

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

Request for ______ Quotation

DEP14390

1

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

ENVIRONMENTAL PROTECTION DEPARTMENT OF OFFICE OF AML&R 601 57TH STREET SE CHARLESTON, WV

25304

304-926-0499

RFQ COPY TYPE NAME/ADDRESS HERE

THRASHER ENGINEERING, INC. 30 Columbia Blvd. Clarksburg, WV 26301

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30 Columbia Boulevard P.O. Box 1532 Clarksburg, WV 26301 www.thrashereng.com (304) 624•4108 Fax: 624•7831 thrasher@thrashereng.com

September 18, 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 Island Creek #18 Mine Complex Design Requisition # DEP14390

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 services for the Island Creek #18 Mine Complex Design project in Logan County. 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 recently went to construction bid.

WV DEP 14390 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.

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

FIRM PROFILE

THRASHER ENGINEERING, INC.

Established

1983

Officers

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

Vice-President

Kurt L. Newbrough, P.S.

Secretary / Treasurer

Partners

Wm. Randy Watson Chadwick Biller, P.E. Chad Riley, P.E. Clay P. Riley, P.E.

Daniel E. Ferrell, P.E.

Public Utilities

President

Site Development / Highways / Airports

Site Development **Public Utilities**

Public Utilities



Officers

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

President Vice-President

Secretary / Treasurer



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

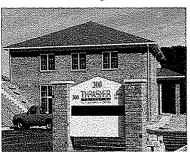
300 Association Drive, Charleston, WV - Thrasher Environmental

3000 Thayer Center, Oakland, MD

Martinsburg, WV - The Berkeley Associates- Affiliate Princeton, WV - Pentree, Incorporated - Affiliate



Thrasher Engineering, Inc. Office -Clarksburg, WV



Thrasher Environmental, Inc. Office Charleston, WV

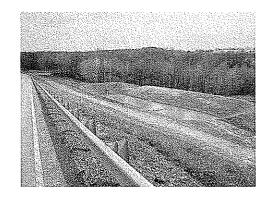
STATEMENT OF QUALIFICATIONS

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.



Storm water Pond, Canaan Federal med in the variety of Prison, Scranton, PA

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 Island Creek #18 Mine Complex Design Services project include:

SITE DEVELOPMENT

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

Our objective in site development engineering is to go beyond just the engineering aspect of the project; we work as a team with our clients to understand their present and future needs. With

that information, we work with them to evaluate site locations that best suit their short and long-term goals.

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 the best use of land available; design of off-site and on-site (underground) utilities including water service, sanitary sewer service, storm drainage facilities, telephone services, 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 permits, as well as any local permits required; roadway design; layout of industrial lighting; and construction management services to assure compliance with design. Our site development experience includes the engineering design and construction management of three business and industrial parks on abandoned mine lands, which include: Robert C. Byrd Industrial Park in Hardy County and the Harrison County Business and Industry Park and White Oaks Business Park, both in Harrison County.

<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 Pollutant Discharge Elimination System (NPDES) permits for point source and storm water discharges.

Capabilities in the evaluation and design of storm water drainage include:

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



ENVIRONMENTAL REPORTING SERVICES

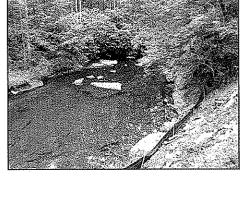
Thrasher Engineering, Inc.'s Charleston, West Virginia office provides full environmental assessment and clearance services. We have more than 18 years of experience conducting environmental/natural resource compliance consultation with West Virginia Division of Environmental Protection, (WVDEP), Federal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

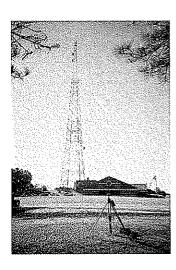
Experience includes:

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

SURVEY

In addition to a full service professional engineering staff, Thrasher Engineering maintains a complete surveying department which includes four licensed professional land surveyors, ten fulltime 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

<u>Boundary Surveys</u> - 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.

<u>Topographic Surveys</u> - 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 are 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 provides one of the largest networks of computer aided design (CAD) equipment, software and trained personnel in the State of West Virginia.

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

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

FIRM MANAGEMENT AND STAFFING

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

FIRM OFFICERS AND PARTNERS

H. Wood Thrasher, P.E. - President Kenneth P. Moran, P.E. - Vice-President Kurt L. Newbrough, P.S. Wm. Randy Watson Chadwick Biller, P.E. Chad Riley, P.E. Clay P. Riley, P.E. Daniel E. Ferrell, P.E. Administration
Chief Engineer
Survey / Inspection / Testing
Public Utilities
Site / Highways /Airports
Site Development
Public Utilities
Public Utilities

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

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

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

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 Island Creek project. The staff includes:

Ken 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.

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 40 inspectors are available to provide services for the project.

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
- 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 5th Street Bridge, Parkersburg Rehabilitation of the 35th and 36th 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 in directing the bidding process, drafting using both AutoCAD and Microstation and managing the overall budget of construction projects.

PROJECT EXPERIENCE

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

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

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

EXPERIENCE:

Environmental Management and Safety Compliance

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

Geology

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

Hydrology

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

EDUCATION/TRAINING:

- West Virginia University, Morgantown, WV Bachelor of Science- Geology
- Additional Training
- Contemporary Supervision
- Conflict Management
- Influence Management

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 Justic
- 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

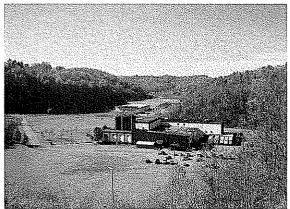
1967 – 1970

Project Engineer - Ackenheil & Associates. Inc.

RELATED PRIOR 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 Island Creek #18 AML project

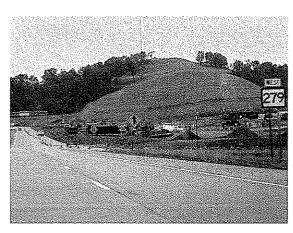
<u>SITE DEVELOPMENT PROJECTS – SEDIMENT AND EROSION MEASURES</u>



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 purposes.

Belington Industrial Park

Client:

Barbour County
Office for Economic

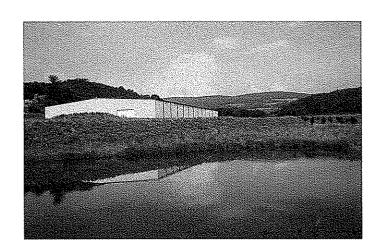
Development

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.

