall comply with ACI 318 for material, mixing, placement, testing, and acceptance. Rebar shall be grade 60.
- Sewer Piping (Building to Septic Tank Only): Piping shall consist of SDR 35 PVC with bell and spigot connections. Fittings shall be molded plastic suitable for solvent welding. Install with minimum slope of 0.25% and provide cleanouts where the piping leaves the building and at 250 foot intervals thereafter. Bedding and backfill to be in accordance with the manufacturers recommendations. Pipe to be installed with a minimum cover of 3 feet over the top of the pipe. The Contractor will be responsible for installing the sanitary sewer line complete beginning 5 feet from the building and extending to within 5 feet of the septic tank as shown on the Design Drawings.
- Water Service Piping: Water service piping shall extend from the water meter to be installed by Wv American Water to within 5 feet of the building as shown on the plans. Water service line shall be installed at a minimum depth below finish grade. Service piping shall comply with AWWA C901 or C902 for Polyethylene (PE) pressure pipe and tubing or Polybutylene (PB) Pressure pipe and tubing 1/2 inch thru 3 inch for water service. Copper piping may be used as approved by the Engineer. Pipe shall be installed in accordance with ASTM D2774. Pipe joints shall comply with ASTM D2657 technique II - BUT Fusion. If the service line is not immediately connected to the main or the supply line for the building, the line shall be closed by plug or cap. The service line shall be pressure and leak tested in accordance with AWWA standards and as approved by the Engineer. After pressure testing the service line shall be disinfected as required by the Engineer.
- Curb: WVDOT Plain Curb -Type I as modified on the detail.
- Foundations: Design foundations for allowable bearing pressure of 3000 pcf. Extend all foundations to bear on bedrock. Minimum foundation depth is 30 inches below exterior grade for frost protection. Where depth to rock exceeds 30 inches use lean concrete to extend the foundation to rock. Foundation bearing surface to be approved by the Engineer prior to placement of concrete.
- Building Floor Slab: The slab shall be underlain by 6 inches of compacted dry bed material to be approved by the Engineer.
- Storm Water Piping shall consist of corrugated metal. Piping shall be fully asphalt coated and furnished with a wall thickness of 0.079 inches and corrugations of 2-2/3 x 1/8 inches.
- Electrical: AEP will furnish and install all underground cable, power pole, and transformer. The general contractor will pay for this work directly at the agreed upon price. The underground cable will be pulled through plastic conduit to be installed by the Contractor as part of site work. The contractor will also construct the transformer pad in accordance with AEP requirements. Conduit shall consist of two (2) 5 inch diameter PVC pipes installed a minimum of 36 inches below grade extending between the power pole and within 5 feet of the building as shown on the Drawings. Underground electric shall be separated a minimum of 5 feet from other underground utilities. The location and alignment of the conduit and transformer pad to be approved by AEP before installation. All electrical work shall be planned and executed by a licensed electrician and shall comply with applicable codes.
- Telephone: Underground telephone cable shall be installed in conduit as required by Bell Atlantic. The Contractor will provide the trench and conduit. Trenching shall be a minimum of 36 inches deep and conduit shall be as required by the telephone company.
- Roof drain piping to consist of Schedule 40 PVC with molded fittings and couplings suitable for solvent welding. Piping to be installed with a minimum slope of 1%.
- Refer to architectural drawings for building dimensions and layout.
- All disturbed areas to be revegetated in accordance with the WVDOT Section 852. Lawn area to be Type C-2. Fill and cut slopes to be Type D. Table 852.5-Seed Mixtures.
- E & S measures to comply with the approved General Permit issued by the WDEP OWR.
- Refer to sheets 97206-2 thru 97206-3.

