



# E.L. ROBINSON ENGINEERING

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WV PURCHASING  
DIVISION

## STATEMENT OF QUALIFICATIONS

OCTOBER 9, 2018



WEST VIRGINIA  
DEPARTMENT OF  
ENVIRONMENTAL  
PROTECTION-AML  
RICHARD MINE  
DRAINAGE ACCESS

5088 Washington Street, West  
Charleston, WV 25313  
800.856.6485

ESTABLISHED EXPERIENCE. PROVEN PERFORMANCE.

[elrobinsoneengineering.com](http://elrobinsoneengineering.com)



October 9, 2018

West Virginia Department of Environmental Protection  
Office of AML  
c/o Jessica Chambers  
Department of Administration, Purchasing Division  
2019 Washington Street, East  
Charleston, WV 25305

Dear Ms. Chambers,

E.L. Robinson Engineering (ELR) is pleased to have the opportunity to submit our Statement of Qualifications to provide the West Virginia Department of Environmental Protection AML with design services for the Richard Mine Drainage Access Project.

E.L. Robinson Engineering has grown from 13 employees in 1996 to over 150 employees today. Throughout this growth period, we have continued to meet project deadlines while providing a high quality engineering product. Our office location in Charleston is centrally and conveniently located in respect to the WVDEP offices and the referenced project. In addition, we have a support office located in Bridgeport, WV.

Here are a few points of note that make ELR ideally suited to assist you on this project.

- A. Our Charleston office offers Fourteen (14) registered professional engineers, one (1) geologist, three (3) landscape architects, six (8) engineers in training as well as several CADD technicians that may be used on these teams.
- B. ELR has completed plans and specifications for numerous reclamation projects for WVDEP/AML for over 20 years in addition to several projects with ODNR and Maryland AML. To date, the ELR staff has a combined personal experience in the design of more than 254 AML projects with our corporate design experience totalling one hundred thirty-five (135) abandoned mine land remediation projects. Please note that all staff that completed tasks on these projects are still with ELR.
- C. ELR provides the capabilities, expertise, and resources of one of West Virginia's largest civil engineering and planning firms. Since 1995, E.L. Robinson has provided consulting engineering services for major highway and bridge design projects in excess of \$2.5 Billion in construction costs. To date, E.L. Robinson has received seven (7) Engineering Excellence Awards from the WVDOH and sixteen (16) Engineering Excellence Awards from WVACEC.

We at E.L. Robinson Engineering look forward to serving your agency under this contract. If you have any questions or need clarification, please feel free to contact me at (304) 776-7473.

Sincerely,



Eric J. Coberly, P.E.  
Project Manager

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# EXECUTIVE SUMMARY



For more than 20 years, E.L. Robinson Engineering (ELR) has been a prime and preferred engineering and surveying consultant to the WV Division of Environmental Protection, Office of Abandoned Mine Lands and Reclamation (WVDEP/AML) program. We have provided this Executive Summary to directly respond to the Expression of Interest and provide ease for the evaluators to score this proposal.

## **Understanding of Project Requirements**

E.L. Robinson Engineering fully understands the requirements for the Richard Mine Drainage Access Project and is committed to giving the WVDEP/Office of Abandoned Mine Lands and Reclamation the time and attention that is necessary for this project. Professional services may include: civil; structural; geological; surveying and mapping; preparation of all necessary permit applications; construction monitoring and other services that may be required.

## **Firm's Capacity**

E.L. Robinson Engineering approaches all engineering projects with the same attention to detail and fiscal responsibility to ensure the client receives the most cost effective plan, design and operationally functional project possible. Our approach truly makes the WVDEP/AML engineering staff an integral part in the design of the project. We want to make sure that the review staff is comfortable with the design concept before the project is submitted for review. During this process, we evaluate all technical alternatives to determine the most cost effective plan and technically acceptable project for the WVDEP/AML staff.

ELR has more than 150 professionals on staff including many individuals experienced in mine reclamation. This capacity allows for the development of innovative and alternative methods to address complex issues involved in reclamation projects of this nature. Our QA/QC process also allows for a different perspective to be brought to the project before submission to the client and for review. ELR has the capacity to take this project from conception to completion with a wide variety of experienced professionals with in-house staff for planning, design, permitting, bidding and construction monitoring.

Our company will work diligently to deliver the highest quality, cost effective solution that the WVDEP/AML deserves. We have extensive knowledge in mine reclamation and are currently working with the WVDEP/AML on similar projects. We have an excellent understanding of the requirements for this type of project and a good working relationship with NEPA permitting and regulatory agencies.

## PROJECT APPROACH



E.L. Robinson is familiar with the Richard Mine Drainage Access project area and the desired design services for which you are seeking. We understand that the work to be provided to the WVDEP/AML for this project shall consist of:

- Developing construction plans and technical specifications to access the abandoned mine land project area known as Richard Mine Drainage
- Design plans and developing specifications for site access
- Design plans and developing specifications for a bridge crossing Deckers Creek that has a approximate span of 100' and a clear roadway width of 16', capable of carrying all legal highway loads.
- Design plans and developing specifications for limits of disturbance, storm water control and erosion and sediment prevention.
- Design plans and developing specifications for all conditions encountered on project site.

We are anxious to become an extension of your staff by providing prompt planning, design and construction monitoring services as needed. We interact with the various review and permitting agencies. As you will see from our resumes, we are uniquely diversified to provide quality engineering services to your agency.

E.L. Robinson will work closely with the WVDEP/AML and all regulatory and permitting agencies to complete this project. We feel that our extensive knowledge and experience in the planning and design of similar projects are significant assets in developing a cost-effective solution to your reclamation project.

The scope of services will include but are not limited to:

- Conceptual engineering and identification of permitting requirements
- Surveying and contour mapping
- Geotechnical services
- Design
- Preparation of plans and specifications
- Participation in the pre-bid meeting
- Participation in the pre-construction meeting
- Preparation of all necessary permit applications
- Construction monitoring if requested



## PROJECT TEAM



**Mr. Eric Coberly, P.E.**, will serve as Project Manager. Mr. Coberly has over 30 years of experience in the field of engineering. He was previously employed by the West Virginia Department of Environmental Protection Abandoned Mine Lands Division as Chief where his responsibilities included managing and directing the operations for the entire department. With his past experience, Mr. Coberly offers invaluable experience and unparalleled expertise in mine reclamation.



**Mr. Faheem Ahmad, P.E.**, will be assigned as Structural Engineer. Mr. Ahmad is an experienced engineering manager with over 30 years' experience in highway and bridge projects. He is a seasoned project manager with a track record of managing and delivering projects within budget and on schedule. He has managed all types of projects including design-bid-build, design-build, and value engineering.



**Mr. Nasser Al-Zoubi, P.E.**, will be assigned as Structural Engineer. Mr. Al-Zoubi has over 21 years experience in analyzing, designing and finite element modeling using computer-aided analysis for different structural applications and developments. Mr. Al-Zoubi has analyzed and designed structures such as bridge substructure and superstructure, reinforced concrete office buildings, steel pipe support systems, reinforced concrete storage tanks and reinforced concrete pavement.



**Mr. J.D. Kinder, P.E.**, will be assigned as Geotechnical Engineer. He has over 8 years of experience in many areas of civil engineering including roadway design projects, site development projects, geotechnical investigations, natural gas projects and retain structure design. Additionally, Mr. Kinder has experience in performing slope stability analysis for various roadway fills and bridges.



**Mr. Rich Watts, P.G.**, will serve as Project Geologist. Mr. Watts' responsibilities will include assisting in the design and quality control. Mr. Watts has 40 years of experience in providing consulting services as a senior geologist. He has also served as project manager on numerous reclamation projects.



**Mr. John Kelly**, will serve as a Project Designer. He has performed this role for numerous prior and current mine reclamation projects in his 20 years with ELR.

