

**RFQ DEP16131
EXPRESSION OF INTEREST
TO PROVIDE PROFESSIONAL ENGINEERING SERVICES
FOR
FAIRMONT (DAC) S,CS,P DESIGN**

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

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

DATE SUBMITTED: MARCH 13, 2013

03/11/13 01:55:13 PM
West Virginia Purchasing Division

PHOTO: SUNRISE SANITATION MINE DRAIN

CIVIL TECH ENGINEERING, INC.

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

March 13, 2013

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

Subject: **Expression of Interest for RFQ - DEP16131
Fairmont (DAC) S,CS,P Design**
Marion County, West Virginia
Civil Tech Proposal No. P13508

To Whom it May Concern:

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

- 45 years of combined experience with AML projects.
- 15 recent AML projects since 2008.
- Constructed AML projects: Thomas Sunrise Sanitation Mine Drainage and Blowout Projects, Prospect Valley Highwall No. 4, Cambria Portals, Zebb's Creek HW#2, Winifrede (McFann) Portals, Birds Creek Portals, and Nellis (Smith) Drainage Project.
- AML design projects complete and ready for construction: Stowe Refuse Piles, Ridenour Complex, Braeholm Portals, and Witcher Creek Portals and Refuse.
- Douglas Water Line and Hawkinberry Hollow Portals project are under construction.
- Conceptual engineering was completed and preliminary engineering started for the Pines Country Club (Ponds) Subsidence Project. (Project Cancelled due to cost).

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

Very truly yours,

CIVIL TECH ENGINEERING INC.



Mark E. Pennington MS, PE
Principal Engineer

CIVIL TECH ENGINEERING, INC.

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

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

Solicitation

NUMBER
DEP16131

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
FRANK WHITTAKER 304-558-2316

VENDOR

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

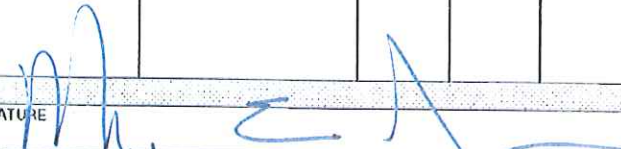
SHIP TO

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

DATE PRINTED
02/11/2013

BID OPENING DATE: 03/13/2013 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-29		
				FAIRMONT (DAC) S,CS,P DESIGN		
EXPRESSION OF INTEREST						
THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES AT THE FAIRMONT (DAC) S,CS,P PROJECT IN MARION COUNTY, WEST VIRGINIA, PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS.						
***** THIS IS THE END OF RFQ DEP16131 ***** TOTAL:						

SIGNATURE 	TELEPHONE 304-757-8094	DATE 3/13/13
TITLE President	FEIN 55-0757403	ADDRESS CHANGES TO BE NOTED ABOVE

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

**EXPRESSION OF INTEREST
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DEP16131**

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2. **Section One: General Information**
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6. **Section Five: Terms and Conditions**
7. **Certification and Signature Page**

SECTION ONE: GENERAL INFORMATION

1. **PURPOSE:** The Acquisition and Contract Administration Section of the Office of West Virginia State Purchasing Division (Purchasing Division) is soliciting Expression(s) of Interest (EOI) for the West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands and Reclamation (WVDEP/AML), from qualified firms (Vendors) to provide architectural/engineering services as defined herein.
2. **PROJECT:** The mission or purpose of the project for which bids are being solicited is to provide design services for the following:

FAIRMONT (DAC) S, CS, P:

Design of drainage conveyances
Design of underdrain system
Installation of mine seals
Ground stabilization by injection grouting
Re-vegetation of disturbed areas

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3. SCHEDULE OF EVENTS:

Release of the EOI.....02/15/2013
Addendum Issued TBD
Expressions of Interest Opening Date.....03/13/2013
Estimated Date for Interviews.....TBD

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

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 person attending the pre-bid meeting may represent more than one Vendor.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. The State will not accept any other form of proof or documentation to verify 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 in order 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 non-binding.

Question Submission Deadline: 02/26/2013

Submit Questions to:

Frank Whittaker

2019 Washington Street, East

P.O. Box 50130

Charleston, WV 25305

Fax: 304-558-4115

Email: frank.m.whittaker@wv.gov

5. **VERBAL COMMUNICATION:** Any verbal communication between the Vendor and any State personnel is not binding, including that made 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 signed and delivered by the Vendor to the Purchasing Division at the address listed below on or before the date and time of the bid opening. 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. The bid delivery address is:

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

The bid should contain the information listed below on the face of the envelope or the bid may not be considered:

SEALED BID

BUYER: _____

SOLICITATION NO.: _____

BID OPENING DATE: _____

BID OPENING TIME: _____

FAX NUMBER: _____

In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal plus convenience copies of each to the Purchasing Division at the address shown above. Additionally, the Vendor should identify the bid type as either a technical or cost proposal on the face of each bid envelope submitted in response to a request for proposal as follows:

BID TYPE: | | Technical
 | | Cost

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 time stamped by the official Purchasing Division time clock.

Bid Opening Date and Time:

03/13/2013 at 1:30 PM

Bid Opening Location:

Department of Administration, Purchasing Division
2019 Washington Street East
P.O. Box 50130,
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.

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SECTION THREE: PROJECT SPECIFICATIONS

1. **Location:** Agency is located at 209 South Main Street, Philippi, WV 26416 and the Project is located in Marion County, WV.

Directions to Site 1: From Philippi, proceed to I-79 and travel north to Exit #136 toward downtown Fairmont. At the intersection, bear left and drive approximately 1.4 miles. Turn left on Jackson Street (U.S. 19 South). At the intersection with Cleveland Avenue (US 250), continue through light onto Locust Avenue for 0.2 miles to Fay Street on right. Ratliff Apartments is located to the right of Fay Street.

Directions to Site 2: From Site 1, travel north on Locust Street (US 19) for 0.1 miles, then turn right on Benoni Avenue. Drive less than 0.1 mile to the DAC building (which is located across from the bowling alley).

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

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

- Design of drainage conveyances
- Design of underdrain system
- Installation of mine seals
- Ground stabilization by injection grouting
- Re-vegetation of disturbed areas

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

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3. **Qualifications and Experience:** Vendors will 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 what the project goals and objectives where 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 "B" and the AML and Related Project Experience Matrix (RPEM). Attachment "C".

AML Consultant Qualification Questionnaire (CQQ) must be completed to be eligible (See Attachment "B").

AML and Related Project Experience Matrix (RPEM) must also be completed to be eligible (See Attachment "C").

Electronic copies of the above referenced documents Attachment "B" and Attachment "C" are available online for registered vendors at:

<http://www.state.wv.us/admin/purchase/newbul.htm>

4. **Project and Goals:** The project goals and objectives are:
- Develop drawings and specifications to remediate an abandoned mine land problem area.
5. **Oral Presentations (Agency Option):** The Agency has the option of requiring oral presentations of all Vendors participating in the EOI process. During oral presentations, Vendors may not alter or add to their submitted proposal, but only clarify information. A description of the materials and information to be presented is provided below:

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5.1. Materials and Information Required at Oral Presentation:

“Evaluation and Award Process” will be conducted with the three firms selected as the most qualified by the WVDEP Selection Committee. The Committee will schedule the interviews.

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

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

SECTION FOUR: VENDOR PROPOSAL, EVALUATION, & AWARD

- 1. Economy of Preparation:** EOP's should be prepared simply and economically, providing a straightforward, concise description of 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.

All responses should be submitted in a loose-leaf, three ring binder. Submit one original, one convenience copy and one copy on CD.

- 2. BIDS MUST NOT CONTAIN PRICE QUOTATIONS:** The State shall select the best value solution according to §5G-1-3 of the West Virginia State Code. In accordance with the Code requirements, no “price” or “fee” information is requested or permitted in the bid response.

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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 West Virginia Code §5G-1-3. That Code section requires the following:
- 3.1. **Required Elements of EOI Response:** The director of purchasing shall encourage such firms engaged in the lawful practice of the profession to submit an expression of interest, which shall include a statement of qualifications, and performance data and may include anticipated concepts and proposed methods of approach to the project.
- 3.2. **Public Advertisement:** All EOI requests shall be announced by public notice published as a Class II legal advertisement in compliance with the provisions of West Virginia Code §59-3-1 et seq.
- 3.3. **Selection Committee Evaluation & Negotiation:** A committee comprised of three to five representatives of the agency initiating the request shall:
- 3.3.1. Evaluate the statements of qualifications and performance data and other material submitted by the interested firms and select three firms which in their opinion are the best qualified to perform the desired service.
- 3.3.2. Conduct interviews with each firm selected and the conduct discussions regarding anticipated concepts and the proposed methods of approach to the assignment.
- 3.3.3. Rank in order of preference no less than three professional firms deemed to be the most highly qualified to provide the services required, and shall commence scope of service and price negotiations with the highest qualified professional firm.
- 3.3.4. Should the agency be unable to negotiate a satisfactory contract with the professional firm considered to be the most qualified, at a fee determined

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to be fair and reasonable, price negotiations with the firm of second choice shall commence. Failing accord with the second most qualified professional firm, the committee shall undertake price negotiations with the third most qualified professional firm.

3.3.5. Should the agency be unable to negotiate a satisfactory contract with any of the selected professional firms, it shall select additional professional firms in order of their competence and qualifications and it shall continue negotiations in accordance with this section until an agreement is reached.

3.4. **Vendor Ranking:** All evaluation criteria is 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:

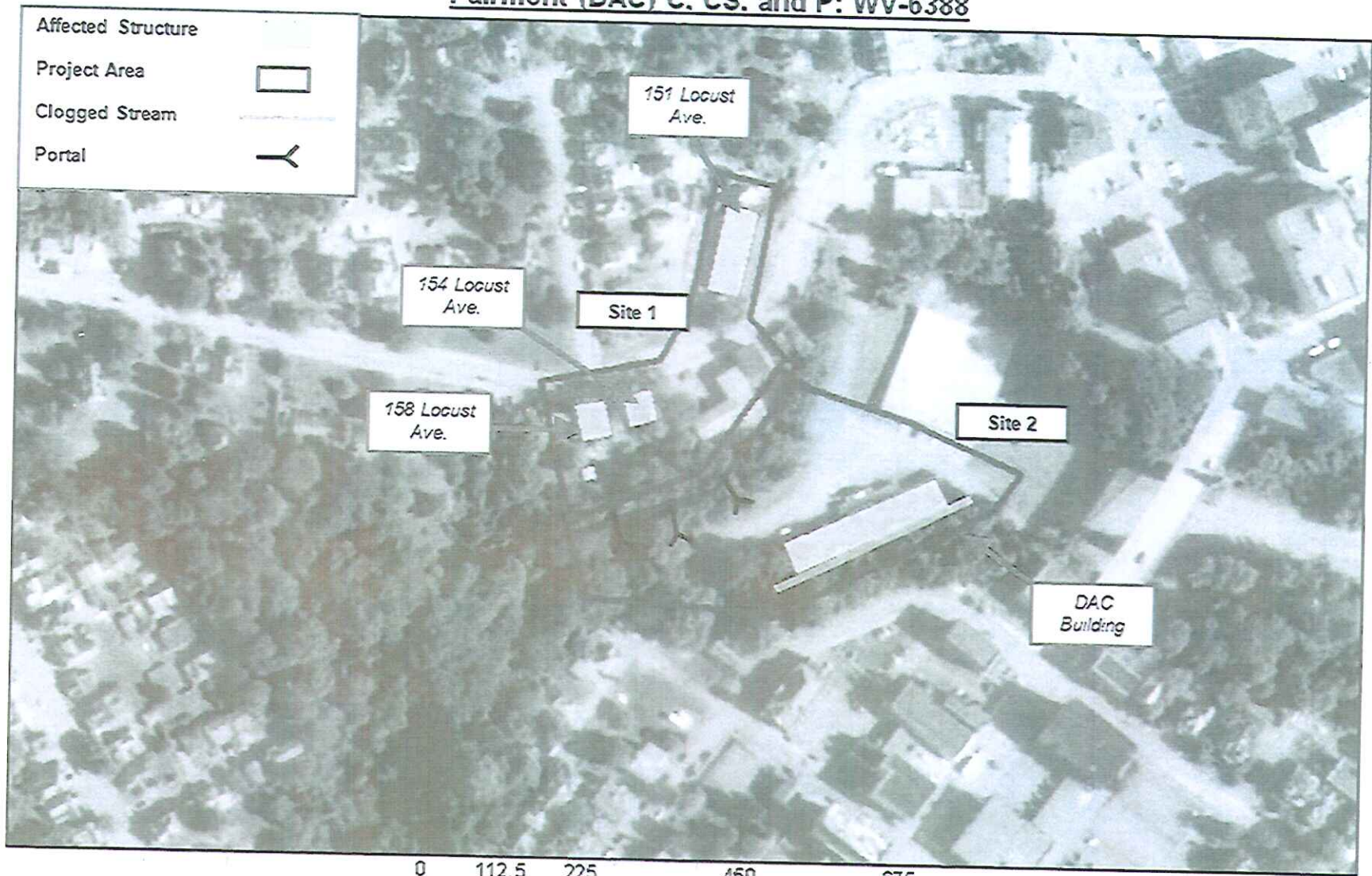
- | | |
|--|-----------|
| A. WV Registered Professional Engineers (Civil or Mining)
In the Primary Office: | 20 points |
| B. Reclamation Engineering design experience of the Primary
Office's WVRPE as it relates to the specific project problem
Areas: | 25 points |
| C. Available WV-AML Design Teams within the Primary office
(A Design team should consist of one Project Engineer (Civil
or Mining), one CAD person and availability of other support
personnel a required by the particular project): | 20 points |
| D. The Oral Interview (Sec 5.1 under Section 3 of this EOI): | 35 points |

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FAIRMONT (DAC) S, CS, P
DEP16131**

SECTION FIVE: TERMS AND CONDITIONS

Terms and conditions begin on the next page.

