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Header

List View

General Information

Contact

Default Values

Discount

Document Information

Procurement Folder: 27525

SO Doc Code: CEOI

Procurement Type: Central Contract - Fixed Amt

SO Dept: 0313

Vendor ID: 000000204789



SO Doc ID: DEP1500000003

Legal Name: THRASHER GROUP INC

Published Date: 10/8/14

Alias/DBA:

Close Date: 11/6/14

Total Bid: \$0.00

Close Time: 13:30

Response Date: 11/03/2014



Status: Closed

Response Time: 14:00

Solicitation Description: Expression of Interest Royal Coal (P-688/R-676) Mapping/Eng

Total of Header Attachments: 0

Total of All Attachments: 0



Purchasing Division
2019 Washinton Street East
Post Office Box 50130
Charleston, WV 25305-0130

State Of West Virginia
Solicitation Response

Proc Folder : 27525

Solicitation Description : Expression of Interest Royal Coal(P-688/R-676) Mapping/Eng

Proc Type : Central Contract - Fixed Amt

Date issued	Solicitation Closes	Solicitation No	Version
	2014-11-06 13:30:00	SR 0313 ESR11031400000000843	1

VENDOR

000000204789

THRASHER GROUP INC

FOR INFORMATION CONTACT THE BUYER

Frank Whittaker
(304) 558-2316
frank.m.whittaker@wv.gov

Signature X	FEIN #	DATE
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All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	EOI Mapping/Engineering Design Services				\$120,975.25

Comm Code	Manufacturer	Specification	Model #
81100000			

Extended Description :	Mapping, drawing, specifications, and engineering design services to prepare construction documents and to assist OSR in completing land reclamation and water treatment by compiling a Request for Quotation (RFQ) for the project, per the attached specification and requirements.
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EXPRESSION OF INTEREST
for
ROYAL COAL COMPANY, INC.
(P-688 AND R-676)
FAYETTE COUNTY, WEST VIRGINIA

DEP17040
NOVEMBER 6, 2014



THRASHER
600 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
www.thrashereng.com

Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

November 6, 2014

RE: DEP 17040, Royal Coal Company (P-688 and R-676)

Dear Members of the Selection Committee:

Thrasher is no stranger to DEP reclamation projects. Our attention to detail and project execution speak for itself. Like most projects we undertake, Thrasher has researched the Royal Coal Company project sites A and B. We understand the depth and breath of these projects and believe we will provide timely, cost effective improvements. Our experience in mine portal design projects assures project success.

As the Principal-In-Charge, I have assembled a team of professionals who will deliver based on the following competencies:

- *detailed review of the existing conditions of the project area,*
- *ability to provide recommendations and options for drainage and erosion control,*
- *coordination with utility companies,*
- *prepare designs for new roads including culverts,*
- *perform blasting designs and pre-blast surveys,*
- *eliminate existing highwalls,*
- *install surface water drainage,*
- *regrade/remove sediment ditches when not needed, reshape and add lime amendments,*
- *condition, stabilize and revegetate disturbed land, prepare and regrade plans if needed,*
- *design efficient passive and active water treatment and pumping systems,*
- *design sludge handling facilities and*
- *final site cleanup.*

Thrasher has built a business reputation that stands on integrity, experience, efficiency and judgment. In taking this approach, we have carefully and concisely responded to your request. We have assembled an experienced group of professionals to meet the various needs of this project. Our knowledge of the area and proximity to the sites will prove to be advantageous to the successful completion of this project.

Sincerely,



CHADWICK D. BILLER, PE
Partner, Principal-in-Charge

SELECTION CRITERIA

A. WV Professional Engineers in the Primary Office: Thrasher employs 14 registered PE's at our company headquarters located in Bridgeport, WV.

- H. Wood "Woody" Thrasher, PE
- Chad Biller, PE
- Mike Nestor, PE
- Daniel Ferrell, PE
- Ken Moran, PE
- Clay Riley, PE
- Matt Fluharty, PE
- Tom Urquhart, PE, BCEE
- Chad Riley, PE
- Jeff Gola, PE
- Doug Forni, PE
- Rob Milne, PE
- Richard Hovatter, PE
- Brad Messenger, PE
- Garrett Grubb, PE



B. Our reclamation engineering design experience as it relates to the specific project:

- Chad Biller, PE, Principal-in-Charge. Chad has more than 19 years of civil engineering experience with specific emphasis in mine reclamation, site development, highways, roads, bridges, and airports. Mr. Biller has managed the design and construction administration for a number of large grading and drainage projects in West Virginia. These projects have included design for mine reclamation, industrial and business parks, highways, and airports. Mr. Biller is also familiar with reclamation of mine portals, using either wet or dry seals.
- April Rohrbaugh, Project Engineer has completed the design of six AML projects, under the direction of Chad Biller.
- Richard "RJ" Hovatter, PE has extensive experience in grouting projects for the WVDEP.

C. Available OSR Design Team:

Civil PE's: Chad Biller, Richard Hovatter, Mike Nestor, Dan Ferrell, Ken Moran, Clay Riley, Matt Fluharty, Tom Urquhart, Chad Riley, Jeff Gola and Doug Forni

CAD: Brandon Hinkle, John Pitman, Jason Heflin, Joe Lowther, Phil Lantz, John Sirianni, Robert Hebb, Mike Oldaker, Zack Gain, Jessica Wells and Trudy Heil

BACKGROUND

Thrasher is a privately owned engineering firm that specializes in multidisciplinary engineering services. Established in 1983, Thrasher is built on stable leadership, financial strength and reputation. Our dedication to creative design solutions, well-managed projects and customer service has made Thrasher West Virginia's largest privately owned engineering firm and an industry leader in the Mid-Atlantic region.

Since our formation, the company has grown to a firm of more than 300 employees. Our diverse staff has the resources to handle many projects, both large and small, simultaneously. Our client base is diverse and includes municipalities, state and federal government agencies, secondary and higher education, public and private entities, etc.

Principals:

H. Wood "Woody" Thrasher, PE
Kenneth P. Moran, PE, PS
Chad M. Riley, PE
Daniel E. Ferrell, PE
Wm. Randy Watson, PE
Clay P. Riley, PE
Jonathan Carpenter, PE
Chadwick D. Biller, PE
Craig Baker, Associate AIA
Robert R. Milne, PE
Ron Stanley, CPA
Jenelle Armstrong, PE
Matt Fluharty, PE

Our Locations:

Bridgeport, West Virginia
Charleston, West Virginia
Beckley, West Virginia
Oakland, Maryland
Canton, Ohio
Fredericksburg, Virginia
Canonsburg, Pennsylvania

Multi-Disciplinary Services:

Civil Engineering
Utility Services
Land and Site Development
Roadways
Bridges
Streetscapes
Airports
Storm Water Systems
Environmental Services
Architecture
Land Planning
Landscape Architecture
Construction Monitoring
Materials Testing
Pipeline Inspection
GIS Mapping

OUR APPROACH TO RECLAMATION

Thrasher has, or is in the process of, completing ten Abandoned Mine Lands (AML) projects for the West Virginia Department of Environmental Protection (WVDEP). While the scope of the projects varies, Thrasher has the experience and resources to apply the following design aspects:

- **Review Existing Conditions:** A thorough review of the project area is essential. Accurate mapping that reflects the true conditions is essential to a successful project. Thrasher has over 40 survey crews and its own aerial photography department to ensure an accurate base map is generated for all design work.
- **Reclaim Refuse Piles:** refuse piles were incorporated into the backfill of re-graded highwalls. These areas are then covered with soil and re-seeded.
- **Highwall Re-Grading:** miles of highwalls have been backfilled and re-graded utilizing plans developed by Thrasher. Balancing the amount of cut and fill and keeping the amount of disturbance to a minimum is a challenge on any AML project. Thrasher has successfully met these challenges on other projects.
- **Sealing of Portals:** Thrasher has developed plans for dozens of wet and modified mine seals for AML projects, including bat gate mine seals.
- **Sink Hole Repair:** shallow mine voids cause sink holes that divert natural streams underground. Thrasher evaluates each site and develops a plan to backfill the voids, thereby reestablishing the original property.
- **Landslide Repair:** two different landslide repair projects have been completed by Thrasher. Each repair required extensive geotechnical design for soldier pile and concrete lagging and concrete segmental gravity block walls. Both projects were in close proximity to residential areas that required special care during construction.
- **Design of Efficient and Active Water Treatment and Pumping Systems:** Thrasher has completed passive treatment facilities for many conservation districts in WV. Lamberts Run in Harrison County is the latest system that has been successfully installed. Thrasher has also been the leader in new technologies for water treatment facilities. Thrasher has completed active facilities including sludge removal for mining companies, PSD's and many municipalities in WV.
- **Drainage Design:** all of the AML projects completed by Thrasher have required design of drainage structures. These have included vegetated, grouted, riprap, as well as culverts and storm sewers, as well as detention systems. Drainage calculations were completed to properly size all conveyances.
- **Permitting:** the permitting process can delay projects if they are not submitted correctly or in a timely manner. Thrasher takes pride in our ability to quickly obtain permits for our clients. We are able to utilize our excellent relationship with the WVDEP for NPDES permits as well as our relationship with the West Virginia Division of Highways for entrance and drainage permits. We are also experienced in obtaining ACE permits for stream impacts, aquatic habitat restoration, establishment and enhancement activities.