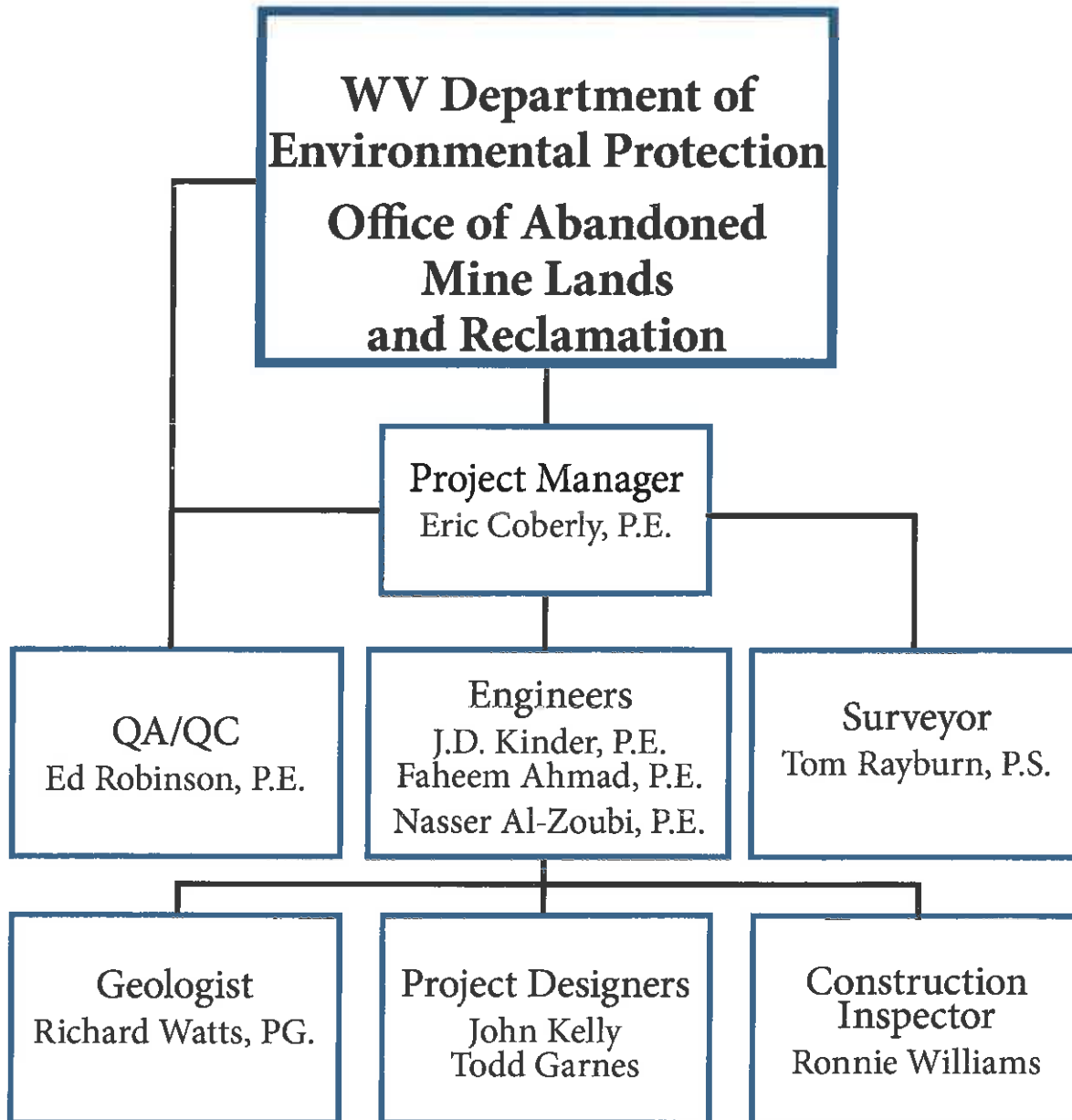


**Mr. Todd Garnes**, will serve as a Project Designer. He has over 15 years of experience as a civil draftsman and designer. He is proficient in numerous drafting and mapping software platforms. His proficiency spans multiple areas including mine site reclamation, waterline planning and design, sanitary sewer planning and design.



**Mr. J. Tom Rayburn, P.S.**, will be assigned as Chief Surveyor. Our team of surveyors provide the latest in technology and experience in surveying and mapping.

**Mr. Ronnie Williams**, will be assigned to oversee construction monitoring. ELR maintains a permanent and highly qualified construction inspection staff, who exhibit a high level of capability to oversee the construction of your project.



## CAPABILITIES/EXPERIENCE



Over the past 40 years, E.L. Robinson Engineering has focused its efforts on delivering quality projects to our clients and building strong relationships based on trust and partnership. We believe building lasting relationships with our clients is key to delivering exceptional service for many years to come.

E.L. Robinson provides WVDEP/AML with the capabilities, expertise and resources of one of the top-notch civil engineering firms in the region. Our offices are staffed with professionals experienced in AML reclamation mapping, permitting, design and construction monitoring. Further, we are very familiar with the requirements of the permitting and regulatory agencies which expedites the completion of projects.

Additionally, ELR offers an comprehensive line of services in our structural department. Our team members have decades of combined experience and an impeccable reputation throughout the state. Our areas of expertise include cost studies, conceptual design, final design, hydraulic and scour studies.

As part of our commitment to quality, E.L. Robinson realizes that every project, client and location is very different. As a result, we look at each project independently to determine the most feasible and functional solution. Specifically, we look at ways we can maximize the project benefit and minimize the construction cost while at the same time completing projects on time and within budget. We have demonstrated abilities in developing practical and cost-effective reclamation and improvement projects and are dedicated to meeting project schedules and budgets. Such demonstrations can be seen in our prior work on our most recent reclamation projects including:

- Dempsey Bottom Bridge
- Fays Cash and Carry Bridge
- Foster Bridge
- Upper Canterbury Bridge
- Ward Bridge
- East Fork Bridge
- South Cuba Bridge
- Pendleton Creek Highwall
- Maryland Shallmar Landslide Emergency
- Maryland Barton Mine Pool
- Maryland Scenic Railroad Landslide
- Squires Creek (Moats) Portal and Refuse
- Red Warrior Gob & Slide
- Glen Alum Complex
- West Columbia B
- Milam Ridge Refuse Pile
- Carson One Special Reclamation Project
- Preston Energy/Rockville/Viking Coal Rec
- North Matewan (Akers) Landslide
- Branchland (Blankenship) Landslide
- Coburns Creek Landslide
- McGraws Vertical Opening
- New Cumberland Mine Blowout
- Fairview Mine Shaft
- Whitehall Mine Fire
- Sauls Run Landslide
- Missouri Fork Landslide
- Worthington (Hess) Landslide
- Copen Road Landslide
- Lynch Run Mine Blowout
- Dans Branch (Dillon) Landslide
- Marsh Run Portals
- Donnie Thorn Highwall
- Vickers Branch (Butcher) Drainage



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

Attachment "B"

PROJECT NAME Richard Mine Drainage Access DEP1900000005	DATE (DAY, MONTH, YEAR) October 9, 2018	FEIN 55-0594633
---	--	--------------------

1. FIRM NAME E.L. Robinson Engineering Co.	2. HOME OFFICE BUSINESS ADDRESS 5088 Washington Street, West Charleston, WV 25313	3. FORMER FIRM NAME
---	---	---------------------

4. HOME OFFICE TELEPHONE 304-776-7473	5. ESTABLISHED (YEAR) 1978	6. TYPE OWNERSHIP Individual    x Corporation Partnership    Joint-Venture	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES                    x NO
--	-------------------------------	--	--

7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE  
 5088 Washington Street, West    304-776-7473/Eric Coberly, P.E./54 Staff in Charleston Area  
 Charleston, WV 25313

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM Ed Robinson, P.E. 304 776-7473 Ext 211	8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS
---	--

9. PERSONNEL BY DISCIPLINE

4 ADMINISTRATIVE	— ECOLOGISTS	3 LANDSCAPE ARCHITECTS	7 STRUCTURAL ENGINEERS
ARCHITECTS	— ECONOMISTS	— MECHANICAL ENGINEERS	7 SURVEYORS
BIOLOGIST	— ELECTRICAL ENGINEERS	1 MINING ENGINEERS	— TRAFFIC ENGINEERS
6 CADD OPERATORS	— ENVIRONMENTALISTS	— PHOTOGRAMMETRISTS	— OTHER
— CHEMICAL ENGINEERS	— ESTIMATORS	PLANNERS: URBAN/REGIONAL	
22 CIVIL ENGINEERS	1 GEOLOGISTS	— SANITARY ENGINEERS	
22 CONSTRUCTION INSPECTORS	— HISTORIANS	1 SOILS ENGINEERS	
— DESIGNERS	— HYDROLOGISTS	— SPECIFICATION	74 TOTAL PERSONNEL
DRAFTSMEN		WRITERS	

**TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 14**  
**\*RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.**

10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE?     YES            NO    X This is not applicable

11. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED. Attach "AML Consultant Confidential Qualification Questionnaire" for each if copy is not on file with AML.