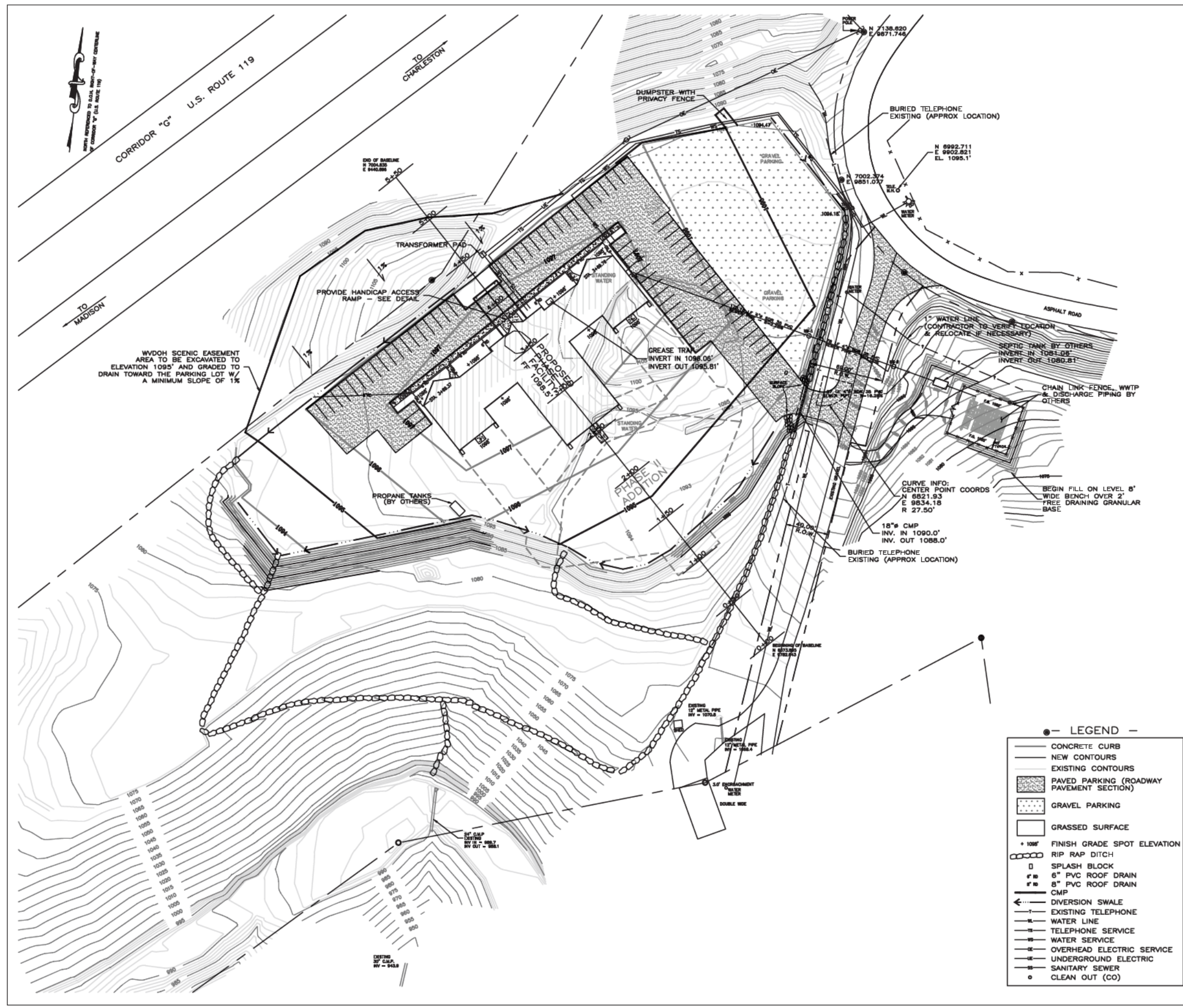
NOTE: SURVEY PERFORMED BY SITE BLAUVELT ENGINEERS

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

SITE PLAN

FIRST CHURCH OF GOD
KANAWHA COUNTY, WEST VIRGINIA

DRAWING NO. 97206-5	SCALE: NTS
DATE: APRIL, 2000	DRAWN BY: RKM CHECKED BY: MEP



CORRIDOR "G" U.S. ROUTE 119

TO CHARLESTON

TO MADISON

WVDOT SCENIC EASEMENT AREA TO BE EXCAVATED TO ELEVATION 1095' AND GRADED TO DRAIN TOWARD THE PARKING LOT WITH A MINIMUM SLOPE OF 1%