Royal Coal Company (P-688)

Thrasher has taken steps to adequately respond to the WVDEP's expression of interest by researching the job sites. Our assessment of the sites reveal this project will require the following steps:

- Step 1.*** Adequate Mapping
- Step 2.*** Project Development and Design
- Step 3.*** Environmental and Permitting
- Step 4.*** Bidding
- Step 5.*** Construction Management

Project A



Royal Coal Company (R-676)

Thrasher has taken steps to adequately respond to the WVDEP's expression of interest by researching the job sites. Our assessment of the sites reveal this project will require the following steps:

- Step 1.*** Adequate Mapping
- Step 2.*** Project Development and Design
- Step 3.*** Environmental and Permitting
- Step 4.*** Bidding
- Step 5.*** Construction Management

Project B



ADDITIONAL RELATED SERVICES

SITE DEVELOPMENT

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.

Services Include:

- *Planning and Conceptual Design*
- *Grading Plans*
- *Utility Layout and Mapping*

STORM WATER, SEDIMENT AND EROSION

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.

Capabilities Include:

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

SURVEY

In addition to a full service professional engineering staff, we maintains a surveying department which includes 10 licensed professional land surveyors, twenty full-time survey crews, CADD technicians, and office support staff.

ENVIRONMENTAL REPORTING SERVICES

Thrasher provides full environmental assessment and clearance services. We have more than 20 years of experience conducting environmental and natural resource compliance consultation with both state and federal agencies.

Experience includes:

- *Permitting Related Activities (401 and 404)*
- *NEPA 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*
- *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*
- *Aquatic Habitat Restorations, Establishment and Enhancement Activities*

ADDITIONAL RELATED SERVICES

CONSTRUCTION MANAGEMENT AND INSPECTION

Thrasher knows how projects should be built. We provide the knowledge and experience necessary to manage the construction of your project. Our project managers and inspectors are experienced in all types of construction activities. Many of our construction managers and inspectors have years of experience, and our are certified by the West Virginia Department of Transportation, Division of Highways for roadwork and materials testing.

MATERIALS TESTING

Thrasher's Materials Testing Department is capable of performing a wide range of field and laboratory tests. Our laboratory at our Bridgeport, 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 certified by the State of WV.

EQUIPMENT AND SOFTWARE

Thrasher provides one of the largest networks of computer aided design (CAD) equipment, software and trained personnel in the State of West Virginia. Civil 3D, Carlson and Microstation V8 software is utilized at 70 CAD stations within the Group. Additionally, equipment includes 10 large format (size E) plotters and 5 large format plotter / scanners. CAD plans are prepared by both dedicated CAD employees and by staff engineers and engineering technicians in each of the firm's offices. This equipment allows our design department to perform accurate work quickly and efficiently.



April Rohrbaugh, Project Manager reviews project designs and answers questions with a group of contractors on a recent site visit to Roger Camp Hill.



PROJECT TEAM



Chad Biller, PE Principal-In-Charge

Education:

- BS, Civil Engineering, 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
- American Society of Civil Engineers
- American Society of Highway Engineers
- Society of American Military Engineers
- National Society of Professional Engineers

ANGLINS RUN and ROARING CREEK:

Anglins Run: Thrasher provided preliminary plans and final design for two WVDEP AML projects. Anglins Run included a total of eight collapsed mine portals with at least five of them having discharges ranging from one to ten gpm. Total flows were estimated to be between 25 and 30 gpm. Thrasher's plan for this project included construction of an access road, excavation and wet seal of at least eight deep mine portals and the re-grade and fill of subsidence sinkholes. To carry water safely off site, drainage control channels, conveyance pipe and under drain was constructed.

Roaring Creek: This project involved the elimination of subsidence depressions, the closure of open portals and the treatment of AMD. The Roaring Creek Watershed was heavily deep mined and surfaced mined prior to 1977. The project area consisted of three open and three closed portals discharging AMD, AMD seeps along the unnamed tributary and an area of subsidence, which drains surface water into the mine workings. AMD flow from the deep mine portals ranges from 10gpm to 100 gpm with PH ranging from 3.1 to 5.0. Preliminary plans included re-grading the subsidence area to prevent surface water from entering the mine workings, and installing an emergency spillway on the existing pond to handle the additional flow.

OVERFIELD AND SQUIRES CREEK: These projects consisted of engineering design for portal sealing, drainage and retaining walls for the Overfield - Lafferty Site and engineering design for portal sealing, drainage and backfilling of the highwall with refuse for the Squires Creek Site.

RALEIGH COUNTY AIRPORT INDUSTRIAL PARK: This multi-phased project consisted of all preliminary design, permitting, final design and construction management for the development of a 300+ acre business and industrial park adjacent to the Raleigh County airport. Engineering design consisted of mass grading, E&S plans, stormwater, public utilities, roadways, sidewalks and building pads.



April Rohrbaugh Project Manager

Education:

- BS, Civil Engineering Technology, West Virginia University

Project Manager on the following:

- Squires Creek: Reclaim Refuse Piles; Highwall Re-grading
- Overfield (Lafferty): Landslide Repair
- Laurel Run: AMD Passive Treatments, Portals and Highwall Reclamation
- Clarksburg Lyons Landslide: Retaining Wall
- Pleasant Valley : Highwall, Portals and Bat Gates
- Roger Camp Hill: 1/2 Acre AMD Impoundment and Refuse Reclamation

OVERFIELD AND SQUIRES CREEK: Ms. Rohrbaugh served as Project Manager. These projects consisted of engineering design for portal sealing, drainage and retaining walls for the Overfield-Lafferty Site and engineering design for portal sealing, drainage and backfilling of the highwall with refuse for the Squires Creek Site.

LAUREL RUN #1: Ms. Rohrbaugh served as Project Manager. This project site consisted of seven sections of highwall that totaled approximately 5,700 feet in length and averaged 20 feet in height. There were three collapsed portals adjacent to one another discharging approximately 25 gpm. One open portal entrance measured 2 foot by 3 foot and had no known discharge associated with it. Approximately 230 feet of abandoned railroad tracks remained on the project site and they did not connect to any existing tracks. The project site covered a total area of six acres and suffered from a lack of vegetation and toeing into Laurel Run.

ROGER CAMP HILL: Ms. Rohrbaugh served as Project Manager. This project involved dewatering a 169,000 gallon AMD water impoundment which had a pH of 2.6. There were also multiple seeps to be mitigated with a pH of 3.3 Fe>10 mg/l and an estimated flow of 15 gpm. In addition to the AMD seeps and impoundment, there were three open refuse sites with a combined area around 3 acres. Thrasher's plan for this project included, treating the impoundment's water as it was released and, where appropriate, excavating the refuse piles and backfilling the dewatered impoundment. Then all exposed refuse was entombed and conveyances were constructed to safely carry stormwater in and around the reclamation sites.

CLARKSBURG LYONS LANDSLIDE: Ms. Rohrbaugh served as Project Manager. The project site is located in Clarksburg, WV off of Route 19. There was a two acre slide mass composed of strip mine spoil and natural slip prone material located above and behind a the Lyons residence. The scope of work consisted of constructing a soldier pile and concrete lagging retaining wall with appurtenances to stabilize the slope above the existing residence and pond, as well as, regarding the slip area while installing underdrains and channels to carry water safely through or around the slip area.



Richard Hovatter, PE Project Engineer

Education:

- BS, Civil Engineering Technology, Fairmont State University

Registrations:

- Registered Professional Engineer (PE) - State of West Virginia
- Registered Professional Engineer (PE) - State of Pennsylvania
- Level I Rosgen Natural Stream Construction
- Level II Rosgen Natural Stream Construction
- HEC—RAS Operator Training Short Course
- Annual Oil & Gas Training Pennsylvania
- MSHA Training

ODOT ROUTE 2, GYPSUM MINE STABILIZATION: Mr. Hovatter served as Project Engineer and was responsible for developing a grout stabilization plan for approximately two miles of Route 2 in Sandusky, Ohio. The plan was to stabilize all four lanes of highway where it crossed over an abandoned gypsum mine. The mined gypsum seam was approximately twelve to fifteen feet thick and was completely mined out. As part of the plan, Mr. Hovatter was responsible with acquiring an underground injection permit through the Ohio Department of Natural Resources.