NAME AND ADDRESS: Novel Geo – Environmental (NGE) 806 B Street, St. Albans, WV	SPECIALTY: Drilling	WORKED WITH BEFORE  <input checked="" type="checkbox"/> YES  <input type="checkbox"/> NO
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE  <input type="checkbox"/> YES  <input type="checkbox"/> NO
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE  <input type="checkbox"/> YES  <input type="checkbox"/> NO
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE  <input type="checkbox"/> YES  <input type="checkbox"/> NO
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE  <input type="checkbox"/> YES  <input type="checkbox"/> NO
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE  <input type="checkbox"/> YES  <input type="checkbox"/> NO
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE  <input type="checkbox"/> YES  <input type="checkbox"/> NO
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE  <input type="checkbox"/> YES  <input type="checkbox"/> NO
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE  <input type="checkbox"/> YES  <input type="checkbox"/> NO

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

YES Description and Number of Projects: One hundred twenty one (121) Projects - See Attached Sheet

NO

B. Is your firm experienced in Soil Analysis?

YES Description and Number of Projects: Ten (10) Projects Listed - See attached Sheet

NO

C. Is your firm experienced in hydrology and hydraulics?

YES Description and Number of Projects: Ten (10) Projects Listed - See attached sheet

NO

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

YES Description and Number of Projects: > 200 - in Firm History - 65 Recent Projects Listed  
All ELR WV & OH AML Projects since 2003 have been surveyed with ELR Surveying Staff

NO

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

YES Description and Number of Projects: Ninety-seven (97) Total  
Twelve (12) Domestic Waterline Experience (AML Related)  
Thirty-five (35) Evaluation of Aquifer Degradation  
Fifty (50) Non-AML Domestic Water Lines

NO

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

YES Description and Number of Projects: Seven (7) Projects

NO

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Edward L. Robinson, President	19	30	36

Brief Explanation of Responsibilities

Mr. Robinson worked in the Right of Way Division of the WV Department of Highways for ten years where he reviewed major utility plans. He has extensive experience in property surveys, property title searches, aerial mapping and land acquisition. He has provided quality control on all projects designed by this firm for the past 25 years. Provide and coordinate Quality Control on all design projects.

EDUCATION (Degree, Year, Specialization)

Bachelor of Science 1969 Civil Engineering  
 Master of Science 1981 Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Society of Civil Engineers - Past President WV  
 American Council of Engineering Companies  
 National Society of Professional Engineers

REGISTRATION (Type, Year, State)

1975 Civil Engineering  
 Registered in West Virginia and Kentucky  
 Professional Licensed Surveyor No. [REDACTED]

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:
Richard W. Watts, P.G.	30	35	1

Brief Explanation of Responsibilities

Mr. Watts has served as project geologist on more than ninety (90) abandoned mine land projects. Responsibilities include project management, field reconnaissance, drilling coordination, laboratory testing and analysis, stability analysis, specification writing, quantity determinations, cost estimates, pre-bid and pre-construction meetings. Projects included surface and deep mine reclamation, subsidence, AMD treatment and waterline feasibility studies.

EDUCATION (Degree, Year, Specialization)

B.S./1977/Geology  
 M.S./1994/Geography

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Geological Society of America  
 Association of Engineering Geologists

REGISTRATION (Type, Year, State)

Professional Geologist/1992/Virginia  
 Professional Geologist/1993/Kentucky

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:
John Kelly II, E.I.	15	15	15

Brief Explanation of Responsibilities

Mr. Kelly has worked on many AML projects since joining ELR. His responsibilities have included drilling inspection, sampling of coal refuse materials, hydrology, hydraulics design of drainage structures, and development of regrading plans. Estimation of quantities developed estimated cost. Mr. Kelly is proficient with Auto Cadd. Mr. Kelly has performed layout and inspection of core drilling operations for bridge and roadway projects. In addition, he has designed cut slopes for large-scale roadway projects such as the US Route 52 Kermit Bypass in Mingo County, WV and Meadowbrook Road in Harrison County, WV.

EDUCATION (Degree, Year, Specialization)

B.S. Civil Engineering/1998/WVU

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

Engineer Intern, WV

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Timothy B. Cart, P.E.	31	31	24

Brief Explanation of Responsibilities

Mr. Cart has completed numerous mine reclamation projects under the AML program, including regrading of coal refuse materials, re-establishment of vegetation cover, disposal of acid producing materials, and developing methods for extinguishing burning materials and disposal of old mining structures. Designed passive AMD treatment systems. Conducted Phase I and Phase II Studies to determine if groundwater had been affected by pre-law mining. Mr. Cart has extensive experience in the design and construction management of waterline extension projects. Mr. Cart has recently completed water projects in Mingo; Kanawha; Putnam; and Cabell counties. Mr. Cart has performed geotechnical engineering calculations and designs for settlement analysis of dams and other embankments.

EDUCATION (Degree, Year, Specialization)

Bachelor of Science 1981 Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

Professional Engineer WV OH



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:
Mark McGettigan, P.E.	10	10	10

Brief Explanation of Responsibilities

Mr. McGettigan has worked on several AML projects since joining our firm. He has developed grading plans, cross sections, estimated and checked quantity calculations. He has also served as a field inspector for several waterline Projects designed by E. L. Robinson Engineering Co. He has been the lead designer on waterlines over the past five years.

Mr. McGettigan also has experience with surveying and equipment including; theodolites, levels, and total stations. He has also performed various concrete and soil tests and is certified on Troxler nuclear density gage.

EDUCATION (Degree, Year, Specialization)

B.S. Civil Engineering Technician/Fairmont State/1999

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

Professional Engineer WV

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Randall L. Lackey, P.E.	1	10	1

Brief Explanation of Responsibilities

Mr. Lackey has performed hydraulics and scour for Ripley Town Bridge; Tallman Bridge; Meadowbrook Road Bridge; Simpson Creek Bridge; Kermit Bypass Bridge; Left Hand Fork Bridge; and Blennerhassett Bridge.

Mr. Lackey has also performed calculations for deck drainage; performed girder design and analysis; pier design and analysis; prepared design study reports; type, size and location reports and final plans on many of our Division of Highways projects.

EDUCATION (Degree, Year, Specialization)

B.S. Civil Engineering/1999

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

Professional Engineer WV

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
J. Todd Garnes	7	7	7

Brief Explanation of Responsibilities

Mr. Garnes experience surveying and providing CADD Design for mine reclamation projects and waterline and sewer extrusions. He has provided construction inspection services for landsides and subsidence projects in Ohio. Mr. Garnes has performed numerous water feasibility studies, which involved interviews, water sampling and analysis, mapping, mine research, and development of final reports.

EDUCATION (Degree, Year, Specialization)

A.S. Architectural Design/ 1999  
A.S. Computer Aided Drafting and Design/ 1999

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:
Thomas Rayburn, P.S.		35	

Brief Explanation of Responsibilities

Mr. Rayburn has experience in mine mapping and surveying, formulated short term and long range mining plans for all types of coal mining, designed mine drainage and water supply systems for underground and surface mines, designed mine ventilation plans and systems which include precision pressure quality surveys and computer simulation of ventilation systems.

He has performed slope stability analysis and hydrology calculations, provides computer analysis for mining applications, work with leases and land management as well as reclamation and environmental permits. By utilizing "state of the art" electronic total stations and/or GPS (Satellite) equipment, he performs control surveys for aerial mapping and collects data and develops GIS for utility mapping. Mr. Rayburn has also performed surveying and mapping for large scale highway projects.

EDUCATION (Degree, Year, Specialization)

A.S. Mechanical Engineering, WVIT/1970

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

Professional Surveyor WV

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

NAME & TITLE (Last, First, Middle Int.)  Scott LeRose, P.E.	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:  1	YEARS OF AML RELATED DESIGN EXPERIENCE:  1	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:  2

**Brief Explanation of Responsibilities**  
 Mr. LeRose is experienced in developing major highway and right of way plans; Bridge Construction Inspections; Core Drilling Operations; Groundwater Sampling/Monitoring; UST Removal/Replacement and Mine Permitting/Reclamation. Specific major highway design and right of way plan development projects include: Meadowbrook Road, a 2 mile design of new four lane highway; US 52(I-73), a 3.5 mile design and ROW plans for a new four lane highway with two major interchanges; design of 2 mile section of Appalachian Corridor H from Davis to Bismark; design of 5.2 mile section of Corridor H from Grant/Hardy County line to Moorefield.

While working on these projects, he has gained experience in major drainage design, site grading design, utility relocation, MOT, signing and pavement stripping. He has performed quantity calculations for pavement, drainage, seeding, pollution control quantities, and other items associated with roadway plans. He is also experienced in the development of ROW plans, including deed plots and legal descriptions.

**EDUCATION (Degree, Year, Specialization)**  
 B.S. Civil Engineering/1997

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)  Professional Engineer WV
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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.)  Ray Tilley, P.E.	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
		5	35

**Brief Explanation of Responsibilities**  
 Mr. Tilley has over 30 years experience in water and wastewater design as a Project Manager/Engineer. In addition, Mr. Tilley is a certified Water Plant Operator. Mr. Tilley has successfully completed numerous waterline design projects over his career. His current duties include managing both water and wastewater design projects for ELR.

