

RFQ COPY

TYPE NAME/ADDRESS HERE

Clarksburg, WV 26301

30 Columbia Blvd.

Thrasher Engineering, Inc.

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

# Request for Quotation

AUL	HESS CORRESPONDENCE TO ATTENTION OF
СНИСК	BOWMAN
304-55	8-2157

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

DATE PRIN	<u> </u>	IMS OF SALE	SHIP WA	F.O.B.	FREIGHTTERMS
BID OPENING DATE:		2008	BID	OPENING TIME O	1:30PM
EINE	QUANTITY	UOP CAT NO	ITEM NUMBER	UNITPRICE	AMOUNT
0001	1	JB	906-29	Not Applicable	Not Applicable
	MULLENS PORT	ALS DESIGN			
		EVERECTO	N OF INTEREST		
		GINIA PURC	HASING DIVISION,	FOR THE AGENCY,	^
	PROTECTION,	IS SOLICIT	RTMENT OF ENVIRO ING EXPRESSIONS NG DESIGN SERVIC	OF INTEREST FOR	
**	CONSTRUCTION	MONITORIN	G SERVICES AT TH MING COUNTY, WES	E MULLENS	
:	PER THE FOLL SPECIFICATION	1	REQUIREMENTS AND	ATTACHED	
	FOR BANKRUPT AUTOMATICALL	CY PROTECT Y NULL AND	ENT THE VENDOR/C ION, THIS CONTRA VOID AND IS TER	CT IS	
	FURTHER ORDE				
	***************************************			A See See	
			2000 OCT 16	A 10: 01	
			TERCHASING STATE C	g Divis <mark>ion</mark> Ne WV	
		SFERR	Verse side for terms and co	   NDITIONS	
SIGNATURE /	- L. L	_	TELEPHONE		0/15/2008
TITLE	-une of	EIN			S TO BE NOTED ABOVE
	<u>cesident</u>	<u>55 0633 5</u>	596 6	ADDRESS CHANGE	



P.O. Box 1532 Clarksburg, WV 26301 www.thrashereng.com Fax: 624•7831 thrasher@thrashereng.com

October 1, 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 – Wyoming County Mullens Portal Design Project RFQ #DEP14430

To Whom It May Concern:

Thrasher Engineering, Inc. is pleased to have the opportunity to submit this expression of interest and qualifications to provide engineering design and construction monitoring services for the Wyoming County Mullens Portal Project. 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: Through our site development department, Thrasher Engineering has provided survey, design and construction management services for site development projects on land which included mine slips. These include the Robert C. Byrd Park in Hardy County and the Harrison County Business and Technology Center and White Oaks Business Park, also in Harrison County. Additionally, we have mapped and designed numerous open channel drainage systems, and provided stream bank protection. As demonstrated in our qualifications, Thrasher Engineering has surveyed, mapped, designed and provided construction management services for more site projects than any other West Virginia engineering firm.

Successful Project Experience with AML: In 2005, we were selected by the DEP to provide engineering design and mapping services for the Amherstdale and Ragland Road AML water line projects in Mingo and Logan Counties. As you are aware, each of these projects was completed on time and is currently at the DEP awaiting final steps prior to construction bid. Additionally we have extensive experience with water line projects in areas that are partially affected by AML; we currently are providing engineering services for two partial AML projects for the Town of Masontown in Preston County.

RFQ # DEP 14430 Page 2

**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. 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.

Current Work in Wyoming County: Thrasher Engineering, Inc. was recently selected by the Wyoming County EDA and Commission to provide services for the study and development of an industrial and business park in Wyoming County. As we have personnel working in the area, time and cost efficiencies may be possible for this project.

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

# STATEMENT OF QUALIFICATIONS

# FIRM OVERVIEW

# THRASHER ENGINEERING, INC.

Established

1983

#### **Officers**

H. Wood Thrasher, P.E., Kenneth P. Moran, P.E., P.S.

Kurt L. Newbrough, P.S.

**Partners** 

Wm. Randy Watson

Chadwick Biller, P.E. Chad Riley, P.E.

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

Vice-President

Secretary / Treasurer

**Public Utilities** 

Site Development / Highways / Airports

Site Development Public Utilities Public Utilities



Thrasher Engineering, Inc. Office – Clarksburg, WV

# THRASHER ENVIRONMENTAL, INC.

#### **Officers**

H. Wood Thrasher, P.E., Kenneth P. Moran, P.E., P.S.

Jonathan Carpenter, P.E.

President Vice-President

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

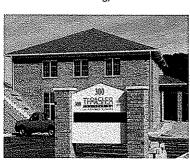
Offices

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



Thrasher Environmental, Inc. Office
- Charleston, WV

# 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.

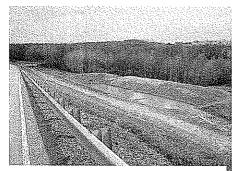
# SERVICES

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 Mullens Portal Project include:

# SITE DEVELOPMENT

development projects.

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



Storm water Pond, Canaan Federal Prison, Scranton, PA

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.

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.

<u>Grading Plans</u> - 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.

<u>Utility Layout/Mapping</u> - 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

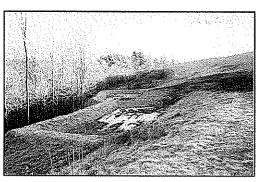




- Hydrology Studies / Hydrographic Mapping
- Storm Water Collection Systems
- Detention Ponds
- Injection Wells
- Underground Storage
- Combined Sewer Overload (CSO) separation

#### **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 Section7 Informal Consultation
- Rare, Threatened and Endangered Species Section
   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

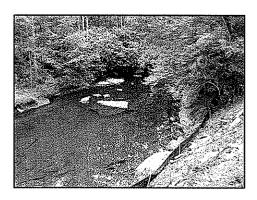
# **SURVEY**

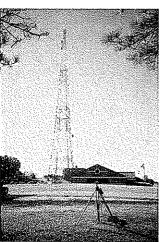
In addition to a full service professional engineering staff, Thrasher Engineering maintains a complete surveying department which includes four licensed professional land surveyors, ten full-time survey crews, CADD technicians, and office support staff.

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:

<u>Pre- and Post-Mining Surveys</u> - 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.

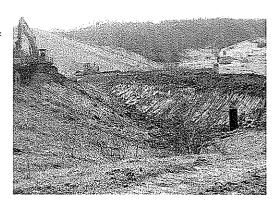
**Topographic Surveys** - location of existing features and determination of contours used in engineering layout of water distribution systems, sewer collection systems, industrial park layouts, etc.