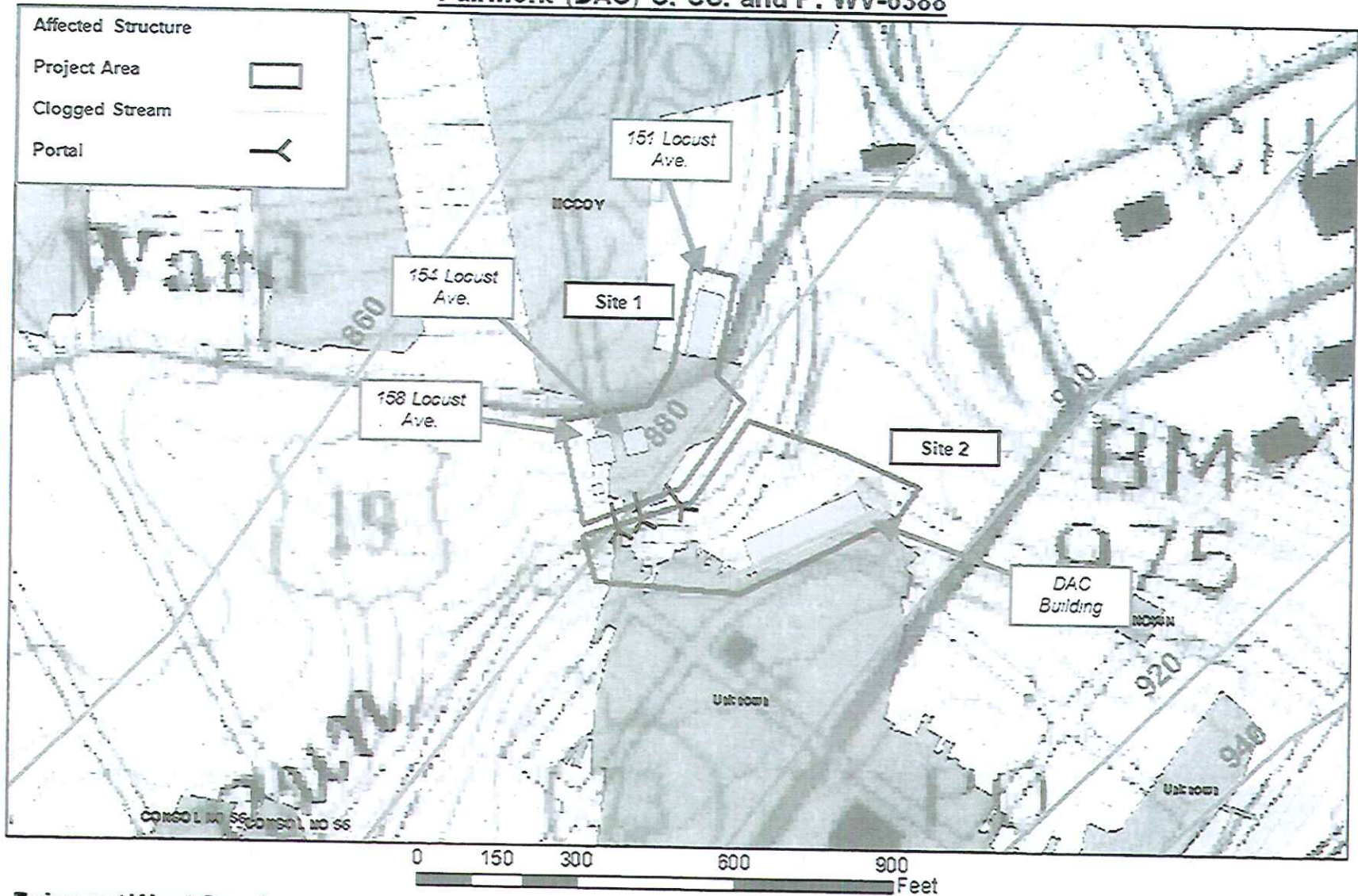
Project Location – Aerial Photograph
Fairmont (DAC) C. CS. and P: WV-6388



Fairmont West Quad
Latitude: 39° 29' 3"

Marion County
Longitude: 80° 8' 53"

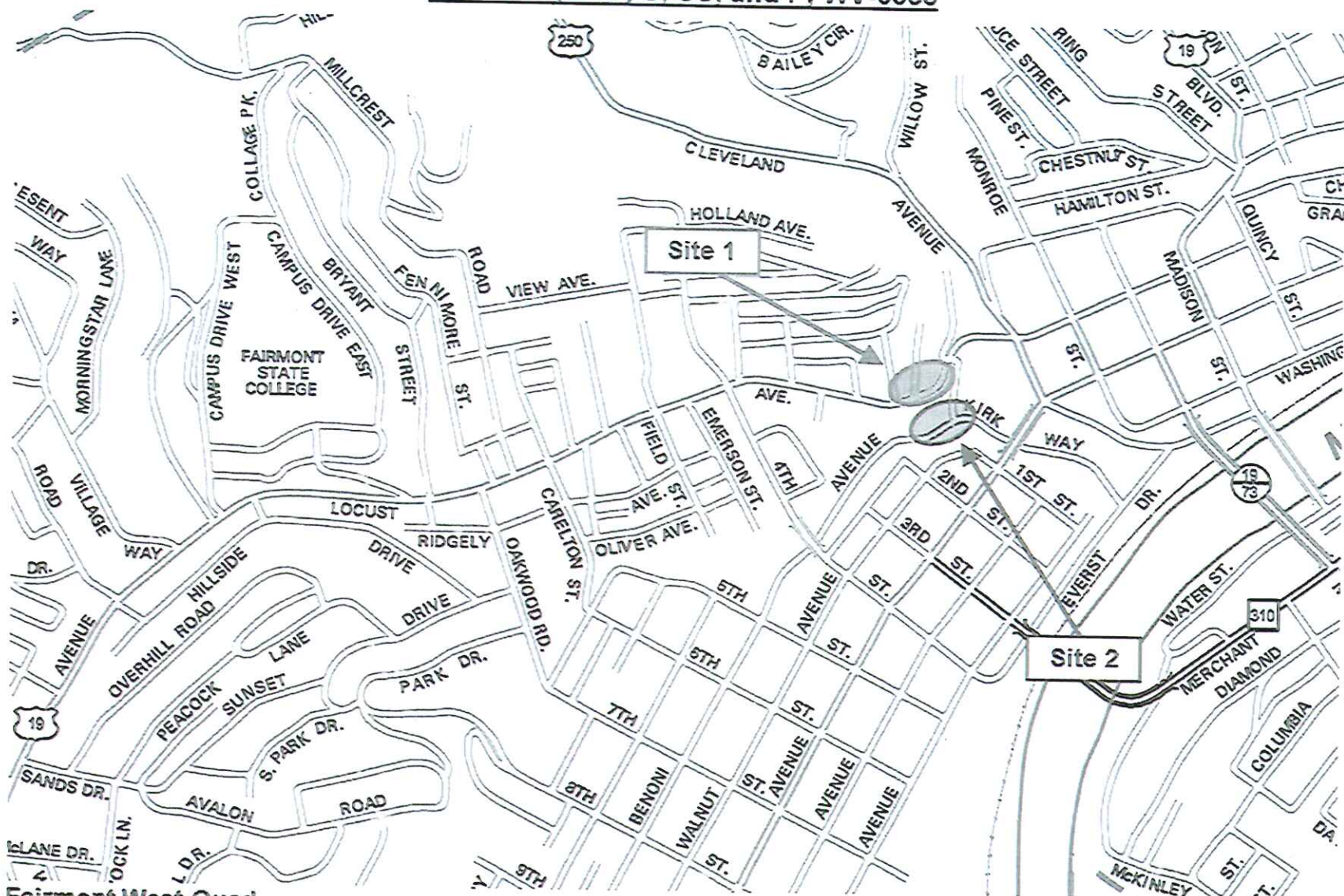
Project Mining Map
Fairmont (DAC) C. CS. and P: WV-6388



Fairmont West Quad
Latitude: 39° 29' 3"

Marion County
Longitude: 80° 8' 53"

**Project Location – County Highway Map
Fairmont (DAC) S. CS. and P: WV-6388**



Fairmont West Quad
Latitude: 39° 29' 3"

Marion County
Longitude: 80° 8' 53"

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

Attachment "B"

PROJECT NAME Fairmont (DAC) S,CS,P Design(DEP16131)	DATE (DAY, MONTH, YEAR) March 13, 2013	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
--	--	---------------------------

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
--	-------------------------------	---	--

7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE
300A Prestige Drive, Hurricane, WV 25526/Mark E. Pennington PE/Twelve

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM Mark E. Pennington MS, PE Jennifer E. Pennington PE	8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS NA
---	--

9. PERSONNEL BY DISCIPLINE

<ul style="list-style-type: none"> — ADMINISTRATIVE — ARCHITECTS — BIOLOGIST 2 CADD OPERATORS — CHEMICAL ENGINEERS 3 CIVIL ENGINEERS 4 CONSTRUCTION INSPECTORS — DESIGNERS — DRAFTSMEN 	<ul style="list-style-type: none"> — ECOLOGISTS — ECONOMISTS — ELECTRICAL ENGINEERS 1 ENVIRONMENTALISTS — ESTIMATORS 1 GEOLOGISTS — HISTORIANS — HYDROLOGISTS 	<ul style="list-style-type: none"> — LANDSCAPE ARCHITECTS — MECHANICAL ENGINEERS — MINING ENGINEERS — PHOTOGRAMMETRISTS — PLANNERS: URBAN/REGIONAL — SANITARY ENGINEERS — SOILS ENGINEERS — SPECIFICATION WRITERS 	<ul style="list-style-type: none"> — STRUCTURAL ENGINEERS 1 SURVEYORS — TRAFFIC ENGINEERS OTHER (Technicians) <p align="right">12 TOTAL PERSONNEL</p>
--	--	--	--

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: Stantec 1 Moore Avenue Buckhannon, WV 26201	SPECIALTY: Mapping	WORKED WITH BEFORE <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

12. A. Is your firm experienced in Abandoned Mine Lands Remediation/Mine Reclamation Engineering?

YES Description and Number of Projects: See Section A
152 AML Projects - Personnel Experience (Mark E. Pennington PE)
50+ Subsidence Claims - Corporate Experience

NO

B. Is your firm experienced in Soil Analysis?

YES Description and Number of Projects: See Sections B.2, B.3, and B.4
1500+ Projects - Corporate and Personnel Experience.

NO

C. Is your firm experienced in hydrology and hydraulics?

YES Description and Number of Projects: See Sections B.2, B.3, and B.4
50+ Projects involving storm water controls and dam spillway design.

NO

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

YES

NO **XX**

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

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

NO

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

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

NO

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

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

Pennington, Mark E.
President - Principal Engineer

YEARS OF EXPERIENCE

YEARS OF AML DESIGN EXPERIENCE:

16

YEARS OF AML RELATED DESIGN EXPERIENCE:

35

YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 2

Brief Explanation of Responsibilities:

COMPANY RESPONSIBILITIES

- COMPANY MANAGEMENT
- BUSINESS DEVELOPMENT
- PROJECT PLANNING AND DIRECTION

RECENT AND ONGOING PROJECTS

- THOMAS SUNRISE SANITATION - 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
- BRAEHOLM PORTALS - AML

PROJECT RESPONSIBILITIES

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

As the former manager of the St. Albans Office of Triad Engineering and a founder of Civil Tech, Mr. Pennington has gained a broad knowledge of most civil engineering disciplines involving abandoned mine lands, storm water and erosion controls, dams, as well as private, industrial, and municipal projects involving topographic mapping, geotechnical analysis, and civil site development. He has been responsible for 152 AML projects, 48 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 15 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, and Witcher Creek Portals. Most of these project are complete and all have been successfully completed on time. Mr. Pennington has substantial construction experience gained while administering the construction contract on over 100 projects and while serving as the Assistant Project Manager on the USACOE Moorefield Flood Levee Project as an employee of Heeter Construction of Spencer, West Virginia.

EDUCATION (Degree, Year, Specialization)

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
 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.) Pennington, Jennifer E. Vice President - Principal Engineer	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE: 16	YEARS OF AML RELATED DESIGN EXPERIENCE: 24	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0

Brief Explanation of Responsibilities

- COMPANY RESPONSIBILITIES**
- COMPANY MANAGEMENT
 - PROJECT PLANNING AND DIRECTION

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

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

EDUCATION (Degree, Year, Specialization)

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

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

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

REGISTRATION (Type, Year, State)

CE/1992/WV
PS/1995/WV

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE
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Kessler, Robert R. - Geologist	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
	0	12	0

Brief Explanation of Responsibilities:
 Mr. Kessler is responsible for all geologic studies/investigations required to support engineering services for Civil Tech. Projects include mining subsidence investigations, blasting studies, and geologic studies for nearly 40 dam modifications throughout West Virginia.

EDUCATION (Degree, Year, Specialization)
 B.S. - Geology - 1965 - Ohio University
 Post Graduate Work - 1965 to 1966 - Geology - Ohio University
 B.S. - Mathematics - 1980 - University of Charleston

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Arthur, Charles D. - CADD Designer & Survey Crew Party Chief	0	8	0

Brief Explanation of Responsibilities
 Senior designer responsible for direction of other draftsmen and preparation of design drawings using Autocad and Eagle Point modeling software, survey party chief, and evaluation of mine maps and subsidence. Mr. Arthur has served as a senior designer for the following recent projects.

- 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

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 2011
- Microstation
- Eaglepoint 2009
- HEC-1
- HEC-2
- HECRAS
- HEC-HMS
- Dams2
- Hydrocad version 9
- Flowmaster
- Sewercad
- Watercad
- PCstable 5
- SPW911 - Pile Buck Sheet Pile Wall Design Program
- Word Perfect, Excel, and other office support programs.