WV DEP SHINNS RUN PORTALS: Mr. Hovatter served as Project Engineer and was responsible for the design, drawings along with the construction documents on an AML project outside of Shinnston on Shinns Run Road. The project consisted of a total seven open mine portals that needed to be sealed. Three of the portals were required to have bat gates installed and the others were to be piped for drainage. During the subsurface investigation it was determined that the section of Shinns Run that passed over three of the portals was constructed over significant mine voids. This resulted in a grout stabilization design to be added to the project scope.

CHARLEROI DRAINAGE PROJECT: Mr. Hovatter served as Project Engineer and was responsible for the site design and all construction documents at the Charleroi Liquid Propane load out facility. The site was constructed so that the scales set at the low point of the site and all the site drainage settled under the scales.

JK ALFRED PROPERTY: Mr. Hovatter served as Project Engineer and was responsible for analyzing the existing drainage system and determining if it was adequate to pass the design storm runoff from the site. He was also responsible for obtaining a modification to the existing NPDES permit.

GRAFTON NATIONAL CEMETERY: Taylor County, WV. Mr. Hovatter served as Project Engineer for this design build project to re-mediate the discharge of the storm collection system at the cemetery. The discharge was released out on to an unstabilized slope and had caused significant erosion below the pipe. Mr. Hovatter designed a concrete sump along with a grouted riprap channel to collect the discharge and convey it downslope to a stable area for discharge.

PROJECT TEAM



Michael Nestor, PE, CFM Project Engineer

Education:

- BS, Civil Engineering Technology, Fairmont State University

Registrations:

- Registered Professional Engineer (PE) - State of West Virginia
- Current President of American Society of Highway Engineers, North Central West Virginia Chapter
- American Society of Civil Engineers

ANGLINS RUN AND ROARING CREEK: Mr. Nestor served as Project Engineer for the design of wet mine seal for abandoned mine portals and downstream conveyance of water associated with abandoned mines. Mr. Nestor worked closely with the DEP to identify sinkholes associated with abandoned mines and developed a site grading plan to restore collapsed areas and re-route drainage around problem areas.

STREAM MODELING: Various Counties, WV. Mr. Nestor has performed several stream evaluations utilizing HEC-RAS stream modeling software for projects located in Monongalia, Harrison and Hampshire counties.

TOWN OF OAK HILL STORM WATER PROJECT: Fayette County, WV. Mr. Nestor served as Project Manager for the design of storm sewer upgrades for the Town of Oak Hill. The project included the addition of a 2'x6' box culvert under Trump Avenue, construction drawings and specifications.

HAWKS NEST SUB-DIVISION: Garrett County, MD. Mr. Nestor served as Project Engineer for the development of a storm water management plan for a residential subdivision using low impact development methods. The scope of the project included site grading, storm water management, erosion and sediment control plans.

FAIRMONT STATE UNIVERSITY STORM WATER MANAGEMENT PLAN: Marion County, WV. Mr. Nestor served as Project Engineer for the development of a storm water management program for the FSU campus, which is classified as an MS4 entity. The scope of this project included meeting all MS4 requirements in addition to preparing and submitting all necessary permit applications to the WV DEP.

CITY OF CLARKSBURG STORM WATER MANAGEMENT PLAN: Harrison County, WV. Mr. Nestor served as Project Engineer for the development of a storm water management program for the entire city. Mr. Nestor assisted the city in getting all permitting required and the application to the WV DEP.

SQUIRES CREEK



SQUIRES CREEK

This job site included two refuse piles covering about two to three acres in total. There were remains of one mine building, unvegetated coal refuse, deep mine portals and acid mine drainage. Nearly all of this land was unvegetated with signs of severe erosion, the toe of the eastern pile extended down to the creek. Both piles had very steep outslopes and several well used 4-wheeler (ATV) trails extended up and down the face, thereby posing public safety hazards.

There were also six open and collapsed deep mine portals. Of these portals, one was open enough to easily allow entrance by either a child or adult. This opening was 4 to 5 feet high by 20 feet in width. Inside the portal were mine props that were clearly visible and the mine appeared to extend for a considerable distance into the hill. The remaining five portals, all located along a 200 LF mine face-up or highwall, approximately 10 to 15 ft. in height, were collapsed with only one discharging about 2 to 3 gpm of acid mine drainage (AMD).

MARTINKA MINE



MARTINKA MINE

This project consisted of the design of a 17.5 MGD Water Treatment Plant to blend mine borehole water with acid mine drainage; the plan remove D iron (1000 mg/(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 stage tapered flocculation with axial flow propeller mixers and variable frequency drives
- Sedimentation – Six settling ponds with ferric hydroxide sludge removal and underground injection wells
- Polishing Pond – Sodium hexamataphosphate addition for calcium stabilization.

ANGLINS RUN & ROARING CREEK



ANGLINS RUN

The project area included a total of eight collapsed mine portals with at least five of them having discharges ranging from 1 to 10 gpm. Total flows were estimated to be between 25 and 30 gpm. Thrasher's scope and plans for this project included construction of an access road into the site, excavation and wet seal of at least eight deep mine portals and the re-grade and fill of subsidence sinkholes. To carry water safely off site, drainage control channels, conveyance pipe and under drain were constructed. All areas disturbed by construction were soil covered, conditioned and re-vegetated.

ROARING CREEK

This project involved the elimination of subsidence depressions, the closure of open portals and the treatment of AMD. The Roaring Creek Watershed was heavily deep mined and surfaced mined prior to 1977. The project area consisted of 3 open and 3 closed portals discharging AMD. The AMD seeped along the unnamed tributary and an area of subsidence, which drained surface water into the mine workings. AMD flow from the deep mine portals ranged from 10 gpm to 100 gpm with PH ranging from 3.1 to 5.0. The seeps along the UNT showed an average PH of 3.3. Thrasher's design plans called for the construction and rehabilitation of access roads to the site, and installation of wet seals at the portal locations. The plans also included re-grading the subsidence area to prevent surface water from entering the mine workings, and installing an emergency spillway on the existing pond which was designed to handle the additional flow.

LAUREL RUN #1

LAUREL RUN #1

This project site consisted of seven sections of highwall that totaled approximately 5,700 feet in length and averaged 20 feet in height. There were three collapsed portals adjacent to one another discharging approximately 25 gpm. One open portal entrance measured 2 foot by 3 foot and had no known discharge associated with it. Approximately 230 feet of abandoned railroad tracks remained on the project site and they did not connect to any existing tracks. The project site covered a total area of six acres and suffered from a lack of vegetation and toeing into Laurel Run.



- 31.5 Acres
- 160,000 cy balanced earthwork
- 6 mine seals



CLARKSBURG LYONS LANDSLIDE



LYONS LANDSLIDE

The project site is located in Clarksburg, WV off of Route 19. There was a two acre slide mass composed of strip mine spoil and natural slip prone material located above and behind a the Lyons residence. The scope of work consisted of constructing a soldier pile and concrete lagging retaining wall with appurtenances to stabilize the slope above the existing residence and pond, as well as, regarding the slip area while installing underdrains and channels to carry water safely through or around the slip area.

Retaining wall was a 23 ft. soldier pile and concrete lagging retaining wall with 1,600 LF of underdrains.



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

State of West Virginia
Centralized Expression of Interest

Proc Folder: 27525

Doc Description: Expression of Interest Royal Coal(P-688/R-676) Mapping/Eng

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2014-10-08	2014-11-06 13:30:00	CEOI 0313 DEP1500000003	1

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV

25305

US

VENDOR

Vendor Name, Address and Telephone Number:

The Thrasher Group, Inc.

600 White Oaks Blvd

Bridgeport, WV 26330

304-624-4108

FOR INFORMATION CONTACT THE BUYER

Frank Whittaker

(304) 558-2316

frank.m.whittaker@wv.gov

Signature X

FEIN # 550633596

DATE 11-5-14

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

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF SPECIAL RECLAMATION 47 SCHOOL ST, STE 301 PHILIPPI WV26416 US	ENVIRONMENTAL PROTECTION OFFICE OF SPECIAL RECLAMATION 254 INDUSTRIAL DR OAK HILL WV 25901 US

Line	Comm Ln Desc	Qty	Unit Issue
1	EOI Mapping/Engineering Design Services		

Comm Code	Manufacturer	Specification	Model #
81100000			

Extended Description :
Mapping, drawing, specifications, and engineering design services to prepare construction documents and to assist OSR in completing land reclamation and water treatment by compiling a Request for Quotation (RFQ) for the project, per the attached specification and requirements.