<u>Construction Layout</u> - 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 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
- Paint Coatings
- Sprayed-on Fireproofing
- 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.

**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.

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 Mullens Portal 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.

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.

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.

# 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

# **AFFILATIONS:**

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

# 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
- w 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
- 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

# **AFFILATIONS:**

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

# 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
- w 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

# **AFFILATIONS:**

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

# SHEIRL L. FLETCHER Environmental Manager

# 22 YEARS EXPERIENCE

# SUMMARY OF EXPERIENCE

**Environmental Management and Safety Compliance** 

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:**

research.

Preparations of applications for required operating permits and licenses regarding air quality,
wastewater and construction projects ensuring compliance with all state and federal regulator

	requirements.
_	Responsible for compliance with all environmental regulations, including interface with
_	environmental regulators, in a manner consistent with company's policies and procedures.
ב	Assure full compliance with OSHA (Occupational Safety and Health Administration) regulations
<b>_</b>	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
Ē	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.
<u> </u>	Managed staff, prepared work schedules and assigned specific duties.
	g, <sub> </sub>
Ge	ology
]	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

r	lydrology
Ç	Studied and documented quantities, distribution, disposition, and development of underground and surface waters.
Ę	Designed and conducted scientific hydro-geologic investigations to ensure that accurate and appropriate information was available for use in water resource management decisions.
C	Coordinated and supervised the work of professional and technical staff, including consultants, engineers, technologists, and technicians.
Ę	~
C	Studied wastewater and storm water issues, including flood and drought risks, water quality, wastewater, and impacts on wetland habitats.
Ę	
ū	Applied research findings to help minimize the environmental impacts of pollution, water-borne diseases, erosion, and sedimentation.
מ	
ľ	
1	EDUCATION/TRAINING:
-	West Virginia University, Morgantown, WV - Bachelor of Science- Geology
į.	dditional Training
	Contemporary Supervision
	Conflict Management
	Influence Management

# 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
- Calvert Excavating and Paving, Inc.
- Howard Concrete
- Dodd Corporation
- Mid Atlantic Storage Systems, Inc.

# **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

# **GPS Surveys**

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

# Larry C. Nottingham, PhD, PE

Mr. Nottinhham 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.

# **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.

☐ Fairmont State University Level V Certification – Transportation Engineering Technologist –

# **EDUCATION**

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

CE	D	7	_	14	^ /		71		٨	IC
	П	,,,	F.	ĸ	S	4	"	U	I١	<i>,</i> $\supset$

	Engineering Specialization
	WVDOH Compaction Inspector
ā	WVDOH Concrete Inspector/Technician
ā	WVDOH Aggregate Sampling Inspector
ā	WVDOH Aggregate Technician/Inspector
ō	WVDOH Bituminous Inspector/Technician
ā	WVDOH Radiation Safety
ā	Troxler Basic Safety – Nuclear Compaction Gauge
_	Troxici Buolo dulety - Nuoleul Compaction dauge
REPR	RESENTATIVE 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

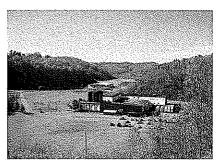
# REPRESENTATIVE EXPERIENCE

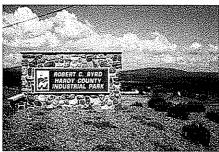
Thrasher Engineering offers significant experience in open drainage and sediment and erosion projects in addition to abandoned mine lands projects, covering a broad range of expertise. In the following section are examples of our experience in each of these areas related to the Drews Creek "A" Highwall project

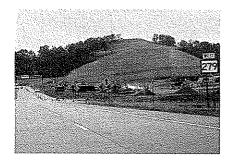
# SITE DEVELOPMENT PROJECTS - SEDIMENT AND EROSION MEASURES

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

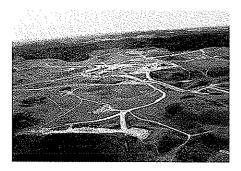
Client:

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

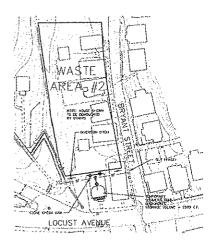
**Project Description:** The project consisted of the planning,

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 Jim Decker, V.P. Facilities 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



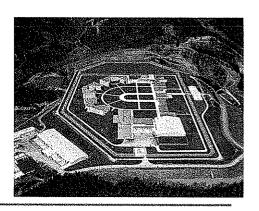
million master plan for infrastructure improvements. This portion of the project included storm water management during and after construction. During the construction phase erosion and sediment control was contained by installing silt fence, water barriers, temporary sediment traps, inlet protection, 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.



# 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.



# 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.

# 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

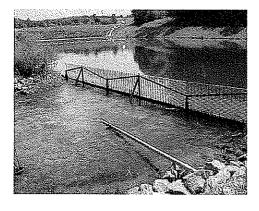
Mr. Gary Timms

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 Plan 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., BCEE, 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

# **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.

# **Eastern Associated Coal Corporation**

Client: Eastern Associated Coal Corporation

Allen Moore, Project Manager

304-449-1911

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

- · 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

# 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

# Natural Resources Conservation Service - Southern District

Client:

**NRCS Southern District** 

Loren Rice 304-255-9255

**Project Description:** Thrasher Engineering has provided services on the following projects:

- □ Little Whitestick Creek Flood Control Project Phases II and III Raleigh County
  - o Property Research
  - o Property Location
  - o Deed Plotting

  - CAD MappingEasement Staking
  - o Easement Mapping
  - Legal Descriptions
- □ Christian Fork Lake Mercer County Elevation Easement Project
  - o Property Research
  - o Property Location
  - o Deed Plotting
  - CAD Mapping
  - o Easement Staking
  - Easement Mapping
  - o Legal Descriptions
- □ Mercer County Various Easement Locations
  - o Elevation Easement Locations
  - o Easement Staking
  - o Easement Mapping
  - o Legal Descriptions
  - o Dam Locations

# PROJECT APPROACH

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

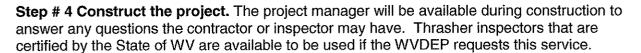
completed in the field if necessary to make tie-ins.

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.



