



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

# Request for Quotation

RFQ NUMBER  
**DEP14369**

PAGE  
**1**

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

RFQ COPY

**TYPE NAME/ADDRESS HERE**

Thrasher Engineering, Inc.  
 30 Columbia Blvd.  
 Clarksburg, WV 26301

SHIP TO

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

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
09/11/2008				

BID OPENING DATE: **10/23/2008**                      BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-29	N/A	N/A
<p><b>MT. STORM MINE 25A DESIGN SERVICES</b></p> <p><b>EXPRESSION OF INTEREST</b></p> <p><b>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 MT. STORM 25A IN GRANT COUNTY, WEST VIRGINIA, PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS.</b></p> <p><b>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THIS CONTRACT IS AUTOMATICALLY NULL AND VOID AND IS TERMINATED WITHOUT FURTHER ORDER.</b></p> <p><b>***** THIS IS THE END OF RFQ DEP14369 ***** TOTAL:</b></p>						
						N/A

**RECEIVED**  
 2008 OCT 23 A 9:56  
 PURCHASING DIVISION  
 STATE OF WV

SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
SIGNATURE	TELEPHONE	DATE	
<i>[Signature]</i>	304-624-4108	10-22-08	
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE	
Partner	55-0633596-6		

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



P .O. Box 1532  
Clarksburg, WV 26301  
www.thrashereng.com

Fax: 624•7831  
thrasher@thrashereng.com

October 21, 2008

West Virginia Department of Environmental Protection  
Office of Abandoned Mine Lands and Reclamation  
c/o State of West Virginia Department of Administration  
Purchasing Division  
2019 Washington Street, East  
Charleston, WV 25305

***RE: Expression of Interest – Mount Storm Mine 25A Design Services  
Requisition # DEP14369***

To the Members of the Selection Committee:

Thrasher Engineering, Inc. appreciates the opportunity to submit this expression of interest and qualifications to provide engineering design services for the Mount Storm 25A Design Services project. We bring to this project unequalled experience in and, knowledge of, Grant County and the Mount Storm area. This expertise, combined with our qualifications as West Virginia's largest full service civil engineering firm will provide the Department of Environmental Protection's Office of Abandoned Mine Lands and Reclamation with quality service in a timely and cost efficient manner.

Following our review of the project we have developed a thorough understanding of the project needs. With that understanding, we offer the following qualifications that the selection of Thrasher Engineering for this project will bring to the DEP and the Office of Abandoned Mine Lands:

**EXPERIENCE TO MEET THE SCOPE OF SERVICES**

As stated in the RFQ, services that will be required for the scope of the project include civil, structural, geological and hydrological. Thrasher Engineering, Inc. brings the full complement of these areas to the DEP with Novel Geo-Environmental on our team for geo-technical services. As demonstrated in our experience, we have provided engineering design services for numerous projects requiring the same scope as those in this RFQ.

### PROJECT TEAM

The qualifications of professionals on the team we have assembled to provide design services for this project are unmatched for this type of work. We have 25 engineers on staff, 14 of who are Registered Professional Engineers. This specific project team includes the design services of Wes Morrow; Wes supervised and provided leadership to a staff of three civil engineers and three civil engineering technicians for the design of flood control measures including dams, stream channel modifications, non-structural, and emergency watershed protection projects in West Virginia. Our Environmental Manager, Sheirl Fletcher, has over 20 years of environmental experience with a major coal company, with specific experience in acid mine drainage reclamation. Additionally, Thrasher Engineering offers 15 fully staffed survey crews with experience in mining survey including pre and post subsidence and acid mine drainage

With our experience with AML and drainage projects, our qualified personnel and our expertise, Thrasher Engineering is the right choice for this AML project.

Following the instructions outlined in the RFQ, this proposal contains information regarding Thrasher Engineering's history, qualifications and management and staffing capabilities along with the required DEP /AML Consultant's Confidential Qualifications Questionnaire, and an affidavit stating Thrasher Engineering has no debt owed to the State of West Virginia.

We thank you for your consideration of our qualifications and look forward to the opportunity to present our qualifications and project methodology to you in person.

Sincerely,

THRASHER ENGINEERING, INC.



CHADWICK D. BILLER, P.E.  
Principal-In-Charge / Project Manager

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## STATEMENT OF QUALIFICATIONS

### FIRM OVERVIEW

#### THRASHER ENGINEERING, INC.

**Established** 1983

##### **Officers**

H. Wood Thrasher, P.E.,	President
Kenneth P. Moran, P.E., P.S.	Vice-President
Kurt L. Newbrough, P.S.	Secretary / Treasurer

##### **Partners**

Wm. Randy Watson	Public Utilities
Chadwick Biller, P.E.	Site Development / Highways / Airports
Chad Riley, P.E.	Site Development
Clay P. Riley, P.E.	Public Utilities
Daniel E. Ferrell, P.E.	Public Utilities



*Thrasher Engineering, Inc. Office –  
Clarksburg, WV*

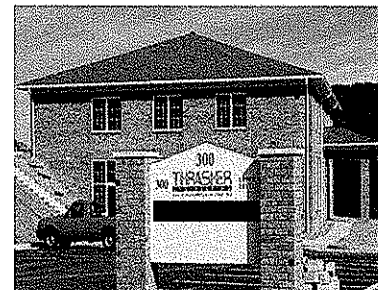
#### THRASHER ENVIRONMENTAL, INC.

##### **Officers**

H. Wood Thrasher, P.E.,	President
Kenneth P. Moran, P.E., P.S.	Vice-President
Jonathan Carpenter, P.E.	Secretary / Treasurer

**Scope of Services**

- Public Work – Water / Sewer / Treatment Plants / Facility Plans
  - /Business and Industrial Parks
- Site Development – Industrial/ Business
  - / Commercial / Residential
- General Civil Engineering – Municipal Engineering / Subdivisions/
  - Paving
- Highway/ Roadways / Recreational Trails Design
- Environmental Engineering
- Architecture
- Landscape Architecture
- Land Surveying, Platting, Legal Description Preparation
- Construction Management / Materials Testing / Inspection
- GIS Mapping and Software Development



*Thrasher Environmental, Inc. Office –  
Charleston, WV*

##### **Offices**

- 30 Columbia Boulevard, Clarksburg, WV
- 300 Association Drive, Charleston, WV – Thrasher Environmental
- 3000 Thayer Center, Oakland, MD
- Main Street, Moorefield, WV – Field Office
- Martinsburg, WV – The Berkeley Associates- Affiliate
- Princeton, WV – Pentree, Incorporated – Affiliate

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## STATEMENT OF QUALIFICATIONS

Thrasher Engineering, Inc. is a civil engineering consulting firm, specializing in public works projects. The majority of Thrasher Engineering's work involves publicly funded water treatment and distribution systems, sewage collection and treatment systems, and industrial and business parks. Over \$600 million in water, sewer, site development, survey and construction management projects have been designed and supervised by the firm

H. Wood Thrasher and Henry A. Thrasher formed the company in 1983 with a commitment to excellence and professionalism in engineering. H. Wood Thrasher, P.E. remains principal of the company; also serving as principals are Kenneth P. Moran, P.E., and Kurt L. Newbrough, P.S.

Providing a full range of professional engineering services, Thrasher Engineering, Inc. currently maintains a staff of 170 full-time employees with. Our staff includes registered professional engineers, graduate engineers, registered professional surveyors, and support staffing of surveyors, design technicians, CADD technicians, construction managers, and secretarial/clerical personnel. This professional staff has a wealth of experience and is our greatest asset. This includes not only the principals but also the technicians, surveyors, construction managers, and office support staff. Combining education with experience, the qualified staff of Thrasher Engineering strives to provide service that is second to none and is committed to maintaining a strong reputation for quality work. The company's full and diverse staff has the resources to handle many projects, both large and small, simultaneously.

## SERVICES

The expertise of our company is confirmed in the variety of projects successfully completed. Areas of expertise that we believe are most beneficial to the WV Department of Environmental Protection Office of Abandoned Mine Lands and Reclamation for the DEP AML Mount Storm Mine 25A include:

### SITE DEVELOPMENT

Thrasher Engineering has planned, surveyed, designed and provided construction management services for over 30 site development projects for both public and private clients. Projects ranging from sites for residential housing to business and industrial parks to multi purpose "live, work and play" communities are included in our range of site development projects.

Our objective in site development engineering is to go beyond just the engineering aspect of the project; we work as a team with our clients to understand their present and future needs. With that information, we work with them to evaluate site locations that best suit their short and long-term goals.

*Storm water Pond, Canaan Federal  
Prison, Scranton, PA*



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Our Site Development Services Include:

**Planning and Conceptual Design**- evaluation of potential sites; recommendation of most functional, most cost-effective alternative; layout of site reflecting best use of land available; design of off-site and on-site (underground) including water service, sanitary sewer service, storm drainage facilities, telephone, electrical service, and television cable service; obtaining all permits necessary to allow construction including State Health Department for extension of water and sewer lines, WV Division of Environmental Protection Sediment and Erosion Control Permit, WV Division of Highways entrance permit, as well as any local permits required; roadway design; layout of industrial lighting; and construction management services to assure compliance with design.

**Grading Plans** - which includes development of cut and fill quantities and construction plans (showing existing and proposed contours, structures, and facilities on site) to allow for the best use of available land.

**Utility Layout/Mapping** - includes design of utility extensions to serve existing and proposed facilities, as well as the complete mapping of existing utilities.

## **STORM WATER DRAINAGE / SEDIMENT AND EROSION CONTROL**

Our experience includes development of Sediment and Erosion Control measures on all types of construction sites as required by the WV Division of Environmental Protection, design of drainage facilities including piping, intake structures, etc., for site stabilization and flood control.

Our staff members have considerable hydrologic and hydraulic design experience and have successfully obtained local, state, and federal erosion and sediment control permits and National Pollutant Discharge Elimination System (NPDES) permits for point source and storm water discharges.



Capabilities in the evaluation and design storm water drainage include:

- Hydrology Studies / Hydrographic Mapping
- Storm Water Collection Systems
- Detention Ponds
- Injection Wells
- Underground Storage
- Combined Sewer Overload (CSO) separation

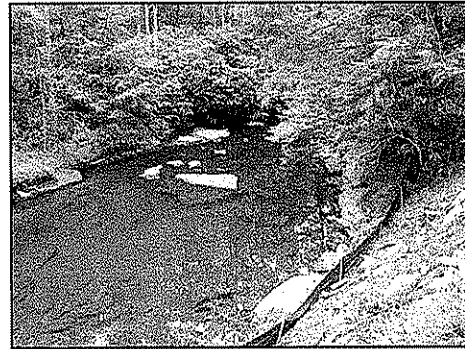
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## ENVIRONMENTAL REPORTING SERVICES

Thrasher Engineering, Inc. provides full environmental assessment and clearance services. We have more than 18 years of experience conducting environmental/natural resource compliance consultation with West Virginia Division of Environmental Protection, (WVDEP), Federal Aviation Administration and Federal Highways Administration, US Department of Agriculture-Rural Development Utility Program, and US Environmental Protection Agency (EPA).

Experience includes:

- Permitting Related Activities (401 and 404)
- NEPA Environmental Document Preparation
- Wetland Delineation and Mitigation
- Rare, Threatened and Endangered Species Section 7 Informal Consultation
- Rare, Threatened and Endangered Species Section 10 Habitat Conservation Plans
- Water Use and Water Quality
- Air and Noise Impacts, Assessments, and Controls
- Soils and Geological Resources
- Cultural Resources –(Sub contracted to a reputable and approved Cultural Resource Consultant)
- Hazardous Materials
- Sediment and Erosion Control
- Consent Orders
- Compliance Schedules
- Site investigations
- SPCC Plans, Contingency Plans, Ground Water Protection Plans and Storm Water Pollution Prevention Plans
- Waste Treatment and Site Remediation
- Waste Disposal
- Channel Restoration
- Stream Bank Stabilization
- Enforcement Actions



## SURVEY

In addition to a full service professional engineering staff, Thrasher Engineering maintains a complete surveying department which includes four licensed professional land surveyors, ten full-time survey crews, CADD technicians, and office support staff.



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We perform our work utilizing the most current methods and equipment available. Our survey work is accomplished using global positioning systems (GPS) and electronic distance measuring (EDM) survey stations with data gathering capabilities.

The type of surveys provided by Thrasher Engineering varies greatly as well and covers virtually all aspects of land surveying, such as:

**Pre- and Post-Mining Surveys** - vertical and horizontal control, inspector's report of protected structures, interior and exterior photographs, and videos. For Eastern Associated Coal Corporation, approximately 90 pre- and post-mining surveys were done in 1997. These surveys required photographs and videotaping of existing structures. Additional services performed for Eastern includes construction layout for impoundments, shaft site boundary and topographic surveys, map editing, and collection of well inventory data

**Boundary Surveys** - verification of land owners, traverse and location of existing monuments, computations of closure, establishment of property corners, actual field stakeout, and preparation of plats and legal descriptions for property owners.

**Topographic Surveys** - location of existing features and determination of contours used in engineering layout of water distribution systems, sewer collection systems, industrial park layouts, etc.

**Construction Layout** - providing horizontal and vertical control for contractor's use and using this information to establish construction controls.