LEGEND

- CONCRETE CURB
- NEW CONTOURS
- EXISTING CONTOURS
- ▨ PAVED PARKING (ROADWAY PAVEMENT SECTION)
- ▨ GRAVEL PARKING
- GRASSED SURFACE
- + 10M' FINISH GRADE SPOT ELEVATION
- SPLASH BLOCK
- 6" PVC ROOF DRAIN
- 8" PVC ROOF DRAIN
- CMP
- ← DIVERSION SWALE
- EXISTING TELEPHONE
- WATER LINE
- TELEPHONE SERVICE
- WATER SERVICE
- OVERHEAD ELECTRIC SERVICE
- UNDERGROUND ELECTRIC
- SANITARY SEWER
- CLEAN OUT (CO)

SECTION B.3 – DAM SAFETY

SECTION B.3 - DAM SAFETY EXPERIENCE

- **Civil Tech Experience:** Civil Tech's dam experience over the last 22 years has included 41 Dam Modification Projects ranging in cost from \$ 50,000 to \$ 1,700,000. We are also currently working on 8 new dam modification projects. **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.** A partial listing of our dam projects is provided 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
- Civil Tech has completed 41 dam modification projects and are currently working on 8 new dam projects. Certificates of approval have been applied for and obtained at a 100% success rate from the WVDEP Dam Safety Section.
 - Our projects include; new dams, rehabilitation, flood damage repair, and emergency repair.
 - Periodic Safety Inspections are routinely performed on nearly 70 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.
 - Awards:** **First recipient of the WVDEP Environmental Excellence Award 2010 – Safe Dams Category.**
 - 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.

- Dam Break Analysis and Risk Assessment:** Civil Tech has successfully used dam break 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

CIVIL TECH ENGINEERING INC. "Attention to Detail"



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

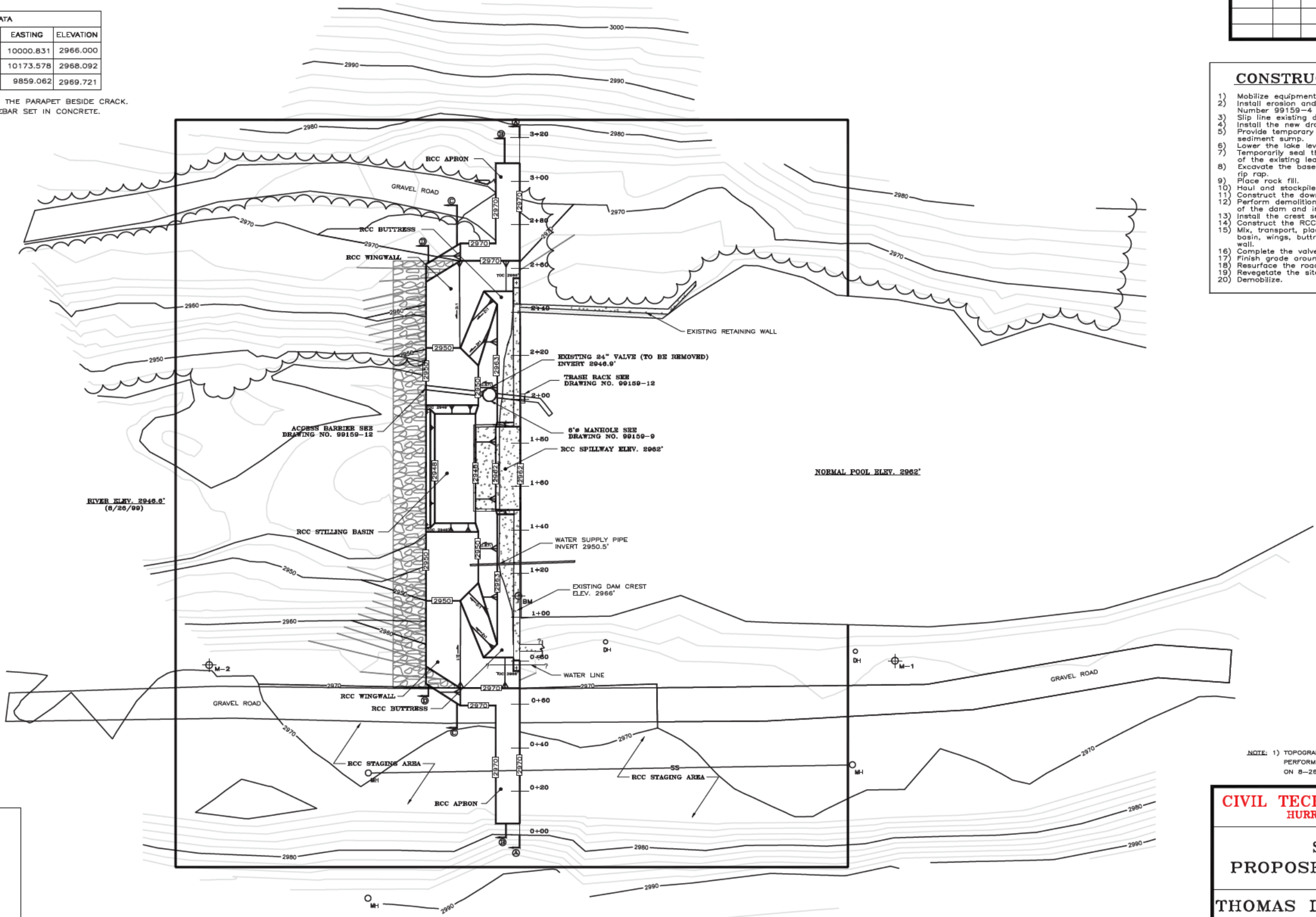
SURVEY DATA			
MONUMENTS	NORTHING	EASTING	ELEVATION
BM	10039.690	10000.831	2966.000
M-1	10009.986	10173.578	2968.092
M-2	10007.946	9859.062	2969.721