W.	B FA	1	ENVIRONMENTAL	
PROJECT NAME MULLENS PORTALS DESIGN SERVICES #14430	ES - DEP Octo	DATE (DAY, MONTH, YI October 15, 2008	YEAR)	FEIN 55-0633596-6
1. FIRM NAME THRASHER ENGINEERING, INC		2. HOME OFFICE BUSI 30 COLUMBIA BLVD., 26301	OFFICE BUSINESS ADDRESS BIA BLVD., CLARKSBURG, WV	3. FORMER FIRM NAME NOT APPLICABLE
4. HOME OFFICE TELEPHONE 304-624-4108	5. ESTABLISHED 1983	SHED (YEAR	6. TYPE OWNERSHIP Individual Corpo: Partnership Joint	P (Corporation X (Disadvantaged Business Joint-Venture Enterprise) NO X
7. PRIMARY AML DESIGN OFFICE: ADDRESS/ 30 COLUMBIA BLVD, CLARKSBURG, WV / 300 ASSOCIATION DRIVE, CHARLESTON,		TELEPHONE/ PERSON 304-624-4108 / KEI WV / 304-343-7601	PERSON IN CHARGE/ NO. AML DESIGN 18 / KENNETH P. MORAN, P.E., VICE 13-7601 / JONATHAN CARPENTER, MANA	SSIGN PERSONNEL BACH OFFICE VICE PRESIDENT / 12 MANAGING PARTNER / 2
8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS H. Wood Thrasher, P.E President Kenneth P. Moran, P.E Vice President Kurt Newbrough, P.S Secretary	FICERS OR MEMBER - President - Vice President Secretary	AS OF FIRM	8a. NAME, TITLE, & TELEPHONE NUI WM. RANDY WATSON -304-624-4108 . CHAD BILLER, P.E304-624-4108 . CHAD M. RILEY, P.E304-624-4108 . CLAY P. RILEY, P.E304-624-4101 DANIEL E. FERRELL, P.E304-32	3, & TELEPHONE NUMBER - OTHER PRINCIPALS N -304-624-4108 - PARTNER P.E304-624-4108 - PARTNER P.E304-624-4108 - PARTNER P.E304-624-4108-PARTNER E.: -304-624-4108-PARTNER
9. PERSONNEL BY DISCIPLINE		***************************************	4.74	
22 ADMINISTRATIVE 3 ARCHITECTS — BIOLOGIST 27 CADD OPERATORS — CHEMICAL ENGINEERS 26 CIVIL ENGINEERS 36 CONSTRUCTION INSPECTORS — DESIGNERS — DESIGNERS — DRAFTSMEN	- ECOLOGISTS - ECONOMISTS - ELECTRICAL E 3 ENVIRONMENTA - ESTIMATORS 1 GEOLOGISTS - HYDROLOGISTS - HYDROLOGISTS	ECOLOGISTS ECONOMISTS ELECTRICAL ENGINEERS ENVIRONMENTALISTS ESTIMATORS GEOLOGISTS HISTORIANS HYDROLOGISTS	1 LANDSCAPE ARCHITECTS 1 MECHANICAL ENGINEERS 2 MINING ENGINEERS 2 PHOTOGRAMMETRISTS 3 PLANNERS: URBAN/REGIONAL 5 SANITARY ENGINEERS 5 SOILS ENGINEERS 7 SPECIFICATION 7 WRITERS	TECTS 1 STRUCTURAL ENGINEERS NEERS 47 SURVEYORS IRS — TRAFFIC ENGINEERS TS — OTHER /REGIONAL ERS 170 TOTAL PERSONNEL
TOTAL NUMBER OF WV REGIS *RPEs other than Civil ar supervise and perform the	REGISTERED PROB il and Mining m orm this type of	HISTERED PROFESSIONAL ENGINEERS and Mining must provide supporthis type of work.	IN PRIMARY OFFICE: ting documentation	14 that qualifies them to
	**************************************			
	Power from the control of the contro			
10. HAS THIS JOINT-VENTURE WOR	WORKED TOGETHER	BEFORE?	U YES   NO NOT API	APPLICABLE

11. OUTS-7 KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED Ques, onnaire".	TO ( ) USED.	Attach "AML Consultant Confidential Qual:   cation
NAME AND ADDRESS: NOVEL GEO-ENVIRONMENTAL	SPECIALTY: GEO-TECHNICAL SERVICES	WORKED WITH BEFORE
		X Yes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS.	SDECTAL TV.	No NOBYED WITH BEEDDE
NAME AND ADDRESS:	SPECIALI I:	WOKNED WITH BEFORE
		No No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH 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

- 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 THRASHER ENGINEERING, INC.'S CHARLESTON, WEST VIRGINIA OFFICE WAS AWARDED TWO WATER LINE PROJECTS FOR AML AFFECTED BLACKSVILLE NO.1D, PURSGLOVE, ARKWRIGHT, 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 AND ENVIRONMENTAL SPECIALIST WITH CONSOL ENERGY. PROJECTS INCLUDED THE ENGINEERING AND FINAL RECLAMATION OF THE AREAS IN 2005. THESE PROJECTS WERE THE AMHERSTDALE PROJECT AND THE RAGLAND PROJECT IN MINGO / LOGAN COUNTIES. Remediation/Mine Reclamation Engineering? Is your firm experienced in Abandoned Mine Lan LAND REMEDIATION, 4
- THRASHER ENGINEERING MAINTAINS A MATERIALS TESTING AND Is your firm experienced in Soil Analysis? Description and Number of Projects: м М

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.

- OUR TEAM ENVIRONMENTAL MANAGER PARTICIPATED IN THE ENGINEERING 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 HYDROLING FOR WATER AND WASTEWATER PROJECTS THROUGHOUT WEST VIRGINIA. RELATIONSHIP TO ONE ANOTHER AND TO ADJACENT MINING OPERATIONS. SHE ALSO WAS INVOLVED IN THE STRATEGIC PLACEMENT OF OF THE MORGANTOWN OPERATIONS OF CONSOL COAL COMPANY. THIS INCLUDED THE GEOLOGIC HYDROLOGY STUDY OF THE ARKWRIGHT, OSAGE PURSGLOVE AND HUMPHREY MINE POOLS AND THER INTERhydraulics? your firm experienced in hydrology and Description and Number of Projects: AND ENVIRONMENTAL PERMITTING OF THE FINAL ABANDONMENT XES ια H ပ
- Does your firm produce its own Aerial Photography and Develop Contour Mapping? Description and Number of YES Projects: . o

INCLUDING PENTREE, INC. WHICH IS AN AFFILIATE COMPANY OF THRASHER ENGINEERING INC. THROUGH THE RESOURCE ENGINEERING GROUP HOLDING COMPANY. WE UTILIZE THE SERVICES OF NUMEROUS FIRMS, 2

THRASHER ENGINEERING (Include any experience your firm has in DESCRIPTION AND NUMBER OF PROJECTS: evaluation of aquifer degradation as a result of mining. YES Description and Number of Projects: DESCRIPTION A Is your firm experienced in domestic waterline design? į.