CERTIFICATE OF LIABILITY INSURANCE

RESOU-2 OP ID: PM

DATE (MM/DD/YYYY)
06/10/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Henderson Brothers, Inc. 920 Ft Duquesne Blvd Pittsburgh, PA 15222 James L. Conn	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
INSURED The Thrasher Group, Inc. Ronald Stanley PO Box 940 Bridgeport, WV 26330	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	INSURER A: The Travelers Indemnity Compan	
	INSURER B: The Charter Oak Fire Ins. Co.	
	INSURER C: Travelers Property Casualty Co	
	INSURER D:	
	INSURER E:	
INSURER F:		
NAIC #		

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY		6307C054452IND14	01/01/2014	01/01/2015	EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY					DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR					MED EXP (Any one person) \$ 10,000
	<input checked="" type="checkbox"/> Ohio Stop Gap					PERSONAL & ADV INJURY \$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:					GENERAL AGGREGATE \$ 2,000,000
	<input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC					PRODUCTS - COMP/OP AGG \$ 2,000,000
B	AUTOMOBILE LIABILITY		810202D1071COF14	01/01/2014	01/01/2015	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO					BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS	<input type="checkbox"/> SCHEDULED AUTOS				BODILY INJURY (Per accident) \$
	<input checked="" type="checkbox"/> HIRED AUTOS	<input checked="" type="checkbox"/> NON-OWNED AUTOS				PROPERTY DAMAGE (PER ACCIDENT) \$
C	UMBRELLA LIAB	<input checked="" type="checkbox"/> OCCUR	CUP202D106ATIL14	01/01/2014	01/01/2015	EACH OCCURRENCE \$ 5,000,000
	EXCESS LIAB	<input type="checkbox"/> CLAIMS-MADE				AGGREGATE \$ 5,000,000
	DED <input checked="" type="checkbox"/> RETENTION \$ 10,000					
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY					
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	<input type="checkbox"/> Y/N				WC STATU-TORY LIMITS
	If yes, describe under DESCRIPTION OF OPERATIONS below					OTH-ER
						E.L. EACH ACCIDENT \$
						E.L. DISEASE - EA EMPLOYEE \$
						E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

James L. Conn

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
6/12/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER The James B. Oswald Company 1100 Superior Avenue, Suite 1500 Cleveland OH 44114		CONTACT NAME: Patricia Cholewa PHONE (A/C, No. Ext): 216-839-2807 FAX (A/C, No.): 216-839-2815 E-MAIL ADDRESS: PCholewa@oswaldcompanies.com	
		INSURER(S) AFFORDING COVERAGE	NAIC #
		INSURER A : Hudson Specialty Insurance Co.	25054
		INSURER B :	
		INSURER C :	
		INSURER D :	
		INSURER E :	
		INSURER F :	

COVERAGES

CERTIFICATE NUMBER: 2134598143

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY						EACH OCCURRENCE \$
	<input type="checkbox"/> COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence) \$
	<input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR						MED EXP (Any one person) \$
							PERSONAL & ADV INJURY \$
							GENERAL AGGREGATE \$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG \$
	<input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						\$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident) \$
	<input type="checkbox"/> ANY AUTO						BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS						BODILY INJURY (Per accident) \$
	<input type="checkbox"/> HIRED AUTOS						PROPERTY DAMAGE (Per accident) \$
							\$
	UMBRELLA LIAB						EACH OCCURRENCE \$
	<input type="checkbox"/> EXCESS LIAB						AGGREGATE \$
	<input type="checkbox"/> DED <input type="checkbox"/> RETENTION \$						\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						WC STATUTORY LIMITS OTH-ER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	Y/N					E.L. EACH ACCIDENT \$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$
							E.L. DISEASE - POLICY LIMIT \$
A	Professional Liability Claims Made Retro Date: 1/11/2005	N	Y	AEE7287300	1/1/2014	1/1/2015	Each Claim \$5,000,000 Aggregate \$5,000,000 Pollution Liability Included

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Waiver of Subrogation as designated above is provided when required of the Named Insured by written contract or agreement.

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Patricia A Cholewa

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RESOENG-01 TBENEDUM

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

6/12/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Dyer Insurance Agency 347 Washington Avenue PO Box 607 Clarksburg, WV 26302-0607		CONTACT NAME: Traci E. Benedum PHONE (A/C, No, Ext): (304) 624-5584 E-MAIL ADDRESS: tbenedum@dyerinsgroup.com FAX (A/C, No): (304) 622-4736	
		INSURER(S) AFFORDING COVERAGE	
		INSURER A: Travelers	
		INSURER B:	
		INSURER C:	
		INSURER D:	
		INSURER E:	
		INSURER F:	

COVERAGES**CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (PER ACCIDENT) \$ \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	UB-9C486312	04/01/2014	04/01/2015	<input checked="" type="checkbox"/> WC STATU-TORY LIMITS <input checked="" type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Workers' compensation coverage applies to the states of WV, VA, MD, PA and KY.

Blanket Waiver of Subrogation and Alternate Employer Endorsement applies to the workers' compensation policy with Travelers Insurance.

Broad Form Coverage applies to WV for the workers' compensation policy with Travelers.

The 30-day notice of cancellation has been added by endorsement.

CERTIFICATE HOLDER**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OSR CONSULTANT QUALIFICATION QUESTIONNAIRE Attachment "B"

PROJECT NAME Royal Coal Company, Inc.		DATE (DAY, MONTH, YEAR) November 6, 2014		FEIN 55-0633596-6					
1. FIRM NAME THE THRASHER GROUP, INC.		2. HOME OFFICE BUSINESS ADDRESS 600 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26330		3. FORMER FIRM NAME THRASHER ENGINEERING, INC.					
4. HOME OFFICE TELEPHONE 304-624-4108	5. ESTABLISHED (YEAR) 1983	6. TYPE OWNERSHIP Individual Corporation X Partnership Joint-Venture		6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES NO X					
7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE 600 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26330 / 304-624-4108 / CHAD D. BILLER, P.E., PARTNER / 12 300 ASSOCIATION DRIVE, CHARLESTON, WV / 304-343-7601 / JONATHAN CARPENTER, MANAGING PARTNER / 2 3000 THAYER PLACE, OAKLAND, MD/301-334-3866 / CHAD RILEY, PE / 1 380 AIRPORT CIRCLE, BEAVER, WV 25813 /304-860-1924 / ROBERT CRADDOCK/0 4150 BELDEN VILLAGE STREET, SUITE 101, CANTON, OHIO 44718 / 330-491-8170/ STEVE HAMIT, P.E./2 236 CAMBRIDGE STREET, FREDERICKSBURG, VA 22405 / 540-372-3499/DOUGLAS RICHMOND, L.S./9 1428 MAIN STREET, PRINCETON, WV 24740 /304-431-7800/ WAYNE MORGAN, PE /39									
8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM H. WOOD THRASHER, P.E. – PRESIDENT KENNETH P. MORAN, P.E. – VICE PRESIDENT RONALD STANLEY, CPA – CHIEF FINANCIAL OFFICER		8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS WM. RANDY WATSON-PARTNER (304) 624-4108 CHAD M. RILEY, P.E.– PARTNER (304) 624-4108 CHADWICK BILLER, P.E.– PARTNER (304) 624-4108 CLAY P. RILEY, P.E. – PARTNER (304) 624-4108 DAN FERRELL, P.E.- PARTNER(304) 624-4108 CRAIG BAKER, ASSOCIATE AIA – PARTNER (304) 624-4108 ROBERT MILNE, P.E. – PARTNER (304) 624-4108 JONATHAN CARPENTER, P.E.-PARTNER (304) 343-7601 MATTHEW FLUHARTY, PE – PARTNER (304) 624-4108 JENELLE ARMSTRONG, PE – PARTNER (304)326-7601							
9. PERSONNEL BY DISCIPLINE									
<table style="width: 100%; border: none;"> <tr> <td style="width: 25%; vertical-align: top;"> 44 ADMINISTRATIVE 7 ARCHITECTS — BIOLOGIST 18 CADD OPERATORS — CHEMICAL ENGINEERS 38 CIVIL ENGINEERS 37 CONSTRUCTION INSPECTORS DESIGNERS — DRAFTSMEN </td> <td style="width: 25%; vertical-align: top;"> — ECOLOGISTS — ECONOMISTS — ELECTRICAL ENGINEERS 2 ENVIRONMENTALISTS — ESTIMATORS GEOLOGISTS — HISTORIANS — HYDROLOGISTS </td> <td style="width: 25%; vertical-align: top;"> 2 LANDSCAPE ARCHITECTS — MECHANICAL ENGINEERS — MINING ENGINEERS 5 PHOTOGRAMMETRISTS — PLANNERS: URBAN/REGIONAL — SANITARY ENGINEERS — SOILS ENGINEERS SPECIFICATION WRITERS </td> <td style="width: 25%; vertical-align: top;"> — STRUCTURAL ENGINEERS 72 SURVEYORS — TRAFFIC ENGINEERS 1 GIS SPECIALIST 1 PIPELINE INSPECTOR 24 MATERIALS TESTING TECH. 257 TOTAL PERSONNEL </td> </tr> </table>						44 ADMINISTRATIVE 7 ARCHITECTS — BIOLOGIST 18 CADD OPERATORS — CHEMICAL ENGINEERS 38 CIVIL ENGINEERS 37 CONSTRUCTION INSPECTORS DESIGNERS — DRAFTSMEN	— ECOLOGISTS — ECONOMISTS — ELECTRICAL ENGINEERS 2 ENVIRONMENTALISTS — ESTIMATORS GEOLOGISTS — HISTORIANS — HYDROLOGISTS	2 LANDSCAPE ARCHITECTS — MECHANICAL ENGINEERS — MINING ENGINEERS 5 PHOTOGRAMMETRISTS — PLANNERS: URBAN/REGIONAL — SANITARY ENGINEERS — SOILS ENGINEERS SPECIFICATION WRITERS	— STRUCTURAL ENGINEERS 72 SURVEYORS — TRAFFIC ENGINEERS 1 GIS SPECIALIST 1 PIPELINE INSPECTOR 24 MATERIALS TESTING TECH. 257 TOTAL PERSONNEL
44 ADMINISTRATIVE 7 ARCHITECTS — BIOLOGIST 18 CADD OPERATORS — CHEMICAL ENGINEERS 38 CIVIL ENGINEERS 37 CONSTRUCTION INSPECTORS DESIGNERS — DRAFTSMEN	— ECOLOGISTS — ECONOMISTS — ELECTRICAL ENGINEERS 2 ENVIRONMENTALISTS — ESTIMATORS GEOLOGISTS — HISTORIANS — HYDROLOGISTS	2 LANDSCAPE ARCHITECTS — MECHANICAL ENGINEERS — MINING ENGINEERS 5 PHOTOGRAMMETRISTS — PLANNERS: URBAN/REGIONAL — SANITARY ENGINEERS — SOILS ENGINEERS SPECIFICATION WRITERS	— STRUCTURAL ENGINEERS 72 SURVEYORS — TRAFFIC ENGINEERS 1 GIS SPECIALIST 1 PIPELINE INSPECTOR 24 MATERIALS TESTING TECH. 257 TOTAL PERSONNEL						
TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: <u>18</u> *RPES other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.									
10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? <input type="checkbox"/> YES X NO NOT APPLICABLE									