NOTE: BENCH MARK IS A "X" IN THE PARAPET BESIDE CRACK.
MONUMENTS ARE 3/8" REBAR SET IN CONCRETE.

REVISIONS		
DATE	BY	DESCRIPTION

CONSTRUCTION SEQUENCE

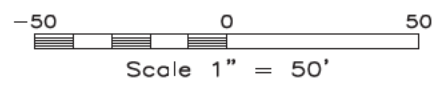
- 1) Mobilize equipment, materials, and labor force to the site.
- 2) Install erosion and sediment control measures. See Drawing Number 99159-4 for details.
- 3) Slip line existing drain pipe with new HDPE pipe.
- 4) Install the new drain valve and manhole base.
- 5) Provide temporary piping from the new valve to the sediment sump.
- 6) Lower the lake level as required but no more than 10 feet.
- 7) Temporarily seal the upstream face of the dam in the area of the existing leaks by parging.
- 8) Excavate the base of the buttress, stilling basin, wings, and rip rap.
- 9) Place rock fill.
- 10) Haul and stockpile aggregate for the RCC.
- 11) Construct the downstream cut off wall.
- 12) Perform demolition as required to remove necessary parts of the dam and install the crest seal.
- 13) Install the crest seal.
- 14) Construct the RCC test pad.
- 15) Mix, transport, place, and compact the RCC in the stilling basin, wings, buttress, and the abutment apron and cut off wall.
- 16) Complete the valve and manhole.
- 17) Finish grade around the new dam structure.
- 18) Resurface the roadway.
- 19) Revegetate the site.
- 20) Demobilize.



NOTE: 1) TOPOGRAPHIC MAPPING BASED ON FIELD SURVEY PERFORMED BY CIVIL TECH ENGINEERING INC. ON 8-26-99, 8-27-99, 9-23, AND 9-24-99.