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

Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design? ٠ ٢

Description and Number of Projects: OUR TEAM ENVIRONMENTAL MANAGER PARTICIPATED IN THE ENGINEERING SHE ALSO WAS INVOLVED IN THESTRATEGIC 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 AND ENVIRONMENTAL PERMITTING OF THE FINAL ABANDONMENT OF THE MORGANTOWN OPERATIONS OF CONSOL COAL COMPANY. THIS INCLUDED THE GEOLOGIC HYDROLOGY STUDY OF THE ARKWRIGHT, OSAGE PURSGLOVE AND HUMPHREY MINE POOLS AND THER INTER-RELATIONSHIP TO ONE ANOTHER AND TO ADJACENT MINING OPERATIONS. VIRGINIA TO TREAT DRAINAGE. YES

13. PER "YAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATE" ESP	RESPONSIBLE FOR AML PROJECT DESIGN (Furnish o	comp] ÷
TTLE (Last, Fir	YEARS OF EXPERIENCE	<b>\(\)</b>
YEARS OF AML DESIGN EXPERIENCE: 5	AML RELATED DESIGN YEARS OF UE: 15 WATERLINI EXPERIENCE	DOMESTIC 3 DESIGN 22
Brief Explanation of Responsibilities Mr. Moran joined Thrasher Engineering in 1991 and currently serves as Vice responsible for feasibility studies and design of public utility projects state, federal and private clients. Additionally, Mr. Moran has extensive with funding and regulatory agencies in conjunction with projects.	as Vice President and Chief Engineerrojects (sanitary sewer, water and sttensive experience in all aspects of	er. Mr. Moran is storm water) for f engineering and
EDUCATION (Degree, Year, Specialization) B.S., Civil Engineering	Technology, 1983 - Fairmont State	University
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS Friendship Lodge No.56 A.F. & A.M. WV Society of Professional Engineers	REGISTRATION (Type, Year, State)  Registered Professional Engineer (PE), West Virginia	), State of
merican Society	Registered Professional Engineer (PE), Virginia Registered Professional Engineer (PE), Ohio	), State of ), State of
	<pre>Professional Land Surveyor (PS), State Virginia</pre>	te of West
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONDED AND ASSOCIATES RESPONDED BY NEW PORT OF PRINCIPALS AND ASSOCIATES AND ASSOCIATES RESPONDED BY NEW PORT OF PRINCIPALS AND ASSOCIATES AND ASSOCIA	RESPONSIBLE FOR AML PROJECT DESIGN (Furnish c	complete
PILLER CHADWICK D. P.E. EXPERIENCE: -	YEARS OF AML RELATED DESIGN EXPERIENCE: 15 EXPERIENCE: 15 EXPERIENCE: 15	DOMESTIC   DESIGN  E: 15
Brief Explanation of Responsibilities: Mr. Biller joined Thrasher firm. Mr. Biller's paramount responsibility is supervision of des	ther Engineering in 1999 and serves as Partner in design and construction of Thrasher Engineering	er in the ring site
opment, highway and bridges and airport projects in the ptroer in Thrasher Engineering, Inc. he also serves as Presrasher Engineering within the Resource Engineering Group, iates is a civil engineering firm focusing on site develc	Principal In- srkeley Associ ted in Martin	og en d en de d
EDUCATION (Degree, Year, Specialization:  B.S., Civil Engineering, 1992 - West Virginia University		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  MEMORICAN Society of Civil Engineers  Society of American Military Engineers  Mational Society of Professional Engineers	REGISTRATION (Type, Year, State)  Registered Professional Engineer (PE), West Virginia Registered Professional Engineer (PE), Pennsylvania Registered Professional Engineer (PE), Ohio	, State of State of State of State of

13. PER MAL HISTORY STATEMENT OF PR datnt keep to essentials)	PRINCIPALS AND ASSOCIATE SESPO	RESPONSIBLE FOR AML PROJECT DESIGN (Furnish compl	(Furnish comp)
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
GOLA, JEFFREY L.	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 10	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 10
Brief Explanation of Responsibilities Mr. the firm. He is responsible for hydrology aspects of highway, roads, bridges, airpor Gola is experienced directing the bidding overall budget of construction projects.	Gola joined Thrasher and hydraulic studies rts, site development process, drafting usi	ed Thrasher Engineering in 1998 and serves as Project Engineer ulic studies, structural design and erosion and sediment contidevelopment and community improvement projects. Additionally, drafting using both AutoCAD and Microstation and managing the	serves as Project Engineer for erosion and sediment control it projects. Additionally, Mr.
EDUCATION (Degree, Year, Specialization)  B.S., Civil Engineering Technology -	cion) gy - West Virginia University,	Summa Cum Laude 1998	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  Mannington Code Enforcement A	rions ers ent Appeal Board	REGISTRATION (Type, Year, State)  Registered Professional Engineer (PE),  West Virginia	State) Engineer (PE), State of
ERSONAL HISTORY STATEMENT OF ata but keep to essentials)	PRINCIPALS AND ASSOCIATES RESPC	RESPONSIBLE FOR AML PROJECT DESIGN	7 (Furnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
FLETCHER, SHEIRL	YEARS OF AML DESIGN EXPERIENCE: -23	YEARS OF AML RELATED DESIGN EXPERIENCE: 23	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: -
Brief Explanation of Responsibilities Sheirl Fletcher joined Thrasher Engin joining Thrasher, Sheirl served as Enand brings comprehensive knowledge of to our clients' projects, along with	eering, Inc. in 2007 vironmental Manager f environmental regul technical expertise	Snvironmental Ma   firm. She has   and reporting 1	nager for the firm. Prior to more than 20 years experience equirements in multiple states geology and hydrology
EDUCATION (Degree, Year, Specialization)	ion)		
🔲 B.S., West Virginia University, Morgantown,	WV - Bachelor	of Science- Geology	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	LIONS	REGISTRATION (Type, Year, St.	State) <b>NA</b>