**EDUCATION (Degree, Year, Specialization)**  
 B.S. Civil Engineering/WV Tech 1975; M.S. Sanitary Engineering Virginia Tech, 1976

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)  Professional Engineer WV
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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.)  James Eric Gwinn, E.I.	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:  10	YEARS OF AML RELATED DESIGN EXPERIENCE:  10	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:  11

Brief Explanation of Responsibilities

Mr. Gwinn has experience in construction layout for waterline projects. He performs calculation and permit requirements. He has worked on the Cabell County Water Project and the raw water intake structure for the Fayette Plateau Regional Water Project. He has performed calculations on various AML project. Mr. Gwinn has designed approach slabs, decks and extensive detailing on several bridge projects.

EDUCATION (Degree, Year, Specialization)

B.S. Civil Engineering/1998/ West Virginia Institute of Technology

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.)  Workman, Gary A., CADD Senior Technician	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:  24	YEARS OF AML RELATED DESIGN EXPERIENCE:  24	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:  4

Brief Explanation of Responsibilities

Mr. Workman is responsible for CADD design on AML projects, as well as geotechnical soil analysis. He Worked on 44 WVDEP/AML projects while employed at Ackenheil, and has worked on 23 AML projects while at E. L. Robinson.

EDUCATION (Degree, Year, Specialization)

Technical School/1987/CADD

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

WVDOH certifications compaction, aggregates and concrete

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilities			
EDUCATION (Degree, Year, Specialization)			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	

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:
Coberly, P.E. , Eric J.	31	31	15
Brief Explanation of Responsibilities			
Mr. Coberly has performed AML Grant and Emergency project designs since 1984. Projects have included highwall backfill, refuse regarding, portals, mine drainage, subsidence, refuse and mine fire abatement. Mr. Coberly has participated in the design of over 100 such project while working for WVDEP or at ELR. Included in that total is over 30 emergency project designs completed in Ohio and West Virginia. Mr. Coberly has served in various capacities with the WV AML Program including construction and design administrator as well as the Chief of the Office. This involved the review of hundreds of additional projects in the 22 years spent with AML program			
EDUCATION (Degree, Year, Specialization)			
B.S. Engineering of Mines, 1983 M.S. Engineering of Mines, 1990			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
		WV P.E. [REDACTED] Ohio P.E. [REDACTED]	



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

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

Brief Explanation of Responsibilities

Mr. Haws is our Bridgeport Office Manager. He brings experience with commercial developments, drainage analysis, ADA compliance, storm water collection systems, and all aspects of subdivision planning and design. This includes engineering design and CADD experience. His work has also entailed communication and coordination with local municipalities to ensure seamless integration with existing infrastructure and development. Mr. Haws also draws from his experience in marketing, finance, and business development.

EDUCATION (Degree, Year, Specialization)

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:
Wendell Williams	0	15	5

Brief Explanation of Responsibilities

Mr. Williams has been employed with ELR since 1978, having over thirty-seven years of engineering and design experience. Mr. Williams has worked on over one hundred fifty WVDEP-AML project. He has been involved with every aspect of the process including initial site visits, ground control surveys, coordination of aerial photography, map editing and the submittal of final drawings.

EDUCATION (Degree, Year, Specialization)

A.A.S. CAD Technology, West Virginia State University, 1997  
 B.A. Board of Regents, West Virginia Institute of Technology, 1999

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

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

Various computer hardware and software including: Microstation, InRoads, AutoCAD, ELRSoil, Microsoft Office applications, Haested, Water CADD, Culvert Master, Flow Master

Various surveying equipment:

Instruments - Topcon Total Station (6), Trimble Robotic DR200+ (2)

GPS Equipment - Trimble 5700 Receiver (6), Trimble TSCe Controller/Handheld (5)  
\*all equipment lists have various misc. survey equipment to go along (poles, tape measures, data collectors, etc.)

Riegl LMS - 360 3D Laser Scanner - surface imaging system based upon accurate distance measurement by means of electro-optical range measurement and a two axis scanning mechanism.

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
Red Warrior Gob & Slide Kanawha County	WVDEP/AML	Surveying, Drilling and Design	\$250,000	100
Glen Alum Complex Mingo County	WVDEP/AML	Surveying and Design	\$1,600,000	95
Carson One/Glady Upshur County	WVDEP/Special Rec	Surveying, Drilling and Design	\$2,500,000	95
Preston Energy/ Rockville/Viking Coal Special Rec Preston County	WVDEP/Special Rec	Surveying and Design	\$1,500,000	30
Squires Creek (Moats) Portal and Refuse Preston County	WVDEP/AML	Surveying, Drilling and Design	\$750,000	95
Marsh Run Portals Braxton County	WVDEP/AML	Surveying, Mapping and Design	\$967,050	100
Donnie Thorn HW Preston County	WVDEP/AML	Surveying, Mapping and Design	\$1,491,555	100

TOTAL NUMBER OF PROJECTS:

TOTAL ESTIMATED CONSTRUCTION COSTS: \$

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
Vickers Branch Drainage Logan County	WVDEP/AML&R	Surveying, Mapping and Design	\$444,575	100
Morgan HW Preston County	WVDEP/AML&R	Surveying, Mapping and Design	\$1,150,125	95
Sugarcamp Run Burning Refuse Nicholas County	WVDEP/AML&R	Surveying, Mapping and Design	\$6 M	100
Big Ugly Creek Waterline Extension	Logan County PSD 41 Armory Rd. Logan, WV 25601	Design and Construction Management	\$11 M	100
Phase III-A Sanitary Sewer Extension	Logan County PSD 41 Armory Rd. Logan, WV 25601	Design and Construction Management	\$ 9 M	90
Lower Mud River Waterline Extension	Lincoln County PSD 240 Lower Coal River Rd. Alum Creek, WV 25003	Design and Construction Management	\$7.9 M	60
McDowell PSD Jolo Phase V Water McDowell County	McDowell Public Service District	Design and Construction Management	\$ 2.4 M	20
TOTAL NUMBER OF PROJECTS:			TOTAL ESTIMATED CONSTRUCTION COSTS: \$	

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
Martin Luther King Jr. Memorial Bridge Replacement	WV Dept. of Transportation Engineering Division Charleston, WV	Design and Construction Management	\$ 2.5 M	95
Iaeger Regional Sewer Project	McDowell County PSD HC 31 Box 436J Welch, WV	Design and Construction Management	\$ 5 M	50

TOTAL NUMBER OF PROJECTS:

TOTAL ESTIMATED CONSTRUCTION COSTS:





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)
Thorpe Refuse Pile McDowell County	WVDEP-AML Oak Hill, WV Mark Proctor	\$744,240	2011	Yes
Shinnston-Lumberport Subsidence Harrison County, WV	WVDEP-AML Philippi, WV Timothy LeMasters	\$442,000	2011	Yes
Corridor H Davis-Bismark X347-H-64.85 00 Tucker County	WV Dept. of Transportation Engineering Division Charleston, WV 25301 Attn: Gregory Bailey	\$15.5 M	2012	No
WVDEP-Emergency East Bank (Willis) Mine Blowout	WVDEP-AML 601 57 <sup>th</sup> Street Charleston, WV 25304	\$0.8 M	2009	Yes
Newtown (Kinder) Portals Mingo County	WVDEP-AML 601 57 <sup>th</sup> Street Charleston, WV 25304 Roger Earle	\$490,410	2010	Yes
Keaton Branch Complex Raleigh County	WVDEP-AML Oak Hill, WV Mark Proctor	\$527,250	2010	Yes
McQuain Brothers Bridge Kanawha County, WV	WV Dept. of Transportation Engineering Division Charleston, WV 25301	\$7.5 M	2011	Yes
Tuppers Creek - Pocatalico Bridges Kanawha County, WV	WV Dept. of Transportation Engineering Division Charleston, WV, 25301	\$11.0 M	2012	Yes

18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)

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
Linmont Bridge Replacement Cabell County	WV Dept of Transportation Engineering Division Charleston, WV 25301	Bridge Design (VE)	2011	Yes	Paul's Concrete
Clothier Bridge Logan County	WV Dept of Transportation Engineering Division Charleston, WV 25301	Bridge Design (VE)	2011	Yes	Paul's Concrete
Market Street Bridge Brooks County, WV	WV Dept of Transportation Engineering Division Charleston, WV	Post Design Services	2011	Yes	Ahern & Assoc.
Leon Thru Girder Bridge Mason County, WV	WV Dept of Transportation Engineering Division Charleston, WV	Plans for Bridge (VE) Hydraulics Post Design	2010	Yes	Triton Construction
Holley Grove Bridge Kanawha County	WV Dept of Transportation Engineering Division Charleston, WV	\$500,000	2010	Yes	Triton Construction

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.  
**E. L. Robinson Engineering Co. is committed to the WVDEP/AML program to provide professional design, surveying and mapping and construction monitoring services in a timely and cost-efficient manner. Our business plan relies heavily on the work offered by the WVDEP/AML program.**

20. The foregoing is a statement of facts.

Signature:  Title: PROJECT MANAGER

Printed Name: Eric J. Coberly, P.E.