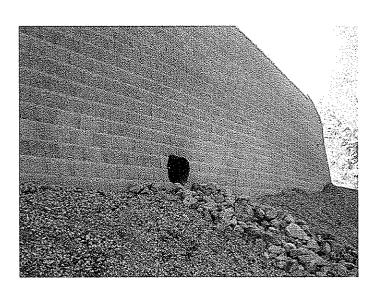
West Virginia National Cemetery

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.

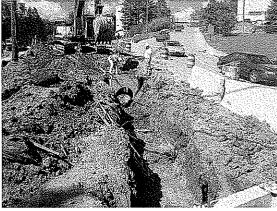
Fairmont State University

Client:

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



Thrasher Engineering is providing civil engineering services throughout the Fairmont State University campus within the scope of FSU's 10-year \$10 million master plan for infrastructure improvements. This



portion of the project included storm water management during and after construction. During the construction phase erosion and sediment control was contained by installing silt fence, water

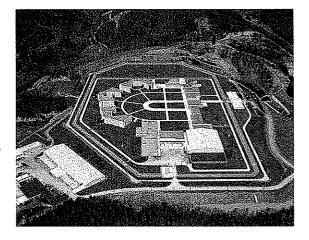
barriers, temporary sediment traps, inlet protection, diversion ditches and utility matting. The final site improvements contain swales, ditches, vegetation, landscaping and culverts to control the storm water and limit the pollution from the site. Ditches are protected from erosion and all unpaved areas are stabilized with vegetation.

Glenville Correctional Institution, Gilmer County, West Virginia

Client:

Federal Bureau of Prisons 202-514-6461

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



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

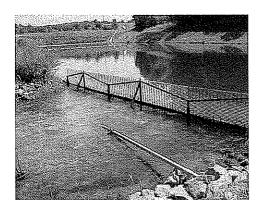
This project consisted of the design of a 17.3 MGD Water Treatment Plan to blend mine borehole water with acid mine drainage; the plan removes iron (1000 mg/l (ferric hydroxide) to less than 1 mg/l.

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., DEE, Project Engineer was rewarded the following for the project:

- □ 2002 WV ACEC Gold Award Engineering Excellence
- 2002 WV Manufacturer's Association Environmental Leadership Award for Innovative Technology



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 include:

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

Martinka Coal Company

Client:

Martinka Coal Company Gary Timms, Project Manager

304-366-5516

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

Critical land survey components consisted of the following:

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

Martinka Coal Company - Fairmont, WV

Client:

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

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

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

PROJECT APPROACH

To develop a full understanding of the WV DEP's needs for this project, Thrasher Engineering, Inc.'s representatives have developed the following project approach to demonstrate our technical abilities and straight forward method of design and construction.

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

Step #1 Obtain adequate mapping.

The limits of construction will be flown and digitally mapped or if the area is small enough field 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 Install piezometers and/or core borings.

This is the only step in the design process that will be completed by Novel Geo-Environmental. Novel will be responsible to determine water and pavement elevations in mine portals. Novel is already providing this service to the WVDEP in a separate statewide contract.

Step #3 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 #4 Prepare for construction.

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

Step #5 Construct the project.

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

IW .		NIA DEPARTMENT	·	ENVIRONMENTAL PROTECTION	Now the substitute of the
ME EK #18 MINE	COMPLEX DESIGN- Sept	Y		•	
I. FIRM NAME THRASHER ENGINEERING, INC.		2. HOME OFFICE E 30 COLUMBIA BLVI 26301	HOME OFFICE BUSINESS ADDRESS COLUMBIA BLVD., CLARKSBURG, WV 01	3. FORMER FIRM NOT APPLICABLE	NAME
4. HOME OFFICE TELEPHONE 304-624-4108	5. ESTABLISHED 1983	ISHED (YEAR	6. TYPE OWNERSHIP Individual Cor Partnership Joi	Corporation X (Dis Joint-Venture Ente	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) NO X
7. PRIMARY AML DESIGN OFFICE: ADDRESS 30 COLUMBIA BLVD, CLARKSBURG, WV 300 ASSOCIATION DRIVE, CHARLESTON	ADDRESS/ URG, WV / ARLESTON,	TELEPHONE/ PERSON 304-624-4108 / KEN WV / 304-343-7601	FE -	V CHARGE/ NO. AML DESIGN PERSONNEL EACH STH P. MORAN, P.E., VICE PRESIDENT / 12 JONATHAN CARPENTER, MANAGING PARTNER /	ACH OFFICE 12 R / 2
3. 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	RS OF FIRM	8a. NAME, TITLE, & TELEPHONE NU WM. RANDY WATSON -304-624-4108 CHAD BILLER, P.E304-624-4108 CHAD M. RILEY, P.E304-624-4108 CLAY P. RILEY, P.E304-624-410 DANIEL E. FERRELL, P.E304-32), & TELEPHONE NUMBER - OTH N -304-624-4108 - PARTNER E304-624-4108 -PARTNER E304-624-4108 - PARTNER P.E304-624-4108-PARTNER E304-624-4108-PARTNER E304-624-4108-PARTNER	OTHER PRINCIPALS IER IR INER IER - PARTNER
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22 ADMINISTRATIVE 3 ARCHITECTS — BIOLOGIST 27 CADD OPERATORS — CHEMICAL ENGINEERS 26 CIVIL ENGINEERS 36 CONSTRUCTION INSPECTORS — DESIGNERS — DEAFTSMEN	- ECOLOGISTS - 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/REGI 5 SANITARY ENGINEERS 5 SPECIFICATION WRITERS	1 477 477 0NAL 170	STRUCTURAL ENGINEERS SURVEYORS TRAFFIC ENGINEERS OTHER TOTAL PERSONNEL
TOTAL NUMBER OF WV REGISTERED *RPEs other than Civil and Mini supervise and perform this typ	ISTERED PROFESSI and Mining must this type of wor	OFESSIONAL ENGINED INTO THE SUPPLICATION OF WORK.	PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: .ng must provide supporting documentation .e of work.	14 that qualifies	them to
10. HAS THIS JOINT-VENTURE WO	WORKED TOGETHER	BEFORE?	U YES U NO <u>NOT</u>	APPLICABLE	