11		
(Furnish compl.		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 23
ESPONSIBLE FOR AML PROJECT DESIGN (Furnish compl.	YEARS OF EXPERIENCE	YEARS OF AML RELATED DESIGN EXPERIENCE: 23
AND ASSOCIATE.		YEARS OF AML DESIGN EXPERIENCE:
PER AL HISTORY STATEMENT OF PRINCIPALS data but keep to essentials)	NAME & TITLE (Last, First, Middle Int.)	NEWBROUGH, KURT
13. PER date	NAME &	NEWBRO

Brief Explanation of Responsibilities Mr. Newbrough joined Thrasher Engineering in 1990 and is Principal and Partner in activities. Mr. Newbrough has extensive experience in all aspects of surveys, including but not limited to boundary He also serves in the and easement surveys and the preparation of plats and legal descriptions. Mr. Newbrough also performs courthouse the firm. Mr. Newbrough serves as Survey Supervisor and is responsible for assignment and review of all survey 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. elected position of Harrison County (WV) Surveyor.

EDUCATION (Degree, Year, Specialization)

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

rn
딸.
ਨ.
H
IIZATIONS
⋖
N
5
7
ORGAN
<u>~</u>
O
_
너
Ħ.
-
S
Ω
Ħ
Ξ.
$\tilde{\alpha}$
ቯ
IN PROFESSIONAL
Z
H
n.
Ħ
S
ŭ
Щ
씭
IEMBERSHI
₹

- West Virginia Association of Land Surveyors
  - American Congress on Surveying and Mapping
- Member Strathmore's Who's Who

# Year, State) (Type, REGISTRATION

Professional Land Surveyor (PS), West Virginia #1618 1995 單

OSHA Hazardous Waste Operations and Emergency Response

鬟

- US Department of Labor/Mine Safety and Health Center 29 CFR 1910.120
  - Administration

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.

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

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 AutoCAD Landdesktop 2008 and Microstation V8 software is utilized at 48 CAD stations throughout our locations.

Thrasher Engineering, Inc. also utilized top-of-the line survey equipment. Our survey work is accomplished with global (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: positioning systems

- 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
- Station Instrument Lecia 407 Total
  - Lecia 703 Total Station Instrument

MIGINEER OF RECORD: SITE DEVELOPMENT PROJECTS
SITE
RECORD:
Q
MGINEER
 - /
7
E DESIGN
THE DESIGN
IS THE DESIGN
FIRM IS THE DESIGNATE NGINEER OF
YOUR FIRM IS THE DESIGNATE.
YOUR F
YOUR F
ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGN

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, CONSTROYCTION 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	0	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	INTRAMEST 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. GRIFFITY, 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 APPROXIMATELY 40 MILLION)	CATELY 30 SITE DEVELOPMENT	TOTAL ESTIMATED - \$18,600,000.00 +	TED CONSTRUCTION COSTS:	

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

•				West Control of the C
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	809
GILMER COUNTY PSD DUSK CAMP WATER LINE EXTENSION GILMER COUNTY, WV	GILMER COUNTY PSD 232 W. MAIN STREET GLENVILLE, WV 26351	FEASIBLLITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$2,500,000	60%
HAMRICK PSD MOORE/PORIERWOOD 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	TOMN 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.	8 55 8
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 (APP ADDITIONAL CURRENTLY IN PRELIMINARY / DESIGN PHASES	ROXIM	CONSTRUCTION \$32,830,000.00 BESTIMATED COST (	CONSTRUCTIC REPRESENTED OF ALL JOBS	NN COSTS: APPROXIMATELY \$110,000,000.00

15. CUR NT ACTIVITIES	ON WHICH YOUR FIRM IS TH	HE DESIGNATE TNGINEER 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, 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, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$11,600,000	<b>45</b> % 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
TENNERTON PSD SANITARY SEWER EXTENSION UPSHUR COUNTY, WV	TENNERTON PSD 188 FAYETTE ST. BUCKHANNON, WV 26201	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$1,675,000.	75%
POCAHONTAS COUNTY PSD WWTP AND COLLECTION SYSTEM POCAHONTAS COUNTY, WV	POCAHONTAS COUNTY PSD HC 63 BOX 122 FRANK, WV 24920	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$11,600,000	30%
HEPIZIBAH PSD SANITARY SEWER EXTENSION HARRISON COUNTY, WV	ENLARGED HEPZIBAH DRAWER H HEPZIBAH, WV 26369	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, 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, 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	FEASIBLLITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$6,500,000.	50%
TOTAL NUMBER OF PROJECTS: TOTAL ACTIVE SANITRY SEWER	7 REPRESENTED R PROJECTS APPROXIMATELY 32	TOTAL	ESTIMATED CONSTRUCTION COSTS: \$70,300,000.0	\$70,300,000.00 \$150,000,000

15. CURT ACTIVITIES C	ON WHICH YOUR FIRM IS TH	HE DESIGNATE NGINEER 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	WVDOT/DOH 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	WYDOT/DOH 1900 KANAWHA BLYD EAST CHARLESTON, WV 25305	PRELIMINARY ENGINEERING, DESIGN, SURVEY	\$22,000,000.	75% - NEED FINAL COMMENTS / FINAL FIELD REVIEW
JAKES RUN BRIDGE MONONGALIA COUNTY, WV	WVDOT/DOH 1900 KANAWHA BLVD EAST CHARLESTON, WV 25305	PRELIMINARY ENGINEERING, DESIGN, SURVEY	\$1,300,000.	90% FINAL OFFICE REVIEW
MINERAL WELLS ROUTE 2 WOOD COUNTY	WYDOT/DOH 1900 KANAWHA BLYD EAST CHARLESTON, WY 25305	PRELIMINARY ENGINEERING, DESIGN, SURVEY	TBD - JUST AWARDED	JUST AWARDED
CITY OF RIPLEY - MAIN STREET REVITALIZATION - JACKSON CO.	CIIY 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.	806
ICG - THREE FORKS BRIDGE TAYLOR COUNTY	INTERNATIONAL COAL GROUP, INC. 2000 ASHLAND DRIVE ASHLAND, RY 41101	PRELIMINARY ENGINEERING, FINAL DESIGN, SURVEY, CONTRACT DOCUMENTS.	\$1,119,000.00	%06
TOTAL NUMBER OF PROJECTS: 6 (TOTAL IN FULL APPROXIMATELY APPROXIMATELY 40 MILLION)	RATELY 30 SITE DEVELOPMENT	TOTAL ESTIMATED - \$46,300,000. +	TED CONSTRUCTION COSTS:	