Date:  
October 9, 2018

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

## Dempsey Bottom Bridge

**Project Location:** Mingo County, West Virginia

**Client:** WVDOH

**Project Description:** This is a single span bridge with a steel girder superstructure and a cast-in-place concrete deck. Both abutments are of the integral type and founded on pre-drilled and driven H-piles. The bridge is 140 ft long, bearing to bearing, and 24'-6" out to out. The bridge carries two eleven foot lanes over Pigeon Creek.

**Cost:** \$1,100,000

## Fays Cash and Carry Bridge

**Project Location:** Mingo County, West Virginia

**Client:** WVDOH

**Project Description:** This is a single span bridge with a steel girder superstructure and a cast-in-place concrete deck. Abutment 1 is of the semi-integral type whereas Abutment 2 is of the integral type. Abutment 1 will be founded on spread footings and Abutment 2 will be founded on pre-drilled and driven H-piles. The bridge is 135 ft long, bearing to bearing, and 30'-6" out to out. The bridge carries two eleven foot lanes over the West Fork of Twelvepole Creek.

**Cost:** \$1,900,000

## Foster Bridge

**Project Location:** Boone County, West Virginia

**Client:** WVDOH

**Project Description:** This is a single span bridge with a steel girder superstructure and a cast-in-place concrete deck. Both abutments are of the integral type and founded on pre-drilled and driven H-piles. The bridge is 70 ft long, bearing to bearing, and 34'-6" out to out. The bridge carries two twelve foot lanes over Rock Creek.

**Cost:** \$1,300,000

## Upper Canterbury Bridge

**Project Location:** Mingo County, West Virginia

**Client:** WVDOH

**Project Description:** The bridge is a single span bridge with a steel girder superstructure and a cast-in-place concrete deck. Both abutments are of the integral type and founded on pre-drilled and driven H-piles. The bridge is 90 ft long, bearing to bearing, and 34'-6" out to out. The bridge carries two twelve foot lanes over Laurel Fork Creek.

**Cost:** \$1,500,000

## Ward Bridge

**Project Location:** Kanawha County, West Virginia

**Client:** WVDOH

**Project Description:** This is a two span bridge with a steel girder superstructure and a cast-in-place concrete deck. Both abutments are of the conventional type and founded on driven H-piles. The pier is a wall type pier founded on driven H-piles. Each span is 65 ft long, bearing to bearing, and 30'-6" out to out. The bridge carries two eleven foot lanes over Kelly's Creek.

**Cost:** \$1,800,000

## East Fork Bridge

**Project Location:** Lincoln County, West Virginia

**Client:** WVDOH

**Project Description:** The proposed bridge is a single span bridge with a steel girder superstructure and a cast-in-place concrete deck. Both abutments are of the integral type and founded on pre-drilled and driven H-piles. The bridge is 50 ft long, bearing to bearing, and 34'-6" out to out. The bridge carries two twelve foot lanes over East Fork Creek.

**Cost:** \$662,000

## South Cuba Bridge

**Project Location:** Lincoln County, West Virginia

**Client:** WVDOH

**Project Description:** The proposed bridge is a single span bridge with a steel girder superstructure and a cast-in-place concrete deck. Both abutments are of the semi-integral type with one founded on pre-drilled and grouted-in H-piles and the other founded on rock. The bridge is 40 ft long, bearing to bearing, and 34'-6" out to out. The bridge carries two twelve foot lanes over East Fork Creek.

**Cost:** \$900,000

**EXPERIENCE**  
ABANDONED MINE LANDS



## Pendleton Creek Highwall

Project Location: Tucker County, West Virginia  
Completion Date: September, 2018  
Client: WVDEP-AML  
Project Description: Highwall Backfill

## Maryland Shallmar Landslide Emergency

Project Location: Garrett County, Maryland  
Completion Date: September 2018  
Client: Maryland Department of the Environment  
Project Description: Landslide Abatement Design

## Maryland Barton Mine Pool

Project Location: Allegany County, Maryland  
Completion Date: June 2018  
Client: Maryland Department of the Environment  
Project Description: Mine Pool Evaluation and Design

## Maryland Scenic Railroad Landslide

Project Location: Frostburg, Maryland  
Completion Date: August 2016  
Client: Maryland Department of the Environment  
Project Description: Landslide Abatement Design

## Squires Creek (Moats) Portal and Refuse

Project Location: Preston County, West Virginia  
Completion Date: December 2014  
Client: WVDEP-AML, Bridgeport, WV  
Project Description: Performed surveying, drilling and design of refuse area and portals.

## Red Warrior Gob & Slide

Project Location: Kanawha County, West Virginia  
Completion Date: June 2015  
Client: WVDEP-AML, Charleston, WV  
Project Description: Performed surveying, drilling and design for a potential blowout area. Designed horizontal bore for dewatering.

## Glen Alum Complex

Project Location: Mingo County, West Virginia  
Completion Date: September 2014  
Client: WVDEP-AML, Charleston, WV  
Project Description: Performed surveying and design for large refuse area and upgrading of surface drainage.

## West Columbia "B"

Project Location: Mason County, West Virginia  
Completion Date: July 2013  
Client: WVDEP-AML, Charleston, WV  
Project Description: Performed surveying, drilling and design for numerous mine portals.



**EXPERIENCE**  
ABANDONED MINE LANDS



## Milam Ridge

Project Location: Wyoming County, West Virginia  
Completion Date: December 2012  
Client: WVDEP-AML, Charleston, WV  
Project Description: Performed surveying, drilling and design for numerous mine portals.

## Carson One Special Reclamation Project

Project Location: Upshur County, West Virginia  
Completion Date: June 2015  
Client: WVDEP-Special Reclamation, Philippi, WV  
Project Description: Performed surveying, drilling and design for regrading refuse, sealing mine shafts and slopes and upgrading drainage structures.

## Preston Energy/Rockville/Viking Coal Special Reclamation

Project Location: Preston County, West Virginia  
Completion Date: October 2015  
Client: WVDEP-Special Reclamation, Philippi, WV  
Project Description: Performed surveying and design for design of reclamation of portals and piping system to convey mine water to treatment plant.

## North Matewan (Akers) Landslide

Project Location: Mingo County, West Virginia  
Completion Date: June 2013  
Client: WVDEP-AML, Charleston, WV  
Project Description: Performed surveying, drilling and emergency design for stabilizing landslide.



## Branchland (Blankenship) Landslide

Project Location: Lincoln County, West Virginia  
Completion Date: May 2014  
Client: WVDEP-AML, Charleston, WV  
Project Description: Performed surveying, drilling and emergency design for stabilizing landslide.

## Coburns Creek Landslide

Project Location: Preston County, West Virginia  
Completion Date: May 2014  
Client: WVDEP-AML, Bridgeport, WV  
Project Description: Performed surveying, drilling and emergency design for stabilizing landslide.

## McGraws Vertical Opening

Project Location: Wyoming County, West Virginia  
Completion Date: July 2013  
Client: WVDEP-AML, Charleston, WV  
Project Description: Performed emergency design for mine shaft cap.

## New Cumberland Mine Blowout

Project Location: Hancock County, West Virginia  
Completion Date: June 2013  
Client: WVDEP-AML, Bridgeport, WV  
Project Description: Performed surveying, drilling and design for mine blowout abatement.

## Fairview Mine Shaft

Project Location: Marion County, West Virginia  
Completion Date: October 2013  
Client: WVDEP-AML, Bridgeport, WV  
Project Description: Performed emergency design for mine shaft cap.

## Whitehall Mine Fire

Project Location: Marion County, West Virginia  
Completion Date: October 2013  
Client: WVDEP-AML, Bridgeport, WV  
Project Description: Performed surveying, drilling and design for extinguishment of mine fire.

## Sauls Run Landslide

Project Location: Lewis County, West Virginia  
Completion Date: May 2015  
Client: WVDEP-AML, Charleston, WV  
Project Description: Performed surveying and emergency design for stabilizing landslide.

## Missouri Fork Landslide

Project Location: Boone County, West Virginia  
Completion Date: May 2015  
Client: WVDEP-AML, Charleston, WV  
Project Description: Performed surveying and emergency design for stabilizing landslide.

## Worthington (Hess) Landslide

**Project Location:** Marion County, West Virginia  
**Completion Date:** May 2015  
**Client:** WVDEP-AML, Bridgeport, WV  
**Project Description:** Performed surveying, drilling and emergency design for mine blowout and landslide abatement.

## Copen Road Landslide

**Project Location:** Braxton County, West Virginia  
**Completion Date:** July 2015  
**Client:** WVDEP-AML, Bridgeport, WV  
**Project Description:** Performed surveying, drilling and emergency design for stabilizing landslide.