11. OUT E KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO Quebonnaire".	NTS ANTICIPATED TO USED. Attach "AML Consultant	nsultant Confidential Qual cation
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
NOVEL GEO-ENVIRONMENTAL 1116 Smith Street, Suite 312	GEO-TECHNICAL SERVICES	X Yes
Charleston, WV 25301 304-340-7050		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
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- GEOLOGIST, HYDROLOGIST AND ENVIRONMENTAL SPECIALIST WITH CONSOL ENERGY. PROJECTS INCLUDED THE ENGINEERING AND FINAL COMPANIES. ADDITIONALLY THRASHER ENGINEERING, INC.'S CHARLESTON, WEST VIRGINIA OFFICE WAS AWARDED TWO WATER LINE PROJECTS FOR AML AFFECTED AREAS IN 2005. THESE PROJECTS WERE THE AMHERSTDALE PROJECT AND THE RAGLAND PROJECT IN INVOLVING LAND REMEDIATION, STORM WATER DRAINAGE, SLIP REPAIR AND MASS GRADING IN RELATION TO SITE DEVELOPMENT, THRASHER ENGINEERING SURVEY DEPARTMENT HAS PERFORMED SERVICES FOR PRE AND POST MINE SUBSIDENCE FOR MAJOR COAL LER ENGINEERING HAS PERFORMED NUMEROUS PROJECTS WATER LINE AND SANITARY SEWER PROJECTS. OUR DESIGN TEAM ENVIRONMENTAL MANAGER HAS 23 YEARS OF EXPERIENCE AS RECLAMATION OF THE BLACKSVILLE NO.1D, PURSGLOVE, ARKWRIGHT, OSAGE AND HUMPHREY MINES IN MONONGALIA COUNTY Engineering? Remediation/Mine Reclamation THR Is your firm experienced in Abandoned Mine Lan Description and Number of Projects: / LOGAN COUNTIES. MINGO
- SOIL ANALYSIS EXPERIENCE IS SPECIFICALLY IN GRADATIONS AND CLASSIFICATION THRASHER ENGINEERING MAINTAINS A MATERIALS TESTING AND WE PERFORM THESE SOIL ANALYSES ON ALL OUR PRIVATELY FUNDED SITE DEVELOPMENT PROJECTS. Is your firm experienced in Soil Analysis? Description and Number of Projects: ANALYSIS LAB AT ITS CLARKSBURG, WV OFFICE. m m
- OUR TEAM ENVIRONMENTAL MANAGER PARTICIPATED IN THE ENGINEERING THROUGH OUR WORK IN THE PLANNING AND DESIGN OF BRIDGES FOR THE WEST VIRGINIA DEPARTMENT OF HIGHWAYS AND WATER LINE EXTENSION PROJECTS, THRASHER ENGINEERING HAS EXTENSIVE EXPERIENCE IN HYDROLOGY. WE ALSO HAVE EXTENSION EXPERIENCE IN HYDRAULIC MODELING FOR WATER AND WASTEWATER PROJECTS THROUGHOUT WEST VIRGINIA. RELATIONSHIP TO ONE ANOTHER AND TO ADJACENT MINING OPERATIONS. SHE ALSO WAS INVOLVED IN THESTRATEGIC 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 INTER-Is your firm experienced in hydrology and hydraulics? AACID MINE DRAINAGE TREATMENT FACILITIES AND PLANT DESIGN. AND ENVIRONMENTAL PERMITTING OF THE FINAL ABANDONMENT Description and Number of Projects: ပ
- INC. WHICH IS AN AFFILIATE COMPANY OF THRASHER ENGINEERING INC. THROUGH THE RESOURCE ENGINEERING GROUP Does your firm produce its own Aerial Photography and Develop Contour Mapping? YES Description and Number of Projects NO WE UTILIZE THE SERVICES OF NUMEROUS FIRMS, INCLUDING PENTREE, INC. WH HOLDING COMPANY.
- 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: <u>DESCRIPTION A</u> Is your firm experienced in domestic waterline design? 떱.

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

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

Description and Number of Projects: OUR TEAM ENVIRONMENTAL MANAGER PARTICIPATED IN THE ENGINEERING AACID MINE DRAINAGE TREATMENT FACILITIES AND PLANT DESIGN. IN ADDITION,THRASHER ENVIRONMENTAL, THE CHARLESTON WV RELATIONSHIP TO ONE ANOTHER AND TO ADJACENT MINING OPERATIONS. SHE ALSO WAS INVOLVED IN THESTRATEGIC PLACEMENT 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-BRANCH OF OUR COMPANY DESIGNED AN AWARD WINNING WATER TREATMENT PLANT FOR MARTINKA MINES IN MARION COUNTY, WEST VIRGINIA TO TREAT DRAINAGE.

13. PER AL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATE ESI date out keep to essentials)	ESPONSIBLE FOR AML PROJECT DESIGN (Furnish compl
ITLE (Last, Fir	YEARS OF EXPERIENCE
YEARS OF AML DESIGN EXPERIENCE: 5	YEARS OF AML RELATED DESIGN YEARS OF DOMESTIC EXPERIENCE: 15 EXPERIENCE: 22
Brief Explanation of Responsibilities Mr. Moran joined Thrasher Engineering in 1991 and currently serves responsible for feasibility studies and design of public utility p state, federal and private clients. Additionally, Mr. Moran has ex with funding and regulatory agencies in conjunction with projects.	es as Vice President and Chief Engineer. Mr. Moran 'projects (sanitary sewer, water and storm water) extensive experience in all aspects of engineering
EDUCATION (Degree, Year, Specialization) B.S., Civil Engineering	ing Technology, 1983 - Fairmont State University
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS Friendship Lodge No.56 A.F. & A.M. WV Society of Professional Engineers Member of American Society of Civil Engineers	REGISTRATION (Type, Year, State) Registered Professional Engineer (PE), State West Virginia Registered Professional Engineer (PE), State
	Virginia Registered Professional Engineer (PE), State Ohio
	■ Professional Land Surveyor (PS), State of West Virginia
HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES keep to essentials)	RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete
NAME & TITLE (Last, First, Middle Int.)	
BILLER CHADWICK D. P.E. EXPERIENCE: -	YEARS OF AML RELATED DESIGN YEARS OF DOMESTIC EXPERIENCE: 15 EXPERIENCE: 15
ief Explanation of Responsibilities: Mr. Biller joined Thras.rm. Mr. Biller's paramount responsibility is supervision of velopment, highway and bridges and airport projects in the procession.	ring in 1999 and serves as Partner in construction of Thrasher Engineering Principal In-Charge and Project Manag
a Partner in Thrasher Engineering, Inc. he also serves as President of Thrasher Engineering within the Resource Engineering Group, Inc. Associates is a civil engineering firm focusing on site development	ent of Berkeley Associates, Inc, an affiliate company nc. Located in Martinsburg, West Virginia, Berkeley ent for commercial and residential developments
EDUCATION (Degree, Year, Specialization: B.S., Civil Engineering, 1992 - West Virginia University	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS Machican Society of Civil Engineers Society of American Military Engineers National Society of Professional Engineers	REGISTRATION (Type, Year, State) Registered Professional Engineer (PE), State West Virginia Registered Professional Engineer (PE), State Pennsylvania Registered Professional Engineer (PE), State Ohio