Equipment:

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

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

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
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Cacapon State Park Dam Modifications	Brad Leslie WVDNR Parks & Recreation Section Capitol Complex, Building 3, Room 723 Charleston, WV 25305	Topographic Mapping Design Permitting Bidding Construction Monitoring Contract Administration	\$ 1,500,000	Mapping 100% Design 100% Permitting 0% Bidding 0% Const. Monitoring 0% Contract Admin 0% Construction expected 2013/2014 season.
Witcher Creek Portals Kanawha County, WV	Jonathan Neal WVDEP-AML 254 Industrial Drive Oak Hill, WV	Subsurface Investigation Design Permitting Bidding Construction Monitoring	\$ 1,000,000	Design 60% Permitting 50% Bidding 0% Const. Monitoring 0% Construction expected 2013.
Douglas WL Extension Coketon to Douglas, WV City of Thomas Thomas, Tucker County, WV	Jonathan Holbert WVDEP-AML 601 57 th Street Charleston, WV 25304	Design Services Subsurface Investigation	\$ 300,000	Design 100% Bidding 0% Const. Monitoring 0% Construction 2013.
Phase I - Units 1 & 2 Ash Handling Area Pavement Replacement Design Mt. Storm Power Station Mt. Storm, WV	Patrick W. Flaughner Dominion Energy Inc. HC 76 Box 430 Mt. Storm, WV 26739	Design Services	\$ 2,000,000	Design 50% Bidding 100% Const. Monitoring 0% Construction 2013.
TOTAL NUMBER OF PROJECTS: Four		TOTAL ESTIMATED CONSTRUCTION COSTS: \$ 4,800,000		

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)
Thomas Sunrise Sanitation Mine Drainage Thomas, Tucker County, WV	Gregg Smith WVDEP-AML 209 South Main Street Philippi, WV 26416	\$ 250,000	2009	YES
Thomas Sunrise Sanitation Mine Blowout Thomas, Tucker County, WV	Gregg Smith WVDEP-AML 209 South Main Street Philippi, WV 26416	\$ 250,000	2009	YES
Longbranch Dam Dam Modification Pipestem State Park	Mr. Brad Leslie WV Division of Natural Resources Parks and Recreation Section Capitol Complex, Building 3, Room 723 Charleston, WV 25305	\$ 200,000	2012	YES
Berwind Dam Dam Modification Berwind WMA	Mr. Brad Leslie WV Division of Natural Resources Parks and Recreation Section Capitol Complex, Building 3, Room 723 Charleston, WV 25305	\$ 1,000,000	2012	YES
Prospect Valley Highwall #4 Shinnston, Harrison County, WV	Tim Lemasters WVDEP-AML 105 South Railroad Street Philippi, WV 26416	\$ 1,000,000	2011	YES
Winifred (McFann) Portals Winifrede, Kanawha County, WV	Dean Stiltner WVDEP-AML 116 Industrial Drive Oak Hill, WV 25901	\$ 250,000	2011	YES
Zebb's Creek Highwall #2 Junior WV, Barbour County, WV	Gregg Smith WVDEP-AML 209 South Main Street Philippi, WV 26416	\$ 200,000	2011	YES
Cambria Portals & Drainage Design Cambria, Harrison County, WV	Tim Lemasters WVDEP-AML 209 South Main Street Philippi, WV 26416	UNKNOWN	2011	YES

Mt. Storm Gate Modification Mt. Storm Power Station	Mr. Patrick Flaughner Dominion Generation Mt. Storm Power Station Dominion Energy Inc. HC 76 Box 430 Mt. Storm, WV 26739	UNKNOWN	2011	YES
Drain Pipe and Gate Repair Jimmy Lewis Dam Pinnacle Rock SP Mercer Co., WV	Brad Leslie WVDNR Parks & Recreation Section Capitol Complex, Building 3, Room 723 Charleston, WV 25305	\$ 280,000	2011	YES
Stony River Dam Breach Dam to Remove from WVDEP Jurisdiction Grant County, WV	Sterlin Rebuck NewPage Corporation 300 Pratt Street Luke, MD 21540	\$ 250,000	2009	YES
Phase I - Unit 3 Ash Handling Area Pavement Replacement Design Mt. Storm Power Station Mt. Storm, WV	Patrick W. Flaughner Dominion Energy Inc. HC 76 Box 430 Mt. Storm, WV 26739	\$ 500,000	2009	YES
Flow & Temperature Monitoring Weir Stony River Mt. Storm Power Station Mt. Storm, WV	Patrick W. Flaughner Dominion Energy Inc. HC 76 Box 430 Mt. Storm, WV 26739	\$ 250,000	2009	YES
Fairfield Inn & Suites Weirton, WV	Michael Holtz MPH Hotels 490 East Route 22 North Barrington, IL 60010	\$ 2,500,000 (Estimated)	2009	YES
Deegan & Hinkle Dams Dam Modifications Bridgeport, WV	Tom Brown - City Engineer City of Bridgeport 515 West Main Street Bridgeport, WV 26330	\$ 1,500,000	2008	YES
Flip Bucket Stabilization Mt. Storm Lake Dam Mt. Storm Power Station Mt. Storm, WV	Patrick W. Flaughner Dominion Energy Inc. HC 76 Box 430 Mt. Storm, WV 26739	\$ 750,000	2008	YES
Stormwater Improvements Ditch and Piping Design City of Thomas, WV	Mayor Dorothy Wilson City of Thomas P.O. Box 463 Thomas, WV 26292	\$ 750,000	2007	YES

Parking Lot Expansion Civil Design & Permitting Mt. Vernon Baptist Church Hurricane, WV	Mr. Brad Leslie Mt. Vernon Baptist Church 2050 Mt. Vernon Road Hurricane, WV 25526	\$ 50,000	2007	YES
Holiday Inn Express Civil Design for Hotel & Permitting Mineral Wells, WV	Michael Holtz MPH Hotels 490 East Route 22 North Barrington, IL 60010	\$ 2,500,000 (Estimated)	2007	YES
Bailey and Lemley Dams Dam Modifications & Access Improvements Core, WV	Dennis Kincer WV Division of Natural Resources Wildlife Resources Section Capitol Complex Building 3, Room 816 1900 Kanawha Blvd., East Charleston, WV 25305	\$ 1,000,000	2007	YES
Burches Run Dam Height Reduction Below Jurisdiction Moundsville, WV	Dennis Kincer WV Division of Natural Resources Wildlife Resources Section Capitol Complex Building 3, Room 816 1900 Kanawha Blvd., East Charleston, WV 25305	\$ 450,000	2005	YES
Wilson Dam Dam Modification Romney, WV	Mr. James Wilson 17 Running Brook Lane Sterling, VA 20164	\$ 250,000 (Estimated)	2005	YES
Moncove Dam Dam Modification Moncove State Park	Mr. Brad Leslie WV Division of Natural Resources Parks and Recreation Section Capitol Complex, Building 3, Room 723 Charleston, WV 25305	\$ 400,000	2005	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 Philippi, Charleston, and Oak Hill Offices of the WVDEP-AML, the City of Thomas, City of Bridgeport, NewPage Corporation, Mt. Top PSD, Dominion Generation - Mt. Storm & North Branch Power Stations, Duke Energy, Huntersville, NC, WVDNR Parks and Wildlife Sections, American Electric Power - John Amos Plant, WV American Water, and other private concerns and contractors. Current and recent AML projects include AMD, Highwall Reclamation, Portals, Subsidence Abatement, and a waterline extension. Our experience with impoundments, dam breach/reclamation, civil site design, infrastructure, & site grading combined with our AML experience and environmental/permitting knowledge makes our firm most qualified for AML Design Projects.

20. The foregoing is a statement of facts.



Date: March 13, 2013

Signature: _____

Title: President

Printed Name: Mark E. Pennington

AML and RELATED PROJECT EXPERIENCE MATRIX

PROJECT	Exp. Basis C=Corp. P=Personal	Additional Info Provided in Section (s) **	PROJECT EXPERIENCE REQUIREMENTS														PRIMARY STAFF PARTICIPATION/CAPACITY *** M=Management P=Professional					
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrolog/Hydraulic Design/Eval.	Remining Evaluation	Mine/Reuse 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.	H. Thomas Brown
			Thomas Sunrise Sanitation Mine Drain	C	A		X		X					X		X				M/P	P	
Thomas Sunnse 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				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	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				
Thomas Stormwater Improvements	C	B.2				X				X			X			X	M/P	P		P		
Thoms Stormwater/Sewer Segregation	C	B.2				X				X			X				M/P	P		P	P	
Deegan and Hinkle Dam Modifications	C	B.3				X				X			X			X	M/P	P	P	P	P	
Bailey and Lemley Dam Modifications	C	B.3				X				X			X			X	M/P	P	P	P		
Fleming Street Stabilization	C	B.4				X				X			X			X	M/P	P	P	P		
Mt Storm Flip Bucket Stabilization	C	B.3				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.

RFQ No. _____

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

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

DEFINITIONS:

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

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Civil Tech Engineering Inc.

Authorized Signature: [Signature] Date: 2/21/13

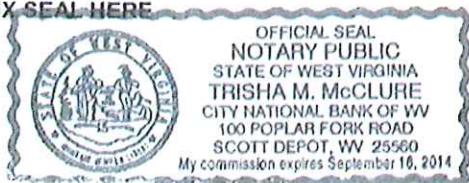
State of WV

County of Putnam, to-wit:

Taken, subscribed, and sworn to before me this 21st day of February, 2013.

My Commission expires Sept - 14, 2014.

AFFIX SEAL HERE



NOTARY PUBLIC

Trisha M. McClure
Purchasing Affidavit (Revised 07/01/2012)

GENERAL TERMS AND CONDITIONS:

1. **CONTRACTUAL AGREEMENT:** Issuance of a Purchase Order signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid 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 "Contract" means the binding agreement that is entered into between the State and the Vendor to provide the goods and services requested in the Solicitation.

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

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

 - 2.5 "Purchase Order" 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 successful bidder and Contract holder.

 - 2.6 "Solicitation" means the official solicitation published by the Purchasing Division and identified by number on the first page thereof.

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

 - 2.8 "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: This Contract becomes effective on [] and extends for a period of [] year(s).

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 must be submitted to the Purchasing Division Director 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. Renewal of this Contract is limited to [] successive one (1) year periods. Automatic renewal of this Contract is prohibited. Notwithstanding the foregoing, Purchasing Division approval is not required on agency delegated or exempt purchases. Attorney General approval may be required for vendor terms and conditions.

Reasonable Time Extension: At the sole discretion of the Purchasing Division Director, and with approval from the Attorney General's office (Attorney General approval is as to form only), this Contract may be extended for a reasonable time after the initial Contract term or after any renewal term as may be necessary to obtain a new contract or renew this Contract. Any reasonable time extension shall not exceed twelve (12) months. Vendor may avoid a reasonable time extension by providing the Purchasing Division Director with written notice of Vendor's desire to terminate this Contract 30 days prior to the expiration of the then current term. During any reasonable time extension period, the Vendor may terminate this Contract for any reason upon giving the Purchasing Division Director 30 days written notice. Automatic extension of this Contract is prohibited. Notwithstanding the foregoing, Purchasing Division approval is not required on agency delegated or exempt purchases, but Attorney General approval may be required.

| ✓ | Fixed Period Contract: This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within [365] days.

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

| | Other: See attached.

4. **NOTICE TO PROCEED:** Vendor shall begin performance of this Contract immediately upon receiving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the fully executed Purchase Order will be considered notice to proceed
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 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. **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.
7. **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 of 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.
8. **REQUIRED DOCUMENTS:** All of the items checked below must be provided to the Purchasing Division by the Vendor as specified below.
- | | **BID BOND:** All Vendors shall furnish a 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 . The performance bond must be issued and received by the Purchasing Division prior to Contract award. On construction contracts, the performance bond must be 100% of the Contract value.
- | **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 issued and 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.

- | **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.
- | **WORKERS' COMPENSATION INSURANCE:** The apparent successful Vendor shall have appropriate workers' compensation insurance and shall provide proof thereof upon request.
- | **INSURANCE:** The apparent successful Vendor shall furnish proof of the following insurance prior to Contract award:

| **Commercial General Liability Insurance:**
 or more.

| **Builders Risk Insurance:** builders risk – all risk insurance in an amount equal to 100% of the amount of the Contract.

|

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The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed above.

LICENSE(S) / CERTIFICATIONS / PERMITS: In addition to anything required under the Section entitled Licensing, of the General Terms and Conditions, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits prior to Contract award, in a form acceptable to the Purchasing Division.

[
[
[
[

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

9. LITIGATION BOND: The Director reserves the right to require any Vendor that files a protest of an award to submit a litigation bond in the amount equal to one percent of the lowest bid submitted or \$5,000, whichever is greater. The entire amount of the bond shall be forfeited if the hearing officer determines that the protest was filed for frivolous or improper purpose, including but not limited to, the purpose of harassing, causing unnecessary delay, or needless expense for the Agency. All litigation bonds shall be made payable to the Purchasing Division. In lieu of a bond, the protester may submit a cashier's check or certified check payable to the Purchasing Division. Cashier's or certified checks will be deposited with and held by the State Treasurer's office. If it is determined that the protest has not been filed for frivolous or improper purpose, the bond or deposit shall be returned in its entirety.

10. ALTERNATES: Any model, brand, or specification listed herein 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.

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. LIQUIDATED DAMAGES: Vendor shall pay liquidated damages in the amount

[Redacted] for [Redacted].

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.

13. ACCEPTANCE/REJECTION: The State may accept or reject any bid in whole, or in part. Vendor's signature on its bid signifies acceptance of the terms and conditions contained in the Solicitation and Vendor agrees to be bound by the terms of the Contract, as reflected in the Purchase Order, upon receipt.

14. 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.

15. 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.

16. 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.

17. PAYMENT: Payment in advance is prohibited under this Contract. Payment may only be made after the delivery and acceptance of goods or services. The Vendor shall submit invoices, in arrears, to the Agency at the address on the face of the purchase order labeled "Invoice To."

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

19. DELIVERY: All quotations are considered freight on board destination ("F.O.B. destination") unless alternate shipping terms are clearly identified in the bid. Vendor's listing of shipping terms that contradict the shipping terms expressly required by this Solicitation may result in bid disqualification.

20. INTEREST: Interest attributable to late payment will only be permitted if authorized by the West Virginia Code. Presently, there is no provision in the law for interest on late payments.

21. PREFERENCE: Vendor Preference may only be granted upon written request and only in accordance with the West Virginia Code § 5A-3-37 and the West Virginia Code of State Rules. A Resident Vendor Certification form has been attached hereto to allow Vendor to apply for the preference. Vendor's

failure to submit the Resident Vendor Certification form with its bid will result in denial of Vendor Preference. Vendor Preference does not apply to construction projects.