## Lynch Run Mine Blowout

**Project Location:** Gilmer County, West Virginia  
**Completion Date:** May 2015  
**Client:** WVDEP-AML, Bridgeport, WV  
**Project Description:** Performed surveying, drilling and emergency design for mine blowout and landslide abatement.

## Dans Branch (Dillon) Landslide

**Project Location:** Mingo County, West Virginia  
**Completion Date:** July 2015  
**Client:** WVDEP-AML, Charleston, WV  
**Project Description:** Performed surveying, drilling and emergency design for stabilizing landslide.

## Marsh Run Portals

Project Location: Braxton County, West Virginia  
Completion Date: 2013  
Client: WVDEP-AML, Charleston, WV  
Project Description: Performed survey, drilling and design for mine seals and regrading.

## Donnie Thorn Highwall

Project Location: Preston County, West Virginia  
Completion Date: 2013  
Client: WVDEP-AML, Bridgeport, WV  
Project Description: Field surveying and mapping, subsurface investigation, design work for refuse regrading, mine seals, and drainage.

## Vickers Branch (Butcher) Drainage

Project Location: Logan County, West Virginia  
Completion Date: 2013  
Client: WVDEP-AML, Charleston, WV  
Project Description: Performed survey, drilling, design for mine seals and mine drainage control.

## Morgan #46 Highwall

Project Location: Preston County, West Virginia  
Completion Date: 2013  
Client: WVDEP-AML, Bridgeport, WV  
Project Description: Performed survey and design for refuse and spoil regrading and drainage control.

**EXPERIENCE**  
ABANDONED MINE LANDS



## Sugarcamp Run Burning Refuse Phase II

Project Location: Nicholas County, West Virginia  
Completion Date: 2013  
Client: WVDEP-AML, Oak Hill, WV  
Project Description: Performed site survey, drilling and prepared burning refuse abatement design.

## Glen Rogers Emergency

Project Location: Wyoming County, West Virginia  
Completion Date: 2012  
Client: WVDEP-AML, Charleston, WV  
Project Description: Performed survey, drilling, and design for shaft seals.

## Abney Refuse Pile

Project Location: Raleigh County, West Virginia  
Completion Date: 2011-2013  
Client: WVDEP-AML, Oak Hill, WV  
Project Description: Field surveying and mapping, subsurface investigation, design work for refuse regrading, mine seals, and drainage.

## Cartright Branch Refuse Pile

Project Location: Logan County, West Virginia  
Completion Date: 2011-2012  
Client: WVDEP-AML, Charleston, WV  
Project Description: Performed survey, drilling, design for refuse regrading and mine drainage control.



## Thorpe Refuse Pile

Project Location: McDowell County, West Virginia  
Completion Date: 2011-2012  
Client: WVDEP-AML, Oak Hill, WV  
Project Description: Performed survey, drilling, design for refuse and spoil regrading and mine drainage control.

## Shinnston Lumberport Subsidence

Project Location: Harrison County, West Virginia  
Completion Date: 2010-2012  
Client: WVDEP-AML, Philippi, WV  
Project Description: Performed site survey, drilling and prepared subsidence abatement design.

## Newtown (Kinder) Portals Design

Project Location: Mingo County, West Virginia  
Completion Date: 2010-2012  
Client: WVDEP-AML, Charleston, WV  
Project Description: Performed site survey, and prepared design for portals reclamation and drainage abatement design.

## Gordon "C" Refuse Pile

Project Location: Boone County, West Virginia  
Completion Date: 2010-2012  
Client: WVDEP-AML, Oak Hill, WV  
Project Description: Field surveying and mapping, subsurface investigation, design work for mine seals, drainage, and refuse reclamation.

## Keaton Branch Complex

**Project Location:** Raleigh County, West Virginia  
**Completion Date:** 2010-2011  
**Client:** WVDEP-AML, Oak Hill, WV  
**Project Description:** Performed survey, drilling, design for refuse, regrading and mine drainage control.

## Dunloup Creek Complex

**Project Location:** Raleigh County, West Virginia  
**Completion Date:** 2009-2011  
**Client:** WVDEP-AML, Oak Hill, WV  
**Project Description:** Performed survey, drilling, design for refuse and spoil regrading and mine drainage control.

## Brownton (McCord) Landslide

**Project Location:** Barbour County, West Virginia  
**Completion Date:** 2009-2011  
**Client:** WVDEP-AML, Philippi, WV  
**Project Description:** Performed site survey, drilling and prepared landslide abatement design.

## Keystone (Avery) Landslide Portal

**Project Location:** McDowell County, West Virginia  
**Completion Date:** 2009-2011  
**Client:** WVDEP-AML, Charleston, WV  
**Project Description:** Performed site survey and prepared landslide abatement design, portals reclamation, and drainage control.

EXPERIENCE  
ABANDONED MINE LANDS



## Dan's Branch (Pennington) Landslide Emergency

Project Location: Mingo County, West Virginia  
Completion Date: 2011  
Client: WVDEP-AML, Charleston, WV  
Project Description: Field surveying and mapping, subsurface investigation, design work for landslide reclamation.

## East Bank (Willis) Mine Blowout

Project Location: Kanawha County, West Virginia  
Completion Date: 2009  
Client: WVDEP-AML, Charleston, WV  
Project Description: Field surveying and mapping, design work for mine seal and drainage control.

## Island Creek #18 Mine Complex

Project Location: Logan County, West Virginia  
Completion Date: 2009-2011  
Client: WVDEP-AML, Oak Hill, WV  
Project Description: Field surveying and mapping, subsurface investigation, design work for mine seals, drainage, and refuse reclamation.

## Jacob's Fork Complex

Project Location: Boone County, West Virginia  
Completion Date: 2008-2009  
Client: WVDEP-AML, Charleston, WV  
Project Description: Field surveying and mapping, subsurface investigation, design work for mine seals, drainage, and reclamation.



**EXPERIENCE**  
ABANDONED MINE LANDS



## Gilmer B Site 3.8

Project Location: Gilmer County, West Virginia  
Completion Date: 2008  
Client: WVDEP-AML, Charleston, WV  
Project Description: Performed survey, drilling, design for refuse and spoil regarding and mine drainage control.

## Rhodell Refuse & Portals

Project Location: Wyoming County, West Virginia  
Completion Date: 2008  
Client: WVDEP-AML, Charleston, WV  
Project Description: Performed survey, drilling, design for refuse and spoil regarding and mine drainage control.

## Gouge Landslide Emergency

Project Location: Scottown, Ohio  
Completion Date: 2007  
Client: ODNR-AML, Columbus, OH  
Project Description: Performed site survey, drilling and prepared landslide abatement design.

## Rodgers Subsidence Emergency

Project Location: Wellston, Ohio  
Completion Date: 2007  
Client: ODNR-AML, Columbus, OH  
Project Description: Performed site survey and prepared subsidence abatement design.

**EXPERIENCE**  
ABANDONED MINE LANDS



## McAdams Subsidence Emergency

Project Location: Stark County, Ohio  
Completion Date: 2006  
Client: ODNR-AML, Columbus, OH  
Project Description: Performed investigation and prepared report of findings.

## Athens Rt. 13 Refuse Fire Emergency

Project Location: Athens County, Ohio  
Completion Date: 2006  
Client: ODNR-AML, Columbus, OH  
Project Description: Performed site survey, prepared abatement design and monitored on site construction for fire extinguishment.

## Brown Landslide Emergency

Project Location: Rayland, OH  
Completion Date: 2007  
Client: ODNR-AML, Columbus, OH  
Project Description: Performed site survey and prepared landslide abatement design.

## Toney Fork Landslide Emergency

Project Location: Boone County, West Virginia  
Completion Date: 2006  
Client: WVDEP-AML, Charleston, WV  
Project Description: Performed site survey, drilling and prepared plans and specifications to stabilize an emergency landslide area.

**EXPERIENCE**  
ABANDONED MINE LANDS



## Lavender Refuse Fire Emergency

Project Location: Meigs County, Ohio  
Completion Date: 2005  
Client: ODNR-AML, Columbus, OH  
Project Description: Performed abatement plan and monitored construction.

## Goetz Subsidence Emergency

Project Location: Columbiana County, Ohio  
Completion Date: 2005  
Client: ODNR-AML, Columbus, OH  
Project Description: Performed investigation and prepared report of findings.

## Cox Refuse Fire Emergency

Project Location: Gallia County, Ohio  
Completion Date: 2005  
Client: ODNR-AML, Columbus, OH  
Project Description: Performed abatement design for fire extinguishment.

## North Matewan (Sipple Drainage)

Project Location: Mingo County, West Virginia  
Completion Date: 2005  
Client: WVDEP-AML  
Project Description: Performed surveying, drilling and design for drainage project abatement.