	STRUCTION COST	YOUR FIRMS RESPONSIBILITY	\$50,000,000.			
ERS	ESTIMATED CONSTRUCTION	ENTIRE PROJECT	\$220,000,000.			
A-CONSULTANT TO OTHERS	ESTIMATED COMPLETION DATE		2010			
NM IS SERVING AS A	NAME AND ADDRESS OF OWNER		US DEPARTMENT OF JUSTICE FEDERAL BUREAU OF PRISONS DESIGN AND CONSTRUCTION BRANCH 500 FIRST STREET NW WASHINGTON, DC 20534			
16. CURT MT ACTIVITIES ON WHICH YOUR FIRM IS	NATURE OF FIRMS RESPONSIBILITY		SITE DEVELOPMENT ENGINEERING DESIGN (GRADING/ STORM WATER/UTILITIES/ ROADS)			
16. CURT YT ACTIVIT	PROJECT NAME, TYPE AND LOCATION		MC DOWELL COUNTY FEDERAL PRISON WELCH, WV SITE DEVELOPMENT			

17. C LETED WORK WITHIN LAST	5 YEARS ON WHICH YOUR FIR.	AS THE DESIGNATED ENGINEER OF RECORD	۵	
	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	r dev Stree WV 2	\$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
NG- XIE NIY	NORTON-HARDING-JIMTOWN PSD P.O. BOX 87 SCOTT ROAD NORTON, WV 26285	\$1,000,000	2007	YBS
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

	5 YEARS ON WHICH YOU WERE THE DESIG	THE DESIGNATED ENGINEER OF RECORD		<u> </u>
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	1 1	YEAR	CONSTRUCTED (YES OR NO)
TOWN OF TUNNELTON, PRESTON COUNTY, WEST VIRGINIA;	TOWN OF TUNNELTON P.O. BOX 396 - BANK STREET TUNNELTON, WV 26444	\$2,630,000	2003	Yes
BUILDING COLLECTION SYSTEM AND AERATED LAGOON; SEWER LINES, MANHOLES, SANITARY LIFT STATIONS				
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, WY 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 SCOIT DEPOI, 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

	AR CONSTRUCTED (YES OR NO)	YES	YES	YES	YES	YES	YES	
	YEAR	2003	2004	2003	2004	2002	2003	
DESIGNATED ENGINEER OF RECORD		\$1,430,000	\$790,000	\$2,200,000	\$1,068,000	\$40,000	000,000\$	
YEARS ON WHICH YOU WERE THE	NAME AND ADDRESS OF OWNER	BARBOUR CO DEVELOPMENT AUTHORITY 124 N. MAIN ST. PHILIPPI, WV 26416	FAIRMONT INDUSTRIAL & CREDIT CORP 110 ADAMS STREET FAIRMONT, WV 26554	TOWN OF LUMBERPORT PO BOX 519 LUMBERPORT, WV 26386	RIVER ROAD PSD 179 OLD LOCK 13 ROAD MORGANTOWN, WV 26501	HUNDRED-LITTLETON PSD PO BOX 880 8 PENNSYLVANIA AVENUE HUNDRED, WV 26575	ROUTE 16 WATER CORP PO BOX 149 ST MARYS, WV 26170	
17. COMPLETED WORK WITHIN LAST 5		BELINGTON INDUSTRIAL PARK; DEVELOPMENT, CONCEPTUAL LAYOUT, AND DESIGN FOR INDUSTRIAL PARK	FAIRMONT INDUSTRIAL & CREDIT CORP; SITE WORK, UTILITIES, ROADWAY FOR PHASE II DEVELOPMENT	TOWN OF LUMBERPORT; REPLACEMENT OF A PORTION OF THE DISTRIBUTION SYSTEM AND WATER TANK	RIVER ROAD PUBLIC SERVICE DISTRICT; WATER LINE REPLACEMENT, EXTENSION AND STANDPIPE	HUNDRED-LITTLETON PUBLIC SERVICE DISTRICT; WATER LINE RELOCATION	RI 16 WATER CORPORATION; WATER LINE EXTENSION	

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

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 -CANAAN 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
TO THE THIS SDACE OF	POVITUE ANY ADDITIONAL INPOP	19 HISE THIS SPACE TO DECVIDE ANY ADDITIONAL INFORMATION OF DESCRIPCES SHIPDOPTING VOHIP FIRM S CHALLELONE TO	CTIDDORTI	MATH BIRMIS OF	TAT.TETCATTONS TO