—LEGEND—

	WATER SURFACE
	EXISTING CONTOUR
	RCC SURFACE
	FINISH CONTOUR
	CONSTRUCTION LIMITS
	RIP RAP
	M-1 SURVEY MONUMENT
	EXISTING DAM
	DRY HYDRANT
	SEWER MANHOLE
	TREE LINE



CIVIL TECH ENGINEERING, INC.
HURRICANE, WEST VIRGINIA

SITE PLAN
PROPOSED MODIFICATIONS

THOMAS DAM MODIFICATIONS
THOMAS, WV

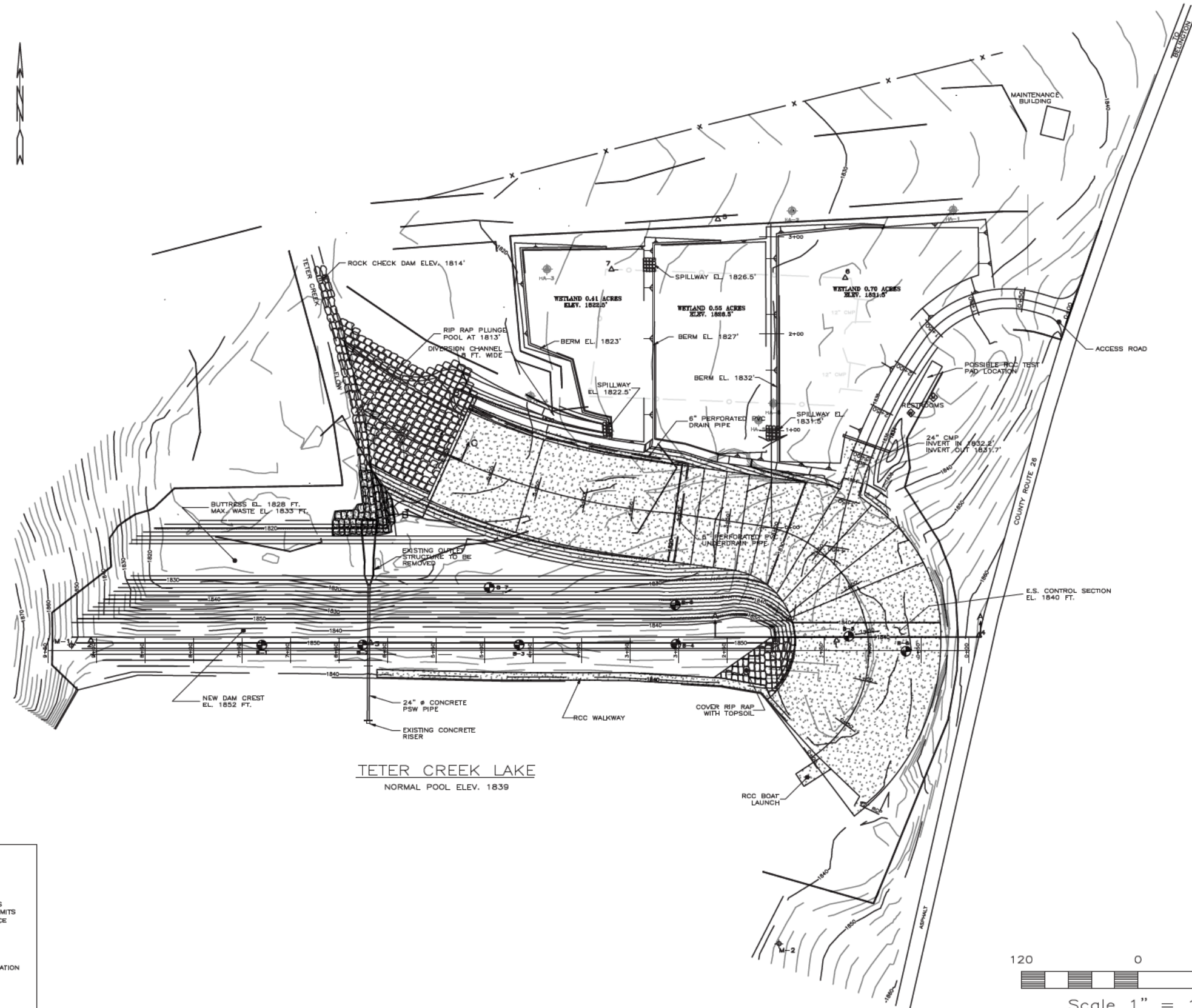
DRAWING NO.: 99159-6	DATE: JANUARY, 2000	SCALE: 1" = 50'
REVISED BY:	CHECKED:	DRAWN BY: CDA CHECKED BY: MEP

REVISIONS

DATE	BY	DESCRIPTION
2/22/00	RKM BDJ	ADDED PLUNGE POOL, RCC ON BEGINNING OF SPILLWAY, AND ADDED WETLAND.
3/16/00	BDJ	REMOVED BERM AND RIGHT CUT OFF WALL, AND ADDED RIP RAP.