**EXPERIENCE**  
ABANDONED MINE LANDS



## Phalen Landslide Emergency

Project Location: Martins Ferry, Ohio  
Completion Date: 2005  
Client: ODNR-AML, Columbus, OH  
Project Description: Performed site surveying and landslide abatement design.

## Adkins Landslide Emergency

Project Location: Gallia County, Ohio  
Completion Date: 2005  
Client: ODNR-AML, Columbus, OH  
Project Description: Performed surveying, drilling, landslide abatement and construction monitoring.

## Baisden Subsidence Emergency

Project Location: Jackson County, Ohio  
Completion Date: 2005  
Client: ODNR-AML, Columbus, OH  
Project Description: Performed drilling to develop subsidence abatement solutions.

## Treadway Landslide Emergency

Project Location: Rayland, Ohio  
Completion Date: 2004  
Client: ODNR-AML, Columbus, OH  
Project Description: Performed site surveying, drilling and landslide abatement design.

**EXPERIENCE**  
ABANDONED MINE LANDS



## Big Creek "C" Refuse

Project Location: Logan County, West Virginia  
Completion Date: 2004  
Client: WVDEP-AML  
Project Description: Performed surveying and drilling for design.

## Imboden Landslide Emergency

Project Location: Rutland, Ohio  
Completion Date: 2004  
Client: ODNR-AML, Columbus, OH  
Project Description: Performed drilling and surveying to develop landslide abatement solutions and cost estimates.

## Parsons Landslide Emergency

Project Location: New Philadelphia, Ohio  
Completion Date: 2004  
Client: ODNR-AML, Columbus, OH  
Project Description: Performed site review and report concerning landslides relation to mining and potential solutions.

## Jefferson County Road 26 Landslide Emergency

Project Location: Weinterville, Ohio  
Completion Date: 2004  
Client: ODNR-AML, Columbus, OH  
Project Description: Performed surveying, drilling and prepared plans and specifications to stabilize and emergency landslide area.



**EXPERIENCE**  
ABANDONED MINE LANDS



## Charleston Romeo Landslide

Project Location: Kanawha County, West Virginia  
Completion Date: 2004  
Client: WVDEP-AML  
Project Description: Performed surveying, drilling and design of landslide abatement.

## Titus Road Landslide Emergency

Project Location: Rutland, Ohio  
Completion Date: 2004  
Client: ODNR-AML, Columbus, OH  
Project Description: Performed surveying, drilling and prepared plans and specifications to stabilize and emergency landslide area.

## Lewis Landslide Emergency

Project Location: Pomeroy, Ohio  
Completion Date: 2004  
Client: ODNR-AML, Columbus, OH  
Project Description: Performed surveying, drilling, prepared plans and specifications to stabilize an emergency landslide area, and provided construction monitoring.

## Roush Landslide Emergency

Project Location: Pomeroy, Ohio  
Completion Date: 2004  
Client: ODNR-AML, Columbus, OH  
Project Description: Prepared plans and specifications to stabilize an emergency landslide area.

## Moran Subsidence

Project Location: Clinton, Ohio  
Completion Date: 2004  
Client: ODNR-AML, Columbus, OH  
Project Description: Prepared plans and specifications to stabilize an emergency subsidence area.

## Ron Bobar Subsidence

Project Location: Flushing, Ohio  
Completion Date: 2004  
Client: ODNR-AML, Columbus, OH  
Project Description: Investigation and report of an emergency subsidence area.

## Gooney Otter Refuse

Project Location: Wyoming County, West Virginia  
Completion Date: 2004  
Client: WVDEP-AML  
Project Description: Performed surveying, drilling and site design for refuse regarding project.

## Chapmanville (Gorby) Mine Blowout

Project Location: Logan County, West Virginia  
Completion Date: 2003  
Client: WVDEP-AML  
Project Description: Performed surveying, drilling and design of landslide regrading and retaining wall design.

EXPERIENCE  
ABANDONED MINE LANDS



## Tuppers Creek (Layne) Landslide

Project Location: Kanawha County, West Virginia  
Completion Date: 2003  
Client: WVDEP-AML  
Project Description: Performed surveying, drilling and design of landslide abatement.

## Maidsville (Tennant) Landslide

Project Location: Monongalia County, West Virginia  
Completion Date: 2003  
Client: WVDEP-AML  
Project Description: Performed surveying, drilling and design of landslide abatement.

## Whittington Hill (Walker Landslide)

Project Location: Kanawha County, West Virginia  
Completion Date: 2002  
Client: WVDEP-AML  
Project Description: Performed surveying, drilling and design for an emergency landslide.

## Minden Refuse Pile Reclamation Project

Project Location: Fayette County, West Virginia  
Completion Date: 2001  
Client: WVDEP-AML  
Project Description: Performed surveying and design for emergency project to upgrade drainage control.



**EXPERIENCE**  
ABANDONED MINE LANDS



## Jeffrey Mine Complex Reclamation Project

Project Location: Boone County, West Virginia  
Completion Date: 2001  
Client: WVDEP-AML  
Project Description: Performed surveying and design regrading refuse.

## Hot Coal Reclamation Project

Project Location: Raleigh County, West Virginia  
Completion Date: 2000  
Client: WVDEP-AML  
Project Description: Performed surveying and design for regrading refuse.

## Bull Run #27

Project Location: Preston County, West Virginia  
Completion Date: 2000  
Client: WVDEP-AML  
Project Description: Performed surveying and design for regrading refuse.

## Rich Fork (Thaxton) Landslide

Project Location: Kanawha County, West Virginia  
Completion Date: 2003  
Client: WVDEP-AML  
Project Description: Performed surveying, drilling and design of landslide abatement.

## Riffe Branch Impoundment

Project Location: Fayette County, West Virginia  
Completion Date: 2000  
Client: WVDEP-AML  
Project Description: Performed surveying and design for regrading refuse and drainage control.

## Ven's Run Landslide

Project Location: Harrison County, West Virginia  
Completion Date: 1999  
Client: WVDEP-AML  
Project Description: Performed surveying and design for regraded landslide area.

## Fickey Run

Project Location: Preston County, West Virginia  
Completion Date: 1999  
Client: WVDEP-AML  
Project Description: Performed surveying and design for refuse and spoil regrading and drainage control.

## Bull Run #35

Project Location: Preston County, West Virginia  
Completion Date: 1999  
Client: WVDEP-AML  
Project Description: Performed surveying and design for refuse and spoil regrading.

**EXPERIENCE**  
ABANDONED MINE LANDS



## Securro Mine Drainage Site 1 & 2

**Project Location:** Fairmont, West Virginia

**Completion Date:** 1998

**Client:** WVDEP-AML

**Project Description:** Performed surveying and design for mine drainage system.

## Brown's Creek #10 Reclamation Project

**Project Location:** McDowell County, West Virginia

**Completion Date:** 1997

**Client:** WVDEP-AML

**Project Description:** Performed surveying and design for refuse regrading and mine seal installation.

### **AML Project Designs**

Performed geotechnical analysis on 135 projects over the past 20 years. These project involved slope stability, mine pool locations and mine subsidence.

### **US 35 Design Build**

Utilized provided core boring data, coordinated drilling of over 100 additional core borings to design 7.5 miles of 4 lane highway in Putnam County, West Virginia. This included the foundation designs of bridge piers and abutments for 2 bridges carrying the 4 lane roadway over a major stream and an existing roadway.

### **WVDOT-District 2 Mingo County**

Solicited core borings, provided field personnel to log core samples, designed 4 pile retaining walls for landslides effecting existing roadways. Including analyzing piling, lagging and other aspects of each wall. Developed plans with profile, traffic control, estimated quantities, drainage controls, etc. in a bid package suitable for WVDOT to solicit bids.

### **WVDOT-District 2 Logan County**

Solicited core borings, provided field personnel to log core samples, designed 5 pile retaining walls for landslides effecting existing roadways. Including analyzing piling, lagging and other aspects of each wall. Developed plans with profile, traffic control, estimated quantities, drainage controls, etc. in a bid package suitable for WVDOT to solicit bids.

### **WVDOT-District 2 Lincoln County**

Solicited core borings, provided field personnel to log core samples, designed 14 pile retaining walls for landslides effecting existing roadways. Including analyzing piling, lagging and other aspects of each wall. Developed plans with profile, traffic control, estimated quantities, drainage controls, etc. in a bid package suitable for WVDOT to solicit bids.

### **WVDOT Cottageville Bridge**

Solicited bids from drilling contractors, coordinated drilling for a bridge replacement in Jackson and Mason County, West Virginia. The geotechnical testing performed consisted of five hydrometer analysis and rock core compression testing. The design included pile foundations for the piers and abutments, sonar analysis of the creek channel as it relates to the soil materials and slope stability analysis for each abutment.