**GPS Surveys** - horizontal and vertical control networks

## **CONSTRUCTION MANAGEMENT AND INSPECTION**

Thrasher Engineering knows how projects should be built. We can provide the knowledgeable and experienced personnel necessary to manage the construction phase of your project. Our project managers and inspectors are experienced in all types of construction activities. From utilities, site development and storm water management to roads, bridges and airports, we apply our construction management and inspection expertise to ensure successful projects. Our construction managers and our inspectors have years of experience; many of our inspectors are certified by the West Virginia Department of Transportation / Division of Highways for roadwork and materials testing.



## **MATERIALS TESTING**

Thrasher Engineering's Materials Testing Department is capable of performing a wide range of field and laboratory tests. Our laboratory at our Clarksburg, WV office is one of only three



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nationally certified facilities in the State of West Virginia .Additionally, our engineers and technicians who perform tests both in the field and in the lab are also certified by the State.

Services Include:

- Concrete Testing and Inspection
- Soil Testing and Inspection
- Aggregate Testing and Inspection
- Mortar and Grout
- Asphalt
- Subsidence Inspecting
- Caisson and Piling Inspection

## **GEO-TECHNICAL SERVICES**

For these projects, we will utilize Novell Geo-Environmental, a Certified Minority/ Women Business Enterprise (MBE/WBE).

## **EQUIPMENT AND SOFTWARE**

Thrasher Engineering, Incorporated provides one of the largest networks of computer aided design (CAD) equipment, software and trained personnel in the State of West Virginia.

AutoCAD Landdesktop 2008 and Microstation V8 software is utilized at 48 CAD stations within the Group. Additionally, equipment includes 10 large format (size E) plotters and 5 large format plotter / scanners.

CAD plans are prepared by both dedicated CAD employees and by staff engineers and engineering technicians in each of the firm's offices. This equipment allows our design department to perform accurate work quickly and efficiently. All departments have the capability to electronically transmit data to clients requesting this service. This blend of experienced personnel utilizing modern equipment results in successful projects and satisfied clients

  
**FIRM MANAGEMENT AND STAFFING**

Thrasher Engineering offers the largest engineering staff in the State of West Virginia. The expertise of the Thrasher Engineering staff is a combination of education and experience; it is reflected in all aspects of our services. The firm is led by a talented group of principals and partners who are dedicated to the success of our projects and the satisfaction of our clients.

**FIRM OFFICERS AND PARTNERS**

H. Wood Thrasher, P.E. - President  
Kenneth P. Moran, P.E. - Vice-President  
Kurt L. Newbrough, P.S.

Wm. Randy Watson  
Chadwick Biller, P.E.

Chad Riley, P.E.  
Clay P. Riley, P.E.  
Daniel E. Ferrell, P.E.

Administration  
Chief Engineer  
Survey / Inspection /  
Materials Testing  
Public Utilities  
Site Development / Highways  
/Airports  
Site Development  
Public Utilities  
Public Utilities

**H. Wood "Woody" Thrasher, P.E.** President of Thrasher Engineering, Inc. graduated from West Virginia University in 1977 with a degree in Civil Engineering. Since that time, he has utilized his engineering skills and entrepreneurial spirit to build Thrasher Engineering, Inc. into West Virginia's largest civil and consulting engineering firm. Mr. Thrasher has extensive experience in all aspects of the engineering process, with emphasis on management and administration of multi-million dollar projects including funding and regulatory issues. Mr. Thrasher forms and supervises multi-project design teams and conducts client needs assessments.

**Kenneth P. Moran, P.E.** is Vice-President and Chief Engineer. Mr. Moran has 24 years of experience in civil engineering. He provides project management and technical review for both site development and public utilities projects. A graduate of Fairmont State University, Mr. Moran is a registered Professional Engineer (P.E.) in addition to a registered Professional Land Surveyor (P.S).

Also a partner and principal of Thrasher Engineering is **Kurt L. Newbrough, P.S.** Mr. Newbrough provides supervision of all survey activities for the firm performed by ten full-time survey teams. Mr. Newbrough is a licensed Professional Surveyor and has specialized training in OSHA Hazardous Waste Operations and Emergency Response Center in Addition to the US Department of Labor / Mine Safety and Health Administration. He also serves in the elected position as Harrison County (WV) Surveyor.

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Public utilities system projects are the responsibility of **Wm. Randall Watson**. A graduate of Fairmont State University, Mr. Watson joined Thrasher Engineering in 1984 and is a firm partner. **Clay P. Riley, P.E.**, also a firm partner, is involved in both water and sanitary sewer utilities projects. He is a graduate of the West Virginia University College of Engineering. **Daniel E. Ferrell, P.E.** is a graduate of West Virginia University and received his Master of Science Degree in Civil Engineering from Old Dominion University. He also is responsible for public utilities projects.

**Chadwick Biller, P.E.** and **Chad M. Riley P.E.**, round out the senior managers of the company. Mr. Riley is a graduate engineer from Fairmont State University and supervises site development projects. Mr. Biller received his engineering degree from West Virginia University. He is responsible for highways, roads, bridges and airport projects, in addition to site development.

## PROJECT TEAM

Thrasher Engineering has assigned a team of experienced professionals to the Mount Storm project:

**Kenneth P. Moran, P.E.** will serve as **Principal-In-Charge and Chief Engineer** for the project. Mr. Moran is Vice-President of Thrasher Engineering, Inc. and oversees all engineering services provided by the firm.

**Chadwick D. Biller, P.E.** will be the **Project Manager**. His role in this project will be to oversee all design aspects of the project and work closely with the DEP/ AML office to ensure timeliness client satisfaction and oversee budgetary aspects. Mr. Biller is a Partner in Thrasher Engineering, Inc. and manages site development projects, many of which include remediation, soil and erosion control and drainage aspects.

**Jeffrey L. Gola, P.E.** as **Project Engineer** will be responsible for design of the project. Mr. Gola's experience includes drainage design projects for site development as well as numerous projects for the West Virginia Department of Highways. Additionally, Mr. Gola is trained and experienced in hydrology and hydraulics.

**Wes Morrow, Design Engineer** will be responsible for assisting in design of the projects. Mr. Morrow joined Thrasher Engineering, Inc. in 2007, following 30 years with the National Resources Conservation Service (NRCS). Mr. Morrow's technical background includes considerable experience with dam hydrology, hydraulics, geology, sedimentation, principal and auxiliary spillway performance, embankment and foundation stability, quantity and cost estimates, development of contract specifications and construction drawings, and contract documentation.

Environmental services will be managed by **Sheirl Fletcher**, Environmental Manager for Thrasher Engineering, Inc. Ms. Fletcher joined Thrasher Engineering, Inc. after serving 23 years as a geologist, hydrologist and environmental specialist with Consol Energy, Corporation. In that position, she participated in the engineering and final reclamation of five Consol Energy mines in Monongalia County.

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The survey aspects of the project will be under the direction of **Kurt Newbrough, P.S.** Mr. Newbrough has over 20 years of experience in survey projects and significant project experience in pre and post mine subsidence surveys. These surveys have been conducted for numerous coal companies at sites throughout the state. Mr. Newbrough will assign and oversee the work of the experienced survey crew.

**Geo-technical services** will be under the direction of **Larry Nottingham of Novel Geo-Environmental, a Certified DBE business.**

Should the DEP choose to retain Thrasher Engineering, Inc. for the construction monitoring aspect of the project, Thrasher Engineering, Inc. has one of the largest construction inspection teams in the State. Nearly 30 inspectors are available to provide services for the project. **Aaron Denham** serves as supervisor of Construction Management and Materials Testing. He is a graduate of Fairmont State University and is a Level V Certified Inspector by the WV DOH.

Resumes of the project team members follow as additions to the information included in the AML Consultant's Confidential Qualifications Questionnaire.

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**KENNETH P. MORAN, P.E., P.S.**  
**Vice President / Chief Engineer**

**23 YEARS  
EXPERIENCE**

**SUMMARY OF EXPERIENCE**

Mr. Moran joined Thrasher Engineering in 1991 and currently serves as Vice President and Chief Engineer. Mr. Moran is responsible for feasibility studies and design of public utility projects (sanitary sewer, water and storm water) for state, federal and private clients. Additionally, Mr. Moran has extensive experience in all aspects of engineering and with funding and regulatory agencies in conjunction with projects.

**PROJECT EXPERIENCE**

**Sanitary Sewer Projects**

- Hamrick Public Service District Sanitary Sewer Project
- City of Parsons Wastewater Treatment Plant Upgrade
- City of Belmont, Chief Engineer for Sewer Project
- Brooke County PSD, Chief Engineer on Sewer Project
- Town of Junior, Chief Engineer on Sewer Project
- Greater Harrison County PSD, WWTP, Collection System, Extensions
- Huttonsville PSD, WWTP, Collection System, Extensions
- Pea Ridge PSD, WWTP, Collection System, Extensions
- Scott's Run PSD, WWTP, Collection System, Extensions
- Canaan Valley, Sewer collection and Wastewater Treatment Plant Planning Studies
- Pocahontas County PSD, WWTP, Collection System, Extensions
- City of Bridgeport, Lift Station Improvements, WWTP Upgrades
- City of Clarksburg, I&I, WWTP Upgrades, Colonial Village Line Replacement
- Town of Terra Alta, Sewer Collection Improvements and WWTP
- Hundred-Littleton PSD, New Collection and Treatment System

**Site Development/Roadways**

- Preston EDA, Chief Engineer for Water Extension to Prison
- Preston EDA, Chief Engineer for Park Utilities at Northpointe Industrial Park
- Food Lion, Clarksburg, Nutter Fort, Sabraton, Kingwood
- US Army Reserve Center, Clarksburg and Jane Lew
- Mineral Co High School

**EDUCATION:**

- B.S., Civil Engineering Technology, 1983 – Fairmont State University

**REGISTRATIONS:**

- Registered Professional Engineer (PE), State of West Virginia
- Registered Professional Engineer (PE), State of Virginia
- Registered Professional Engineer (PE), State of Ohio
- Professional Land Surveyor (PS), State of West Virginia

**AFFILIATIONS:**

- Friendship Lodge No.56 A.F. & A.M.
- WV Society of Professional Engineers
- Member of American Society of Civil Engineers

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**CHADWICK D. BILLER, P.E.**  
**Project Engineer & Manager, Partner**

**15 YEARS  
EXPERIENCE**

**SUMMARY OF EXPERIENCE**

Mr. Biller joined Thrasher Engineering in 1999 and serves as Partner in the firm. Mr. Biller's paramount responsibility is supervision of design and construction of all Thrasher Engineering WVDOH projects and airport projects. Mr. Biller has experience in all aspects of engineering with specific emphasis on site development, highways, roads, bridges, and airports.

**PROJECT EXPERIENCE**

**Site Development Projects**

- Taylor County Commission, Re-roofing of Courthouse and Jail
- Fairmont State University Aerospace Center
- Raleigh County Memorial Airport Industrial Park
- Putnam Business Park
- Wood Products Business Park
- Aurora Flight Sciences
- Various Subdivision in Berkeley County Ranging From 12 to 420 Lots
- Site Plan for Hi-Tech Consortium Expansion, Fairmont, WV
- Site Plans for Nippon Thermostat, Green Metals and Schwans, Putnam County
- Pendleton County Courthouse Annex
- Wingate Hotel, Charles Pointe, Bridgeport, WV
- Daycare Center and USDA Parking Lot, Hardy County
- City of Pleasant Valley, Sidewalks
- Snowshoe Mountain Resort / Intrawest – The Seneca
- Wetland Replacement Project, Putnam County
- Hurricane Business Park
- Shinnston City Park, Including Pool and Bathhouse
- City of Bridgeport, Walking Trail and Bridge

**Highway/Road/Bridge Projects**

- Old Bridgeport Hill New Storm Drainage System
- Snowshoe Drive Upgrade
- King Coal Highway
- Terra Alta Curve
- Lodgeville Road
- North Bridgeport Bypass
- Corridor H
- Upgrade of US Route 19
- East Street and US Route 50, Parkersburg
- Merrick Creek Connector
- City of Bridgeport, Valley Drive, Chenoweth Drive, Village Drive and Meadowbrook Mall Road
- Lodgeville Bridge
- Indian Fork Bridge
- Jakes Run Bridge
- Littleton and Watersnake Bridges
- Verner Bridge

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- Rehabilitation of the 5<sup>th</sup> Street Bridge, Parkersburg
  - Rehabilitation of the 35<sup>th</sup> and 36<sup>th</sup> Street Bridges, Charleston
  - Kittonsville Bridge Replacement, Lewis Co.
  - Water Street Bridge Replacement, Logan Co.
  - Wayne County High School Bridge Replacement
  - David Morgan Memorial Bridge, Marion County

#### **Airports**

- Harrison Marion Regional Airport – Improvement Master Plan
- Raleigh County Airport – Business Park and Master Plan
- Grafton Hospital, Helipad Relocation

#### **EDUCATION:**

- B.S., Civil Engineering, 1992 – West Virginia University

#### **REGISTRATIONS:**

- Registered Professional Engineer (PE), State of West Virginia
- Registered Professional Engineer (PE), State of Pennsylvania
- Registered Professional Engineer (PE), State of Ohio

#### **AFFILIATIONS:**

- American Society of Civil Engineers
- Society of American Military Engineers
- National Society of Professional Engineers

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**JEFFREY L. GOLA, P.E.**  
**Project Engineer**

**10 YEARS  
EXPERIENCE**

**SUMMARY OF EXPERIENCE**

Mr. Gola joined Thrasher Engineering in 1998 and serves as Project Engineer for the firm. He is responsible for hydrology and hydraulic studies, structural design and erosion and sediment control aspects of highway, roads, bridges, airports, site development and community improvement projects. Additionally, Mr. Gola is experienced directing the bidding process, drafting using both AutoCAD and Microstation and managing the overall budget of construction projects.