- 22. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES:** For any solicitations publicly advertised for bid on or after July 1, 2012, 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 submission of its bid 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.
- 23. 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.
- 24. 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 cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-7.16.2.
- 25. 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.
- 26. TIME:** Time is of the essence with regard to all matters of time and performance in this Contract.
- 27. 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.
- 28. COMPLIANCE:** Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendors acknowledge that they have reviewed, understand, and will comply with all applicable law.
- 29. PREVAILING WAGE:** On any contract for the construction of a public improvement, Vendor and any subcontractors utilized by Vendor shall pay a rate or rates of wages which shall not be less than the fair minimum rate or rates of wages (prevailing wage), as established by the West Virginia Division of Labor under West Virginia Code §§ 21-5A-1 et seq. and available at <http://www.sos.wv.gov/administrative-law/wagerates/Pages/default.aspx>. Vendor shall be responsible for ensuring compliance with prevailing wage requirements and determining when prevailing wage

requirements are applicable. The required contract provisions contained in West Virginia Code of State Rules § 42-7-3 are specifically incorporated herein by reference.

- 30. 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.
- 31. 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). **No Change shall be implemented by the Vendor until such time as the Vendor receives an approved written change order from the Purchasing Division.**
- 32. 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.
- 33. 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.
- 34. 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. Notwithstanding the foregoing, Purchasing Division approval may or may not be required on certain agency delegated or exempt purchases.
- 35. 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.
- 36. 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.
- 37. BANKRUPTCY:** In the event the Vendor files for bankruptcy protection, the State of West Virginia may deem this Contract null and void, and terminate this Contract without notice.

- 38. HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at <http://www.state.wv.us/admin/purchase/vrc/hipaa.html> and is hereby made part of the agreement provided that the Agency meets the definition of a Covered entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the Vendor.
- 39. 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>.
- 40. DISCLOSURE:** Vendor's response to the Solicitation and the resulting Contract are considered public documents and will be disclosed to the public in accordance with the laws, rules, and policies governing the West Virginia Purchasing Division. Those laws include, but are not limited to, the Freedom of Information Act found in West Virginia Code § 29B-1-1 et seq.
- If a Vendor considers any part of its bid to be exempt from public disclosure, Vendor must so indicate by specifically identifying the exempt information, identifying the exemption that applies, providing a detailed justification for the exemption, segregating the exempt information from the general bid information, and submitting the exempt information as part of its bid but in a segregated and clearly identifiable format. Failure to comply with the foregoing requirements will result in public disclosure of the Vendor's bid without further notice. A Vendor's act of marking all or nearly all of its bid as exempt is not sufficient to avoid disclosure and WILL NOT BE HONORED. Vendor's act of marking a bid or any part thereof as "confidential" or "proprietary" is not sufficient to avoid disclosure and WILL NOT BE HONORED. In addition, a legend or other statement indicating that all or substantially all of the bid is exempt from disclosure is not sufficient to avoid disclosure and WILL NOT BE HONORED. Vendor will be required to defend any claimed exemption for nondisclosure in the event of an administrative or judicial challenge to the State's nondisclosure. Vendor must indemnify the State for any costs incurred related to any exemptions claimed by Vendor. Any questions regarding the applicability of the various public records laws should be addressed to your own legal counsel prior to bid submission.
- 41. LICENSING:** In accordance with West Virginia Code of State Rules §148-1-6.1.7, 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. 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.

- 42. ANTITRUST:** In submitting a bid to, signing a contract with, or accepting a Purchase Order 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.
- 43. VENDOR CERTIFICATIONS:** By signing its bid or entering into this Contract, Vendor certifies (1) that its bid was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid for the same material, supplies, equipment or services; (2) that its bid 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 RFQ in its entirety; understands the requirements, terms and conditions, and other information contained herein. Vendor's signature on its bid 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 on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid 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.

- 44. PURCHASING CARD ACCEPTANCE:** The State of West Virginia currently utilizes a Purchasing Card program, administered under contract by a banking institution, to process payment for goods and services. The Vendor must accept the State of West Virginia's Purchasing Card for payment of all orders under this Contract unless the box below is checked.

Vendor is not required to accept the State of West Virginia's Purchasing Card as payment for all goods and services.

- 45. 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.

- 46. 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.
- 47. PURCHASING AFFIDAVIT:** In accordance with West Virginia Code § 5A-3-10a, all Vendors are required to sign, notarize, and submit the Purchasing Affidavit stating that neither the Vendor nor a related party owe a debt to the State in excess of \$1,000. The affidavit must be submitted prior to award, but should be submitted with the Vendor's bid. A copy of the Purchasing Affidavit is included herewith.
- 48. ADDITIONAL AGENCY AND LOCAL GOVERNMENT USE:** This Contract may be utilized by and extends to other agencies, spending units, and political subdivisions of the State of West Virginia; county, municipal, and other local government bodies; and school districts ("Other Government Entities"). This Contract shall be extended to the aforementioned Other Government Entities on the same prices, terms, and conditions as those offered and agreed to in this Contract. If the Vendor does not wish to extend the prices, terms, and conditions of its bid and subsequent contract to the Other Government Entities, the Vendor must clearly indicate such refusal in its bid. A refusal to extend this Contract to the Other Government Entities shall not impact or influence the award of this Contract in any manner.
- 49. CONFLICT OF INTEREST:** Vendor, its officers or members or employees, shall not presently have or acquire any 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.
- 50. 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.requisitions@wv.gov.

51. BACKGROUND CHECK: In accordance with W. Va. Code § 15-2D-3, the Director of the Division of Protective Services shall require any service provider whose employees are regularly employed on the grounds or in the buildings of the Capitol complex or who have access to sensitive or critical information to submit to a fingerprint-based state and federal background inquiry through the state repository. The service provider is responsible for any costs associated with the fingerprint-based state and federal background inquiry.

After the contract for such services has been approved, but before any such employees are permitted to be on the grounds or in the buildings of the Capitol complex or have access to sensitive or critical information, the service provider shall submit a list of all persons who will be physically present and working at the Capitol complex to the Director of the Division of Protective Services for purposes of verifying compliance with this provision.

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.

52. 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.

The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:

- a. 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

- b. 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.

53. 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.

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:
 - a. 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:** Contracts for architectural and engineering services will be governed by the AIA document B101-2007, as amended by the Supplementary Conditions for the State of West Virginia, in addition to the terms and conditions contained herein when procured under Chapter 5G of the West Virginia Code.
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.



CERTIFICATION AND SIGNATURE PAGE

By signing below, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid or proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

Civil Tech Engineering Inc.

(Company)

(Authorized Signature)

Mark E. Pennington, President

(Representative Name, Title)

304-757-8094

(Phone Number)

304-757-8095

(Fax Number)

March 13, 2013

(Date)



ADDENDUM ACKNOWLEDGEMENT FORM

SOLICITATION NO.: DEP16131

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

March 13, 2013

Date

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

SECTION A - ABANDONED MINE LANDS EXPERIENCE

1. **Nearly 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 Philippi, Oak Hill, 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). Bidding complete – Construction 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 started 2012.
 - Stowe Refuse Piles (DEP15586). Design Complete Fall 2012.
 - Witcher Creek Portals and Refuse (DEP15601). Preliminary design complete. Permitting underway.
 - Ridenour Complex (DEP15598). Design complete.
 - Braeholm (Evans) Portals & Drainage (DEP15634). Design complete.
2. **Principals of Civil Tech were responsible for planning, performing, and managing past AML work performed by Triad prior to February of 1996:** Prior to forming Civil Tech, Mark Pennington managed the branch office of Triad Engineering in St. Albans, West Virginia. Jennifer Pennington was a senior engineer in that office. While employed by Triad, our principals were responsible for the performance and/or management of virtually all AML projects performed until February of 1996 when we resigned from Triad. **A total of approximately 137 AML projects were completed during the period of 1990 to early 1996.**
3. **Civil Tech Mine Subsidence Determinations:** Our corporate AML experience is detailed on the enclosed CCQQ forms. Our recent corporate experience includes examination of structures to determine cause of damage and mining relatedness. We have performed these mine subsidence determinations using information on file with the WVGS, and with the assistance of AML personnel and records. Services have been provided for insurance companies and BRIM.
4. **Civil Tech has demonstrated experience and professional capability in all aspects of engineering and support services required to successfully complete AML Projects.** Since forming Civil Tech, our staff has successfully completed over 1500 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

SECTION B.1 - HISTORY OF FIRM

- Services:** Civil Tech Engineering, Inc. has provided in-house professional engineering services since 1996 in the following areas of expertise.
 - AML Design Services
 - Civil Design/Consulting
 - Wastewater Treatment and Collection
 - Dam Safety, Design, and Rehabilitation
 - Geotechnical Engineering
 - Surveying & Mapping
 - Construction Contract Administration/Construction Monitoring

- Background:** Civil Tech Engineering Inc. was formed in 1996 by our principals, Mark and Jennifer Pennington. Prior to forming Civil Tech, Mark Pennington managed the branch office of Triad Engineering in St. Albans, West Virginia. Jennifer Pennington was a senior engineer at Triad. Our principals have a combined experience of 55 years in civil and geotechnical engineering.

- Typical Projects and Capability:** Since forming Civil Tech, our staff has provided professional engineering services for a variety of clients and projects involving:
 - AML Design Services
 - 48 Dam rehabilitation and design projects
 - Site planning, development, and permitting
 - Sanitary sewer/storm water segregation
 - Storm water evaluation and design
 - Foundation investigation and design for buildings, water tanks, etc.
 - Landslide investigation and design
 - Construction storm water pollution prevention plans and permitting
 - USACOE 404 Permitting.
 - Topographic mapping to support our engineering projects
 - Construction monitoring and testing for our design projects
 - Construction contract administration for our design projects
 - Cause of damage assessment of residential and commercial structures for insurance companies
 - Subsidence Claims for BRIM

- Submittal:** We have prepared this submittal to illustrate our complete capabilities in civil engineering. The reader will find information on a variety of projects intended to illustrate the quality of our work, complete capability, and qualifications to provide the engineering services for most civil engineering projects.

SECTION B.1 - OFFICE, STAFF, & EQUIPMENT

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

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

Phone 304-757-8094
Fax 304-757-8095
email civiltech1@frontier.com



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

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



- **Resumes:** Resumes for key personnel and staff follow this section.
- **Equipment:** Civil Tech Engineering, Inc. maintains complete in-house computer equipment and software to support our engineering services. This equipment is complimented by our electronic survey instruments with onboard data collectors. Pertinent equipment and software are summarized below:
 - Software: HEC1, HEC2, HECHMS, HECRAS, Dams2, WaterCad, SewerCad, HydroCad, Flowmaster, PCStable5, AutoCad Civil3D 2011, Eagle Point Design Software, and office support programs including Word and Excel.
 - Equipment: Seven computers, Two Digital Cameras, HP 1050C Plotter, HP inkjet and laser printers, fax, copier, and necessary office support.
 - Vehicles: Three 4 wheel drive
 - Survey: Leica TC600 Total Station, Leica Automatic Level, Rods, Tripods, Prisms as required to support our survey crew.

RESUME OF MARK E. PENNINGTON
PRESIDENT – CIVIL TECH ENGINEERING INC.
12 - 31 - 12

EDUCATION:

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

PROFESSIONAL REGISTRATION:

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

EMPLOYMENT HISTORY:

Principal Engineer - President	-	CIVIL TECH ENGINEERING, INC. February 1996 to Present
Chief Engineer - Vice President	-	Heeter Construction, Inc., Spencer, WV February 1996 to April 1997
Principal Engineer - Vice President	-	Triad Engineering, Inc., St. Albans, WV 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 founding principals and president of Civil Tech Engineering Inc. In this capacity, he is responsible for overall management of the company, business development, proposal preparation, and the direction/technical review of all engineering work produced by the company.

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

Mr. Pennington has provided and directed engineering services on over 1600 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, Cedar Lakes Conference Center, Middleport Terminals, Contractors, Architects, Private Home Owners, and insurance companies. Mr. Pennington has been responsible for a wide range of engineering projects and services including:

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

Insurance and BRIM Investigation: During Mr. Pennington's 35 year career, he has provided professional engineering services to insurance companies including State Farm, Nationwide, St. Paul, Westfield, Travelers, Allstate, Prudential, and Hartford. Since 2002, Mr. Pennington has also investigated numerous mine subsidence claims for BRIM. Services provided 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.

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. Past experience with general civil engineering including utility and roadway infrastructure, site grading, storm water, and permitting has included large commercial and private projects such as Southridge Centre (100 acres), First Church of God (10 acres), Ridgeline Developments (100 acres), Dudley Farms (50 acres), and recent 2 acre developments for hotel sites in Mineral Wells, and Weirton, West Virginia.

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

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

Construction: Mr. Pennington provided engineering and construction management services to Heeter Construction of Spencer, West Virginia in 1996 and 1997. He assisted Heeter with bidding, project management, and any technical problems requiring engineering expertise. During 1996 and early 1997 while with Heeter Construction, he served as the assistant project manager for the construction of a 10 million dollar flood control levee designed by the US Army Corps of Engineers for the City of Moorefield, West Virginia. Mr. Pennington continues to provide bidding and construction consultation as well as value engineering proposals, waste site design, and other engineering services for Heeter Construction.

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

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

WVDEP-AML Experience: Mr. Pennington has been responsible for the completion of 15 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 Office of Surface Mining on similar projects. Mr. Pennington has 26 years of pertinent experience with the abatement of mine related problems.

RESUME OF JENNIFER E. PENNINGTON
PRINCIPAL ENGINEER
12-31-12

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 8 AML projects since 2008. Ms. Pennington has been responsible for project management on these and many other large scale projects including design and extensive geotechnical/foundation investigations. She is proficient in organizing and maintaining scheduling during the course of long term projects. She has complete familiarity with all of the above mentioned in house computer programs as well as Word, Excel, AutoCad, Eagle Point, Flowmaster, Dams2, HEC1 and II, HECRAS, and Hydrocad.