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

[illegible]

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

X YES Description and Number of Project: THRASHER PERFORMS ENGINEERING DESIGN SERVICES TO THE WV DEP FOR DRAINAGE, PORTAL, HIGHWALL AND OTHER REMEDIATION PROJECTS, AS WELL AS FOR WATER LINE AND WATER TREATMENT PLANT PROJECTS RELATED TO AML. NUMEROUS PROJECTS INVOLVING LAND REMEDIATION, STORM WATER DRAINAGE, SLIP REPAIR, MASS GRADING IN RELATION TO SITE DEVELOPMENT AND HIGHWAY PROJECTS ARE ENGINEERED BY THE FIRM ON A REGULAR BASIS.

B. Is your firm experienced in Soil Analysis and Coal Refuse Analyses?

X YES Description and Number of Projects: THRASHER MAINTAINS AN AASHTO CERTIFIED MATERIALS TESTING AND ANALYSIS LAB AT BOTH THE CLARKSBURG AND BECKLEY OFFICES. SOIL ANALYSIS EXPERIENCE IS SPECIFICALLY IN GRADATIONS AND CLASSIFICATION.

C. Is your firm experienced in hydrology and hydraulics for handling mine water discharges on mining sites?

X YES Description and Number of Projects: THROUGH OUR WORK IN THE PLANNING AND DESIGN OF BRIDGES FOR THE WEST VIRGINIA DEPARTMENT OF HIGHWAYS AND WATER LINE EXTENSION PROJECTS THROUGHOUT THE STATE, THRASHER HAS EXTENSIVE EXPERIENCE IN HYDROLOGY. WE ALSO HAVE EXTENSION EXPERIENCE IN HYDRAULIC MODELING FOR WATER AND WASTEWATER PROJECTS THROUGHOUT WEST VIRGINIA.

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

YES Description and Number of Projects: THRASHER SURVEY ONLY SUBCONTRACTS THE ACQUISITION OF AERIAL PHOTOGRAPHY. ALL OTHER SERVICES ASSOCIATED WITH MAPPING ARE PERFORMED IN-HOUSE INCLUDING AERO-TRIANGULATION, PLANIMETRIC COMPILATION, SURFACE MODELING, CONTOURING AND DIGITAL ORTHO-RECTIFIED IMAGERY. THRASHER MAPPING AND CONTROL SERVICES INCLUDE NGS "BLUE-BOOKING", PERMANENT MONUMENT POSITIONING AND INSTALLATION, GPS BASE STATION INSTALLATION, PRECISE LEVELING, CONTROL NETWORKS, AERIAL PHOTO CONTROL, VERTICAL SCALE MAPPING, STEREO PHOTOGRAMMETRY, ORTHO-RECTIFIED IMAGES, TRIANGULATED SURFACE MODELS, 3D MODELING AND ANIMATION. THRASHER PROVIDES THESE SERVICES FROM BOTH MANNED AND UNMANNED PLATFORMS. THRASHER LIDAR/REMOTE SENSING IS PERFORMED FROM TERRESTRIAL AND AIRBORNE PLATFORMS BOTH MANNED AND REMOTE CONTROLLED. THRASHER'S MODEL WHEN IT COMES TO ADVANCED TECHNOLOGIES IS TO EMPLOY TECHNICAL EXPERTISE, OWN SOFTWARE AND RENT/LEASE HARDWARE AS NEEDED SINCE TECHNOLOGY CHANGES ARE CONSTANT.

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

YES Description and Number of Projects: THRASHER HAS DESIGNED MORE WATER LINE SYSTEMS THAN ANY OTHER WEST VIRGINIA FIRM. PROJECTS INCLUDE NEW SYSTEMS, EXTENSIONS AND REPLACEMENTS OF WATER LINE DISTRIBUTION SYSTEMS, MANY OF WHICH HAVE BEEN AFFECTED BY ABANDONED MINE LANDS. DESIGN OF THE PROJECTS INCLUDES INCLUDE LINES, BOOSTER STATIONS, WATER TREATMENT PLANTS, AND STORAGE FACILITIES. THRASHER'S ANALYSIS AND DESIGN ALSO INCLUDES IMPROVEMENTS AND ALTERNATIVES FOR WATER SOURCES DEEMED GROUND WATER UNDER THE DIRECT EFFECT OF SURFACE WATER.

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

YES Description and Number of Projects THRASHER HAS BEEN AWARDED AND HAS SUCCESSFULLY COMPLETED NUMEROUS RECLAMATION PROJECTS FOR WVDEP RELATED SPECIFICALLY TO ACID MINE DRAINAGE AND ABATEMENT . THE CHARLESTON WV BRANCH OF OUR COMPANY DESIGNED AN AWARD WINNING WATER TREATMENT PLANT FOR MARTINKA MINES IN MARION COUNTY, WEST VIRGINIA TO TREAT MINE DRAINAGE.