**PROJECT EXPERIENCE**

- WVDOH Indian Fork Bridge, Design of Roadway and Bridge, Hydraulic Analysis and Design
- Raleigh County Memorial & Industrial Park, Design of Roadway, Drainage and Erosion and Sediment Control Plan; Design
- City of Pleasant Valley 1000 foot Sidewalk, Project Engineer
- City of Ripley Sidewalks, Project Engineer
- Eight Rivers at Snowshoe Resorts; Project Engineer
- Fairmont State University Squibb Wilson and Locust Area Demolition and Parking Lots; Project Engineer
- Route 279 Bridgeport Bypass, Construction Phases and Temporary Pollution Control
- Buffalo Lake Dam Break Analysis; Hydraulic Analysis
- City of Clarksburg, Design for Staley Slip Repair
- Greystone Development, Emergency Design for Development
- WVDOH Corridor H Davis-Bismark, Design of Roadway and Bridges
- WVDOH Musselman High School, Assistance in Design of Turning Lanes
- WVDOH Lodgeville Road, Assisted in Design and Analysis of Roadway and Bridge
- WVDOH Old Bridgeport Hill, Design of Stormwater System
- WVDOH Verner Bridge Replacement, Assisting in Design and Analysis
- WVDOH Jakes Run Bridge Replacement; Preliminary Design and Draftsman
- Brookside Subdivision; Hydraulics for Bridge Crossing
- WV High Tech Consortium Site Preparation and Mine Stabilization; Assisted in Design
- City of Mannington, Specs, Bidding and Permitting for Demolition
- Harrison-Marion Regional Airport, Assisted on Design for Taxiway Widening and Deicing Pa

**EDUCATION:**

- B.S., Civil Engineering Technology – West Virginia University, Summa Cum Laude 1998

**REGISTRATIONS:**

- Registered Professional Engineer (PE), State of West Virginia
- Surveying, Transportation Technology
- Highway Engineering, Water Quality Management
- Hydrology, Fluid Mechanics, Soil Mechanics
- Material, Structural Analysis, Concrete Foundation, Steel Design

**AFFILIATIONS:**

- American Society of Civil Engineers
- City of Mannington Code Enforcement Appeal Board



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**WYNARD (WES) A. MORROW**  
**PROJECT ENGINEER**

**30 YEARS**  
**EXPERIENCE**

**EDUCATION**

- B.S. in Civil Engineering – West Virginia University, Morgantown, WV

**AFFILIATIONS**

- American Society of Civil Engineers – Past Member

**SUMMARY OF EXPERIENCE**

Mr. Morrow joined Thrasher Engineering in 2007 following thirty years with the Natural Resources Conservation Service where he served as a Civil Engineer and Project Leader for the Water Resources Technology Team, State Design Engineer, Design Engineer and Planning Engineer.

**ACCOMPLISHMENTS:**

- Performance Spot Award for “Leadership in development of NRCS Dam Rehabilitation Assessment Reports for Brush Creek Site 7A and Upper Deckers Creek Site 6”
- Outstanding Performance Award (NRCS) for “Providing Leadership to the Design Unit while serving as Acting State Design Engineer”
- Superior Performance Awards (NRCS) and certificates of merit for “Superior team performance in the development of water resource conservation, flood control and recreational development efforts”
- Co-author of the SCS engineering guide “Planning Non-structural Measures in West Virginia”

**EXPERIENCE**

- **Natural Resources Conservation Service (NRCS)** **Morgantown, WV**
  - **Project Leader:** Responsible for leading an interdisciplinary team of natural resource conservation specialists for the NRCS Aging Dam Rehabilitation program in West Virginia.
  - **State Design Engineer (Design Unit Head):** Supervised and provided leadership to a staff of three civil engineers and three civil engineering technicians for the design and review of flood control measures including dams, stream channel modifications, non-structural measures, and emergency watershed protection projects throughout West Virginia
  - **Design Engineer (Design Unit):** Served as design engineer for the design of flood control measures including dams (Howard Creek 12, Wheeling Creek 3), stream channel modifications, non-structural measures, and emergency watershed protection projects in West Virginia.
- **Soil Conservation Service (SCS)** **Morgantown, WV**
  - **Planning Engineering (Watershed Planning):** Served as planning engineer for conducting feasibility studies for flood control measures including dams (Howard Creek 12, Upper Mud River 2A, Wheeling Creek 3), stream channel modifications (Howard Creek Channel, Cranberry Creek Channel, Little Whitestick Channel, Upper Buffalo Creek Channel, Lower Mud River Channel, Evitt’s Run), non-structural measures, and emergency watershed protection projects. Served as engineer on SCS and NRCS damage survey teams tasked with assessing damage caused by sever flooding incidents and developing designs for rehabilitation of the damaged areas. Served as project engineer for the construction of emergency watershed rehabilitation projects.
- **US Army** **Fort Bragg, NC**
  - Lieutenant, 82<sup>nd</sup> Airborne Division (paratrooper, combat engineer)

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**SHEIRL L. FLETCHER**  
**Environmental Manager**

**22 YEARS**  
**EXPERIENCE**

**SUMMARY OF EXPERIENCE**

Sheirl Fletcher joined Thrasher Engineering, Inc. in 2007 and serves as Environmental Manager for the firm. Prior to joining Thrasher, Sheirl served as Environmental Manager for a major coal firm. She has more than 20 years experience and brings comprehensive knowledge of environmental regulatory programs and reporting requirements in multiple states to our clients' projects, along with technical expertise in environmental engineering, geology and hydrology

**EXPERIENCE:**

**Environmental Management and Safety Compliance**

- Preparations of applications for required operating permits and licenses regarding air quality, wastewater and construction projects ensuring compliance with all state and federal regulatory requirements.
- Responsible for compliance with all environmental regulations, including interface with environmental regulators, in a manner consistent with company's policies and procedures.
- Assure full compliance with OSHA (Occupational Safety and Health Administration) regulations
- Responsible for the preparation of NEPA documents including Environmental Impact Statements and Environmental Assessments.
- Developed Probable Hydrologic Impact Studies and provided technical report of findings.
- Prepare, organized, and maintained inspection reports and records, assuring on-time and accurate filings.
- Compiled and reported environmental statistics and remedial initiatives to Corporate Environmental Quality Control.
- Monitored projects to ensure that they were on task in reaching goals and objectives while staying within budgetary limits.
- Inspected construction sites, and waste water treatment and disposal facilities and systems for conformance with federal, state, or local regulations.
- Informed company personnel of inspection findings and explained how problems were prevented or corrected.
- Contributed to the development of company policies, goals, objectives, and procedures, with respect to compliance of environmental regulations.
- Oversaw activities of outside consultants providing necessary services.
- Managed staff, prepared work schedules and assigned specific duties.

**Geology**

- Analyzed and interpreted geological, geochemical, and geophysical information from sources such as survey data, well logs, bore holes, and aerial photos.
- Planned and conducted geological field studies and surveys by: development of drilling pad sites, soils and subsurface drilling to collect data for interpretation
- Prepared geological maps, cross-sectional diagrams, charts, and reports concerning mineral extraction, land use, and resource management, using results of field work and laboratory research.

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### **Hydrology**

- Studied and documented quantities, distribution, disposition, and development of underground and surface waters.
- Designed and conducted scientific hydro-geologic investigations to ensure that accurate and appropriate information was available for use in water resource management decisions.
- Coordinated and supervised the work of professional and technical staff, including consultants, engineers, technologists, and technicians.
- Drafted final reports describing research results, including illustrations, appendices, maps, and other attachments.
- Studied wastewater and storm water issues, including flood and drought risks, water quality, wastewater, and impacts on wetland habitats.
- Assessed ground and surface water movement to provide advice regarding issues such as waste management, route and site selection, and the restoration of contaminated sites.
- Applied research findings to help minimize the environmental impacts of pollution, water-borne diseases, erosion, and sedimentation.
- Investigated complaints or conflicts related to the alteration of public waters, gathering information, recommending alternatives, informing participants of progress, and preparing draft orders.
- Determined sampling locations and methods, and collected water or wastewater samples for analysis, preserving samples with appropriate containers and preservation methods.

### **EDUCATION/TRAINING:**

- West Virginia University, Morgantown, WV - Bachelor of Science- Geology

### **Additional Training**

- Contemporary Supervision
- Conflict Management
- Influence Management

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**KURT NEWBROUGH, P.S.**  
**Survey Supervisor, Principal**

**23 YEARS  
EXPERIENCE**

**SUMMARY OF EXPERIENCE**

Mr. Newbrough joined Thrasher Engineering in 1990 and is Principal and Partner in the firm. Mr. Newbrough serves as Survey Supervisor and is responsible for assignment and review of all survey activities. Mr. Newbrough has extensive experience in all aspects of surveys, including but not limited to boundary and easement surveys and the preparation of plats and legal descriptions. Mr. Newbrough also performs courthouse research, computes field data for construction layout, and processes GPS raw data for both public and private clientele in conjunction with Thrasher Engineering projects as well as separate contracts. He also serves in the elected position of Harrison County (WV) Surveyor.

**PROJECT EXPERIENCE**

**Boundary Surveys**

- North and South Levee Areas for the Town of Moorefield
- Flood Control for the US Army Corps of Engineers
- FBI Fingerprint Identification Complex for the US Department of Justice
- Hardy County Rural Development Authority
- USARC sites for the US Army Corps of Engineers
- Private Surveys

**Topographic Surveys**

- West Virginia Division of Transportation, Department of Highways
- Harrison County Board of Education
- Gandee and Partners for Huntington Summit High School
- William A. Bruce, AIA for Food Lion Stores

**GPS Surveys**

- US Army Corps of Engineers, Baltimore Dist
- Benatech Associates
- IDG, Inc.
- Carter Van Dyke Associates

**EDUCATION**

- Surveying – John Tyler Community College, Chester, VA
- United Career Center, Clarksburg, WV

**REGISTRATIONS**

- Professional Land Surveyor (PS), West Virginia #1618 - 1995
- OSHA Hazardous Waste Operations and Emergency Response Center 29 CFR 1910.120
- US Department of Labor/Mine Safety and Health Administration

**AFFILIATIONS**

- West Virginia Association of Land Surveyors
- American Congress on Surveying and Mapping
- Member Strathmore's Who's Who
- Calvert Excavating and Paving, Inc.
- Howard Concrete
- Dodd Corporation
- Mid Atlantic Storage Systems, Inc.

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## **Larry C. Nottingham, PhD, PE**

Mr. Nottingham served as a Principal Engineer at Triad Engineering, Inc. for over 25 years before joining the professional staff at NGE. During that time he has accumulated a broad range of experience in the numerous disciplines of geotechnical engineering. Mr. Nottingham also served as a professor and department chair of the Civil Engineering Department at the West Virginia University Institute of Technology in Montgomery, West Virginia. Mr. Nottingham was involved with consultation and review of many subsidence-related projects performed for BRIM as well as the WVDEP.



### **Fields of Competence**

- Foundation Investigations
- Landslide Analysis & Remedial Design
- Mine Subsidence Investigations
- Highway & Airport Geotechnical Design
- Pavement Analysis & Design
- Retaining Wall Design
- Forensic & Insurance Investigations
- Expert Witness Consultation
- Ground Water and Seepage Analysis & Design
- Dam Analysis & Design
- Personnel Management
- Project Management
- Project Estimating

### **Education**

- B.S.C.E., Civil Engineering, West Virginia Institute of Technology, 1965
- M.S.C.E., Civil Engineering, University of Pittsburgh, 1966
- Ph.D., Civil Engineering, University of Florida, 1975

### **Registration/Certifications**

Registered Professional Engineer in West Virginia, Kentucky, and Ohio

### **Employment History**

- May 2005 – Present  
Senior Engineer, Novel Geo-Environmental, PLLC
- 1979 – May, 2005  
Principal Engineer, Triad Engineering, Inc.
- 1989 - 1994  
Professor and Department of Civil Engineering  
Chair, West Virginia Institute of Technology
- 1975 - 1979  
Senior Engineer, Fugro Gulf, Inc., Houston, Texas
- 1970 - 1974  
Project Engineer, Florida Department of  
Transportation
- 1967 – 1970  
Project Engineer – Ackenheil & Associates. Inc.

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## **AARON DENHAM**

### ***Construction Management and Materials Testing***

#### **SUMMARY OF EXPERIENCE**

Mr. Denham joined Thrasher Engineering in 2000 and serves as Field Supervisor for the firm. Mr. Denham is responsible for construction management, inspection and materials testing for highway, airport, site development, structural and public utilities projects.