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



H. Thomas Brown

Objective Engineering Management

Work experience 2004-Present City of Bridgeport Bridgeport, WV

Director of Community and Public Works

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

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

Senior Estimator (2001-2004)

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

Grafton Office Manager (1998-2001)

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

Senior/Chief Estimator (1991-1998)

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

1987-1991 Advanced Surveys, Inc Prince Fredrick, MD

Project Engineer

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

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

Estimator

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

1986-1986 The Driggs Corporation. Capitol Heights, MD

Estimator

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

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

Senior/Chief Estimator

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

1984-1985 CMX Industrial Ceramics.. Bridgeport, WV

Manager

- Manage: Coal preparation plant rebuild shop

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

Estimator

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

1981-1983 Soil Conservation Service Morgantown, WV

Technician

- Economic and hydraulic study preparation

1972-1981

Various

- Construction, Retail and Church Service

Education

December 1982
Civil Engineering

West Virginia University

Morgantown, WV

- BSCE

Accreditations

West Virginia Professional Engineer License

West Virginia Professional Surveyor License

Professional memberships

American Society of Civil Engineers

North Central West Virginia Highway Engineers

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

EDUCATION:

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

EMPLOYMENT HISTORY

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

RESUME OF CHARLES D. ARTHUR, Jr. Continued

July 1989 to June 1993 Experience updating customer data, completing close of daily receipts, insuring that paperwork balances, operating computerized cash register and possessing exemplary customer and employee relations

June 1993 to Dec 1994 **First Choice Equipment** Ashland, VA
Mechanic
Experience maintaining tractor-trailers, various welding jobs, paint preparation and painting

PERTINENT EXPERIENCE:

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

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

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

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

RESUME OF H. THOMAS DIBACCO

ENVIRONMENTAL ENGINEER

EDUCATION:

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

CERTIFICATION/REGISTRATION:

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

EMPLOYMENT HISTORY:

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

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

PROFESSIONAL EXPERIENCE:

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

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

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

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

EDUCATION:

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

CERTIFICATIONS:

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

EMPLOYMENT HISTORY:

Geologist - Civil Tech Engineering, Inc. 1996 – present
Responsible for all geologic studies/investigations.
Typical projects include mining subsidence investigations,
Teter Creek Dam, Thomas Dam, Old Pond 11 Dam, and
Seneca Dam.

Geologist - 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.

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
- 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**

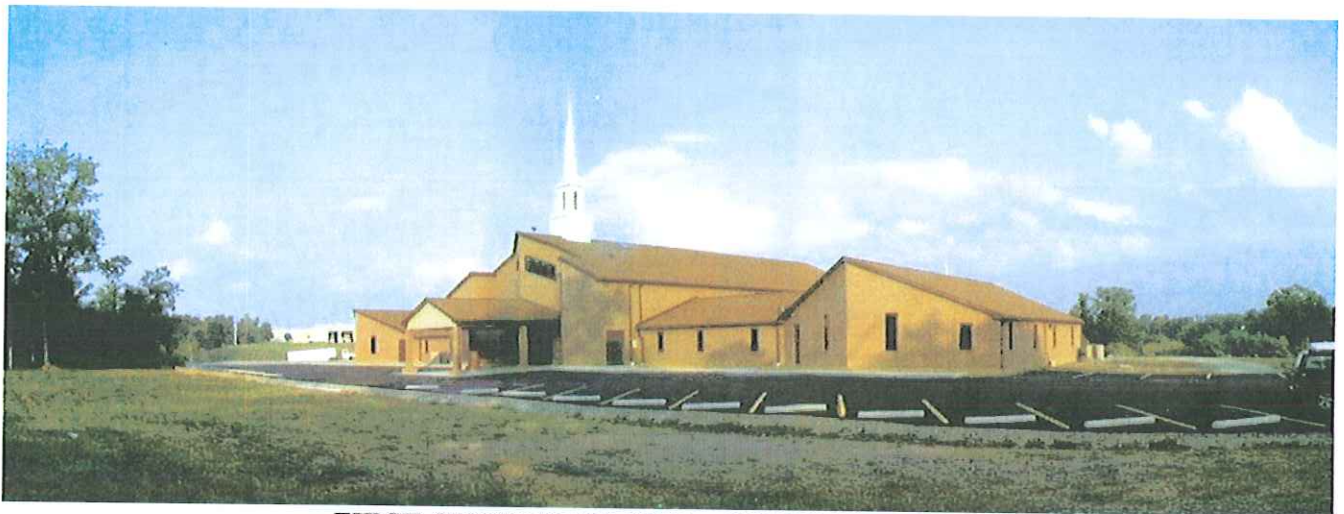
- Pines Country Club (Ponds) Subsidence** – Project Cost \$ 2.6 million
- Winifrede (McFann) Portals** – Project Cost \$ 450,000.
- Cambria Portals** - Project Cost \$ 682,000
- Douglas WL Extension** – Project Cost \$ 250,000
- Storm/Sanitary Segregation Project, City of Thomas - Project Cost \$ 3 million
- 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.

CIVIL TECH ENGINEERING INC. "Attention to Detail"



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

CIVIL TECH ENGINEERING INC. "Attention to Detail"



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

SECTION B.3 - DAM SAFETY EXPERIENCE

- Civil Tech Experience: Civil Tech's dam experience over the last 17 years has included 37 Dam Modification Projects ranging in cost from \$ 50,000 to \$ 1,500,000. **All dam projects involve civil, environmental, geotechnical, surveying/mapping, construction monitoring, and contract administration. We believe this experience makes our firm uniquely qualified for AML Design Work.** Civil Tech Dam Projects are listed below.

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

34. Long Branch Dam Modification, Pipestem State Park
 35. Mt. Storm Gate Modification, Mt. Storm Power Station
 36. Jimmy Lewis Drain Pipe Repairs, Pinnacle Rock State Park
 37. Reservoir and Park Dams, Cacapon State Park
- Certificates of approval have been applied for and approved by the WVDEP on 28 projects.
 - Our projects include; new dams, rehabilitation, flood damage repair, and emergency repair.
 - Periodic Safety Inspections are routinely performed on over 60 dams.
 - Past Experience:** Prior to forming Civil Tech in 1996, our principals were responsible for:
 - 11 Dam Modification Projects ranging in cost from \$ 300,000 to \$ 1,300,000. These dams are listed below:
 1. Jimmy Lewis Dam, Mercer Co., WV
 2. Plum Orchard Dam, Fayette Co., WV
 3. Boley Dam, Babcock State Park
 4. Anawalt Dam, Anawalt, WV
 5. Warden Lake Dam, Hardy Co., WV
 6. Burches Run Dam, Moundsville, WV
 7. Castlemans Run Dam, Wheeling, WV
 8. No. 1 Impoundment, Union Carbide
 9. No. 2 Impoundment, Union Carbide
 10. No. 3, Impoundment, Union Carbide
 11. Mill Creek Dam, Columbia Gas
 - Certificates of Approval were obtained for all projects.
 - Numerous Safety Inspections were also performed.
 - 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.

- Breach Analysis and Risk Assessment: Civil Tech has successfully used breach analysis and risk assessment to reduce the hazard classification of many of our dam projects. This analysis resulted in a reduction in the design storm and substantial savings for our clients.

- Facility Improvements: Our dam rehabilitation projects have resulted in facility improvements including:
 - Access For Fishermen.
 - Boat Launching Ramps.
 - Access Roads.
 - Parking Facilities.
 - Walkways
 - Handicap Access.
 - Toilet facilities.

- Maintenance of Facility: Our personnel are sensitive to the dam setting and make every effort to complete our projects with minimal disruption of the facility. Our designs are practical and planned to fit the site.

- Project Photographs: Representative photographs and sample drawings illustrating our Dam Rehabilitation experience are included herein.

CIVIL TECH ENGINEERING INC. "Attention to Detail"

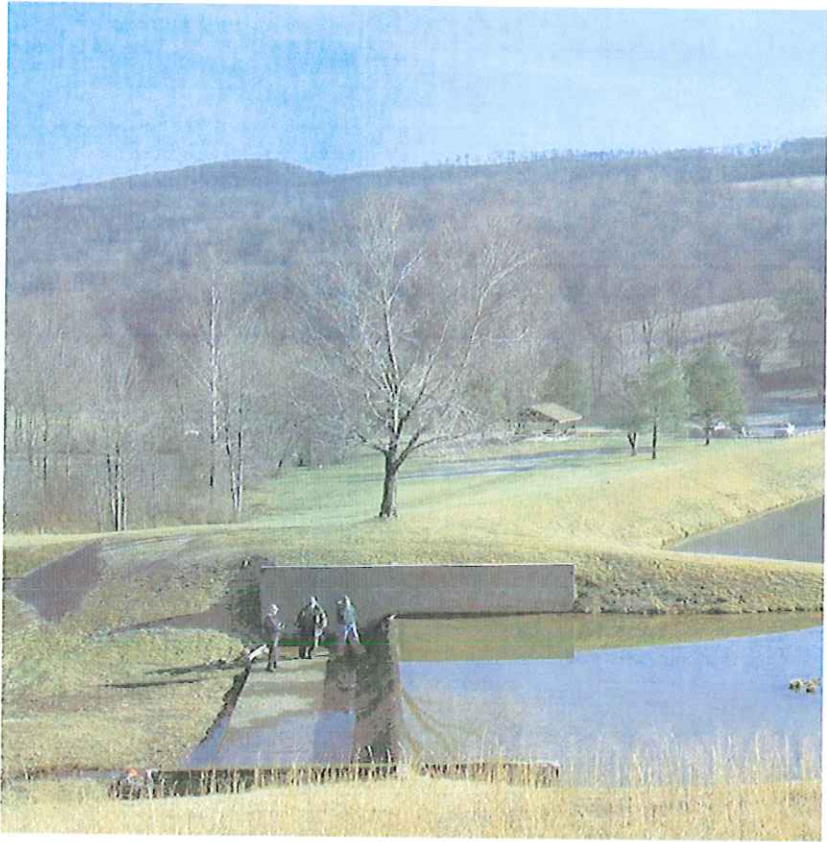


THOMAS DAM MODIFICATION, THOMAS, WV



TETER CREEK DAM MODIFICATION, BARBOUR CO., WV

CIVIL TECH ENGINEERING INC. "Attention to Detail"



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

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 WV DOT
 - Hazardous and Sanitary Landfills throughout WV, KY, and Ohio
 - Over 120 Abandoned Mine Land Projects for the WV DEP

- Surveying and Mapping:** Surveying and mapping services are performed by our in-house crew using electronic instruments with onboard data collectors, and computer software to reduce data and develop drawings. The work is performed under the direction of one of our Professional Surveyors. Since forming Civil Tech, we have performed field surveying necessary to develop topographic mapping and locate existing site features for most of our ongoing and past engineering projects. Clients have included:

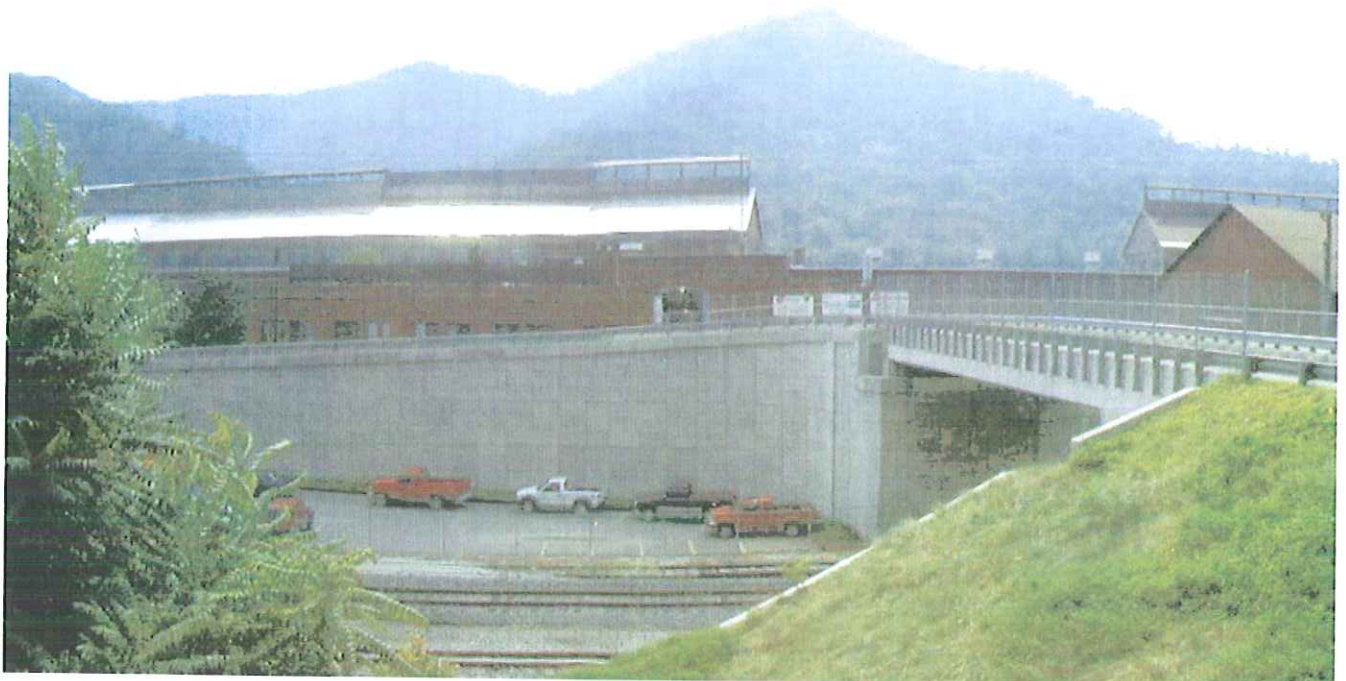
- Steel of West Virginia
- FMC Peroxide
- Simpson - Litman Builders
- WVDNR - Wildlife Section
- Joyce Properties
- City of Thomas
- City of Belington
- City of Culloden
- WVDNR - Parks & Recreation
- Winterplace Ski Resort
- Mt. Top PSD
- NewPage Corporation
- Dominion Generation
- WV American Water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

CIVIL TECH ENGINEERING INC. "Attention to Detail"



ASPHALT STORAGE TANK FARM – MIDDLEPORT TERMINALS INC.