13. PER AL HISTORY STATEMENT OF PR dat ut keep to essentials)	PRINCIPALS AND ASSOCIATE ESPO	ESPONSIBLE FOR AML PROJECT DESIGN	(Furnish compl
		YEARS OF EXPERIENCE	
O/I	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 y and hydraulic studies orts, site development g process, drafting usi	n 1998 and serves design and erosion improvement projection and Microstatio	as Project Engineer for and sediment control cts. Additionally, Mr.
EDUCATION (Degree, Year, Specialization B.S., Civil Engineering Technology -	tion) y - West Virginia University,	Summa Cum Laude 1998	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS Merican Society of Civil Engineers City of Mannington Code Enforcement A	rions ers ent Appeal Board	REGISTRATION (Type, Year, State) Registered Professional Engineer West Virginia	ite) gineer (PB), State of
13. PERSONAL HISTORY STATEMENT OF PR data but keep to essentials)	PRINCIPALS AND ASSOCIATES RESPO	RESPONSIBLE FOR AML PROJECT DESIGN	(Furnish complete
		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 En and brings comprehensive knowledge of to our clients' projects, along with	eering, Inc. in 2007 vironmental Manager f environmental regul technical expertise	invironmental Ma L firm, She has and reporting r	nager for the firm. Prior to more than 20 years experience equirements in multiple states geology and hydrology
EDUCATION (Degree, Year, Specialization)	cion)		
☐ B.S., West Virginia University,	Morgantown, WV - Bachelor	of Science- Geology	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	rions	REGISTRATION (Type, Year, Sta	State) NA

(Furnish compl ESPONSIBLE FOR AML PROJECT DESIGN PRINCIPALS AND ASSOCIATE. AL HISTORY STATEMENT OF data but keep to essentials) 13. PER.

YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 23 YEARS OF AML RELATED DESIGN YEARS OF EXPERIENCE EXPERIENCE: YEARS OF AML DESIGN EXPERIENCE: NAME & TITLE (Last, First, Middle Int.) NEWBROUGH, KURT

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 clientele in conjunction with Thrasher Engineering projects as well as separate contracts. 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 elected position of Harrison County (WV) Surveyor.

EDUCATION (Degree, Year, Specialization)

- Surveying John Tyler Community College, Chester, VA
 - United Career Center, Clarksburg, WV
- MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS
 - West Virginia Association of Land Surveyors American Congress on Surveying and Mapping
 - Member Strathmore's Who's Who

Professional Land Surveyor (PS), West Virginia #1618 Year, State) REGISTRATION (Type, 臘

OSHA Hazardous Waste Operations and Emergency Response 1995

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

Administration

14. PRO E A LIST OF SO DESIGN SERVICES Thrasher Engineering, Inc. will design work for AML utilizing one of the largest networks of computer aided design (CAD) equipment, software and trained personnel in the State of West Virginia.

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

NGINEER OF RECORD: SITE DEVELOPMENT PROJECTS
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PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION	PERCENT COMPLETE
NICHOLAS COUNTY BUSINESS PARK, NICHOLAS COUNTY, WV SITE DEVELOPMENT	NICHOLAS CO BLDG COMMISSION 700 MAIN STREET, SUITE 1 SUMMERSVILLE, WV 26651	SITE DEVELOPMENT DESIGN (LAND PLANNING, GRADING, UTILITIES) SURVEY, CONST. MGT, MATERIALS TESTING	\$2,500,000.00	45%
MID ATLANTIC AEROSPACE COMPLEX STORMWATER PROJECT HARRISON COUNTY, WV	MID-ATLANTIC AEROSPACE COMPLEX, INC. (MAAC) NORTH CENTRAL WEST VIRGINIA AIRPORT CROSSWIND INDUSTRIAL PARK SAC BUILDING, 2ND FLOOR BRIDGEPORT, WV 26330	ENGINEERING DESIGN FOR STORM WATER SYSTEM AT BENEDUM INDUSTRIAL PARK - DESIGN, SURVEY, CONSTRUCTION MANAGEMENT AND INSPECTION. MATERIALS TESTING	\$1,500,000.00	25%
RITCHIE COUNTY BUSINESS PARK SITE DEVELOPMENT RITCHIE COUNTY	RITCHIE COUNTY ECONOMIC DEVELOPMENT AUTHORITY 217 WEST MAIN STREET HARRISVILLE, WV 26362	SITE DEVELOPMENT DESIGN (LAND PLANNING, GRADING, UTILITIES) SURVEY, CONST. MGT, MATERIALS TESTING	\$2,000,000.00	15%
WHITE OAKS BUSINESS PARK SITE DEVELOPMENT AND UTILITIES HARRISON COUNTY, WV	HIGH TECH CORRIDOR DEVELOPMENT, LLC MR. JACK KEELEY PO BOX 1532 CLARKSBURG, WV 26302	SITE DEVELOPMENT DESIGN (LAND PLANNING, GRADING, UTILITIES) SURVEY, CONST. MGT, MATERIALS TESTING	\$12,100,000.00	40%
INTRAWEST CORPORATION SNOWSHOE MOUNTAIN RESORT POCAHONTAS COUNTY, WV SITE DEVELOPMENT	INTRAWEST RESORIS, 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)	MATELY 30 SITE DEVELOPMENT	TOTAL ESTIMATED	TED CONSTRUCTION COSTS:	