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
BILLER, CHADWICK D. P.E.	5	19	19
Brief Explanation of Responsibilities: <i>Mr. Biller has experience in all aspects of engineering with specific emphasis on site development, highways, roads, bridges, and airports. Mr. Biller joined Thrasher Engineering in 1999 and is a partner of Thrasher Engineering. For Thrasher Engineering, Mr. Biller is responsible for WV DEP AML project and public and private site development projects, specializing in airports, highways, roads and bridges. As Project Manager for all of the firm's WVDOT/DOH projects, he has extensive knowledge of state and federal building standards.</i>			
EDUCATION (Degree, Year, Specialization): <input type="checkbox"/> B.S., Civil Engineering, 1992 – West Virginia University			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
<input type="checkbox"/> American Society of Civil Engineers <input type="checkbox"/> Society of American Military Engineers <input type="checkbox"/> National Society of Professional Engineers		<input type="checkbox"/> Registered Professional Engineer(PE),State of West Virginia #13620 <input type="checkbox"/> Registered Professional Engineer (PE),State of Pennsylvania #PE056012E <input type="checkbox"/> Registered Professional Engineer (PE),State of Ohio #64594	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
NESTOR, MICHAEL – PROJECT ENGINEER	3	9	9
Brief Explanation of Responsibilities <i>Mr. Nestor joined Thrasher Engineering in 2005 and serves as Project Manager and Engineer. Mr. Nestor has a wide range of experience in residential and commercial site development projects, utilizing all aspects of infrastructure design including street and lot layout, street profiles, extensions of public sewer and water systems, storm water drainage, storm water management, erosion and sediment control plans, and NPDES permitting. In addition, Mr. Nestor oversees all general operations within The Berkeley Associates, directing administrative staff, CAD technicians, and staff engineers to ensure successful completion of projects covering site development, surveying, material testing, and environmental services.</i>			
EDUCATION (Degree, Year, Specialization) B.S. Civil Engineering Technology – Fairmont State University, 2003			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
<input type="checkbox"/> American Society of Civil Engineers <input type="checkbox"/> Eastern Panhandle Home Builders Association		<input type="checkbox"/> Professional Engineer (P.E.), 2009, State of West Virginia	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
ROHRBAUGH, APRIL	3	8	-
Brief Explanation of Responsibilities <i>Ms. Rohrbaugh joined Thrasher Engineering in January of 2006 and serves as Staff Engineer in the site development department of Thrasher, with a concentration on AML reclamation and sediment/erosion control project. Ms. Rohrbaugh has experience in all aspects of site engineering, taking projects from survey to concept to construction. Her responsibilities with AML projects include: Design of wet and modified mine seals, grading associated with reclaiming, storm water management, and erosion and sediment control. Ms. Rohrbaugh's other responsibilities include: design surveying consisting of both field traversing and survey locations and aerial mapping. Conceptual planning for residential, commercial, and recreational developments. Site/Land Development engineering: geometric layout of sites, subdivisions, and roads, grading, drainage, storm water management, erosion and sediment control, and various regulatory permitting requirements.</i>			
EDUCATION (Degree, Year, Specialization) B.S. Civil Engineering – West Virginia University, 2005, Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
HOVATTER, RICHARD (RJ) – PROJECT MANAGER	9	9	9
Brief Explanation of Responsibilities: <i>Richard Hovatter Jr. joined Thrasher Engineering, Inc. in 2011 and serves as Project Manager from TEI's Clarksburg Office. As a graduate of Fairmont State University and previous experience Mr. Hovatter has extensive knowledge of abandoned mine land and emergency situations such as landslides and mine subsidence of abandoned mine land. Mr. Hovatter is responsible for the designs, scheduling, collection and reporting of mine surface, sediment erosion control plans and waterline feasibility studies.</i>			
EDUCATION (Degree, Year, Specialization) <input type="checkbox"/> Bachelor of Science, 2002, Civil Engineering Technology – Fairmont State University			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
		<input type="checkbox"/> Professional Engineer (P.E.), 2009, State of West Virginia <input type="checkbox"/> Professional Engineer (P.E.), 2010, State of Pennsylvania	

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

THRASHER ENGINEERING, INC. WILL DESIGN WORK FOR AML UTILIZING ONE OF THE LARGEST NETWORKS OF COMPUTER AIDED DESIGN (CAD) EQUIPMENT, SOFTWARE AND TRAINED PERSONNEL IN THE STATE OF WEST VIRGINIA.

CONNECTED THROUGH A VIRTUAL PRIVATE NETWORK, OUR CAD STAFF HAS THE ABILITY TO SHARE NECESSARY PLANS AMONG OUR LOCATIONS. THIS WILL ALLOW WORK DESIGNED FOR AML TO BE PREPARED AND UPDATED AT THE OFFICE LOCATION THAT BEST MEETS THE NEEDS OF THE SCOPE OF SERVICES.

CIVIL 3D, CARLSON AND MICROSTATION V8 SOFTWARE IS UTILIZED AT 70 CAD STATIONS THROUGHOUT OUR LOCATIONS. ADDITIONALLY, EQUIPMENT INCLUDES 10 LARGE FORMAT (SIZE E) PLOTTERS AND 5 LARGE FORMAT PLOTTER / SCANNERS. CAD PLANS ARE PREPARED BY BOTH DEDICATED CAD EMPLOYEES AND BY STAFF ENGINEERS AND ENGINEERING TECHNICIANS IN EACH OF THE FIRM'S OFFICES.

THRASHER ENGINEERING, INC. ALSO UTILIZES TOP-OF-THE LINE SURVEY EQUIPMENT. OUR SURVEY WORK IS ACCOMPLISHED WITH GLOBAL POSITIONING SYSTEMS (GPS) AND ELECTRONIC DISTANCE MEASURING (EDM) SURVEY STATIONS WITH DATA GATHERING CAPABILITIES. THE SURVEY CREWS AND OFFICE SUPPORT STAFF GENERATE MAPPING DELIVERABLES IN VIRTUALLY ANY DIGITAL FORMAT REFERENCED TO SPECIFIED PROJECTION SYSTEMS.

ADDITIONAL SURVEY SERVICES INCLUDE: HIGH ACCURACY MONUMENTATION, ASTRONOMIC OBSERVATIONS / ORIENTATION, NGS BLUE BOOKING, HYDROGRAPHIC, TERRESTRIAL SCANNING, 3D AS-BUILTS, 3D MONITORING, SUB-SURFACE UTILITY LOCATION / DESIGNATION. THE FIELD CREWS ARE ALL EQUIPPED WITH LATE MODEL FOUR WHEEL DRIVE VEHICLES STOCKED WITH THE MOST MODERN EQUIPMENT AVAILABLE TO PERFORM PROFESSIONAL LAND SURVEYING SERVICES.

63 TRIMBLE GNSS UNITS
6 TRIMBLE ROBOTS
2 PRECISE DIGITAL FIRST ORDER LEVELS WITH INVAR RODS
25 LEICA, NIKON OR TOPCON TOTAL STATIONS ALL MANAGED BY
TRIMBLE TSC3 FIELD COMPUTERS
REMOTE CONTROLLED/UNMANNED MAPPING AERIAL PLATFORM
HYDROGRAPHIC SURVEY VESSEL
3D SUB-SURFACE UTILITY LOCATORS

CIVIL 3D
CARLSON AND MICROSTATION V8 SOFTWARE
70 CAD STATIONS
10 LARGE FORMAT (SIZE E) PLOTTERS AND
5 LARGE FORMAT PLOTTER / SCANNERS.

CURRENT ACTIVITIES – WVDOH PROJECTS- DESIGNATED ENGINEER OF RECORD

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD:				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
MINERAL WELLS ROUTE 2 WOOD COUNTY	WVDOT / DOH BLDG. 5, ROOM A-109 1900 KANAWHA BLVD., EAST CHARLESTON, WV 25305	CIVIL ENGINEERING DESIGN, SURVEY, CONSTRUCTION DOCUMENTS	\$6,000,000.00	DESIGN STUDY 100% ENGINEERING DESIGN – 0%
BASNETTVILLE BRIDGE MARION COUNTY	WVDOT / DOH BLDG. 5, ROOM A-109 1900 KANAWHA BLVD., EAST CHARLESTON, WV 25305	CIVIL ENGINEERING DESIGN, SURVEY, CONSTRUCTION DOCUMENTS	\$1,800,000.00	15%
US ROUTE 119 BRIDGES ROANE COUNTY	WVDOT / DOH BLDG. 5, ROOM A-109 1900 KANAWHA BLVD., EAST CHARLESTON, WV 25305	CIVIL ENGINEERING DESIGN, SURVEY, CONSTRUCTION DOCUMENTS	\$1,500,000.00	10%
TOTAL NUMBER OF PROJECTS: 3			TOTAL ESTIMATED CONSTRUCTION COSTS: 3 PROJECTS = \$9.3 MILLION	

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

PRESENT ACTIVITIES – WATER AND WASTEWATER PROJECTS- DESIGNATED ENGINEER OF RECORD

THRASHER IS CURRENTLY THE DESIGNATED “ENGINEER OF RECORD” ON MORE THAN 200 ON-GOING PROJECTS. THESE PROJECTS RANGE FROM SIMPLE BOUNDARY SURVEYS WHICH ARE COMPLETED WITHIN A FEW DAYS’ TIME TO COMPLETE MUNICIPAL PROJECTS WHICH ARE COMPLETED OVER AN EXTENDED AMOUNT OF TIME. THE FOLLOWING LIST OF SELECTED CURRENT PROJECTS REPRESENTS THOSE WHICH HAVE BEEN AWARDED TO THRASHER WITHIN THE PAST THREE (3) YEARS AND DEMONSTRATES THE RANGE OF SERVICES PROVIDED BY THRASHER.