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



ELKEM METALS BRIDGE APPROACH – ALLOY, WV

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

CIVIL TECH ENGINEERING INC. "Attention to Detail"



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

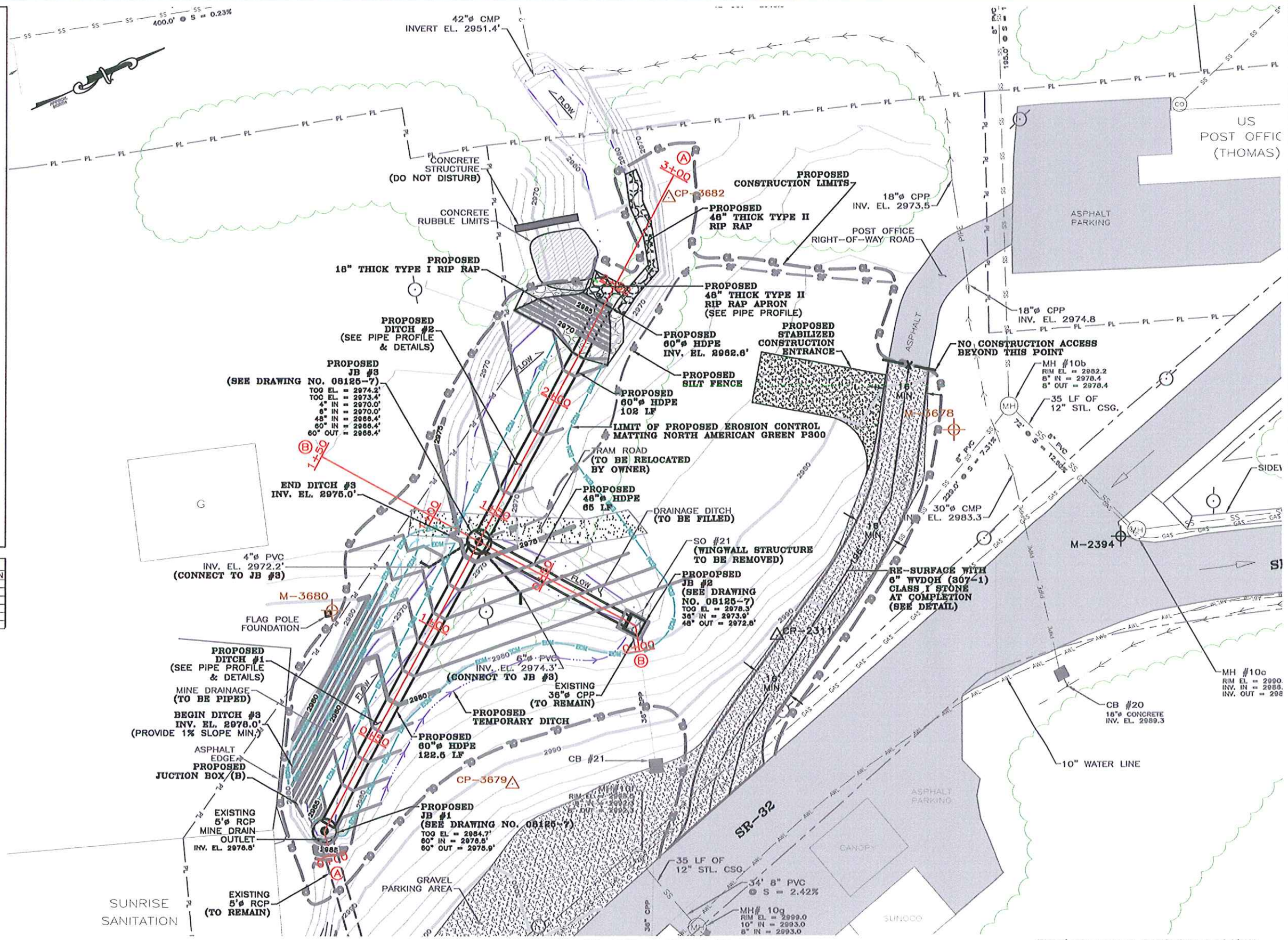
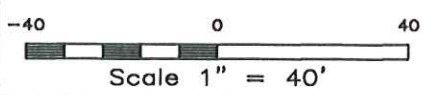
- LEGEND-**
- SPOT ELEVATION
 - UTILITY POLE
 - EXISTING DITCH
 - TREE LINE
 - PROPERTY LINE (TAX MAP)
 - RIGHT-OF-WAY
 - PROPERTY CORNER
 - ELECTRIC METER
 - SANITARY SEWER MANHOLE
 - CLEAN OUT
 - FIRE HYDRANT
 - WATER METER
 - WATER VALVE
 - WATER LINE MARKER
 - GAS METER
 - GAS VALVE
 - GAS LINE MARKER
 - 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
 - CONTROL POINT
 - SURVEY MONUMENT
 - TOP OF GRATE ELEVATION
 - INVERT ELEVATION
 - BASELINE
 - ORIGINAL CONTOUR
 - PROPOSED CONTOUR
 - PROPOSED EROSION CONTROL MATTING
 - PROPOSED DITCH
 - 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	9676.94	10680.61	2382.7	1/2" REBAR
M-3680	9900.85	10680.94	2381.0	1/2" REBAR
CP-3676	9889.37	10658.31	3005.7	HUB/TAC
CP-3679	10809.64	8817.45	2992.1	HUB/TAC
CP-3682	9805.49	11045.93	2972.6	SPIKE
CP-3844	9927.65	11112.92	2958.3	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

NO.	DATE	DESCRIPTION
1	8/04/08	ELIMINATED DITCH FROM AS P2 TO AS P4
2	8/04/08	ADDED EROSION CONTROL MATTING
3	8/17/08	CHANGED CONSTRUCTION LIMITS

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

SITE PLAN
PROPOSED MINE DRAIN
 THOMAS (SUNRISE) SANITATION

CIVIL TECH ENGINEERING, INC.
 HURRICANE, WEST VIRGINIA

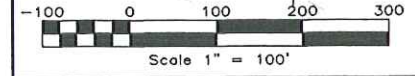
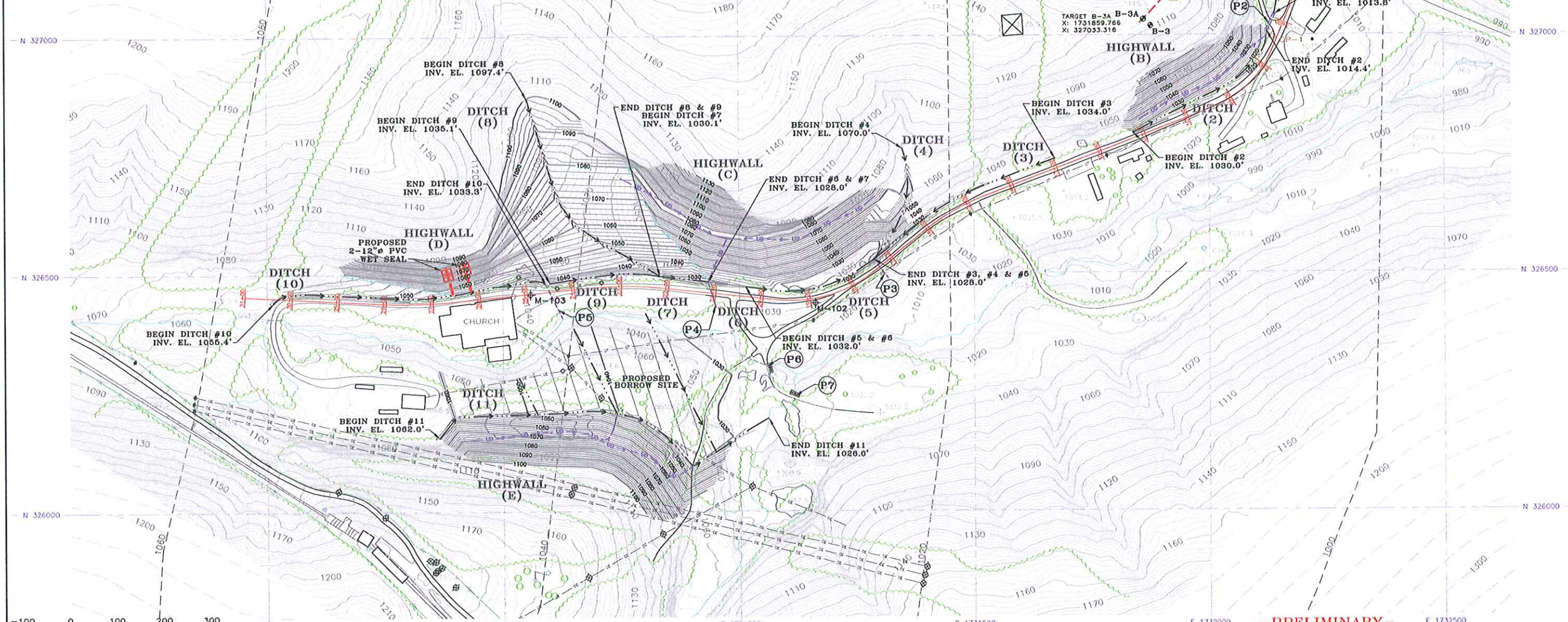
DATE: 8/04/08
 DRAWING NO.: 08125-1

LEGEND		
PAVED ROAD	TELEPHONE	T
UNPAVED ROAD	HYDRANT	*
ROAD SHOULDER	MANHOLE	+
RAILROAD	WATER METER	⊙
GUARDRAIL	LOCATED OBJ.	⊙
BUILDING	ROAD SIGN	+
WALL	TRANSFORMER	+
STREAM/LAKE	WINE PORTAL	∇
CULVERT	GAS WELL	⊕
PIPE END	TREE LINE	—
CATCH BASIN	BRUSH LINE	—
HEADWALL	TREE/SHRUB	⊙
MISC STRUCTURE	CONTOURS	640
FENCE LINE	DEPRESSION	—
UTILITY POLE	SPOT ELEVATION	+645.9
LIGHT POLE	SURVEY CONTROL	⊙ 1177.484
GAS LINE	COAL ELEVATION	1059
BASELINE	BORING LOCATION	B-1
OVERHEAD ELECTRIC	OVERHEAD TELEPHONE	OT
PROPOSED FOR EXISTING	PROPOSED CONTOUR	640
PROPOSED DITCH	PROPOSED PIPE	—

DITCHING SCHEDULE						
DITCH	DESCRIPTION	LENGTH (LF.)	SLOPE (FT./FT.)	START INVERT (FT.)	END INVERT (FT.)	SURFACE
1	TYPE II	387	0.0331	1013.6	1000.8	R/P RAP
2	TYPE II	374	0.0419	1030.0	1014.4	R/P RAP
3	TYPE I	445	0.0136	1034.0	1028.0	P300 EROSION CONTROL MATTING
4	TYPE II	297	0.1654	1070.0	1028.0	R/P RAP
5	TYPE I	288	0.0139	1032.0	1028.0	P300 EROSION CONTROL MATTING
6	TYPE I	83	0.0480	1032.0	1028.0	P300 EROSION CONTROL MATTING
7	TYPE II	102	0.0207	1030.1	1028.0	R/P RAP
8	TYPE II	495	0.1372	1097.4	1030.1	R/P RAP
9	TYPE I	237	0.0211	1035.1	1030.1	P300 EROSION CONTROL MATTING
10A	TYPE II	470	0.0309	1058.4	1040.9	R/P RAP
10B	TYPE II	114	0.0670	1040.9	1033.3	R/P RAP
11A	TYPE II	47	0.0427	1062.0	1060.0	R/P RAP
11B	TYPE II	12	0.3540	1060.0	1058.0	R/P RAP
11C	TYPE II	342	0.0524	1058.0	1038.1	R/P RAP
11D	TYPE II	301	0.0329	1038.1	1028.2	R/P RAP
11E	TYPE II	98	0.0226	1028.2	1029.0	R/P RAP

SURVEY CONTROL INFORMATION				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
M-102	326437.812	1731159.826	1030.73	5" REBAR
M-103	326457.363	1730558.365	1039.91	5" REBAR
M-104	327128.908	1732195.203	1015.77	5" REBAR
M-105	327382.848	1732040.329	1008.72	5" REBAR
CP-1	328998.963	1732137.632	1017.00	SPIKE
CP-3	327170.746	1732054.047	1040.18	SPIKE
CP-11	327220.057	1731736.691	1067.28	SPIKE
CP-13	327078.744	1731923.746	1115.30	SPIKE
CP-14	327340.453	1731687.815	1079.17	SPIKE
CP-21	327236.240	1731978.837	1045.72	SPIKE

PIPING SCHEDULE					
PIPE	DESCRIPTION	LENGTH (LF.)	SLOPE (FT./FT.)	INVERT IN (FT.)	INVERT OUT (FT.)
P1	36" OHP PIPE (EXISTING)	60	0.0300	1000.8	999.0
P2	(2) 24" HDPE PIPES (PROPOSED)	40	0.0200	1014.4	1013.6
P3	36" HDPE PIPE (PROPOSED)	60	0.1104	1028.0	1022.6
P4	36" HDPE PIPE (PROPOSED)	54	0.0481	1028.0	1025.4
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	1023.6	1022.4