#### **EDUCATION**

- B.S. Civil Engineering Technology, 1999 – Fairmont State University*

#### **CERTIFICATIONS**

- Fairmont State University Level V Certification – Transportation Engineering Technologist – Engineering Specialization*
- WVDOH Compaction Inspector*
- WVDOH Concrete Inspector/Technician*
- WVDOH Aggregate Sampling Inspector*
- WVDOH Aggregate Technician/Inspector*
- WVDOH Bituminous Inspector/Technician*
- WVDOH Radiation Safety*
- Troxler Basic Safety – Nuclear Compaction Gauge*

#### **REPRESENTATIVE PROJECT EXPERIENCE**

- Army Corp of Engineers, Tygart Dam*
- Jackson County Airport*
- Benedum Airport Authority 2001 Master Plan*
- Benedum Airport Authority 2002 Master Plan*
- Benedum Airport Authority 2003 Master Plan*
- Benedum Airport Authority, 2004 Master Plan*
- Ruby Memorial Hospital NE Addition*
- Health Science Learning Center*
- WV National Cemetery Expansion*
- Fairmont State University*
- Institute for Scientific Research*
- I-68 Welcome Center*
- Stockmeier Urethanes*
- Fairmont State University Squibb Wilson Boulevard Demolition and Parking Lots; Lead Inspector & Testing*
- Fairmont State University Renovation; Testing*
- City of Pleasant Valley Sidewalk Project; Lead Inspector & Testing*
- WVDOH South High Street Bridge*
- Wheeling Route 2 Bypass*
- Lake Floyd Dam*
- Baker Dam Site 10*
- City of Bridgeport 279 By-Pass*
- Mon-Fayette Expressway*
- WVDOH Meadowbrook Road*
- Fetterman Bridge*

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## **REPRESENTATIVE EXPERIENCE**

Thrasher Engineering offers significant experience in Grant County, along with open drainage and sediment and erosion projects and abandoned mine lands projects. In the following section are examples of our experience in each of these areas related to the Mount Storm #25 project.

### **GRANT COUNTY PROJECTS**

#### **MOUNTAIN TOP PUBLIC SERVICE DISTRICT**

**Client:** Mt. Storm PSD  
PO Box 236  
Mt. Storm, WV 26739  
304-693-7667

Thrasher Engineering, Inc. has provided civil engineering services for both water and sanitary sewer projects to rural areas in the Mountain Top area for over 10 years. Projects have included upgrades to their wastewater treatment plant and sanitary sewer plant in Gormanian, in addition to water and sanitary sewer extensions. Water line extensions have provided water to areas that may have been affected by abandoned mine lands.

#### **NEDPOWER MOUNT STORM, LLC / SHELL WIND ENERGY**

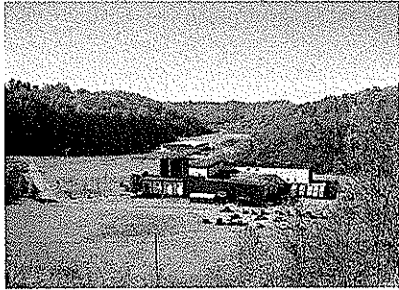
**Client:** Jerome Niessen,  
5160 Parkstone Drive, Suite 260  
Chantilly, Va 20151  
540-987-8766

**Project Description:** Providing ALTA / ASCAM surveys on approximately 7,000 acres with multiple land owners for Phase I and Phase II of the Development of the Mount Storm wind turbine area in Grant County, West Virginia. Additional scope of services includes construction layout / location of wind turbines and coordinating data for FAA 1A letters



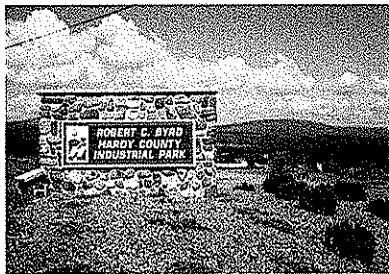
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## SITE DEVELOPMENT PROJECTS – SEDIMENT AND EROSION MEASURES



### Harrison County Business and Technology Park Robert C. Byrd Industrial Park – Hardy County White Oaks Business Park – Harrison County

Thrasher Engineering provided survey, site planning, and engineering design services for each of these business/industrial parks which were developed on abandoned mine lands. The design of each project included plans for landslide / erosion and sediment control within grading plans.



## Mingo County Wood Products Industrial Park, Mingo County, West Virginia

**Client:** Mingo County Redevelopment Authority  
Mike Whitt, Executive Director  
304-235-0042

**Project Description:** This project consisted of the development of conceptual layout and final design drawings for the park. The work consisted of drainage, sediment, erosion measures, and on-site utilities including water and sanitary sewer, along with the design and permitting of a 12,000 gpd wastewater treatment plant. Also included in this project was a roadway design conforming to WV Department of Highways specifications and criteria. Construction management services were also provided.



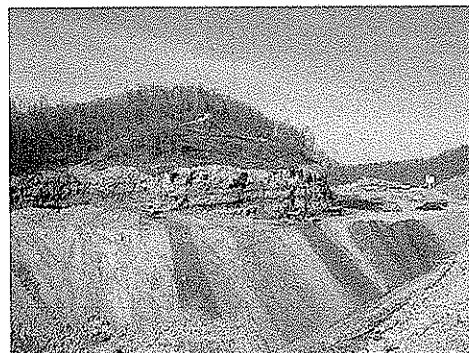


## Indian Ridge Industrial Park / McDowell County Prison

**Client:** Federal Bureau of Prisons  
202-514-6461

McDowell County Commission  
304-436-8548

**Project Description:** The objective of this project was to push back an existing highwall and enlarge the flat area on the McDowell County's Indian Ridge Industrial Park, a portion of which is being used to accommodate a Federal Prison. Thrasher Engineering is now providing the site development engineering services for that facility. This project consisted of the design, bidding, and construction management for the preparation of an industrial park/federal prison site. **The construction involved moving 20,000,000 CY of earth to create approximately 250 relatively flat acres for development. Inclusive in our scope of work was site grading, sediment and erosion control, stream relocations, and wetland mitigation.** This work involved laying back an existing highwall and placing the excavated material into a nearby valley to increase the developable acreage of the site. The valley fill serves as a buffer and will be used for non-structural uses.



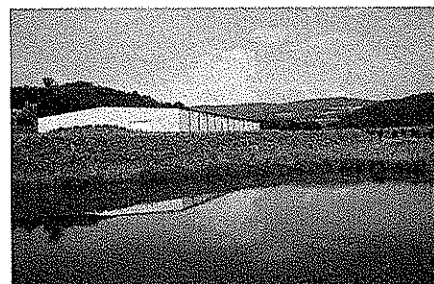
## Belington Industrial Park

**Client:** Barbour County  
Office for Economic Development  
304-456-1225

This project consisted of the development and conceptual layout and final design drawings for the park. The work consisted of on-site utilities including water and sanitary sewer. Specifically, this project included:

- 8,000 LF of water line,
- 2,700 LF of gravity sewer line,
- Manholes, and Fire hydrants.

Additionally, this project included an access road conforming to WV DOT/Department of Highways specifications and criteria, earthwork for building site preparation and storm water detention. Construction management services were also provided.



## West Virginia National Cemetery

**Client:** U.S. Department of Veterans Affairs  
Peter Fernandez, National Cemetery  
Administration  
Carter VanDyke Associates  
215-345-5053

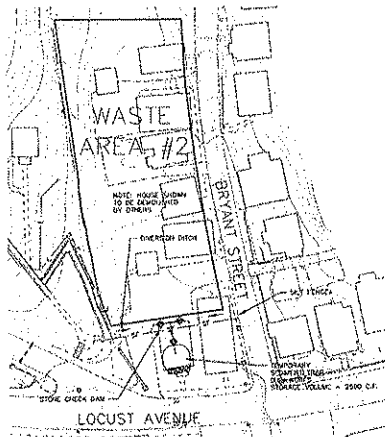


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**Project Description:** The project consisted of the planning, design and bidding for the expansion of the WV National Cemetery. The scope of the work included site utilities, storm sewers, roads, sidewalks, retaining walls, pre-cast concrete crypt burial areas, site grading and sediment and erosion control. Construction management and survey services were also provided.

### **Fairmont State University**

**Client:** Fairmont State University  
Dr. Dan Bradley, P.E. President  
304-367-4000



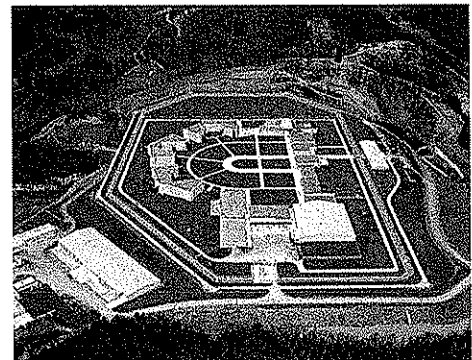
Thrasher Engineering is providing civil engineering services throughout the Fairmont State University campus within the scope of FSU's 10-year \$10 million master plan for infrastructure improvements. This portion of the project included storm water management during and after construction. During the construction phase erosion and sediment control was contained by installing silt fence, water barriers, temporary sediment traps, inlet protection, diversion ditches and utility matting. The final site improvements contain swales, ditches, vegetation, landscaping and culverts to control the storm water and limit the pollution from the site. Ditches are protected from erosion and all unpaved areas are stabilized with vegetation.



### **Glenville Correctional Institution, Gilmer County, West Virginia**

**Client:** Federal Bureau of Prisons  
202-514-6461

**Project Description:** This project consisted of the design/build of a U.S. Correctional Facility. Inclusive in our scope of work were the site utilities (sewer, water, stormwater management gas) site grading, sediment & erosion control, layout of facilities, on site roads and parking, various site elements and oversight during the construction phase.



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## **Canaan Federal Prison, Scranton, Pennsylvania**

**Client:** Federal Bureau of Prisons  
202-514-6461.

**Project Description:** Thrasher Engineering served as a Team Member on this design-build project of US Penitentiary and Federal Prison Camp. The scope of services included sewer, water, storm water management and gas utilities, site grading, sediment and erosion control, relocation of a township road, layout of the facility and oversight during construction. The drainage ofn this project required the design of a storm water detention pond.



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## **West Virginia Division of Highways, Harrison County, West Virginia**

**Client:** West Virginia Division of Highways  
304-558-2830

**Total Project Cost:** \$1,200,000

**Project Description:** This project consisted of developing construction drawings and right-of-way documents for a new storm drain system along Old Bridgeport Hill. The existing storm drain system was 25 to 30 feet deep and was collapsing in several areas; therefore, a new system of inlets and pipes were designed to collect surface water.

## **ABANDONED MINE LAND PROJECTS**

### **WV DEP ABANDONED MINE LANDS – AMHERSTDALE ( LOGAN COUNTY) PRE-SETTLING BASIN AND PRE-TREATMENT FACILITY PROJECT**

**Client:** WV DEP  
Office of Abandoned Mine Lands and Reclamation  
304-926-0485

**Project Description:** The AML affected area is located in Logan County on CR 16, west of the city limits of Man, a distance of approximately 12.6 Miles. The scope of the project is the design and construction of a pre-settling basin and pre-treatment system to remove metals and turbidity from the existing water sources, allowing the water existing treatment facility to utilize the surface and groundwater. The scope of services Thrasher Engineering provided for this project included: Survey, supervision of subsurface investigation, environmental review, preparation of design, drawings, development of construction documents. .

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## **WV DEP ABANDONED MINE LANDS – RAGLAND( MINGO COUNTY) WATER LINE EXTENSION PROJECT**

**Client:** WV DEP  
Office of Abandoned Mine Lands and Reclamation  
304-926-0485

**Project Description:** The AML affected area is located in the Midwestern portion of Mingo County. The area is approximately 2.6 square miles. The scope of services Thrasher Engineering provided for this project included: survey, supervision of subsurface investigation, environmental review, design, development of construction documents. Upon construction, Thrasher will provide construction management services.

### **ACID MINE DRAINAGE / COAL COMPANY EXPERIENCE**

#### **Martinka Water Treatment Plant**

**Client:** Martinka Coal  
Mr. Gary Timms  
Water Treatment Plant Supervisor  
Fairmont, WV  
304-366-5516



**Project Cost: \$6.5 Million**

This project consisted of the design of a 17.3 MGD Water Treatment Plant to blend mine borehole water with acid mine drainage; the plan removes iron (1000 mg/l (ferric hydroxide) to less than 1 mg/l.

The plant design included:

- ❑ Aeration – Blending and Stripping Carbon Dioxide
- ❑ Feed Hydrogen Peroxide – Shifts chemical equilibrium for utilization of naturally calcium carbonate for neutralization
- ❑ Coagulation/Flocculation – Three (3) stage tapered flocculation with axial flow propeller mixers and variable frequency drives
- ❑ Sedimentation – Six (6) settling ponds with **ferric hydroxide** sludge removal and underground injection wells
- ❑ Polishing Pond – Sodium hexamataphosphate for calcium stabilization.

Dayton Carpenter, P.E., DEE, Project Engineer was rewarded the following for the project:

- ❑ **2002 WV ACEC Gold Award – Engineering Excellence**
- ❑ **2002 WV Manufacturer’s Association Environmental Leadership Award for Innovative Technology**

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## EXPERIENCE OF SHEIRL FLETCHER, ENVIRONMENTAL MANAGER

### **Consol Coal Company: Abandoned Mine Lands Remediation / Mine Reclamation**

The projects included engineering and final reclamation of the following Consol Energy mines in Monongalia County, West Virginia: Blacksville No. 1, Pursglove Mine, Arkwright Mine, Osage Mine and Humphrey Mine.

Final reclamation included AMD and site remediation of the following types of surface support facilities:

- Refuse / slurry impoundments
- AMD treatment plants including impoundments and sludge lagoons
- Preparation plants and coal stockpile areas
- Shaft and drift openings
- Boreholes.