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM’S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
MALDEN PUBLIC SERVICE DISTRICT WASTEWATER TREATMENT PLANT KANAWHA COUNTY, WV	MALDEN PUBLIC SERVICE DISTRICT P.O. BOX 350 TAD, WV 25201-0350	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$13,600,000.00	50%
CITY OF RIPLEY, WV WASTEWATER TREATMENT PLANT & SYSTEM IMPROVEMENTS JACKSON COUNTY, WV	CITY OF RIPLEY, WV 203 SOUTH CHURCH STREET RIPLEY, WV 25271	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$13,000,000.00	50%
FOUNTAIN PUBLIC SERVICE DISTRICT WATER SYSTEM PROJECT MINERAL COUNTY, WV	FOUNTAIN PUBLIC SERVICE DISTRICT PO BOX 146 / ROUTE 46 EAST KEYSER, WV 26726	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$10,500,000.00	45%
CITY OF ROMNEY WASTEWATER TREATMENT PLANT, ROMNEY, WV	CITY OF ROMNEY 340 E MAIN STREET ROMNEY, WV 26757	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$9,000,000.00	60 %
TOWN OF FLEMINGTON SANITARY SEWER EXTENSION FLEMINGTON, WV	TOWN OF FLEMINGTON PO BOX 443 FLEMINGTON, WV 26347	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION		
CITY OF CLARKSBURG WASTEWATER TREATMENT PLANT UPGRADES FOR LTCF	CITY OF CLARKSBURG 222 WEST MAIN STREET CLARKSBURG, WV 26301	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION		
PRESTON COUNTY SEWER PUBLIC SERVICE DISTRICT WASTEWATER TREATMENT PLANT AND COLLECTION SYSTEM	PRESTON COUNTY SEWER PUBLIC SERVICE DISTRICT PO BOX 89 BRUCETON MILLS, WV 26525	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION		
TOTAL NUMBER OF PROJECTS: 7 SHOWN – 200+ COMPANY-WIDE			TOTAL ESTIMATED CONSTRUCTION COSTS: TOTAL ESTIMATED CONSTRUCTION COSTS: \$60,350,000.00 SHOWN – TOTAL PROJECTS APPROXIMATELY \$750,000,000.00	

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

PRESENT ACTIVITIES – WATER AND WASTEWATER PROJECTS- DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
CHESTNUT RIDGE PSD BARBOUR/PRESTON EXTENSION BARBOUR COUNTY, WV	CHESTNUT RIDGE PSD 209 S MAIN STREET P.O. BOX 386 PHILIPPI, WV 26416	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION.	\$4,500,000	90%
GILMER COUNTY PSD WATER LINE EXTENSION	GILMER COUNTY PSD PO BOX 729 GLENVILLE, WV 26351	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$3,200,000.00	85%
MINGO COUNTY PSD WATER LINE EXTENSION	MINGO COUNTY PSD PO BOX 98 NAUGATUCK, WV 25685	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$1,075,000.00	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.	35%
LINCOLN COUNTY PSD WATER LINE EXTENSION PROJECTS	LINCOLN PSD P.O. BOX 38 240 LITTLE COAL RIVER RD. ALUM CREEK, WV 25003	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$6,920,000.	25%
TOWN OF CAPON BRIDGE WATERLINE AND PUMP STATION REPLACEMENT	TOWN OF CAPON BRIDGE PO BOX 183 FRANK, WV 24920	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$1,925,000.00	50%
CITY OF SALEM, WEST VIRGINIA WATER LINE REPLACEMENT	SALEM, CITY OF P.O. BOX 352 229 W. MAIN SALEM, WV 26426	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$1,500,000.	80%
TOTAL NUMBER OF PROJECTS: 7 REPRESENTED (APPROXIMATELY 20 ADDITIONAL CURRENTLY IN PRELIMINARY / DESIGN OR CONSTRUCTION PHASES			TOTAL ESTIMATED CONSTRUCTION COSTS: \$18,220,000.00 REPRESENTED ESTIMATED COST OF ALL JOBS APPROXIMATELY \$150,000,000.00	

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD: **SANITARY SEWER PROJECTS**
 THRASHER ENGINEERING IS CURRENTLY THE DESIGNATED "ENGINEER OF RECORD" ON MORE THAN 200 ON-GOING PROJECTS. THESE PROJECTS RANGE FROM SIMPLE BOUNDARY SURVEYS WHICH ARE COMPLETED WITHIN A FEW DAYS' TIME TO COMPLETE MUNICIPAL PROJECTS WHICH ARE COMPLETED OVER AN EXTENDED AMOUNT OF TIME. A PARTIAL LISTING OF CURRENT PROJECTS FOLLOWS WHICH DEMONSTRATES THE RANGE OF SERVICES PROVIDED BY THRASHER ENGINEERING.

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
KINGWOOD SEWER REPLACEMENT AND SERVICE EXTENSIONS KINGWOOD, WV	CITY OF KINGWOOD 313 TUNNELTON STREET KINGWOOD, WV 26537	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$10,000,000.00	50%
GREATER HARRISON COUNTY PSD PHASE II-B HARRISON COUNTY, WV	GREATER HARRISON COUNTY PSD P.O. BOX 190 WEST MILFORD, WV 26451	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$6,000,000.00	65%
TENNERTON PSD PHASE III SANITARY SEWER EXTENSION UPSHUR COUNTY, WV	TENNERTON PSD 188 FAYETTE ST. BUCKHANNON, WV 26201	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$6,800,000.00	5%
ENLARGED HEPZIBAH PSD SANITARY SEWER EXTENSION HARRISON COUNTY, WV	ENLARGED HEPZIBAH PSD DRAWER H HEPZIBAH, WV 26369	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$2,666,000.00	50%
CITY OF WEIRTON, WV PHASE II SEWER PROJECT	CITY OF WEIRTON 3031 BIRCH DRIVE WEIRTON, WV 26062	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$5,728,000.00	40%
TOWN OF JUNIOR WASTEWATER TREATMENT PLANT JUNIOR, WV	TOWN OF JUNIOR PO BOX 247 JUNIOR, WV 26275	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$2,332,000.00	45%
TOTAL NUMBER OF PROJECTS: 7 REPRESENTED TOTAL ACTIVE SANITARY SEWER PROJECTS APPROXIMATELY 38			TOTAL ESTIMATED CONSTRUCTION COSTS: \$46,000,000.00 TOTAL FOR ALL PROJECTS APPROXIMATELY \$150,000,000	

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

PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
BERKELEY COUNTY PUBLIC SERVICE SEWER DISTRICT WASTEWATER TREATMENT PLANT BERKELY COUNTY,WV	DESIGN SUPPORT CONSTRUCTION ADMIN.	BERKELEY COUNTY PSSD PO BOX 944 MARTINSBURG, WV 25402	2015	\$20,000,000.00	\$10,000,000.00
RD BAILY WATER SYSTEM MCGRAWS, WV	DESIGN SUPPPORT CONSTRUCTION ADM.	RAVENCLIFF-MCGRAWS- SAULSVILLE PSD P.O. BOX 217 MCGRAWS, WV 25875	2016	\$30,000,000.00	\$12,000,000.00

COMPLETED WORK – WVDEP OFFICE OF AML&R - PROJECTS DESIGNATED ENGINEER OF RECORD

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOU WERE THE DESIGNATED ENGINEER OF RECORD THRASHER HAS DESIGNED, BID AND PROVIDED CONSTRUCTION SERVICES FOR MORE THAN 200 PUBLICLY FUNDED PROJECTS WITHIN THE PAST 10 YEARS. THE FOLLOWING LIST IS COMPRISED OF PROJECTS COMPLETED WITHIN THE LAST THREE (3) YEARS THAT DEMONSTRATE THE RANGE OF DISCIPLINES PROVIDED BY THRASHER