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

	rs.	
	FACTS	
	Ā	
	Ö	`
•	MENT OF	
	TEM	\
	STATE	
	Ø.	
	SI	
	ഇ	
4	SING	
	)REG	`
	FOREGÓTNG	
	THE	
	Ŧ	
	20.	
J		

SIGNATURE: 1

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

DATE: OCTOBER 15, 2008

TITLE: VICE-PRESIDENT / CHIEF ENGINEER

WEST VIRGINIA AML CONSULTANT	NIA DEPARTMENT	ENVIRONMENTAL PROTECTION  2 UALIFICATION QUESTIONNAIRE	3 Attach ot "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 B 171 Montour Road Moon Township, PA	BUSINESS ADDRESS: 15108	3. FORMER FIRM NAME: NA
4. HOME OFFICE TELEPHONE: (412) 722-1970	5. ESTABLISHED: 2002	6. TYPE OWNERSHIP: Limited Liability Corporation	WV REGISTERED DBE: YES
7. PRIMARY AML DESIGN OFFICE: ADDRESS/ 806 B Street St. Albans, WV 25177 304-201-5180	TELEPHONE/ PE Office Man No. AML D No. AML D	2277	NEL EACH OFFICE:
inacito I		8a. NAME, TITLE, & TELEPHONE NUMBER -	- OTHER PRINCIPALS
9. PERSONNEL BY DISCIPLINE (Bold Lettering	ing Indicates Minimum Design	n Design Team Members)	
- ADMINISTRATIVE - ECOLOGISTS - ARCHITECTS - ECONOMISTS - BIOLOGIST - ECONOMISTS - CADD OPERATORS - ESTIMATORS - CHEMICAL ENGINEERS - ESTIMATORS - CIVIL ENGINEERS - ESTIMATORS - A CONSTRUCTION INSPECTORS - HISTORIANS - PESTGNERS - HYDROLOGISTS	OLOGISTS CONOMISTS ENCTRICAL ENGINEERS ENVIRONMENTALISTS TIMATORS GEOLOGISTS STORIANS DROLOGISTS	- LANDSCAPE ARCHITECTS - MECHANICAL ENGINEERS - MINING ENGINEERS - PHOTOGRAMMETRISTS - PLANNERS: URBAN/REGIONAL - SANITARY ENGINEERS 2 SOILS ENGINEERS - SPECIFICATION	STRUCTURAL ENGINEERS SURVEYORS TRAFFIC ENGINEERS 4 DRILLERS & HELPERS 5 OTHER PERSONNEL
הפסטווים דאמני קדע פא סמינוחדא	o detain'i And I ki		20 TOTAL PERSONNELL
**************************************	SIEKED PROFESSIONAL ENGINEERS and Mining must provide supportise type of work.	supporting documentation that qualifies	them to
·		Andrew Control of the	The second secon
10, HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE?	AEK BEFORE? YES		

Quesu maire" for each if copy is	not on file with AML	ראווסמדינמוור רטוודמפווביומיז המשיוו .ation
NAME AND LODRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	No WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIAL TV:	No WODERN UITHELL DEFORM
		WOMEN WILL DEFOND Vec
		3 2
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	OPECTAT TV.	No N
		WORKED WITH BEFORE
	*.	
NAME AND ADDRESS:	SPECIALTY:	BFORE
		Yes
		Ño
		TO THE RESIDENCE OF THE PARTY O

(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. NGE specializes in Geotechnical Engineering including foundation investigations, subsurface investigations, cut d any AML design work to date, but our WV Office .anager design, mine subsidence investigations, geologic studies, groundwater seepage analysis, foundation design, retaining wall design, pavement design, subsurface drilling and monitoring well installation. NGE has preformed a total of several hundred geotechnical engineering related projects since the company was formed While our firm has not performed any hydrology/hydraulics projects to date, our personnel have experience with slope design, fill embankment analysis and design, slope stability analysis, landslide analysis and corrective (Include any experience your firm has in Does your firm produce its own Aerial Photography and Develop Contour Mapping? Is your firm experienced in domestic waterline design? (evaluation of aquifer degradation as a result of mining.) Is your firm experienced in hydrology and hydraulics? hat Novel Geo-Environmental (NGE) has not perfor Is your firm experienced in Soil Analysis? NO: While our fi former employers. S 02 ĸ Ä ğ

data t keep to essentials) NAME & Thous (bast, First, Middle Int.)		YEARS OF EXPERIENCE	1 Among 11 11 11 11 11 11 11 11 11 11 11 11 11
Nottingham, John, E.	YEARS OF AML DESIGN EXPERIENCE: 12	XEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOWESTIC WATERLINE DESIGN EXPERIENCE: 0
Brief Explanation of Responsibilities			
Mr. Nottingham was responsible for supervising fiprojects for the WVDBP while under the employment projects, Mr. Nottingham was involved in subsider Mr. Nottingham worked extensively on "emergency" designs.	eld loe proj	numerous AMI Inc. In addi igations and quick field	related landslide abatement tion to landslide abatement subsidence abatement projects. investigations and corrective
EDUCATION (Degree, Year, Specialization) Bachelor of Science in Civil Engineering Masters of Science in Civil Engineering,	ion) cing, 1987, WVU, Specialization ing, 1995, WVU, Specialization	- Civil and Geotechnical - Geotechnical Engineerin	Bngineering
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS American Society of Civil Bngineering (A West Virginia Chapter of AIA	CONS.	REGISTRATION (Type, Year, St. Professional Engineering, 19 Professional Engineering, 20 Professional Surveyor, 1996,	State) 1994, WV 2007, VA 96, WV
13. PERSONAL HISTORY STATEMENT OF PRI data but keep to essentials)	PRINCIPALS AND ASSOCIATES RESPON	RESPONSIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (bast, First, Middle Int.)		YEARS OF EXPERIENCE	
Montgomery, Charles, E.	YEARS OF AML DESIGN EXPERIENCE: 10	YEARS OF AML RELATED DESIGN EXPERIENCE: 4	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0
Brief Explanation of Responsibilities	With the second		
Mr. Montgomery was responsible for co while employed with Triad Engineering work involving subsidence determinati	ible for coordinating field activities for AML landslide Engineering, Inc. Mr. Montgomery has also participated i determinations/abatement and impounded mine pools.		abatement projects for the WVDEP n all project phases for other AML
EDUCATION (Degree, Year, Specialization)	ion		
Bachelor of Science, Geology, 1991, M	Marshall University		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS Association of Engineering Geologists Geological Society of America	SNOI	REGISTRATION (Type, Year, Stat Professional Geologist, 1999,	State) 99, Kentucky

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 Dr. Nottingham planned and supervised several AML investigation and reclamation projects for WVDEP while employed by 13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0 YEARS OF DOMESTIC Civil Engineering, West Virginia Institute of Technology WATERLINE DESIGN EXPERIENCE: Bachelor of Science in Civil Engineering, 1965, Civil Engineering, West Virginia Institute of Te Master of Science in Civil Engineering, 1966, Geotechnical Engineering, University of Pittsburgh REGISTRATION (Type, Year, State) REGISTRATION (Type, Year, State, Professional Engineer, 1985, OH Professional Engineer, 1969, WV Professional Engineer, 1985, 2006, YEARS OF AML RELATED DESIGN YEARS OF AML RELATED DESIGN EXPERIENCE: 5 Engineer, YEARS OF EXPERIENCE YEARS OF EXPERIENCE Doctor of Philosophy, 1975, Geotechnical Engineering, University of Florida Professional EXPERIENCE: YEARS OF AML DESIGN EXPERIENCE: YEARS OF AML DESIGN EXPERIENCE: Member, National Society of Professional Engineers Member, American Society of Civil Engineers MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS EDUCATION (Degree, Year, Specialization) EDUCATION (Degree, Year, Specialization) Brief Explanation of Responsibilities Brief Explanation of Responsibilities NAME & TITLE (Last, First, Middle Int.) NAME & TILLE (Last, First, Middle Int.) data but keep to essentials) : keep to essentials) Nottingham, Larry C. investigations. data