### **Consol Coal Company – Hydrology and Hydraulics**

During the final abandonment of the Morgantown operations of Consolidation Coal Company, performed geologic hydrologic study of the Arkwright, Osage, Pusglove and Humphrey Mine pools and their inter-relationship to one another and to adjacent mining operations.

## MINING RELATED SURVEY PROJECT EXPERIENCE

### **Eastern Associated Coal Corporation**

**Client:** Eastern Associated Coal Corporation  
Allen Moore, Project Manager  
304-449-1911

**Project Description:** This ongoing project consists of performing pre and post-mining subsidence surveys on structures and dwellings located within and surrounding the permit boundaries of the Federal No. 2 Mine.

A typical project of this nature consists of establishing horizontal and vertical control, preservation of control points, elevations on critical structure points, baseline establishment and profile, collection of water samples for springs and wells, inspectors report of protected structures, interior and exterior digital photography, and digital CADD mapping of the field survey.

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## **Eastern Associated Coal Corporation**

**Client:** Eastern Associated Coal Corporation  
Allen Moore, Project Manager  
304-449-1911

**Project Description:** Past and ongoing projects have been performed at the Federal No. 2 Mine which include:

- Water line surveys and design for replacement of existing water sources
- Structure identification surveys, water well inventories, and stream monitoring surveys
- Ground control for aerial mapping
- Gas well locations for down-hole surveys
- Subsidence stream locations and profiles
- Permit boundary staking
- Construction layout for refuse impoundments
- Scott's Run Railroad Bypass project design survey, design, and construction layout
- Boundary surveys for fee purchase property acquisitions
- Construction layout for new shaft sites
- Powerline profiles and construction layout
- Topographic design surveys and soundings for impoundment ponds
- Drainage control surveys and design for surface water runoff

## **Martinka Coal Company**

**Client:** Martinka Coal Company  
Gary Timms, Project Manager  
304-366-5516

**Project Description:** This project consisted of the collection of data to be used in conjunction with the design of an acid mine drainage facility, designed by Thrasher Engineering, Located at the Tygart River Mine.

Critical land survey components consisted of the following:

- Topographic surveys and digital mapping of approximately 50 acres
- Dewatering borehole layout
- Downstream cross-section surveys for volume computations
- Protected structures identification and mapping
- Pre-blasting surveys on nearly 200 structures
- Construction layout of the entire facility

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**Martinka Coal Company – Fairmont, WV**

**Client:** Martinka Coal Company  
Gary Timms, Project Manager  
304-366-5516

**Project Description:** Past and ongoing projects have been performed at the Tygart River Mine including:

- Dewatering borehole computations and layout
- Stockpile surveys
- Certification of drainage system, ponds 5, 6, and 7 Permit No. 1001-87
- Topographic survey and construction layout of the existing Guyses Run AMD Facility
- Boundary surveys for fee purchase property acquisitions
- Subsidence stream locations and profiles
- Construction layout for refuse impoundment
- Ground control for aerial mapping
- Scanned mapping digital overlays
- Conceptual site plan for recreational facilities



## **PROJECT APPROACH**

Thrasher Engineering, Inc.'s has developed the following project approach and mapping to demonstrate our technical abilities and straight forward method of design and construction.

This project approach is a general approach that will be used on any WVDEP reclamation project and may need to be modified depending on the existing information that is available for the specific project. Also, some steps may not be needed on every project.

### **Step #1 Obtain adequate mapping.**

The limits of construction will be flown and digitally mapped or, if the area is small enough, survey crews will field survey the area. Thrasher will then provide 1"=50' scale mapping with 2' contours. Spot elevations and critical cross sections may be completed in the field if necessary to make tie-ins.

### **Step #2 Design the project.**

Thrasher will work closely with the WVDEP in designing the project. Field reviews will be conducted to determine the most cost effective method to be used to reclaim the area. A preliminary design based on the field reviews will be submitted to the WVDEP. After receiving comments or corrections, Thrasher will submit the final plans, specifications and design report. The design report will consist of the bore logs, piezometer elevations, quantity calculations, right of entry forms and any other assumptions that were made during the design.

### **Step #3 Prepare for construction.**

Thrasher will also set up reference points, benchmarks and control points outside of the construction limits so the contractor will be able to construct the project in the future. Thrasher will complete any permits, right of ways, and easements that are necessary to construct the project. The project manager and engineer will attend the pre-bid meetings to answer any questions that contractors may have about the design.

### **Step # 4 Construct the project.**

The project manager will be available during construction to answer any questions the contractor or inspector may have. Thrasher inspectors that are certified by the State of WV are available to be used if the WVDEP requests this service.



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

PROJECT NAME  
**MOUNT STORM MINE 25 A DESIGN SERVICES**  
 DEP 14417

DATE (DAY, MONTH, YEAR)  
**October 21, 2008**

FEIN  
**55-0633596-6**

1. FIRM NAME  
**THRASHER ENGINEERING, INC.**

2. HOME OFFICE BUSINESS ADDRESS  
**30 COLUMBIA BLVD., CLARKSBURG, WV  
 26301**

3. FORMER FIRM NAME  
**NOT APPLICABLE**

4. HOME OFFICE TELEPHONE  
**304-624-4108**

5. ESTABLISHED (YEAR)  
**1983**

6. TYPE OWNERSHIP  
 Individual Corporation  NO   
 Partnership Joint-Venture YES  NO

6a. WV REGISTERED DBE (Disadvantaged Business Enterprise)  
 YES  NO

7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE  
**30 COLUMBIA BLVD, CLARKSBURG, WV / 304-624-4108 / KENNETH P. MORAN, P.E., VICE PRESIDENT / 12  
 300 ASSOCIATION DRIVE, CHARLESTON, WV / 304-343-7601 / JONATHAN CARPENTER, MANAGING PARTNER / 2**

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM  
**H. Wood Thrasher, P.E. - President  
 Kenneth P. Moran, P.E. - Vice President  
 Kurt Newbrough, P.S. - Secretary**

8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS  
**WM. RANDY WATSON -304-624-4108 - PARTNER  
 CHAD BILLER, P.E.-304-624-4108 -PARTNER  
 CHAD M. RILEY, P.E.-304-624-4108 - PARTNER  
 CLAY P. RILEY, P.E.-304-624-4108-PARTNER  
 DANIEL E. FERRELL, P.E. -304-324-4108 -PARTNER**

9. PERSONNEL BY DISCIPLINE

22 ADMINISTRATIVE	—	ECOLOGISTS	—	1 LANDSCAPE ARCHITECTS	1	STRUCTURAL ENGINEERS
3 ARCHITECTS	—	ECONOMISTS	—	1 MECHANICAL ENGINEERS	47	SURVEYORS
— BIOLOGIST	—	ELECTRICAL ENGINEERS	—	— MINING ENGINEERS	—	TRAFFIC ENGINEERS
27 CADD OPERATORS	3	ENVIRONMENTALISTS	—	2 PHOTOGRAMMETRISTS	—	OTHER
— CHEMICAL ENGINEERS	—	ESTIMATORS	—	— PLANNERS: URBAN/REGIONAL	—	
26 CIVIL ENGINEERS	1	GEOLOGISTS	—	— SANITARY ENGINEERS	—	
36 CONSTRUCTION INSPECTORS	—	HISTORIANS	—	— SOILS ENGINEERS	—	
— DESIGNERS	—	HYDROLOGISTS	2	2 SPECIFICATION WRITERS	170	TOTAL PERSONNEL
— DRAFTSMEN	—					

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 14  
 \*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 NOT APPLICABLE

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

NAME AND ADDRESS: <b>NOVEL GEO-ENVIRONMENTAL</b>	SPECIALTY: <b>GEO-TECHNICAL SERVICES</b>	WORKED WITH BEFORE Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes <input type="checkbox"/> No <input type="checkbox"/>
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes <input type="checkbox"/> No <input type="checkbox"/>
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes <input type="checkbox"/> No <input type="checkbox"/>
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes <input type="checkbox"/> No <input type="checkbox"/>
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes <input type="checkbox"/> No <input type="checkbox"/>
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes <input type="checkbox"/> No <input type="checkbox"/>
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes <input type="checkbox"/> No <input type="checkbox"/>
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes <input type="checkbox"/> No <input type="checkbox"/>

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

YES Description and Number of Project: THRASHER ENGINEERING HAS PERFORMED NUMEROUS PROJECTS INVOLVING LAND REMEDIATION, STORM WATER DRAINAGE, SLIP REPAIR AND MASS GRADING IN RELATION TO SITE DEVELOPMENT, WATER LINE AND SANITARY SEWER PROJECTS. OUR DESIGN TEAM ENVIRONMENTAL MANAGER HAS 23 YEARS OF EXPERIENCE AS GEOLOGIST, HYDROLOGIST AND ENVIRONMENTAL SPECIALIST WITH CONSOL ENERGY. PROJECTS INCLUDED THE ENGINEERING AND FINAL RECLAMATION OF THE BLACKSVILLE NO. 1D, PURSGLOVE, ARKRIGHT, OSAGE AND HUMPHREY MINES IN MONONGALIA COUNTY THE THRASHER ENGINEERING SURVEY DEPARTMENT HAS PERFORMED SERVICES FOR PRE AND POST MINE SUBSIDENCE FOR MAJOR COAL COMPANIES. ADDITIONALLY THRASHER ENGINEERING, INC.'S CHARLESTON, WEST VIRGINIA OFFICE WAS AWARDED TWO WATER LINE PROJECTS FOR AML AFFECTED AREAS IN 2005. THESE PROJECTS WERE THE AMHERSTDALE PROJECT AND THE RAGLAND PROJECT IN MINGO / LOGAN COUNTIES.

B. Is your firm experienced in Soil Analysis?

YES Description and Number of Projects: THRASHER ENGINEERING MAINTAINS A MATERIALS TESTING AND ANALYSIS LAB AT ITS CLARKSBURG, WV OFFICE. SOIL ANALYSIS EXPERIENCE IS SPECIFICALLY IN GRADATIONS AND CLASSIFICATION WE PERFORM THESE SOIL ANALYSES ON ALL OUR PRIVATELY FUNDED SITE DEVELOPMENT PROJECTS.

C. Is your firm experienced in hydrology and hydraulics?

YES Description and Number of Projects: OUR TEAM ENVIRONMENTAL MANAGER PARTICIPATED IN THE ENGINEERING AND ENVIRONMENTAL PERMITTING OF THE FINAL ABANDONMENT OF THE MORGANTOWN OPERATIONS OF CONSOL COAL COMPANY. THIS INCLUDED THE GEOLOGIC HYDROLOGY STUDY OF THE ARKRIGHT, OSAGE PURSGLOVE AND HUMPHREY MINE POOLS AND THEIR INTER-RELATIONSHIP TO ONE ANOTHER AND TO ADJACENT MINING OPERATIONS. SHE ALSO WAS INVOLVED IN THE STRATEGIC PLACEMENT OF AACID MINE DRAINAGE TREATMENT FACILITIES AND PLANT DESIGN. THROUGH OUR WORK IN THE PLANNING AND DESIGN OF BRIDGES FOR THE WEST VIRGINIA DEPARTMENT OF HIGHWAYS AND WATER LINE EXTENSION PROJECTS, THRASHER ENGINEERING HAS EXTENSIVE EXPERIENCE IN HYDROLOGY. WE ALSO HAVE EXTENSION EXPERIENCE IN HYDRAULIC MODELING FOR WATER AND WASTEWATER PROJECTS THROUGHOUT WEST VIRGINIA.

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

YES Description and Number of Projects:

NO WE UTILIZE THE SERVICES OF NUMEROUS FIRMS, INCLUDING PENTREE, INC. WHICH IS AN AFFILIATE COMPANY OF THRASHER ENGINEERING INC. THROUGH THE RESOURCE ENGINEERING GROUP HOLDING COMPANY.

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: DESCRIPTION AND NUMBER OF PROJECTS: THRASHER ENGINEERING HAS DESIGNED OVER 100 WATER LINE EXTENSION PROJECTS IN THE PAST 20 YEARS OF BUSINESS. PROJECTS INCLUDE LINES, BOOSTER STATIONS, WATER TREATMENT PLANTS, AND STORAGE FACILITIES. MANY OF THESE PROJECTS ARE IN AREAS WITH AML AFFECTED WATER

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

YES Description and Number of Projects: OUR TEAM ENVIRONMENTAL MANAGER PARTICIPATED IN THE ENGINEERING AND ENVIRONMENTAL PERMITTING OF THE FINAL ABANDONMENT OF THE MORGANTOWN OPERATIONS OF CONSOL COAL COMPANY. THIS INCLUDED THE GEOLOGIC HYDROLOGY STUDY OF THE ARKRIGHT, OSAGE PURSGLOVE AND HUMPHREY MINE POOLS AND THEIR INTER-RELATIONSHIP TO ONE ANOTHER AND TO ADJACENT MINING OPERATIONS. SHE ALSO WAS INVOLVED IN THE STRATEGIC PLACEMENT OF AACID MINE DRAINAGE TREATMENT FACILITIES AND PLANT DESIGN. IN ADDITION, THRASHER ENVIRONMENTAL, THE CHARLESTON WV BRANCH OF OUR COMPANY DESIGNED AN AWARD WINNING WATER TREATMENT PLANT FOR MARTINKA MINES IN MARION COUNTY, WEST VIRGINIA TO TREAT DRAINAGE.