SURVEY DATA			
CONTROL POINT	EASTING	NORTHING	ELEVATION
1	10000.000	10000.000	1846.990
2	9231.321	10000.084	1846.407
3	9519.762	9997.425	1846.647
4	10146.893	10005.343	1862.302
5	9877.703	10434.459	1826.188
6	10008.915	10373.994	1835.135
7	9767.961	10382.644	1826.185
M-1	9211.162	9995.140	1850.663
M-2	9940.742	9687.215	1844.266

NOTE: MONUMENTS ARE 1/2" REBAR

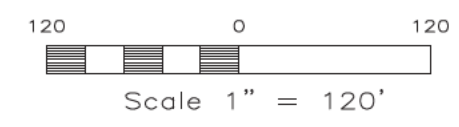


TETER CREEK LAKE
NORMAL POOL ELEV. 1839

—LEGEND—

	WATER SURFACE
	FENCE
	EXISTING CONTOUR
	FINISH GRADE
	CONSTRUCTION LIMITS
	EXISTING WETLAND LIMITS
	WOOD BOLLARD FENCE
	CONTROL POINT
	M-1 SURVEY MONUMENT
	B-1 BORING LOCATION
	H-1 HAND AUGERING LOCATION
	RIP RAP
	GROUTED RIP RAP
	RCC
	BASESTONE

- NOTES: 1) REFER TO DRAWING NO. 98114-4 FOR PARKING LAYOUT, WALKWAY, AND BOAT RAMP INFORMATION.
 2) SEE DRAWING NO. 98114-7 FOR SECTIONS A-A AND B-B.
 3) E&S MEASURES SHOWN ON DRAWING NO. 98114-3.
 4) SEE DRAWING NO. 98114-20 FOR SECTION C-C



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

**SITE PLAN
PROPOSED MODIFICATIONS**

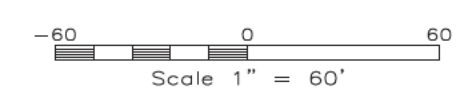
**TETER CREEK LAKE DAM
BARBOUR COUNTY, WEST VIRGINIA**

DRAWING NO.: 98114-7	SCALE: 1" = 120'
DATE: APRIL 8, 1999	DRAWN BY: JCH, RKM CHECKED BY: MEP

REVISIONS		
DATE	BY	DESCRIPTION

CONTROL POINT SUMMARY			
CONTROL POINT NO.	NORTHING	EASTING	ELEVATION (FT.)
NO. 1 (HUB&TACK)	10000.00	10000.00	2848.10
NO. 2 (HUB&TACK)	10192.80	10000.00	2855.01
NO. 3 (3/8"REBAR)	10110.45	9985.29	2846.60
NO. 4 (3/8"REBAR)	9879.14	9986.92	2847.55
NO. 5 (HUB&TACK)	9983.93	9909.21	2826.47
NO. 6 (HUB&TACK)	10124.14	9780.02	2843.52
NO. 7 (HUB&TACK)	9888.81	9874.29	2851.31
NO. 8 (HUB&TACK)	10015.62	9726.86	2830.93
NO. 9 (HUB&TACK)	10146.44	9680.52	2834.30
NO. 10 (HUB&TACK)	10202.83	9605.05	2845.61
NO. 11 (HUB&TACK)	9938.87	9746.80	2835.78

LEGEND	
▲	CONTROL POINT - HUB & TACK
●	CONTROL POINT - 3/8" REBAR
—	PIPE
—	EDGE OF ROAD/PARKING
—	DITCH LINE AND EDGE OF RESERVOIR
⊞	RIP-RAP
~	TREE LINE