אדמוווסס וופדוודח וו איסירפטים רספיססעה חווש עסה שחסייפאיסבטי

FRANCESTA CHARACALANTA

TO TWOMBINTO TYPICTE OF

LO. FRKO

14. PROVI A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN T 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.
Blectric concrete coring drill.
CSTABL - Slope Stability Analysis, LPILE Plus 4.0 - Pile Foundation Analysis, , ReSSA 2.0 - Reinforced Soil Slope Analysis, ReSlope 3.0 - Reinforced Soil
Soil Laboratory Equipment: Soil Oven, Scales, Sieves, Liquid and Plastic Limits Machine

16. CURK, C ACTIVITY	CACTIVITIES ON WHICH YOUR FIRM	M IS SERVING AS A	-CONSULTANT TO OTHERS	IRS	
PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONS	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, 20008	Unknown	Fee ≈ \$17,000
Harrison Co. BMS Station, Geotechnical Investigation, Clarksburg, WV	Determine Site Subsurface Conditions, Provide Foundation Design Recommendations	Harrison Co. EMS Clarksburg, WV		Unknown	Fee \$4000
Corridor H Highway Construction, Quality Control Testing, Grant Co., WV	Perform soil compaction and concrete quality control tests.	HHH	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

23327		Contract Con		***************************************	Carlotter (broken) - State (con )	WOODS CONTRACTOR AND AND	
	(YES OR NO)	Correction of the Correction o			Company to the state of the sta		
	YEAR	2003					
AS THE DESIGNATED ENGINEER OF RECORD	ESTIMATED CONSTRUCTION COST	\$30,000					
ETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRE	NAME AND ADDRESS OF OWNER	Greenbrier Sporting Club, White Sulphur Springs, WV					
17. CO' ETED WORK WITHIN LAST	Ph. JECT NAME, TYPE AND LOCATION						

18. C PLETED WORK WIT	WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)	HAS BEEN A	SUB-CONSULTANT TO	O OTHER FIRMS	(INDIC: PHASE
	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	.5.1	\$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	HWB Professional Engineers, Inc.
Water Tanks, Geotechnical Investigation, Iager, WV	Iager PSD Iager, WV	\$100,000	2006	Yes	Stafford Consultants
5 <sup>th</sup> Avenue Bridge, Geotechnical Investigation, Huntington, WV	tment of	\$2,500,000	2003	Yes	Modjeski & Masters, Charleston, WV
19. Use this space to qualifications to	provide any additional perform work for the We	information or description of rest Virginia Abandoned Mine Lands	Program	supporting your	firm's
20. The foregoing is Signature: 4/2 2	a statement of facts  (	Title: Vice Pres	President	Date: 3/3/	60

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

			AMI	and RI	LATE	) PROJI	ECT EXP	ERIEN	AML and RELATED PROJECT EXPERIENCE MATRIX	RIX										\ 		
							   BR	JECT E	PROJECT EXPERIENCE REQUIREMENTS	NCE R	EQUIRE	MENTS	***************************************				-	PARTICIPATION/CAPACITY	PATION	CAPACI	_	
-																		M-M	M=Management		P=Professional	ionai
РВОЈЕСТ	Exp. Basis C=Corp. P=Pursonal	Additional Info Provided in Section (s)	Abandoned Surface Mine Reclamation	qəəQ bənobasdA noitsmsləəA əniM	enusolO flarf2\latro9	Hydrologic/Hydraulic Design/Eval.	Remining Evaluation	Althershering Fire the statement of the	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications Water Quality	Evaluation/Nitigation/ Replacement Construction	emegansM\noitoeqanl tn	Water Treatment	Eq;ulpment/Structure Removal	Stream Restoration	Qeotechnical/Stability	Ken Moran, P.E.	Chadwick Biller, P.E.	Sheirl Fletcher Kurt Newbrough	Jeffrey L. Gola, P.E.	medneQ noxeA
WV NATIONAL CEMETERY	O	န				×			×		×		×					2	<u> </u>	2		Σ.
FAIRMONT STATE UNIVERSITY	၁	8				×			×		×		×				1480(h		a.	Σ	- d	WP
GLENVILLE PRISON	0	3				×			×		×		×					****   ****   ****	α.			
CANAAN PHISON	0	3				×			×		×		×					×	C.	Σ	<u> </u>	
INDIAN RIDGE INDUSTRIAL PARK	ပ	3				×			×		×		×			×	Vervier	M	<b>Q.</b>	Ŋ	Ą	X
BELINGTON INDUSTRIAL PARK	ဝ					×			×		×		×				1934(1)	M	Q.	M	, P	W
MINGO COUNTY INDUSTRIAL PARK	ပ	3				×			×		×		×				\$139AB	M		W	<b></b>	×
MARTINKA COAL COMPANY	ပ	8				×					×		×					W		Σ		
CONSOL COAL COMPANY	6	3		×	×	×					×			×			MARK			Σ.		
WV DEP AMHERSTDALE	ပ	8									×			×			6868	¥		M	70.05 70.05	
ROBERT C. BYRD IND. PARK	9	3	×			×					×		×				4345A	M	a.	W		Σ
HARRISON CO. BUS./IND. PARK	C	8	×			×					×		×				\$435G	N.	d.	W		
WHITE OAKS BUSINESS PARK	ပ	3	×			×					×		×		************		200,000		<u> </u>	2 0	d.	2
		,	:										, and the same of	,	, , , , , , , , , , , , , , , , , , ,							

<sup>\*</sup>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

## **VENDOR OWING A DEBT TO THE STATE:**

West Virginia Code §5A-3-10a provides that: 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.

## PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:

West Virginia Code §21-1D-5 provides that: Any solicitation for a public improvement construction contract shall require each vendor that submits a bid for the work to submit at the same time an affidavit that the vendor has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code. A public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the West Virginia Code may take place before their work on the public improvement is begun.

### **ANTITRUST:**

In submitting a bid to any agency for the state of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, self, assign or transfer to the state of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the state of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the state of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

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

#### LICENSING:

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

### CONFIDENTIALITY:

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

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

Vendor's Name: THRASHER ENGINEERING, / INC	•
Authorized Signature: Linus Ling Ja	Date: OCTOBER, 15,2008
Purchasing Affidavit (Revised 07/01/08)	