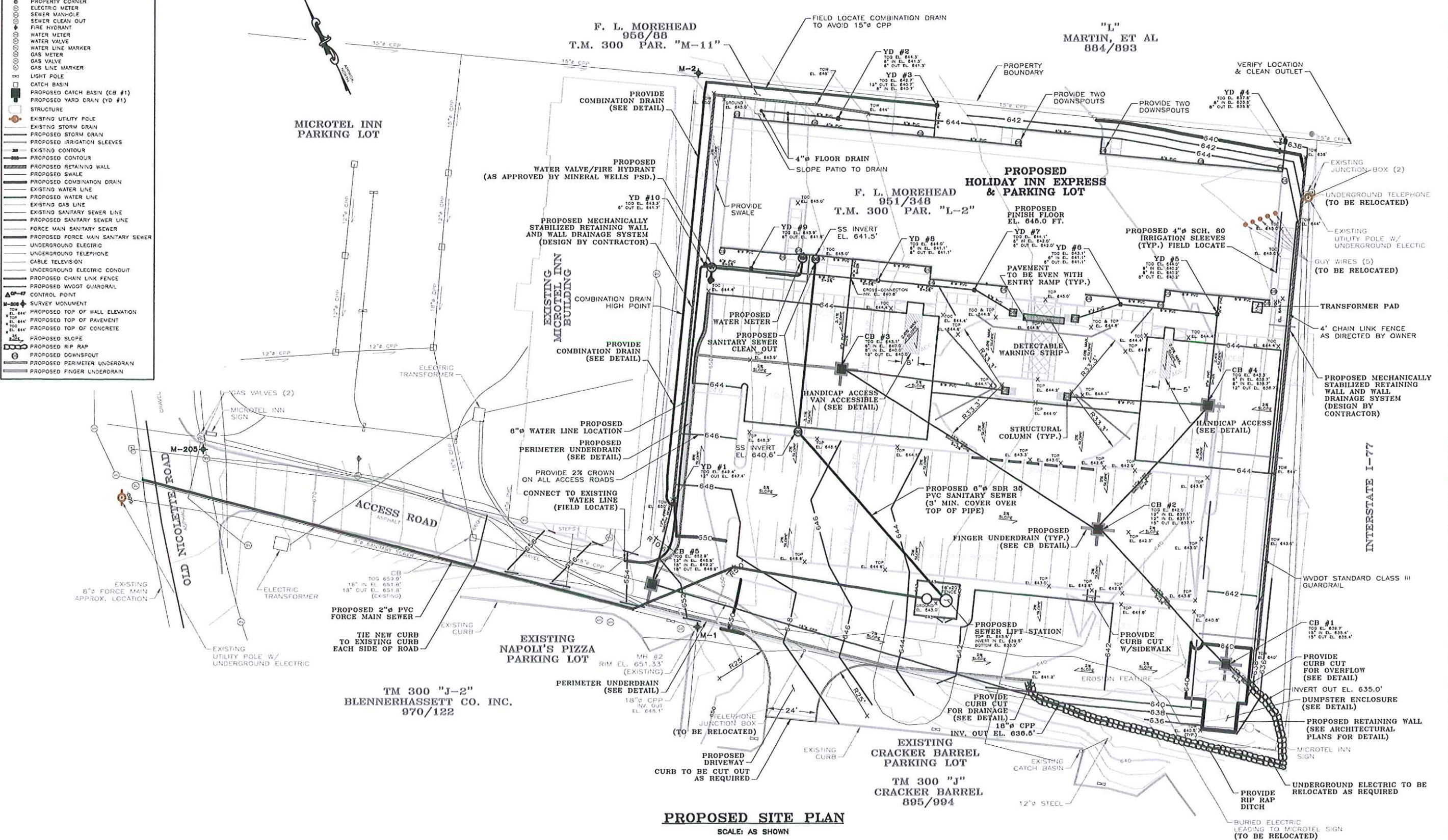
SITE LOCATION PLAN
SCALE: 1" = 100'

**-PRELIMINARY-
FOR REVIEW ONLY**

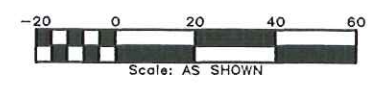
REVISIONS	DATE	BY	DESCRIPTION
SCALE: AS SHOWN	DRAWN BY: COA		
	CHECKED BY: MEP		
AML & R			
WDEP			
SITE LOCATION PLAN PROSPECT VALLEY HIGHWALL #4 SEMINSTON, WEST VIRGINIA			
CIVIL TECH ENGINEERING, INC. HURRICANE, WEST VIRGINIA			
DATE	9/18/09		
DRAWING NO.	09107-2		

- 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 ELECTRIC
 - ⊙ UNDERGROUND TELEPHONE
 - ⊙ CABLE TELEVISION
 - ⊙ UNDERGROUND ELECTRIC CONDUIT
 - ⊙ PROPOSED CHAIN LINK FENCE
 - ⊙ PROPOSED WDOT 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) TOPS BASED ON FIELD SURVEY BY CIVIL TECH ENGINEERING, INC. ON 7-03-08.
2) MH #2 RIM EL. = 651.33' USED AS BENCH MARK.
3) UTILITIES SHOWN ARE BASED ON MICROTEL AS-BUILT DRAWING DATED APRIL 20, 1998 AND LOCATIONS PROVIDED BY UTILITY COMPANIES.
4) UNDERGROUND POWER FROM PP IN-009 TO PP ON NICOLETTE BASED ON MONONGAHELA POWER DRAWING P-10235P SHEET 7/7.

REVISIONS		DATE	BY	DESCRIPTION

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

MPH HOTELS
NORTH BARRINGTON, ILLINOIS

PROPOSED SITE PLAN
HOLIDAY INN EXPRESS
MINERAL WELLS, WY

CIVIL TECH ENGINEERING, INC.
HURRICANE, WEST VIRGINIA

DATE
9/16/08
DRAWING NO.
06138-3

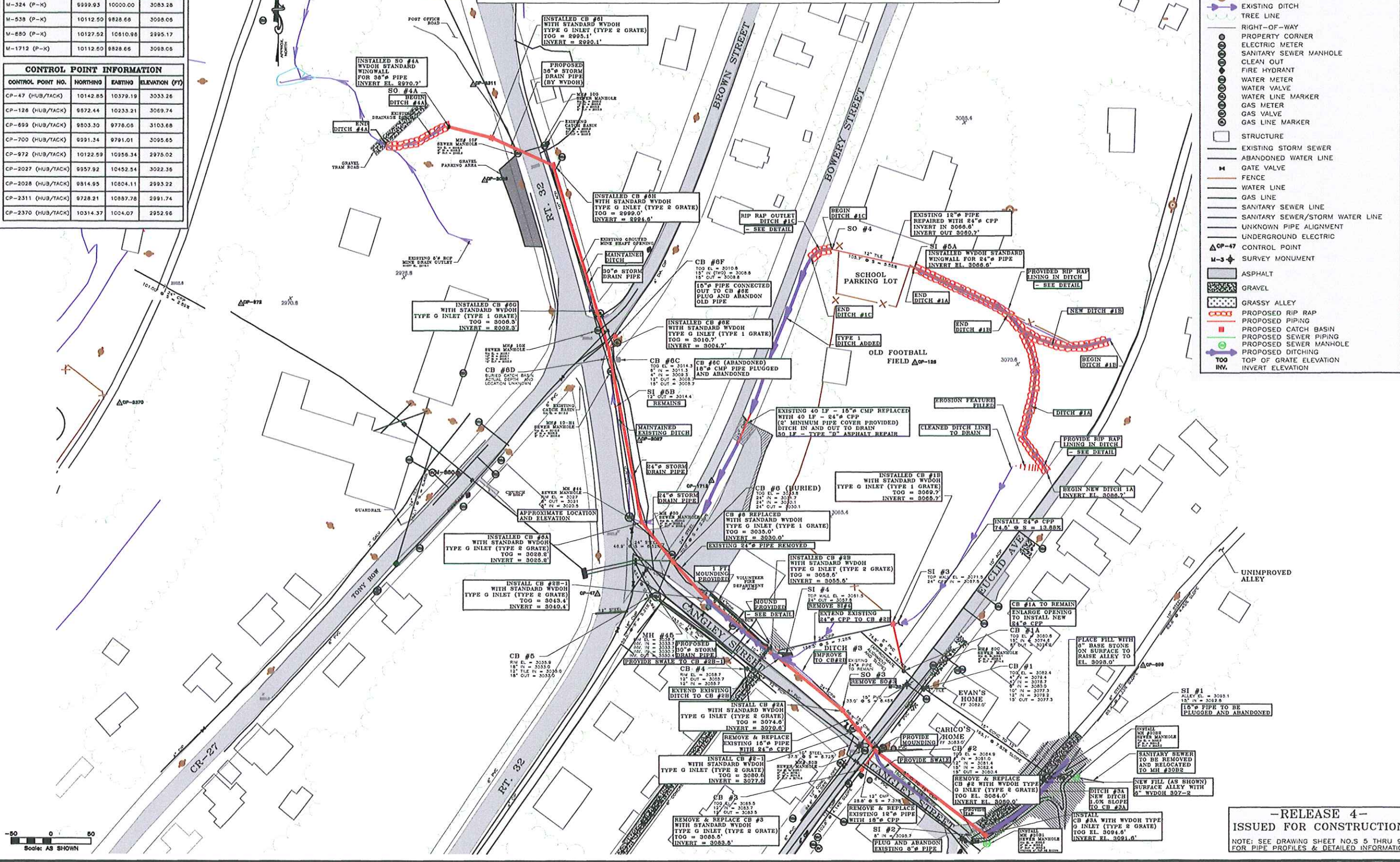
MONUMENT INFORMATION			
MONUMENT POINT NO.	NORTHING	EASTING	ELEVATION (FT)
M-3 (P-K)	10097.14	10001.60	3084.74
M-324 (P-K)	9999.93	10000.00	3083.28
M-538 (P-K)	10112.50	9828.66	3098.05
M-880 (P-K)	10127.52	10610.98	2995.17
M-1712 (P-K)	10112.60	9828.66	3098.05

CONTROL POINT INFORMATION			
CONTROL POINT NO.	NORTHING	EASTING	ELEVATION (FT)
CP-47 (HUB/TACK)	10142.85	10379.19	3033.26
CP-126 (HUB/TACK)	9972.44	10233.21	3069.74
CP-699 (HUB/TACK)	9903.30	9778.08	3103.68
CP-700 (HUB/TACK)	9991.34	9791.01	3095.65
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
- TOP OF GRADE ELEVATION
- INV.



-RELEASE 4-
ISSUED FOR CONSTRUCTION

NOTE: SEE DRAWING SHEET NO.S 5 THRU 9 FOR PIPE PROFILES & DETAILED INFORMATION

REVISIONS

NO.	DESCRIPTION	DATE	BY

SCALE: AS SHOWN

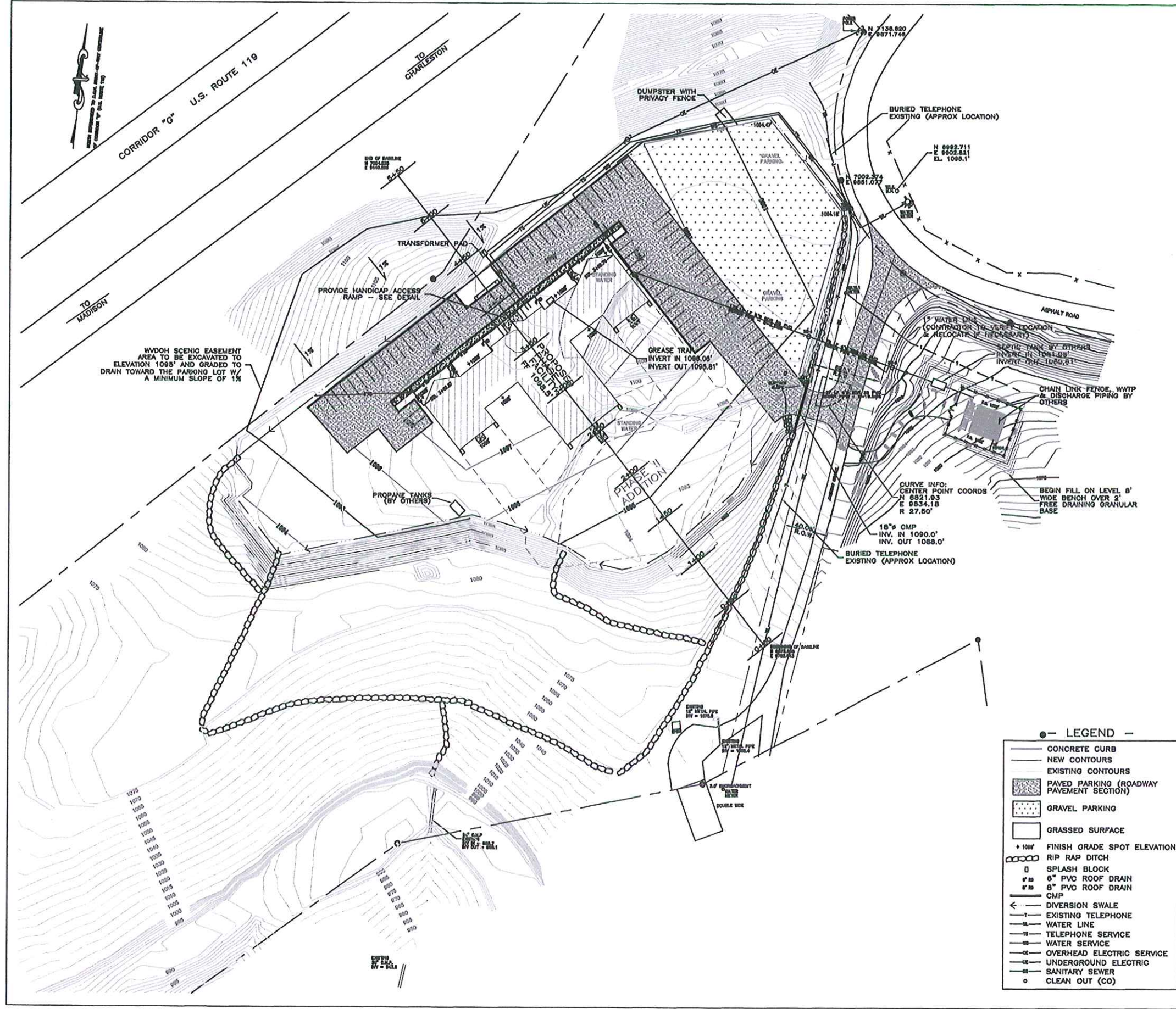
DRAWN BY: CDA
CHECKED BY: MEP

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



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

- SITE WORK GENERAL NOTES:**
- Utility locations are approximate. Contractor to verify before beginning work.
Utilities: Electrical: American Electric Power - Phone: 304-748-2855
Water: WV American Water Co. - Phone: 304-345-8500
Telephone: Bell Atlantic - Phone: 304-954-8202
 - 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 layer 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 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 coarse sandstone or limestone well graded with a maximum and minimum particle size of 8 to 18 inches.
 - Waste Materials: 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 WVDOT 307-1 (Class 1) Stone. Asphaltic base shall consist of WVDOT Base 1 mix. Asphaltic wearing course shall consist of WVDOT Wearing 1 mix. Asphaltic materials, placement, and composition 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 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 0.5% and provide a cleanout with sanitary Wye where the piping leaves the building and at 250 foot intervals thereafter. Bedding and backfill to be in accordance with the manufacturers recommendations. Pipes 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 of 4 feet below finish grade. Service piping shall comply with AWWA C900 or C902 for Polyethylene (PE) pressure pipe and tubing or Polybutylene (PB) Pressure pipe and tubing 1/2 inch thru 4 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 D2774 - Butt 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.
 - Curbs: WVDOT Plain Curb - Type 1 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 1/4 inches.
 - Electrical: AEP will furnish and install all underground cable, power pole, and transformer. The general contractor will pay for the 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 the work. The contractor will also construct the transformer pad in accordance with AEP requirements. Conduit shall consist of two (2) 6 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 652. Lawn area to be Type C-2. Fill and out slopes to be Type D. Table 652.5-Seed Mixtures.
 - E & S measures to comply with the approved General Permit issued by the WDEP OWR.
 - Refer to sheets 97208-2 thru 97208-3.