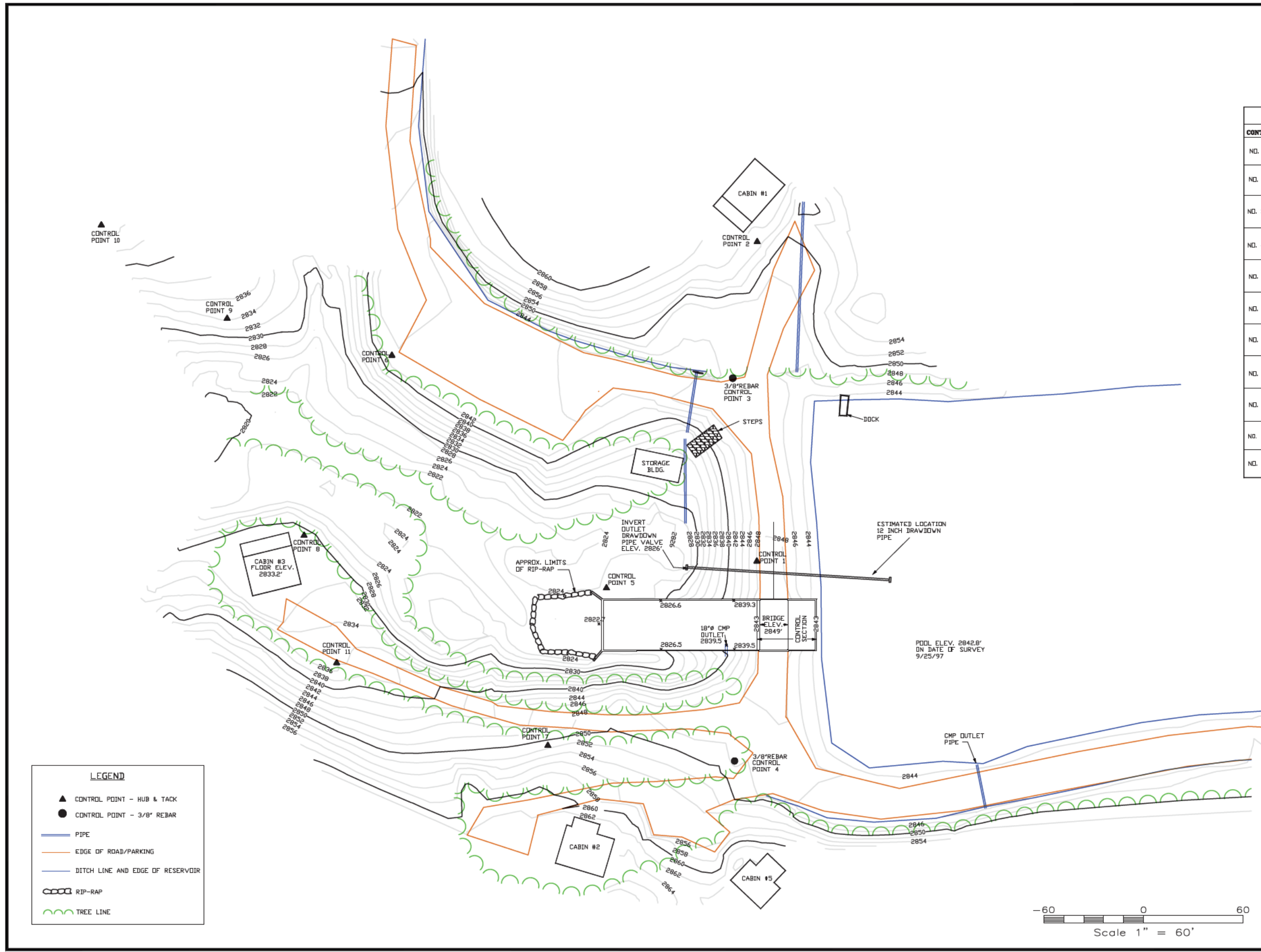


CIVIL TECH ENGINEERING, INC.
HURRICANE, WEST VIRGINIA

SITE PLAN

SENECA LAKE DAM
POCAHONTAS COUNTY, WV

DRAWING NO.: 97165-8	DATE: OCTOBER, 1997	SCALE: 1" = 60'
REVISED: BY:	CHECKED:	DRAWN BY: JEP CHECKED BY: MEP



SECTION B.4 - GEOTECHNICAL/SURVEYING

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
- Service Wire
- 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