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

PROTECT NAME TYPE AND	NAME AND ADDRESS OF	NATURE OF YOUR FIRM'S	ESTIMATED CONSTRUCTION	PERCENT COMPLETE
ON	.	PONSIBIL.		
CHESTNUT RIDGE PSD BARBOUR/PRESTON EXTENSION BARBOUR COUNTY, WV	CHESINUT 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	4 0 %
JESSICA LYNCH WATER LINE EXTENSION WIRT COUNTY, WV	TWN OF ELIZABETH 200 BEVERLY SIREET P.O. BOX 478 ELIZABETH, WV 26143	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$3,600,000	60%
GILMER COUNTY PSD DUSK CAMP WATER LINE EXTENSION GILMER COUNTY, WV	GILMER COUNTY PSD 232 W. MAIN STREET GLENVILLE, WV 26351	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$2,500,000	60%
HAMRICK PSD MOORE/PORTERWOOD EXTENSION TUCKER COUNTY, WV	HAMRICK PSD PO BOX 228 HENDRICKS, WV 26271	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$1,100,000.	25%
CITY OF CAMERON WATER STORAGE TANK MARSHALL COUNTY, WV	CITY OF CAMERON 44 MAIN STREET CAMERON, WV 26033	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$200,000.00	95%
TOWN OF ROWLESBURG WATER TREATMENT PLANT/ EXT. PRESTON COUNTY, WV	TOWN OF ROWLESBURG PO BOX 458 42 POPLAR STREET ROWLESBURG, WV 26425	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$4,500,000.	8 55 %
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 (APPIADDITIONAL CURRENTLY IN PRELIMINARY / DESIGN PHASES	ROXIM	20 RUCTION	TOTAL ESTINATED CONSTRUCTION COSTS: \$32,830,000.00 REPRESENTED ESTIMATED COST OF ALL JOBS APPROXIMATELY \$110,000,000.00	r \$110,000,000.00

\$70,300,000.00 \$150,000,000	CONSTRUCTION COSTS: ROJECTS APPROXIMATELY	TOTAL ESTIMATED TOTAL FOR ALL PI	OF PROJECTS: 7 REPRESENTED SANITRY SEWER PROJECTS APPROXIMATELY 32	TOTAL NUMBER OF PROJECTS: TOTAL ACTIVE SANITRY SEWEI
50%	.00	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	CANYON PSD 12 WICHITA STREET MORGANTOWN, WV 26508	CANYON PUBLIC SERVICE DISTRICT SANITARY SEWER UPGRADE AND EXT MONONGALIA COUNTY, WV
25%	\$13,600,000.	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	MALDEN PUBLIC SERVICE DISTRICT P.O. BOX 350 TAD, WV 25201-0350	MALDEN PUBLIC SERVICE DISTRICT SANITARY SEWER REHABILITATION KANAWHA COUNTY, WV
20%	\$3,400,000	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	Land	HEPIZIBAH PSD SANITARY SEWER EXTENSION HARRISON COUNTY, WV
30%	\$11,600,000	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	POCAHONTAS COUNTY PSD HC 63 BOX 122 FRANK, WV 24920	POCAHONTAS COUNTY PSD WWTP AND COLLECTION SYSTEM POCAHONTAS COUNTY, WV
75%	\$1,675,000.	FEASIBLLITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	TENNERTON PSD 188 FAYETTE ST. BUCKHANNON, WV 26201	TENNERTON PSD SANITARY SEWER EXTENSION UPSHUR COUNTY, WV
45%	\$11,600,000	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	GREATER HARRISON COUNTY PSD P.O. BOX 190 WEST MILFORD, WV 26451	GREATER HARRISON COUNTY PSD PHASE II HARRISON COUNTY, WV
65%	\$22,000,000	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	BROOKE CO. PSD 711 CHARLES ST. P. O. BOX 150 WELLSBURG, WV 26070	BROOKE COUNTY PSD REPLACEMENT AND EXTENSION BROOKE COUNTY, WV
PERCENT COMPLETE	ESTIMATED CONSTRUCTION COST	NATURE OF YOUR FIRM'S RESPONSIBILITY	NAME AND ADDRESS OF OWNER	

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, SIDEWALKS			
 BRIDGE			
F RECORD: HIGHWAN			
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. CUF "NT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATF" TNGINEER OF RECORD:			
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		() () () () () () () () () ()		THE TANCK BINED GET
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATUKE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION	
KING COAL HIGHWAY MINGO COUNTY, WV	WVDOT/DOH 1900 KANAWHA BLVD EAST CHARLESTON, WV 25305	PRELIMINARY ENGINEERING, DESIGN, SURVEY	\$22,000,000.	2% PROPERIY AND DEED RESEARCH COMPLETE - PROJECT ON HOLD
CORRIDOR H GRANT COUNTY, WV	WVDOT/DOH 1900 KANAWHA BLVD EAST CHARLESTON, WV 25305	PRELIMINARY ENGINEERING, DESIGN, SURVEY	\$22,000,000.	75% - NEED FINAL COMMENTS / FINAL FIELD REVIEW
JAKES RUN BRIDGE MONONGALIA COUNTY, WV	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	WVDOT/DOH 1900 KANAWHA BLVD EAST CHARLESTON, WV 25305	PRELIMINARY ENGINEERING, DESIGN, SURVEY	TBD - JUST AWARDED	JUST AWARDED
CITY OF RIPLEY - MAIN STREET REVITALIZATION - JACKSON CO.	CITY OF RIPLEY TIM KING, CITY SUPERINTENDENT 203 SOUTH CHURCH ST. RIPLEY, WV 25271	PRELIMINARY ENGINEERING, DESIGN, SURVEY, CONTRACT DOCUMENTS, BIDDING SERVICES, CONSTRUCTION INSPECTION, MATERIALS TESTING	\$1,200,000.	%06
ICG - THREE FORKS BRIDGE TAYLOR COUNTY	INTERNATIONAL COAL GROUP, INC. 2000 ASHLAND DRIVE ASHLAND, KY 41101	PRELIMINARY ENGINEERING, FINAL DESIGN, SURVEY, CONTRACT DOCUMENTS.	\$1,119,000.00	%06
TOTAL NUMBER OF PROJECTS: 6 (TOTAL IN FULL APPROXIMATELY 30 APPROXIMATELY 40 MILLION)	MATELY 30 SITE DEVELOPMENT	TOTAL ESTIMA: - \$46,300,000.	TOTAL ESTIMATED CONSTRUCTION COSTS: \$46,300,000. +	