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

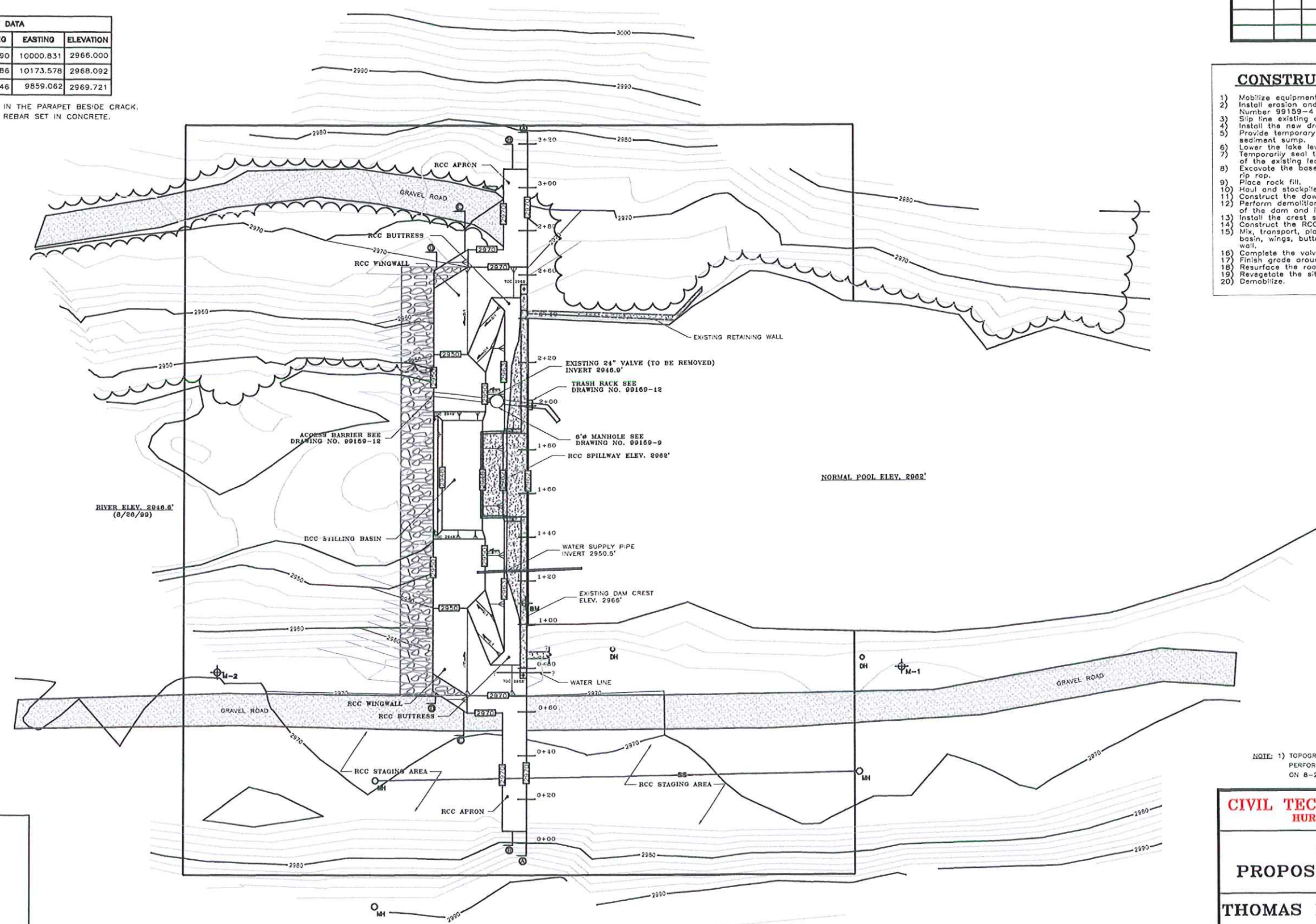
DRAWING NO. 97208-5	SCALE: NTS
DATE: APRIL, 2000	DRAWN BY: RKM CHECKED BY: MEP

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

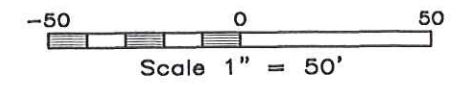
- CONSTRUCTION SEQUENCE**
- 1) Mobilize equipment, materials, and labor force to the site.
 - 2) Install erosion and sediment control measures. See Drawing Number 99159-4 for details.
 - 3) Slip line existing drain pipe with new HDPE pipe.
 - 4) Install the new drain valve and manhole base.
 - 5) Provide 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.



—LEGEND—

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

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.



CIVIL TECH ENGINEERING, INC.
HURRICANE, WEST VIRGINIA

**SITE PLAN
PROPOSED MODIFICATIONS**

**THOMAS DAM MODIFICATIONS
THOMAS, WV**

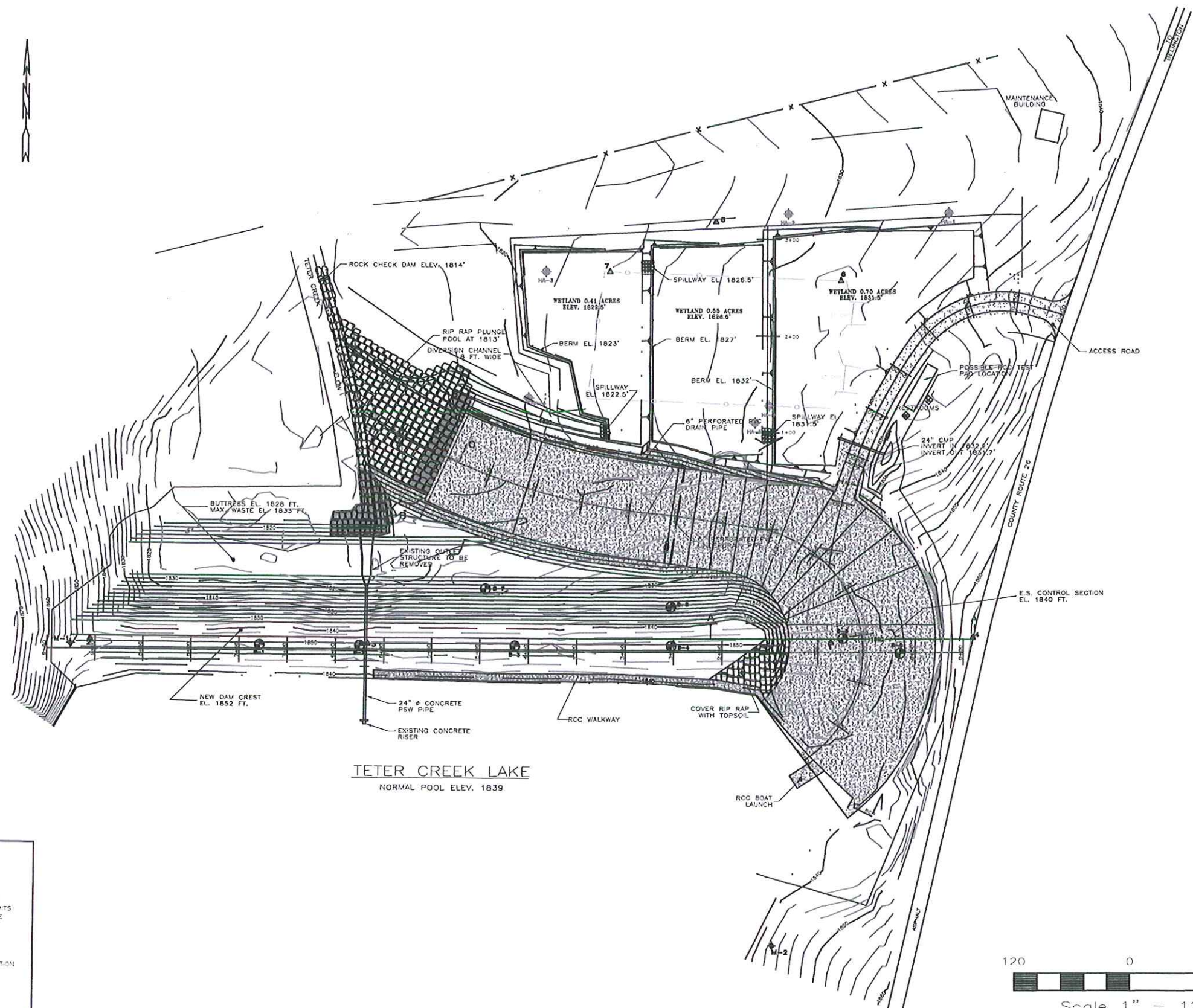
DRAWING NO.: 99159-6	DATE: JANUARY, 2000	SCALE: 1" = 50'
REVISED: BY:	CHECKED:	DRAWN BY: GDA CHECKED BY: MEP

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	1845.990
2	9231.321	10000.084	1845.407
3	9519.762	9997.425	1845.647
4	10146.693	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

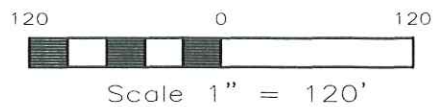
NOTE: MONUMENTS ARE 1/2" REBAR



TETER CREEK LAKE
NORMAL POOL ELEV. 1839

—LEGEND—

- WATER SURFACE
- X- FENCE
- - - EXISTING CONTOUR
- FINISH GRADE
- CONSTRUCTION LIMITS
- EXISTING WETLAND LIMITS
- WOOD BOLLARD FENCE
- ▲ CONTROL POINT
- M-1 SURVEY MONUMENT
- ⊕ B-1 BORING LOCATION
- ⊕ M-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**

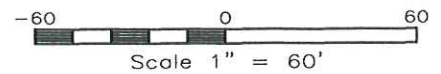
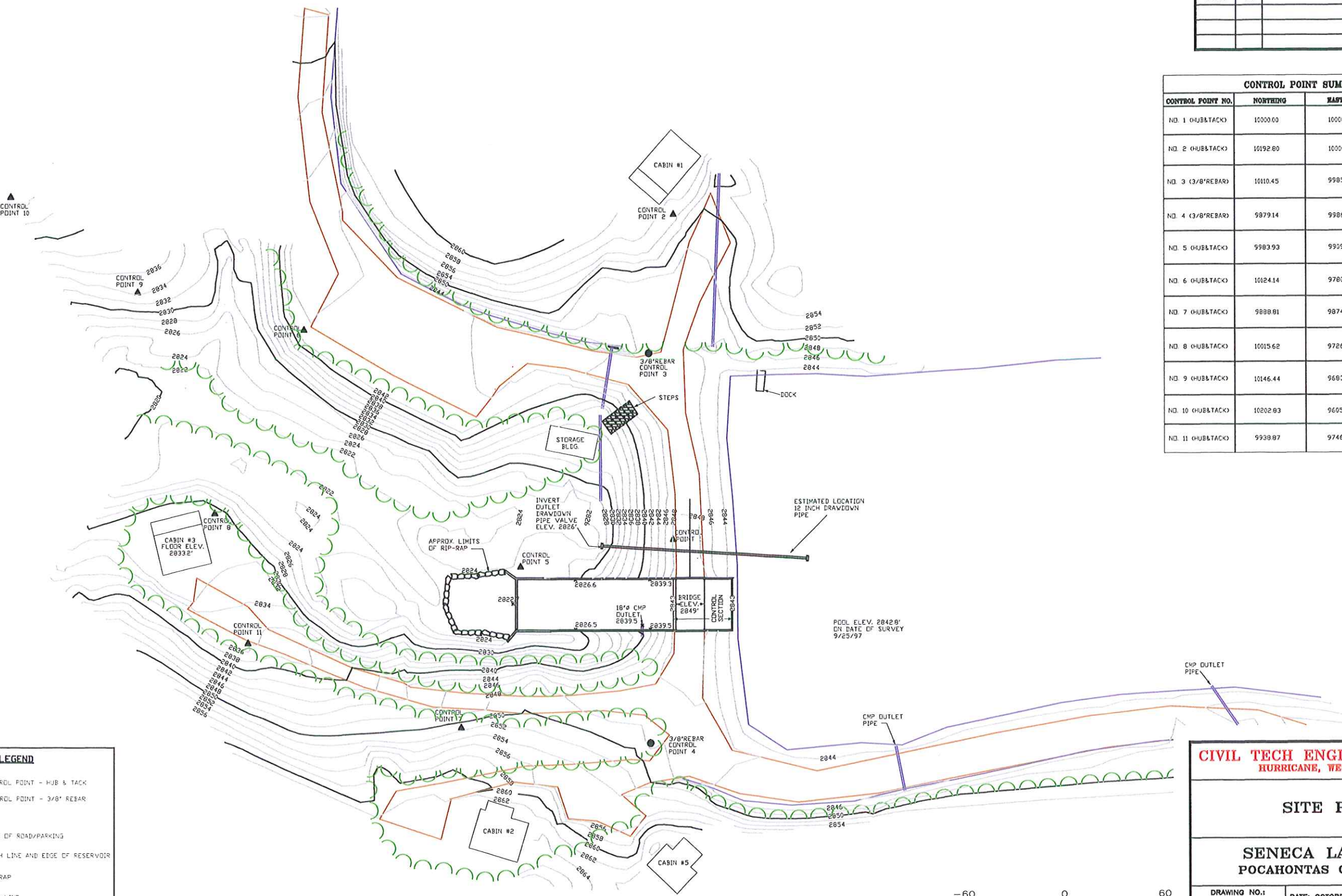
TETER CREEK LAKE DAM
BARBOUR COUNTY, WEST VIRGINIA

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)	10192.60	10000.00	2855.01
NO. 3 (3/8" REBAR)	10110.45	9985.29	2846.60
NO. 4 (3/8" REBAR)	9879.14	9985.92	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