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 AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
<b>MORAN, KENNETH P.</b> Brief Explanation of Responsibilities Mr. Moran joined Thrasher Engineering in 1991 and currently serves as Vice President and Chief Engineer. Mr. Moran is responsible for feasibility studies and design of public utility projects (sanitary sewer, water and storm water) for state, federal and private clients. Additionally, Mr. Moran has extensive experience in all aspects of engineering and with funding and regulatory agencies in conjunction with projects.	5	15	22
EDUCATION (Degree, Year, Specialization) <b>B.S., Civil Engineering Technology, 1983 - Fairmont State University</b>			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
<ul style="list-style-type: none"> <li>■ Friendship Lodge No.56 A.F. &amp; A.M.</li> <li>■ WV Society of Professional Engineers</li> <li>■ Member of American Society of Civil Engineers</li> </ul>			
REGISTRATION (Type, Year, State)			
<ul style="list-style-type: none"> <li>■ Registered Professional Engineer (PE), State of West Virginia</li> <li>■ Registered Professional Engineer (PE), State of Virginia</li> <li>■ Registered Professional Engineer (PE), State of Ohio</li> <li>■ Professional Land Surveyor (PS), State of West Virginia</li> </ul>			

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 AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
<b>BILLER CHADWICK D. P. E.</b> Brief Explanation of Responsibilities: Mr. Biller joined Thrasher Engineering in 1999 and serves as Partner in the firm. Mr. Biller's paramount responsibility is supervision of design and construction of Thrasher Engineering site development, highway and bridges and airport projects in the position of Principal In-Charge and Project Manager. As a partner in Thrasher Engineering, Inc. he also serves as President of Berkeley Associates, Inc, an affiliate company of Thrasher Engineering within the Resource Engineering Group, Inc. Located in Martinsburg, West Virginia, Berkeley Associates is a civil engineering firm focusing on site development for commercial and residential developments	1	15	15
EDUCATION (Degree, Year, Specialization): ■ <b>B.S., Civil Engineering, 1992 - West Virginia University</b>			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
<ul style="list-style-type: none"> <li>■ American Society of Civil Engineers</li> <li>■ Society of American Military Engineers</li> <li>■ National Society of Professional Engineers</li> </ul>			
REGISTRATION (Type, Year, State)			
<ul style="list-style-type: none"> <li>■ Registered Professional Engineer (PE), State of West Virginia</li> <li>■ Registered Professional Engineer (PE), State of Pennsylvania</li> <li>■ Registered Professional Engineer (PE), State of Ohio</li> </ul>			

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
<b>GOLA, JEFFREY L.</b>	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 10
	1	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 10

Brief Explanation of Responsibilities Mr. Gola joined Thrasher Engineering in 1998 and serves as Project Engineer for the firm. He is responsible for hydrology and hydraulic studies, structural design and erosion and sediment control aspects of highway, roads, bridges, airports, site development and community improvement projects. Additionally, Mr. Gola is experienced directing the bidding process, drafting using both AutoCAD and Microstation and managing the overall budget of construction projects.

EDUCATION (Degree, Year, Specialization)

- B.S., Civil Engineering Technology - West Virginia University, Summa Cum Laude 1998

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- American Society of Civil Engineers
- City of Mannington Code Enforcement Appeal Board

REGISTRATION (Type, Year, State)

- Registered Professional Engineer (PE), State of West Virginia

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
<b>FLETCHER, SHEIRL</b>	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 23
	-23	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: -

Brief Explanation of Responsibilities Sheirl Fletcher joined Thrasher Engineering, Inc. in 2007 and serves as Environmental Manager for the firm. Prior to joining Thrasher, Sheirl served as Environmental Manager for a major coal firm. She has more than 20 years experience and brings comprehensive knowledge of environmental regulatory programs and reporting requirements in multiple states to our clients' projects, along with technical expertise in environmental engineering, geology and hydrology

EDUCATION (Degree, Year, Specialization)

- B.S., West Virginia University, Morgantown, WV - Bachelor of Science - Geology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State) NA

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: 23
<b>NEWBROUGH, KURT</b>			
<p><b>Brief Explanation of Responsibilities</b> Mr. Newbrough joined Thrasher Engineering in 1990 and is Principal and Partner in the firm. Mr. Newbrough serves as Survey Supervisor and is responsible for assignment and review of all survey activities. Mr. Newbrough has extensive experience in all aspects of surveys, including but not limited to boundary and easement surveys and the preparation of plats and legal descriptions. Mr. Newbrough also performs courthouse research, computes field data for construction layout, and processes GPS raw data for both public and private clientele in conjunction with Thrasher Engineering projects as well as separate contracts. He also serves in the elite position of Harrison County (WV) Surveyor.</p>			
<p><b>EDUCATION</b> (Degree, Year, Specialization)</p> <ul style="list-style-type: none"> <li>■ Surveying - John Tyler Community College, Chester, VA</li> <li>■ United Career Center, Clarksburg, WV</li> </ul>			
<p><b>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS</b></p> <ul style="list-style-type: none"> <li>■ West Virginia Association of Land Surveyors</li> <li>■ American Congress on Surveying and Mapping</li> <li>■ Member Strathmore's Who's Who</li> </ul>			
		<p><b>REGISTRATION</b> (Type, Year, State)</p> <ul style="list-style-type: none"> <li>■ Professional Land Surveyor (PS), West Virginia #1618 - 1995</li> <li>■ OSHA Hazardous Waste Operations and Emergency Response Center 29 CFR 1910.120</li> <li>■ US Department of Labor/Mine Safety and Health Administration</li> </ul>	

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: 30
<b>MORROW, WYNARD (WES)</b>			
<p><b>Brief Explanation of Responsibilities</b> Mr. Morrow joined Thrasher Engineering in 2007 following thirty years with the Natural Resources Conservation Service where he served as a Civil Engineer and Project Leader for the Water Resources Technology Team, State Design Engineer, Design Engineer and Planning Engineer</p>			
<p><b>ACCOMPLISHMENTS:</b></p> <ul style="list-style-type: none"> <li>■ Performance Spot Award for "Leadership in development of NRCSS Dam Rehabilitation Assessment Reports for Brush Creek Site 7A and Upper Deckers Creek Site 6"</li> <li>■ Outstanding Performance Award (NRCSS) for "Providing Leadership to the Design Unit while serving as Acting State Design Engineer"</li> <li>■ Superior Performance Awards (NRCSS) and certificates of merit for "Superior team performance in the development of water resource conservation, flood control and recreational development efforts"</li> <li>■ Co-author of the SCS engineering guide "Planning Non-structural Measures in West Virginia"</li> </ul>			
<p><b>EDUCATION</b> (Degree, Year, Specialization)</p> <ul style="list-style-type: none"> <li>□ B.S. in Civil Engineering - West Virginia University, Morgantown, WV</li> </ul>			
		<p><b>REGISTRATION</b> (Type, Year, State) NA</p>	

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

Thrasher Engineering, Inc. will design work for AML utilizing one of the largest networks of computer aided design (CAD) equipment, software and trained personnel in the State of West Virginia.

Connected through a Virtual Private Network, our CAD staff has the ability to share necessary plans among our locations. This will allow work designed for AML to be prepared and updated at the office location that best meets the needs of the scope of services.

AutoCAD Landdesktop 2008 and Microstation V8 software is utilized at 48 CAD stations throughout our locations. Additionally, equipment includes 10 large format (size E) plotters and 5 large format plotter / scanners. CAD plans are prepared by both dedicated CAD employees and by staff engineers and engineering technicians in each of the firm's offices.

Thrasher Engineering, Inc. also utilized top-of-the line survey equipment. Our survey work is accomplished with global positioning systems (GPS) and electronic distance measuring (EDM) survey stations with data gathering capabilities. This equipment includes: The equipment used to complete survey services for AML projects includes:

- Leica Geosystem System 500 GPS
- Leica Ski Post Processing Software
- Topcon G600 Total Station Instrument
- Leica 303 Total Station Instrument
- Leica 307 Total Station Instrument
- Leica 403 Total Station Instrument
- Leica 405 Total Station Instrument
- Leica 407 Total Station Instrument
- Leica 703 Total Station Instrument
-

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD: SITE DEVELOPMENT PROJECTS

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
NICHOLAS COUNTY BUSINESS PARK, NICHOLAS COUNTY, WV SITE DEVELOPMENT	NICHOLAS CO BLDG COMMISSION 700 MAIN STREET, SUITE 1 SUMMERSVILLE, WV 26651	SITE DEVELOPMENT DESIGN (LAND PLANNING, GRADING, UTILITIES) SURVEY, CONST. MGT, MATERIALS TESTING	\$2,500,000.00	45%
MID ATLANTIC AEROSPACE COMPLEX STORMWATER PROJECT HARRISON COUNTY, WV	MID-ATLANTIC AEROSPACE COMPLEX, INC. (MAAC) NORTH CENTRAL WEST VIRGINIA AIRPORT CROSSWIND INDUSTRIAL PARK SAC BUILDING, 2ND FLOOR BRIDGEPORT, WV 26330	ENGINEERING DESIGN FOR STORM WATER SYSTEM AT BENEDUM INDUSTRIAL PARK - DESIGN, SURVEY, CONSTRUCTION MANAGEMENT AND INSPECTION. MATERIALS TESTING	\$1,500,000.00	25%
RITCHIE COUNTY BUSINESS PARK SITE DEVELOPMENT RITCHIE COUNTY	RITCHIE COUNTY ECONOMIC DEVELOPMENT AUTHORITY 217 WEST MAIN STREET HARRISVILLE, WV 26362	SITE DEVELOPMENT DESIGN (LAND PLANNING, GRADING, UTILITIES) SURVEY, CONST. MGT, MATERIALS TESTING	\$2,000,000.00	15%
WHITE OAKS BUSINESS PARK SITE DEVELOPMENT AND UTILITIES HARRISON COUNTY, WV	HIGH TECH CORRIDOR DEVELOPMENT, LLC MR. JACK KEELEY PO BOX 1532 CLARKSBURG, WV 26302	SITE DEVELOPMENT DESIGN (LAND PLANNING, GRADING, UTILITIES) SURVEY, CONST. MGT, MATERIALS TESTING	\$12,100,000.00	40%
INTRAWEST CORPORATION SNOWSHOE MOUNTAIN RESORT POCAHONTAS COUNTY, WV SITE DEVELOPMENT	INTRAWEST RESORTS, INC. 301 E. PINE STREET, STE 450 ORLANDO, FL 32801	SITE DEVELOPMENT DESIGN (LAND PLANNING, GRADING, UTILITIES) SURVEY, CONST. MGT, MATERIALS TESTING	\$1,000,000. to \$8,000,000.00	ON-GOING
HARRISON MARION REGIONAL AIRPORT HARRISON COUNTY, WV VARIOUS - HANGERS / STLRM WATER	BENEDUM AIRPORT AUTHORITY JAMES R. GRIFFITH, AIRPORT MGR. 2000 AVIATION WAY BRIDGEPORT, WV	SITE DEVELOPMENT DESIGN (LAND PLANNING, GRADING, UTILITIES) SURVEY, CONST. MGT, MATERIALS TESTING	\$500,000 to \$1,000,000.00	ON-GOING

TOTAL NUMBER OF PROJECTS: 6 (TOTAL IN FULL APPROXIMATELY 30 SITE DEVELOPMENT - APPROXIMATELY 40 MILLION)

TOTAL ESTIMATED CONSTRUCTION COSTS: \$18,600,000.00 +



15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD: WATER TREATMENT AND DISTRIBUTION PROJECTS

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
CHESTNUT RIDGE PSD BARBOUR/PRESTON EXTENSION BARBOUR COUNTY, WV	CHESTNUT RIDGE PSD 209 S MAIN STREET P.O. BOX 386 PHILIPPI, WV 26416	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION.	\$9,500,000	40%
JESSICA LYNCH WATER LINE EXTENSION WIRT COUNTY, WV	TWN OF ELIZABETH 200 BEVERLY STREET P.O. BOX 478 ELIZABETH, WV 26143	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$3,600,000	60%
GILMER COUNTY PSD DUSK CAMP WATER LINE EXTENSION GILMER COUNTY, WV	GILMER COUNTY PSD 232 W. MAIN STREET GLENVILLE, WV 26351	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$2,500,000	60%
HAMRICK PSD MOORE/PORTERWOOD EXTENSION TUCKER COUNTY, WV	HAMRICK PSD PO BOX 228 HENDRICKS, WV 26271	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$1,100,000.	25%
CITY OF CAMERON WATER STORAGE TANK MARSHALL COUNTY, WV	CITY OF CAMERON 44 MAIN STREET CAMERON, WV 26033	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$200,000.00	95%
TOWN OF ROWLESBURG WATER TREATMENT PLANT/ EXT. PRESTON COUNTY, WV	TOWN OF ROWLESBURG PO BOX 458 42 POPLAR STREET ROWLESBURG, WV 26425	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$4,500,000.	85%
SOUTHWESTERN PSD WATER LINE EXTENSION / REPLACEMENT	SOUTHWESTERN WATER PUBLIC SERVICE DISTRICT P. O. BOX 98 FLEMINGTON, WV 26347	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$10,430,000.00	30%

TOTAL NUMBER OF PROJECTS: 7 REPRESENTED (APPROXIMATELY 20  
ADDITIONAL CURRENTLY IN PRELIMINARY / DESIGN OR CONSTRUCTION  
PHASES