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
PLEASANT VALLEY AML RECLAMATION MARION COUNTY, WV	WV DEP, OFFICE OF AML&R 601 57 TH STREET, SE CHARLESTON, WV 25304	\$764,000.00	2013	YES
ROGER (CAMP HILL) AML RECLAMATION TUCKER COUNTY, WV	WV DEP, OFFICE OF AML&R 601 57 TH STREET, SE CHARLESTON, WV 25304	\$210,000.00	2013	YES
ANGLINS RUN PORTALS AML RECLAMATION BARBOUR COUNTY, WV	WV DEP, OFFICE OF AML&R 601 57 TH STREET, SE CHARLESTON, WV 25304	\$321,000.00	2010	YES
ROARING CREEK SUBSIDENCE AML RECLAMATION RANDOLPH COUNTY, WV	WV DEP, OFFICE OF AML&R 601 57 TH STREET, SE CHARLESTON, WV 25304	\$353,000.00	2010	YES
SQUIRES CREEK PORTALS REFUSE AML RECLAMATION	WV DEP, OFFICE OF AML&R 601 57 TH STREET, SE CHARLESTON, WV 25304	\$260,000.00	2011	YES
OVERFIELD (LAFFERTY) CS&P AML RECLAMATION	WV DEP, OFFICE OF AML&R 601 57 TH STREET, SE CHARLESTON, WV 25304	\$492,000.00	2011	YES
LAUREL RUN #1 REFUSE / HIGHWALL AML RECLAMATION MONONGALIA COUNTY, WV	WV DEP, OFFICE OF AML&R 601 57 TH STREET, SE CHARLESTON, WV 25304	\$1,558,000.00	2012	YES
CLARKSBURG (LYONS) LANDSLIDE AML RECLAMATION HARRISON COUNTY, WV	WV DEP, OFFICE OF AML&R 601 57 TH STREET, SE CHARLESTON, WV 25304	\$1,492,000.00	2012	YES

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
McHENRY BUSINESS PARK SITE DEVELOPMENT AND UTILITIES GARRETT COUNTY, MD	GARRETT COUNTY EDA 203 SOUTH 4TH STREET COURTHOUSE ROOM 208 OAKLAND, MD 21550	\$3,500,000.00	2011	YES
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	\$12,100,000.00	2010	YES
CANYON PUBLIC SERVICE DISTRICT SANITARY SEWER UPGRADE AND EXT MONONGALIA COUNTY, WV	CANYON PSD 12 WICHITA STREET MORGANTOWN, WV 26508	\$6,500,000.	2009	YES
HEPZIBAH PSD SANITARY SEWER EXTENSION HARRISON COUNTY, WV	ENLARGED HEPZIBAH DRAWER H HEPZIBAH, WV 26369	\$3,400,000	2010	YES
SUN VALLEY WATER AND SEWER SYSTEM IMPROVEMENTS REYNOLDSVILLE, WV	SUN VALLEY PSD PO BOX 95 REYNOLDSVILLE, WV 26422	\$12,500,000	2010	YES
BROOKE COUNTY PSD REPLACEMENT AND EXTENSION BROOKE COUNTY, WV	BROOKE CO. PSD 711 CHARLES ST. P. O. BOX 150 WELLSBURG, WV 26070	\$10,000,000	2009	YES
HUTTONSVILLE PSD PHASE II RANDOLPH COUNTY, WV	HUTTONSVILLE PSD P.O. BOX 277 MILL CREEK, WV 26280	\$4,300,000	2009	YES
POCAHONTAS COUNTY PSD WWTP AND COLLECTION SYSTEM POCAHONTAS COUNTY, WV	POCAHONTAS COUNTY PSD HC 63 BOX 122 FRANK, WV 24920	\$11,600,000	2009	YES
HARDY COUNTY WATER SYSTEM IMPROVEMENTS HARDY COUNTY, WV	HARDY COUNTY PSD 223 N. MAIN STREET MOOREFIELD, WV 26836	\$8,000,000	2010	YES

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOU WERE THE DESIGNATED ENGINEER OF RECORD				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
LEWIS COUNTY ECONOMIC DEVELOPMENT AUTHORITY BLOODY RUN WATER LINE EXTENSION	LEWIS COUNTY EDA 16 GARTON PLAZA WESTON, WV 26452	\$167,165.00	2013	YES
HEPZIBAH PSD SANITARY SEWER EXTENSION HARRISON COUNTY, WV	ENLARGED HEPZIBAH DRAWER H HEPZIBAH, WV 26369	\$3,400,000	2010	YES
SOUTHWESTERN PSD WATER LINE EXTENSION / REPLACEMENT	SOUTHWESTERN WATER PUBLIC SERVICE DISTRICT P. O. BOX 98 FLEMINGTON, WV 26347	\$10,430,000	2012.	YES
CITY OF SALEM WATER LINE REPLACEMENT AND DAM IMPROVEMENTS HARRISON COUNTY, WV	CITY OF SALEM 229 WEST MAIN STREET SALEM, WV 26426	\$981,595.00	2013	YES
TOWN OF ROWLESBURG WATER TREATMENT PLANT/ EXT. PRESTON COUNTY, WV	TOWN OF ROWLESBURG PO BOX 458 42 POPLAR STREET ROWLESBURG, WV 26425	\$4,500,000.	2010	YES
COUNTY LINE BRIDGE MARSHALL COUNTY, WV	WVDOT / DOH BLDG. 5, ROOM A-109 1900 KANAWHA BLVD., EAST CHARLESTON, WV 25305	\$1,800,000.00	2013	YES
WVDOH DISTRICT 7 HEADQUARTERS LEWIS COUNTY, WV	WVDOT / DOH BLDG. 5, ROOM A-109 1900 KANAWHA BLVD., EAST CHARLESTON, WV 25305	\$2,300,000.00	2013	YES
I-64 WEIGH STATION PUTNAM COUNTY, WV	WVDOT / DOH BLDG. 5, ROOM A-109 1900 KANAWHA BLVD., EAST CHARLESTON, WV 25305	\$800,000.00	2013	YES

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

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
MC DOWELL COUNTY FEDERAL PRISON WELCH, WV SITE DEVELOPMENT	US DEPARTMENT OF JUSTICE FEDERAL BUREAU OF PRISONS 500 FIRST STREET NW WASHINGTON, DC 20534	\$25,000,000.00	2010	YES	BELL JUSTICE FACILITIES
CITY OF BECKLEY INTERMODAL GATEWAY	CITY OF BECKLEY 409 S. KANAWHA STREET BECKLEY, WV 25801	\$250,000.00	2012	YES	PARSONS BRINCKERHOFF

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

SEE ATTACHMENT – STATEMENT OF QUALIFICATIONS

20. THE FOREGOING IS A STATEMENT OF FACTS.

SIGNATURE:  TITLE: PARTNER / PRINCIPAL-IN-CHARGE

PRINTED NAME: CHADWICK D. BILLER, P.E.

DATE: NOVEMBER 6, 2014

EXPRESSION OF INTEREST
DEP17040
CEOI 0313 DEP1500000003
 Royal Coal Company P-688 and R-676
 Attachment “C”

OSR and RELATED PROJECT EXPERIENCE MATRIX

PROJECT	Exp. Basis C-Corp P-Personal *	Additional info provided in Section (s) **	PROJECT EXPERIENCE REQUIREMENTS																Primary staff participation/capacity *** M-Management P-Professional				
			Forfeited Surface Mine Reclamation	Forfeited Deep Mine Reclamation	Portal/shaft closure	Hydrologic/Hydraulic design/ Eval.	Remining Evaluation	Mine / refuse fire abatement	Subsidence investigation/ mitigation	Hazardous waste disposal	Project specifications	Water quality evaluation /mitigation replacement	Construction inspection / management	Water treatment	Equipment /structure removal	Stream restoration	Geotechnical/stability	NPDES/ Stormwater preparation	Chad Biller, PE ***	Mike Nester, PE, CFM	April Rohrbaugh	Dayton Carpenter, PE	Doug Forni, PE
Marinka Mine														X								X	
Roaring Creek			X			X			X		X					X		X	X	X			
Lambert's Run Site 6						X					X	X	X				X	X					X
Lyons Landslide					X	X					X					X		X	X		X		
Laurel Run						X					X	X						X	X		X		

*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.

CERTIFICATION AND SIGNATURE PAGE

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

The Thrasher Group, Inc.

(Company)



Chad Biller, Principal-in-Charge

(Authorized Signature) (Representative Name, Title)

304-624-4108 304-624-7831 11-5-14

(Phone Number) (Fax Number) (Date)

STATE OF WEST VIRGINIA
Purchasing Division
PURCHASING AFFIDAVIT

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

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

DEFINITIONS:

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

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

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

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

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: The Thrasher Group, Inc.

Authorized Signature: *Charles Beck* Date: 11-5-14

State of West Virginia

County of Harrison, to-wit:

Taken, subscribed, and sworn to before me this 5th day of November, 2014.

My Commission expires April 28, 2019.

AFFIX SEAL HERE

NOTARY PUBLIC

Nevee Kerns

Purchasing Affidavit (Revised 07/01/2012)