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

ESTIMATED CONSTRUCTION C T	YOUR FIRMS RESPONSIBILITY	\$50,000,000.			
ESTIMATED CONS	ENTIRE PROJECT	\$220,000,000.			
ESTIMATED COMPLETION DATE		2010			
NAME AND ADDRESS OF OWNER		US DEPARTMENT OF JUSTICE FEDERAL BUREAU OF PRISONS DESIGN AND CONSTRUCTION BRANCH 500 FIRST STREET NW WASHINGTON, DC 20534			
NATURE OF FIRMS RESPONSIBILITY		SITE DEVELOPMENT ENGINEERING DESIGN (GRADING/ STORM WATER/UTILITIES/ ROADS)			
PROJECT "AME, TYPE AND ALION		MC DOWELL COUNTY FEDERAL PRISON WELCH, WV SITE DEVELOPMENT			

	GIR GITON IN TILL IN DAKEN A	COOPER BY CHEMICAL CONTRACTOR STEELS OF		
PROJECT NAME, TYPE	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION CO	YEAR	CONSTRUCTED
RALEIGH MEMORIAL AIRPORT RALEIGH COUNTY, WV	RALEIGH CO AIRPORT AUTHORITY 176 AIRPORT CIRCLE, ROOM 115 BEAVER, WV 25813-9475	\$5,000,000.00 - PHASE I	2007	YES
WOLFE CREEK PARK FAYETTE COUNTY, WV	FAYETTE COUNTY COMMISSION FAYETTE COUNTY COURTHOUSE 100 COURT STREET FAYETTE, WV 25840-0307	\$4,500,000 PHASE 1	2007	YES
PINECREST DEVELOPMENT RALEIGH COUNTY, WV	PINECREST DEV AUTHORITY 200 MAIN STREET BECKLEY, WV 25801-4613	\$1,500,000.00	2007	YES
CITY OF PARSONS SANITARY SEWER LINE EXTENSION TUCKER COUNTY, WV	PARSONS, CITY OF 341 2ND ST. PARSONS, WV 26287	000'006 \$	2007	YES
TOWN OF FARMINGTON WATER LINE REPLACEMENT PROJECT MARION COUNTY, WV	TOWN OF FARMINGTON 1314 MILL STREET FARMINGTON, WV 26571	\$1,300,000.	2007	YES
CITY OF KINGWOOD WHETSELL SETTLEMENT WATER LINE EXTENSION PRESTON COUNTY, WV	KINGWOOD, CITY OF 313 TUNNELTON ST. KINGWOOD, WV 26537-1462	\$ 420,000.	2007	Yes
NORTON-HARDING-JIMTOMN PSD WATER LINE EXTENSION RANDOLPH COUNTY, WV	NORTON-HARDING-JIMTOWN PSD P.O. BOX 87 SCOTT ROAD NORTON, WV 26285	\$1,000,000	2007	YES
TOWN OF BATH - BERKELEY SPRINGS WATER WORKS MORGAN COUNTY, WV	TOWN OF BATH 271 WILKES STREET BERKELEY SPRINGS, WV 25411	\$2,000,000	2007	YES

a makit Minutin valve seme	ON MHICH VOIL MEDE THE	DESIGNATED ENGINEER OF RECORD		<i>(</i>)
LAST	O WEKE THE ADDRESS NER	ENGINEER OF	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, WV 26201	\$3,100,000	2004	YES
CITY OF WEIRTON; RENOVATION OF SOLIDS CONTACT CLARIFIERS	CITY OF WEIRTON 200 MUNICIPAL PLAZA 3031 BIRCH DRIVE WEIRTON, WV 26062	\$2,800,000	2003	Yes
HAMRICK PUBLIC SERVICE DISTRICT, TUCKER COUNTY, WEST VIRGINIA; DESIGN, PREPARATION AND CONSTRUCTION MANAGEMENT TO UPGRADE THE WATER TREATMENT PLANT	HAMRICK PUBLIC SERVICE DISTRICT P.O. BOX 228 HENDRICKS, WV 26271	\$2,461,000	2004	YES
PUTNAM COUNTY BUSINESS PARK; MITIGATION OF 13 ACRES OF IMPACTED WETLAND	PUTNAM COUNTY DEVELOPMENT AUTHORITY P.O. BOX 167 SCOTT DEPOT, WV 25560	\$1,500,000	2004	Yes
WOOD PRODUCTS INDUSTRIAL PARK; DEVELOPMENT, CONCEPTUAL LAYOUT, AND FINAL DESIGN FOR INDUSTRIAL PARK	MINGO COUNTY REDEVELOPMENT AUTHORITY P.O. BOX 298 68 WEST 4 TH AVENUE WILLIAMSON, WV 25661	\$2,000,000	2002	YES

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

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

FIRM WAS RESPONSIBLE)					
PROJECT NAME, TYPE	NAME AND ADDRESS	CONSTRUC	YEAR		FIRM ASSOCIATED
AND LOCATION		YOUR FIRM'S PORTION		(YES OR NO)	WITH
GLENVILLE FEDERAL	FEDERAL BUREAU OF PRISONS				
CORRECTIONAL INST.	320 1 ST STREET NW 500-6	\$96,000,000	2003	YES	BELL JUSTICE
SITE DEVELOPMENT	WASHINGTON, DC 20534				FACILITIES
GILMER COUNTY, WV					
FEDERAL BITREAII OF	PEDERAL BIREAII OF DETSONS				
PRISONS -CANAAN	320 1 ST STREET NW 500-6	\$120,000,000	2002	YES	BELL JUSTICE
	WASHINGTON, DC 20534				FACILITIES
DEVELOPMENT -					
SCRANTON, PA					
FAIRMONT STATE COLLEGE	FAIRMONT STATE UNIVERSITY				
- STUDENT DORMITORY -	1201 LOCUST AVENUE	\$6,000,000	2004	YES	VOA ARCHITECTS
SITE DEVELOPMENT-	FAIRMONT, WV 26554-2491				
FAIRMONT, WV					
FAIRMONT STATE COLLEGE	FAIRMONT STATE UNIVERSITY				
- PARKING GARAGE- SITE	1201 LOCUST AVENUE	\$4,000,000	2003	YES	MARCH-WESTIN
DEVELOPMENT -FAIRMONT,	FAIRMONT, WV 26554-2491				
WV					
FAIRMONT STATE	FAIRMONT STATE UNIVERSITY		2005	YES	VOA ARCHITECTS
UNIVERSITY FEASTER	1201 LOCUST AVENUE	\$400,000.			
CENTER SITE	FAIRMONT, WV 26554-2491				
DEVELOPMENT -					
FAIRMONT, WV					
FAIRMONT STATE	FAIRMONT STATE UNIVERSITY	\$100,000.	2007	YES	DESIGN ALLIANCE
UNIVERSITY CREATIVE	1201 LOCUST AVENUE				OMNI ASSOCIATES
ARTS AND ENGINEERING	FAIRMONT, WV 26554-2491				
TECH BUILDING SITE					
DEVELOPMENT					
FAIRMONT, WV					
19. USE THIS SPACE TO P	18	MATION OR DESCRIPTION OF RESOURCES	SUPPORTING YOUR	FIRM S	QUALIFICATIONS TO
PERFORM WORK FOR TE	PERFORM WORK FOR THE WV ABANDONED MINE LANDS I	PROGRAM			