TOTAL ESTIMATED CONSTRUCTION COSTS:  
\$32,830,000.00 REPRESENTED  
ESTIMATED COST OF ALL JOBS APPROXIMATELY \$110,000,000.00

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD: SANITARY SEWER PROJECTS

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
BROOKE COUNTY PSD REPLACEMENT AND EXTENSION BROOKE COUNTY, WV	BROOKE CO. PSD 711 CHARLES ST. P. O. BOX 150 WELLSBURG, WV 26070	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, FIELD CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$22,000,000	65%
GREATER HARRISON COUNTY PSD PHASE II HARRISON COUNTY, WV	GREATER HARRISON COUNTY PSD P.O. BOX 190 WEST MILFORD, WV 26451	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, FIELD CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$11,600,000	45%
TENNERTON PSD SANITARY SEWER EXTENSION UPSHUR COUNTY, WV	TENNERTON PSD 188 FAYETTE ST. BUCKHANNON, WV 26201	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, FIELD CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$1,675,000.	75%
POCAHONTAS COUNTY PSD WTP AND COLLECTION SYSTEM POCAHONTAS COUNTY, WV	POCAHONTAS COUNTY PSD HC 63 BOX 122 FRANK, WV 24920	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, FIELD CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$11,600,000	30%
HEPZIBAH PSD SANITARY SEWER EXTENSION HARRISON COUNTY, WV	ENLARGED HEPZIBAH DRAWER H HEPZIBAH, WV 26369	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, FIELD CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$3,400,000	20%
MALDEN PUBLIC SERVICE DISTRICT SANITARY SEWER REHABILITATION KANAWHA COUNTY, WV	MALDEN PUBLIC SERVICE DISTRICT P.O. BOX 350 TAD, WV 25201-0350	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, FIELD CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$13,600,000.	25%
CANYON PUBLIC SERVICE DISTRICT SANITARY SEWER UPGRADE AND EXT MONONGALIA COUNTY, WV	CANYON PSD 12 WICHITA STREET MORGANTOWN, WV 26508	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, FIELD CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$6,500,000.	50%
TOTAL NUMBER OF PROJECTS: 7 REPRESENTED		TOTAL ESTIMATED CONSTRUCTION COSTS: \$70,300,000.00		
TOTAL ACTIVE SANITARY SEWER PROJECTS APPROXIMATELY 32		TOTAL FOR ALL PROJECTS APPROXIMATELY \$150,000,000		

15. CUI IT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATE ENGINEER OF RECORD: HIGHWAY, BRIDGE, SIDEWALKS

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
KING COAL HIGHWAY MINGO COUNTY, WV	WVDOH 1900 KANAWHA BLVD EAST CHARLESTON, WV 25305	PRELIMINARY ENGINEERING, DESIGN, SURVEY	\$22,000,000.	2% PROPERTY AND DEED RESEARCH COMPLETE - PROJECT ON HOLD
CORRIDOR H GRANT COUNTY, WV	WVDOH 1900 KANAWHA BLVD EAST CHARLESTON, WV 25305	PRELIMINARY ENGINEERING, DESIGN, SURVEY	\$22,000,000.	75% - NEED FINAL COMMENTS / FINAL FIELD REVIEW
JAKES RUN BRIDGE MONONGALIA COUNTY, WV	WVDOH 1900 KANAWHA BLVD EAST CHARLESTON, WV 25305	PRELIMINARY ENGINEERING, DESIGN, SURVEY	\$1,300,000.	90% FINAL OFFICE REVIEW
MINERAL WELLS ROUTE 2 WOOD COUNTY	WVDOH 1900 KANAWHA BLVD EAST CHARLESTON, WV 25305	PRELIMINARY ENGINEERING, DESIGN, SURVEY	TBD - JUST AWARDED	JUST AWARDED
CITY OF RIPLEY - MAIN STREET REVITALIZATION - JACKSON CO.	CITY OF RIPLEY TIM KING, CITY SUPERINTENDENT 203 SOUTH CHURCH ST. RIPLEY, WV 25271	PRELIMINARY ENGINEERING, DESIGN, SURVEY, CONTRACT DOCUMENTS, BIDDING SERVICES, CONSTRUCTION INSPECTION, MATERIALS TESTING	\$1,200,000.	90%
ICG - THREE FORKS BRIDGE TAYLOR COUNTY	INTERNATIONAL COAL GROUP, INC. 2000 ASHLAND DRIVE ASHLAND, KY 41101	PRELIMINARY ENGINEERING, FINAL DESIGN, SURVEY, CONTRACT DOCUMENTS.	\$1,119,000.00	90%
TOTAL NUMBER OF PROJECTS: 6 (TOTAL IN FULL APPROXIMATELY 30 SITE DEVELOPMENT - APPROXIMATELY 40 MILLION)			TOTAL ESTIMATED CONSTRUCTION COSTS: \$46,300,000. +	



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)
RALEIGH MEMORIAL AIRPORT RALEIGH COUNTY, WV	RALEIGH CO AIRPORT AUTHORITY 176 AIRPORT CIRCLE, ROOM 115 BEAVER, WV 25813-9475	\$5,000,000.00 - PHASE I	2007	YES
WOLFE CREEK PARK FAYETTE COUNTY, WV	FAYETTE COUNTY COMMISSION FAYETTE COUNTY COURTHOUSE 100 COURT STREET FAYETTE, WV 25840-0307	\$4,500,000. - PHASE 1	2007	YES
PINECREST DEVELOPMENT RALEIGH COUNTY, WV	PINECREST DEV AUTHORITY 200 MAIN STREET BECKLEY, WV 25801-4613	\$1,500,000.00	2007	YES
CITY OF PARSONS SANITARY SEWER LINE EXTENSION TUCKER COUNTY, WV	PARSONS, CITY OF 341 2ND ST. PARSONS, WV 26287	\$ 900,000	2007	YES
TOWN OF FARMINGTON WATER LINE REPLACEMENT PROJECT MARION COUNTY, WV	TOWN OF FARMINGTON 1314 MILL STREET FARMINGTON, WV 26571	\$1,300,000.	2007	YES
CITY OF KINGWOOD WHETSELL SETTLEMENT WATER LINE EXTENSION PRESTON COUNTY, WV	KINGWOOD, CITY OF 313 TUNNELTON ST. KINGWOOD, WV 26537-1462	\$ 420,000.	2007	YES
NORTON-HARDING-JIMTOWN PSD WATER LINE EXTENSION RANDOLPH COUNTY, WV	NORTON-HARDING-JIMTOWN PSD P.O. BOX 87 SCOTT ROAD NORTON, WV 26285	\$1,000,000	2007	YES
TOWN OF BATH - BERKELEY SPRINGS WATER WORKS MORGAN COUNTY, WV	TOWN OF BATH 271 WILKES STREET BERKELEY SPRINGS, WV 25411	\$2,000,000	2007	YES

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOU WERE THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
TOWN OF TUNNELTON, PRESTON COUNTY, WEST VIRGINIA; BUILDING COLLECTION SYSTEM AND AERATED LAGOON; SEWER LINES, MANHOLES, SANITARY LIFT STATIONS	TOWN OF TUNNELTON P.O. BOX 396 - BANK STREET TUNNELTON, WV 26444	\$2,630,000	2003	YES
RALEIGH COUNTY PUBLIC SERVICE DISTRICT 2 WATER LINE EXTENSIONS	RALEIGH COUNTY PSD 224 EAST MAIN PO BOX 1286 SOPHIA, WV	\$3,700,000.	2006	YES
TOWN OF TERRA ALTA, PRESTON COUNTY, WEST VIRGINIA; REPLACEMENT OF COLLECTION SYSTEM AND WASTEWATER FACILITY	TOWN OF TERRA ALTA 701-A STATE AVENUE TERRA ALTA, WV 26764	\$5,750,000	2002	YES
HODGESVILLE PUBLIC SERVICE DISTRICT; DESIGN AND CONSTRUCTION OF WATER LINE EXTENSION, BOOSTER STATIONS, AND WATER STORAGE TANK	HODGESVILLE PUBLIC SERVICE DISTRICT 188 FAYETTE STREET P.O. BOX 758 BUCKHANNON, WV 26201	\$3,100,000	2004	YES
CITY OF WEIRTON; RENOVATION OF SOLIDS CONTACT CLARIFIERS	CITY OF WEIRTON 200 MUNICIPAL PLAZA 3031 BIRCH DRIVE WEIRTON, WV 26062	\$2,800,000	2003	YES
HAMRICK PUBLIC SERVICE DISTRICT, TUCKER COUNTY, WEST VIRGINIA; DESIGN, PREPARATION AND CONSTRUCTION MANAGEMENT TO UPGRADE THE WATER TREATMENT PLANT	HAMRICK PUBLIC SERVICE DISTRICT P.O. BOX 228 HENDRICKS, WV 26271	\$2,461,000	2004	YES
PUTNAM COUNTY BUSINESS PARK; MITIGATION OF 13 ACRES OF IMPACTED WETLAND	PUTNAM COUNTY DEVELOPMENT AUTHORITY P.O. BOX 167 SCOTT DEPOT, WV 25560	\$1,500,000	2004	YES
WOOD PRODUCTS INDUSTRIAL PARK; DEVELOPMENT, CONCEPTUAL LAYOUT, AND FINAL DESIGN FOR INDUSTRIAL PARK	MINGO COUNTY REDEVELOPMENT AUTHORITY P.O. BOX 298 68 WEST 4 <sup>TH</sup> AVENUE WILLIAMSON, WV 25661	\$2,000,000	2002	YES

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOU WERE THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
<p>BELINGTON INDUSTRIAL PARK; DEVELOPMENT, CONCEPTUAL LAYOUT, AND DESIGN FOR INDUSTRIAL PARK</p>	<p>BARBOUR CO DEVELOPMENT AUTHORITY 124 N. MAIN ST. PHILIPPI, WV 26416</p>	<p>\$1,430,000</p>	<p>2003</p>	<p>YES</p>
<p>FAIRMONT INDUSTRIAL &amp; CREDIT CORP; SITE WORK, UTILITIES, ROADWAY FOR PHASE II DEVELOPMENT</p>	<p>FAIRMONT INDUSTRIAL &amp; CREDIT CORP 110 ADAMS STREET FAIRMONT, WV 26554</p>	<p>\$790,000</p>	<p>2004</p>	<p>YES</p>
<p>TOWN OF LUMBERPORT; REPLACEMENT OF A PORTION OF THE DISTRIBUTION SYSTEM AND WATER TANK</p>	<p>TOWN OF LUMBERPORT PO BOX 519 LUMBERPORT, WV 26386</p>	<p>\$2,200,000</p>	<p>2003</p>	<p>YES</p>
<p>RIVER ROAD PUBLIC SERVICE DISTRICT; WATER LINE REPLACEMENT, EXTENSION AND STANDPIPE</p>	<p>RIVER ROAD PSD 179 OLD LOCK 13 ROAD MORGANTOWN, WV 26501</p>	<p>\$1,068,000</p>	<p>2004</p>	<p>YES</p>
<p>HUNDRED-LITTLETON PUBLIC SERVICE DISTRICT; WATER LINE RELOCATION</p>	<p>HUNDRED-LITTLETON PSD PO BOX 880 8 PENNSYLVANIA AVENUE HUNDRED, WV 26575</p>	<p>\$40,000</p>	<p>2002</p>	<p>YES</p>
<p>RT 16 WATER CORPORATION; WATER LINE EXTENSION</p>	<p>ROUTE 16 WATER CORP PO BOX 149 ST MARYS, WV 26170</p>	<p>\$900,000</p>	<p>2003</p>	<p>YES</p>

18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOU WERE ASSOCIATED WITH OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)

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
GLENVILLE FEDERAL CORRECTIONAL INST. SITE DEVELOPMENT GILMER COUNTY, WV	FEDERAL BUREAU OF PRISONS 320 1 <sup>ST</sup> STREET NW 500-6 WASHINGTON, DC 20534	\$96,000,000	2003	YES	BELL JUSTICE FACILITIES
FEDERAL BUREAU OF PRISONS -CAVAAN FACILITY - SITE DEVELOPMENT - SCRANTON, PA	FEDERAL BUREAU OF PRISONS 320 1 <sup>ST</sup> STREET NW 500-6 WASHINGTON, DC 20534	\$120,000,000	2002	YES	BELL JUSTICE FACILITIES
FAIRMONT STATE COLLEGE - STUDENT DORMITORY - SITE DEVELOPMENT- FAIRMONT, WV	FAIRMONT STATE UNIVERSITY 1201 LOCUST AVENUE FAIRMONT, WV 26554-2491	\$6,000,000	2004	YES	VOA ARCHITECTS
FAIRMONT STATE COLLEGE - PARKING GARAGE- SITE DEVELOPMENT -FAIRMONT, WV	FAIRMONT STATE UNIVERSITY 1201 LOCUST AVENUE FAIRMONT, WV 26554-2491	\$4,000,000	2003	YES	MARCH-WESTIN
FAIRMONT STATE UNIVERSITY FEASTER CENTER SITE DEVELOPMENT - FAIRMONT, WV	FAIRMONT STATE UNIVERSITY 1201 LOCUST AVENUE FAIRMONT, WV 26554-2491	\$400,000.	2005	YES	VOA ARCHITECTS
FAIRMONT STATE UNIVERSITY CREATIVE ARTS AND ENGINEERING TECH BUILDING SITE DEVELOPMENT FAIRMONT, WV	FAIRMONT STATE UNIVERSITY 1201 LOCUST AVENUE FAIRMONT, WV 26554-2491	\$100,000.	2007	YES	DESIGN ALLIANCE OMNI ASSOCIATES