SEE ATTACHMENT - STATEMENT OF QUALIFICATIONS

20. THE FOREGOTHG IS A STRITEMENT OF PACTS.

SIGNATURE:

DATE: SEPTEMBER 18, 2008

TITLE: VICE-PRESIDENT / CHIEF ENGINEER

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

PROJECT NAME: Various WVDEP AML Design PATE: Projects 1. FIRM NAME: Novel Geo-Environmental, LLC Noon Township, P.	- C.		FEIN:
FIRM NAME: 2. Geo-Environmental, LLC 171 Mc Moon T	25, 2008		52-2365940
	E g &	BUSINESS ADDRESS: 15108	3. FORMER FIRM NAME: NA
4. HOME OFFICE TELEPHONE: 5. EST (412) 722-1970	ESTABLISHED: 6. TYPE OWN 2002 Corporation	TYPE OWNERSHIP: Limited Liability poration	WV REGISTERED DBE: YES
7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ 806 B Street St. Albans, WV 25177 NO. AM 304-201-5180 NO. AM	PERSON I Manager: L Design L Design	NO. AML DESIGN PERSON Nottingham, P.E. in St. Albans, WV: 5 in Moon Township, PA	NEL EACH OFFICE:
FL.	FIRM: 8a. NAME,	TITLE, & TELEPHONE NUMBER -	OTHER PRINCIPALS
9. PERSONNEL BY DISCIPLINE (Bold Lettering Indica	cates Minimum Design Team Members	n Team Members)	
- ARCHITECTS - ECONOMISTS - BIOLOGIST - BIOLOGIST - CADD OPERATORS - ELECTRICAL ENGINEERS - CHEMICAL ENGINEERS - ESTIMATORS 2 CIVIL ENGINEERS - DESIGNERS - DESIGNERS - HYDROLOGISTS - HYDROLOGISTS - HYDROLOGISTS - HYDROLOGISTS		LANDSCAPE ARCHITECTS MECHANICAL ENGINEERS MINING ENGINEERS — PHOTOGRAMMETRISTS PLANNERS: URBAN/REGIONAL SANITARY ENGINEERS 2 SOILS ENGINEERS SPECIFICATION WRITERS	STRUCTURAL ENGINEERS SURVEYORS TRAFFIC ENGINEERS 4 DRILLERS & HELPERS 5 OTHER PERSONNEL
TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS *RPEs other than Civil and Mining must provide suppose supervise and perform this type of work.		2 that qualifies	them to
10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE?	3? YES		

for each if copy is	not on file with AML	רטווזמבוונזמן המווזמבוונזמר המווסט
NAME AND LORESS:	SPECIALTY:	WORKED WITH BEFORE
		Xes
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NAME AND ADDRESS:	SPECIALI Y:	WORKED WITH BEFORE
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		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
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NAME AND ADDRESS:	SPECIALTY:	
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NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
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NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
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NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
		No

(John B. 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 A any AML design work to date, but our NV Office Lanager 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? evaluation of aquifer degradation as a result of mining.) Is your firm experienced in domestic waterline design? Is your firm experienced in hydrology and hydraulics? lat Novel Geo-Environmental (NGE) has not perfor Is your firm experienced in Soil Analysis? NO: While our fi former employers. ON Q Z Note щ ΰ m, Ä in 2002

Dr. Nottingham planned and supervised several AML investigation and reclamation projects for WVDEP while employed by Triad Engineering. Projects included burning refuse pile investigations, unstable refuse pile investigations and remedial designs, landslide investigations and remedial designs, subsidence investigations, and underground mine fire 13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0 EDUCATION (Degree, Year, Specialization) Bachelor of Science in Civil Engineering, 1965, Civil Engineering, West Virginia Institute of Technology Master of Science in Civil Engineering, 1966, Geotechnical Engineering, University of Pittsburgh REGISTRATION (Type, Year, State) HO REGISTRATION (Type, Year, State Professional Engineer, 1985, KY Professional Engineer, 1969, WV 1985, 2006, YEARS OF AML RELATED DESIGN YEARS OF AML RELATED DESIGN Professional Engineer, Professional Engineer, YEARS OF EXPERIENCE YEARS OF EXPERIENCE Doctor of Philosophy, 1975, Geotechnical Engineering, University of Florida EXPERIENCE: EXPERIENCE: YEARS OF AML DESIGN EXPERIENCE: YEARS OF AML DESIGN EXPERIENCE: ימדעדייתכפש האש פחשבדיאודעב Member, National Society of Professional Engineers Member, American Society of Civil Engineers MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS EDUCATION (Degree, Year, Specialization) Brief Explanation of Responsibilities Brief Explanation of Responsibilities NAME & TITLE (Last, First, Middle Int.) NAME & TITLE (Last, First, Middle Int.) TO THE THE THE THE T data but keep to essentials) : keep to essentials) Nottingham, Larry C. investigations. data LJ. FEKD

אדלווורים וופדודים וו אוסדפימת יאסרראנו ווואט ער א מתרונאראנים

14. PROVI A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN TOPRIMARY OFFICE WHICH WILL BE USED TO COMPLETE ALD 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.
ing drill.
g trailers.
Word processing, PCSTABL - Slope Stability Analysis, LPILE Plus 4.0 - Pile Foundation Analysis, ning Wall Analysis, ReSSA 2.0 - Reinforced Soil Slope Analysis, ReSlope 3.0 - Reinforced Soil
pment: Soil Oven, Scales, Sieves, Liquid and Plastic Limits Machine

TYPE AND DN Prgy Ch Complex, Cc					
rgy Complex,	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE	
al ion, Inez,	peake Energy cation, 6100 N. cn Avenue, oma City, OK	alop r	Unknown, Fee = \$6600.00	ហ	
Annual Geotechnical West Drilling Contract, Depa	West Virginia Department of Environmental Protection	Perform geotechnical (drilling) investigations of abandoned mine land sites as directed by WVDEP/AML personnel.	Unknown	30	
TOTAL NUMBER OF PROJECTS:	Z.	TOTAL ESTIMATED	ATED CONSTRUCTION COSTS:	\$ Unknown	

16. CURK C ACTIVITY	C ACTIVITIES ON WHICH YOUR FIRM IS	M IS SERVING AS A	-CONSULTANT TO OTHERS	3RS	
PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONS	CONSTRUCTION COST
			ł	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	ن 6	PSI, Inc. 153 Williams Hwy Parkersburg, WV	March, 2008	Unknown	Fee ≈ \$12,000
Toyota Meeting Room, Geotechnical Investigation, Buffalo, WV		Toyota Corp. Buffalo, WV	March, 2008	Unknown	Fee \$4000
rd. rd. iSL	Perform Cross-Hole Sonic Logging of New Foundation Drilled Piers	10 77 72	August, 20008	Unknown	Fee = \$17,000
Harrison Co. BMS Station, Geotechnical Investigation, Clarksburg, WV	te dation ons	Harrison Co. EMS Clarksburg, WV	February, 2008	Unknown	Fee \$4000
Corridor H Highway Construction, Quality Control Testing, Grant Co., WV	Perform soil compaction and concrete quality control tests.		ĮΨ.	Unknown	Fee = \$75,000
Water Storage Tank, Subsurface Investigation, Gilbert, WV	Determine Site Subsurface Conditions	Gilbert PSD Gilbert, WV	March, 2008	Unknown	Fee \$3000

\$2500cd	para de la constante de la cons	iya waxay ka		SOURCE STATE		
7 CO. X.	CONSTRUCTED (YES OR NO)					
)	YEAR	2003				
S THE DESIGNATED ENGINEER OF RECORD	ESTIMATED CONSTRUCTION COST	\$30,000				
T 5 YEARS ON WHICH YOUR FIRM	S	Greenbrier Sporting Club, White Sulphur Springs, WV				
17. COV TIED WORK WITHIN LASS	Ph. ECT NAME, TYPE AND LOCATION	White Sulphur Hill Development, Retaining Wall Design, White Sulphur Springs, WV				

18. C PLETED WORK WITH	PLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIT WORK FOR WHICH YOUR FIRM WAS RESPONSIBLED	HAS BEEN A	SUB-CONSULTANT 1	TO OTHER FIRMS	(INDICA PHASE
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
S. Mineral Wells Interchange, Geotechnical Study, Mineral Wells, WV	WV Department of Highways Charleston, WV		2007	In Process	L. A. Gates Co.
Winefrede RR Overpass Bridge, Geotechnical Investigation, Winefrede, WV	WV Department of Highways Charleston, WV	\$1,500,000	2005	Yes	HNTB Corporation
Performing Arts Center. Geotechnical Investigation, Buckhannon, WV	West Virginia Wesleyan College, Buckhannon, WV	\$500,000	2007	Yes	R. D. Zande & Associates, Inc.
Mt. Gay Overpass Bridge, Geotechnical Investigation, Logan, WV	WV Department of Highways Charleston, WV	\$1,000,000	2004	Yes	HMB Professional Engineers, Inc.
Water Tanks, Geotechnical Investigation, Iager, WV	Iager, WV	\$100,000	2006	Yes	Stafford Consultants
5 th Avenue Bridge, Geotechnical Investigation, Huntington, WV	WV Department of Highways Charleston, WV	\$2,500,000	2003	Yes	Modjeski & Masters, Charleston, WV
19. Use this space to qualifications to	provide any addit perform work for	lonal information or description of re the West Virginia Abandoned Mine Lands	of resources s Lands Program.	supporting your	firm's
20. The foregoing is Signature: 96.	statement of facts (A)	Title: V'ce	President	Date: 3/3/	08
					

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

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	lad #															
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	NTS	eplacement Construction												<u> </u>		
	REME	Vater Quality R\noitsgitiV\noitsulsv3									×					
	PROJECT EXPERIENCE REQUIREMENTS	Project Specifications		×	×	×	×	×	×	×	×	×	×	×	×	×
TRIX		Hazardous Waste Disposal														
ICE MA	EXPER	Subsidence Investigation Mitigation		×	×	×	×	×	×	×						
PERIEN	OJECT	erii esuteR\eniM tnemetsdA														
CT EX	HH	Remining Evaluation														
D PROJECT EXPERIENCE MATRIX		Hydrologic/Hydraulic Design/Eval.		×	×	×	×	×	×	×	×	×		×	×	×
LATED		Portal/Shaft Closure										×				
AML and RELATE		Arimation Deep Mine Reclamation										×				
AML		Abandoned Surface Mine Reclamation												×	×	×
	 															
		Additional Additional Cacorp. Basis Into Provided Cacorp. in Section (s)		က	e e	6	က	8	3	8	3		8	အ	ိ	က
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Attachment "C"

^{*} List whether project experience is corporate or personnel based or both.
** Use this area to provide specific sections or pages if needed for reference.
*** List Primary Design personnel and their functional capacity for the projects listed.

STATE OF WEST VIRGINIA Purchasing Division

PURCHASING AFFIDAVIT

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

DEFINITIONS:

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

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

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

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

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

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

Vendor's Name: THRASHER ENGINEER	NG, INC.	· · · · · · · · · · · · · · · · · · ·
Authorized Signature.	W/Wax	Date: SEPTEMBER 18,2008
Purchasing Affidavit (Revised 06/15/07)		