19. USE THIS SPACE TO PROVIDE ANY ADDITIONAL INFORMATION OR DESCRIPTION OF RESOURCES SUPPORTING YOUR FIRM'S QUALIFICATIONS TO PERFORM WORK FOR THE WV ABANDONED MINE LANDS PROGRAM

SEE ATTACHMENT - STATEMENT OF QUALIFICATIONS

20. THE FOREGOING IS A STATEMENT OF FACTS.

SIGNATURE: *Kenneth P. Moran*

TITLE: VICE-PRESIDENT / CHIEF ENGINEER

PRINTED NAME: KENNETH P. MORAN, P.E. - VICE PRESIDENT

DATE: OCTOBER 21, 2008



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 AML CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE

Attachment "B"

PROJECT NAME: Various WVDEP AML Design Projects		DATE: February 25, 2008		FEIN: 52-2365940	
1. FIRM NAME: Novel Geo-Environmental, LLC		2. HOME OFFICE BUSINESS ADDRESS: 171 Montour Road Moon Township, PA 15108		3. FORMER FIRM NAME: NA	
4. HOME OFFICE TELEPHONE: (412) 722-1970		5. ESTABLISHED: 2002		6. TYPE OWNERSHIP: Limited Liability Corporation	
6a. WV REGISTERED DBE: YES					
7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE: 806 B Street St. Albans, WV 25177 304-201-5180 Office Manager: John E. Nottingham, P.E. No. AML Design Personnel in St. Albans, WV: 5 No. AML Design Personnel in Moon Township, PA : 5					
8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM: Amy L. Veltri - President John E. Nottingham - Vice President 8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS					
9. PERSONNEL BY DISCIPLINE (Bold Lettering Indicates Minimum Design Team Members)					
— ADMINISTRATIVE	— ECOLOGISTS	— LANDSCAPE ARCHITECTS	— STRUCTURAL ENGINEERS		
— ARCHITECTS	— ECONOMISTS	— MECHANICAL ENGINEERS	— SURVEYORS		
— BIOLOGIST	— ELECTRICAL ENGINEERS	— MINING ENGINEERS	— TRAFFIC ENGINEERS		
1 CADD OPERATORS	4 ENVIRONMENTALISTS	— PHOTOGRAMMETRISTS	4 DRILLERS & HELPERS		
— CHEMICAL ENGINEERS	— ESTIMATORS	— PLANNERS: URBAN/REGIONAL	5 OTHER PERSONNEL		
2 CIVIL ENGINEERS	2 GEOLOGISTS	— SANITARY ENGINEERS			
4 CONSTRUCTION INSPECTORS	— HISTORIANS	2 SOILS ENGINEERS			
— DESIGNERS	— HYDROLOGISTS	— SPECIFICATION WRITERS			
— DRAFTSMEN				20 TOTAL PERSONNEL	
TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: <u>2</u>					
*RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.					
10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? YES					

NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes _____ No _____

NO: Note that Novel Geo-Environmental (NGE) has not performed any AML design work to date, but our WV Office Manager (John E. Nottingham) and project geologist (Chuck Montgomery) have extensive AML experience with their former firm. Additionally, NGE currently holds a contract with WVDEP-AML for geotechnical drilling for the northern district of WV and has completed several drilling projects under this contract.

B. Is your firm experienced in Soil Analysis?

YES: NGE specializes in Geotechnical Engineering including foundation investigations, subsurface investigations, cut slope design, fill embankment analysis and design, slope stability analysis, landslide analysis and corrective design, mine subsidence investigations, geologic studies, groundwater seepage analysis, foundation design, retaining wall design, pavement design, subsurface drilling and monitoring well installation.  
NGE has performed a total of several hundred geotechnical engineering related projects since the company was formed in 2002.

C. Is your firm experienced in hydrology and hydraulics?

NO: While our firm has not performed any hydrology/hydraulics projects to date, our personnel have experience with former employers.

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

NO

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.)

NO

Evaluation and Abatement Design?

NO

data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Nottingham, John, E.	12	YEARS OF AML DESIGN EXPERIENCE: 4	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0

Brief Explanation of Responsibilities

Mr. Nottingham was responsible for supervising field and design work for numerous AML related landslide abatement projects for the WVDEP while under the employment of Triad Engineering, Inc. In addition to landslide abatement projects, Mr. Nottingham was involved in subsidence determination investigations and subsidence abatement projects. Mr. Nottingham worked extensively on "emergency" projects which required quick field investigations and corrective designs.

EDUCATION (Degree, Year, Specialization)

Bachelor of Science in Civil Engineering, 1987, WVU, Specialization - Civil and Geotechnical Engineering  
Masters of Science in Civil Engineering, 1995, WVU, Specialization - Geotechnical Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Society of Civil Engineering (ASCE)  
West Virginia Chapter of AIA

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	
Montgomery, Charles, E.	10	YEARS OF AML DESIGN EXPERIENCE: 4	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0

Brief Explanation of Responsibilities

Mr. Montgomery was responsible for coordinating field activities for AML landslide abatement projects for the WVDEP while employed with Triad Engineering, Inc. Mr. Montgomery has also participated in all project phases for other AML work involving subsidence determinations/abatement and impounded mine pools.

EDUCATION (Degree, Year, Specialization)

Bachelor of Science, Geology, 1991, Marshall University

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Association of Engineering Geologists  
Geological Society of America

REGISTRATION (Type, Year, State)

Professional Geologist, 1999, Kentucky

data (keep to essentials)

NAME & TITLE (Last, First, Middle Int.) Nottingham, Larry C.		YEARS OF EXPERIENCE	
YEARS OF AML DESIGN EXPERIENCE: 15	YEARS OF AML RELATED DESIGN EXPERIENCE: 5	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0	

Brief Explanation of Responsibilities

Dr. Nottingham planned and supervised several AML investigation and reclamation projects for WVDEP while employed by Triad Engineering. Projects included burning refuse pile investigations, unstable refuse pile investigations and remedial designs, landslide investigations and remedial designs, subsidence investigations, and underground mine fire investigations.

EDUCATION (Degree, Year, Specialization)

Bachelor of Science in Civil Engineering, 1965, Civil Engineering, West Virginia Institute of Technology  
 Master of Science in Civil Engineering, 1966, Geotechnical Engineering, University of Pittsburgh  
 Doctor of Philosophy, 1975, Geotechnical Engineering, University of Florida

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Member, American Society of Civil Engineers  
 Member, National Society of Professional Engineers

REGISTRATION (Type, Year, State)

Professional Engineer, 1969, WV  
 Professional Engineer, 1985, KY  
 Professional Engineer, 1985, OH  
 Professional Engineer, 2006, PA

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:	

Brief Explanation of Responsibilities

EDUCATION (Degree, Year, Specialization)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

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

Three rotary drill rigs, one mounted on a four wheel drive one-ton truck, and two track-mounted rigs. Drills are equipped with hollow stem augers, split-spoon soil sampling equipment, and rock coring tools.

Portable dynamic cone penetrometer.

Electric concrete coring drill.

Two equipment hauling trailers.

Software includes: Word processing, PCSTABL - Slope Stability Analysis, LPILE Plus 4.0 - Pile Foundation Analysis, PYWALL 2.0 - Retaining Wall Analysis, RESSA 2.0 - Reinforced Soil Slope Analysis, Reslope 3.0 - Reinforced Soil Slope Design

Soil Laboratory Equipment: Soil Oven, Scales, Sieves, Liquid and Plastic Limits Machine

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

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Chesapeake Energy Office & Shop Complex, Geotechnical Investigation, Inez, KY	Chesapeake Energy Corporation, 6100 N. Western Avenue, Oklahoma City, OK 73154	Perform subsurface investigation, develop and provide recommendations for building foundation design	Unknown, Fee = \$6600.00	5
Annual Geotechnical Drilling Contract, Northern West Virginia	West Virginia Department of Environmental Protection	Perform geotechnical (drilling) investigations of abandoned mine land sites as directed by WVDEP/AML personnel.	Unknown	30
TOTAL NUMBER OF PROJECTS: 2			TOTAL ESTIMATED CONSTRUCTION COSTS: \$ Unknown	



16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A CONSULTANT TO OTHERS

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
Ten Cell Tower Sites, Geotechnical Investigations, Various Locations Throughout WV	Determine Site Subsurface Conditions, Provide Foundation Design Recommendations.	Terradon Corp. Nitro, WV	March, 2008	Unknown	Fee \$33,000
Six Cell Tower Sites, Geotechnical Investigations, Various Locations Throughout WV	Determine Site Subsurface Conditions	PSI, Inc. 153 Williams Hwy Parkersburg, WV	March, 2008	Unknown	Fee ≈ \$12,000
Toyota Meeting Room, Geotechnical Investigation, Buffalo, WV	Geotechnical Investigation for New Building Structure	Toyota Corp. Buffalo, WV	March, 2008	Unknown	Fee \$4000
I-64 Over Hal Greer Blvd. Bridge, CSL Testing, Huntington, WV	Perform Cross-Hole Sonic Logging of New Foundation Drilled Piers	West Virginia Dept. of Highways, Charleston, WV	August, 2008	Unknown	Fee ≈ \$17,000
Harrison Co. EMS Station, Geotechnical Investigation, Clarksburg, WV	Determine Site Subsurface Conditions, Provide Foundation Design Recommendations	Harrison Co. EMS Clarksburg, WV	February, 2008	Unknown	Fee \$4000
Corridor H Highway Construction, Quality Control Testing, Grant Co., WV	Perform soil compaction and concrete quality control tests.	West Virginia Dept. of Highways, Charleston, WV	November, 2008	Unknown	Fee ≈ \$75,000
Water Storage Tank, Subsurface Investigation, Gilbert, WV	Determine Site Subsurface Conditions	Gilbert PSD Gilbert, WV	March, 2008	Unknown	Fee \$3000



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)

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
S. Mineral Wells Interchange, Geotechnical Study, Mineral Wells, WV	WV Department of Highways Charleston, WV	\$5,000,000	2007	In Process	L. A. Gates Co.
Winefrede RR Overpass Bridge, Geotechnical Investigation, Winefrede, WV	WV Department of Highways Charleston, WV	\$1,500,000	2005	Yes	HNTB Corporation
Performing Arts Center. Geotechnical Investigation, Buckhannon, WV	West Virginia Wesleyan College, Buckhannon, WV	\$500,000	2007	Yes	R. D. Zande & Associates, Inc.
Mt. Gay Overpass Bridge, Geotechnical Investigation, Logan, WV	WV Department of Highways Charleston, WV	\$1,000,000	2004	Yes	HMB Professional Engineers, Inc.
Water Tanks, Geotechnical Investigation, Iager, WV	Iager PSD Iager, WV	\$100,000	2006	Yes	Stafford Consultants
5th Avenue Bridge, Geotechnical Investigation, Huntington, WV	WV Department of Highways Charleston, WV	\$2,500,000	2003	Yes	Modjeski & Masters, Charleston, WV

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.

20. The foregoing is a statement of facts.  
 Signature: John E. Nottingham Title: Vice President Date: 3/3/08  
 Printed Name: John E. Nottingham

NOTE: THIS DOCUMENT WILL BECOME VOID AFTER DECEMBER 31 IN CALENDAR YEAR OF DATE HEREON.

**AML and RELATED PROJECT EXPERIENCE MATRIX**

PROJECT	Exp. Basis C=Corp. P=Personal	Additional Info Provided in Section (e) **	PROJECT EXPERIENCE REQUIREMENTS														PARTICIPATION/CAPACITY M=Management P=Professional ***																																			
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Eval.	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/R eplacement	Construction Inspection/Managem ent	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Ken Moran, P.E.	Chadwick Blier, P.E.	Sheil Fletcher	Kurt Newbrough	Jeffrey L. Gola, P.E.	Wynard (Ves) Mirrow																													
WV NATIONAL CEMETERY	C	3				X				X																					M	P																				
FAIRMONT STATE UNIVERSITY	C	3				X				X																				M	P																					
GLENVILLE PRISON	C	3				X				X																			M	P																						
CANAAN PRISON	C	3				X				X																		M	P																							
INDIAN RIDGE INDUSTRIAL PARK	C	3				X				X																		M	P																							
BELINGTON INDUSTRIAL PARK	C	3				X				X																		M	P																							
MINGO COUNTY INDUSTRIAL PARK	C	3				X				X																		M	P																							
MARTINKA COAL COMPANY	C	3				X				X																		M																								
CONSOL COAL COMPANY	P	3				X				X																		M																								
WV DEP AMHERSTDALE	C	3																										M																								
ROBERT C. BYRD IND. PARK	C	3																										M																								
HARRISON CO. BUS./IND. PARK	C	3																										M																								
BUFFALO DAM RECLAMATION	C	3							X																			M																								

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

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

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

STATE OF WEST VIRGINIA  
Purchasing Division

## PURCHASING AFFIDAVIT

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

**DEFINITIONS:**

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

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

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

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

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

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

Vendor’s Name: THRASHER ENGINEERING, INC.

Authorized Signature:  Date: OCTOBER 22, 2008