### **WVDEP-AML Dans Branch**

Performed geotechnical investigation of an AML emergency landslide. Performed core borings and geotechnical testing of soil samples obtained from the borings. Designed pile retaining wall to support embankment and existing home below pre-law mining.

### **I-77 Tupper's Creek Pocatalico Bridges**

The subsurface investigation consisted of 4 test borings, 2 for each abutment. The structure core borings were advanced to depths ranging from 34.9 ft to 59.1 ft below the ground surface. Standard Penetration Tests were performed to approximate five foot intervals in each of the boring locations. Split spoon samples were taken until either auger refusal or spoon refusal was reached.

### **Dempsey Bottom Beam Span**

The subsurface investigation consisted of 6 test borings, all of which encountered bedrock. Four of the core borings were located at the site of the two proposed abutments, while the other two were drilled at the site of the proposed retaining wall. Hollow stem augers were utilized to drill the holes through the overburden. The Standard Penetration Test method utilizing split-spoon sampler was also used to sample the overburden soils.

### **Guyandotte River Bridge**

ELR performed geotechnical design including future mine subsidence remediation for this bridge. During the design process a check of the mining records determined the presence of a coal seam in the vicinity of the bridge. After review of the mine maps and additional drilling, presence of mine voids was confirmed. Using the depths from the ground surface to the mine level a limit of grout protection was developed. The grouting program developed included some down hole camera work and confirmation borings to confirm the grout effectiveness. Grouting of the mine void eliminated the possibility of future mine subsidence in the vicinity of the substructure and allowed the bridge to be supported on conventional caissons.

### **South Lee Exxon Bridge**

The subsurface investigation consisted of 4 test borings, two drilled for each abutments and two at the pier site. The structure core borings were advanced to depths ranging from 35 ft to 60 ft below the ground surface using continuous flight augers. Standard Penetration Tests were performed at approximately 2.5 feet intervals at each of the boring locations. Split spoons samples were taken until either auger refusal or spoon refusal was reached.

E.L. Robinson has worked with various clients, both private firms and public entities, in developing hydrology and hydraulics studies to determine effects that developments would have on floodplains and how they might adversely affect the surrounding communities.

- East Fork Bridge
  - South Cuba Bridge
  - WV 10 Operational Improvements
    - Jesse Bridge
    - Herndon Slab Bridge
    - Car Wash Bridge
    - Matoaka Bridge No. 1
    - Matoaka Bridge No 2
    - Ssg Gene Arden Vance Jr Memorial Bridge
    - Toney Fork Slab Bridge
    - Road Branch Bridge
    - Beech Branch Bridge
    - Giatto Overpass Bridge
    - Hiawatha Overpass Bridge
    - U.S. Army Sp4 Jackie (Hearn) Mcmillion Memorial Bridge
  - Blue Creek Bridge
  - Marsh Fork Bridge
  - Junior Bridge
  - Corridor H – Kerens to Parsons
    - Baldlick Fork Bridge (Bridge #1)
    - Panther Run Bridge (Bridge #2)
    - South Branch of Haddix Run Bridge (Bridge #3)
    - Unnamed Trib of Haddix Run Bridge (Bridge #4)
    - Bridge over Haddix Run and US 219 (Bridge #5)
- Cherry Tree Bridge
- Laurel Creek Girder Bridge

## EXPERIENCE HYDRAULICS/HYDROLOGY



- Exxon Bridge
- Centerville Bridge
- Cottageville Bridge
- Crockett Bridge

## EXPERIENCE AERIAL PHOTOGRAPHY/MAPPING



E.L. Robinson Engineering has worked with various clients to develop contour mapping of sites and areas that otherwise could not be determined. With the use of aerial photography and state of the art technology, ELR has developed maps from photographs for numerous projects including but not limited to:

- City of Beckley
- City of Charleston
- Corridor D
- Corridor H
- Cross Lanes Connector
- Eldora
- Frazier's Bottom
- Glenwood
- Hatfield Cemetery
- I-70 Washington Avenue (Wheeling, WV)
- I-64 Glade Creek
- Jackson Mill
- King Coal
- KY 40 Connector
- Logan Run
- New River Parkway
- Ohio River Crossing
- Pinegrove
- Parkersburg
- Powell Creek
- Prince
- PSI-Baker/Ft. Henry Bridges
- Racetrack
- White Sulphur Springs
- Veterans Park



## EXPERIENCE AERIAL PHOTOGRAPHY/MAPPING



E.L. Robinson Engineering has completed the preliminary mapping for the WVDEP for all of the AML projects located in Northern West Virginia since 2012. In addition, ELR has completed either preliminary or final mapping for the following:

- 2003-Present
- All ELR AML Projects WV and OH
- 2002
- Community of Preston
- Rhodell Refuse Portals
- Vivian Refuse Maintenance
- Glen Rogers Waterline
- Sundial (Hatfield) Refuse Pile
- Jacob Fork Complex
- Thomas (NE) Subsidence
- 2001
- Bartley Mine Dump
- Beckley Soccer Complex
- Holden Portals/Structures
- Jeffrey Complex
- Minden Refuse Drainage
- Roach Branch Refuse
- Sauls Run Strip
- Stonecoal Creek Complex
- Waterline Photography
- Weaver Portals/Mine Drain
- 2000
- Micajah Refuse Pile
- McAlphin Eroding Dump
- Flemington Portals/Drainage
- Minden "C" Refuse Pile
- National Mine Complex
- Linger Clogged Stream
- Hotcoal Mine Dump
- Layton Mine Drainage
- Quintain Development
- 1999
- Bull Run #27
- 8th Street-Warwood Avenue
- Mabie Highwall
- Coal Branch
- Matoaka Subsidence
- Elkins Coal
- Springton Refuse
- Veins Run
- 1998
- Bull Run #35
- Fickey Run
- 1997
- Browns Creek
- Marrowbone
- Matewan
- Pigeon Creek

**EDWARD L. ROBINSON, P.E., P.S.**  
**PRESIDENT**



**Education**

M.S. Civil Engineering, University of West Virginia  
College of Graduate Studies, 1981

B.S. Civil Engineering, West Virginia Institute of Technology, 1969

**Registrations**

Registered Professional Engineer in West Virginia, Kentucky, Ohio, Florida, Virginia, and North Carolina

Registered Professional Surveyor in West Virginia

**Professional Experience**

Mr. Robinson founded E. L. Robinson Engineering in 1978 with four employees. Initially the firm provided land surveying and land development services. Over the course of the next 20 years, the firm added water and wastewater engineering as well as structural inspection services simultaneously growing to 14 employees.

Under his leadership, E. L. Robinson enters the new millennium as a multi-disciplined professional services firm that utilizes the latest technology in the design of added infrastructure, highways, bridges, structures, environmental, civil, and geotechnical projects as well as global position satellite surveying, right-of-way, construction inspection and architectural services.

The firm now employs more than 135 engineers, architects, surveyors and support personnel and has been converted to an employee owned company through an Employee Stock Ownership Plan (ESOP).

**Professional Memberships**

National Society of Professional Engineers

American Society of Civil Engineers

Water Environmental Federation

**Offices Held**

Chairman of WVUIT Advisory PSD

President of West Virginia Council of Consulting Engineers

Chairman Transportation Committee - WV Association of Consulting Engineers

State Director of West Virginia Society of Professional Engineers

President of West Virginia Society of Professional Engineers



EDWARD L. ROBINSON, P.E., P.S.  
(CONTINUED)



Assistant Treasurer of the American Society of Civil Engineers  
National Director of the ASCE representing WV, NC, SC and VA  
President of West Virginia Section of ASCE

**Honors Awarded**

Alumnus of the Year – West Virginia University Institute of Technology, 1992  
Engineer of the Year – West Virginia Society of Professional Engineers, 1997  
Engineer of the Year – American Society of Civil Engineers, 1998  
National Entrepreneur of the Year Finalist – Ernst & Young, 2001  
Engineering Entrepreneur of the Year – Ernst & Young, 2001  
Honorary PhD, Doctor of Science – West Virginia Institute of Technology 2002

**ERIC COBERLY, P.E.**  
**PROJECT MANAGER**



**Education**

M.S. Engineering of Mines, West Virginia University, 1990

B.S. Engineering of Mines, West Virginia University, 1983

**Registrations**

Registered Professional Engineer in West Virginia, Ohio, and Maryland



**Professional Experience**

Mr. Coberly has more than 30 years of experience as an infrastructure and mining engineer. He has extensive experience in project planning, funding coordination and design. Mr. Coberly has managed projects with ELR which have involved site development, infrastructure planning, water, sewer, geotechnical analysis, abandoned mine reclamation projects, building construction, active surface mining projects, insurance investigations, providing expert witness services and various post mining land use projects.

Mr. Coberly served as the Chief for the West Virginia Department of Environmental Protection Abandoned Mine Lands Division for more than 4 years. In this position, he was responsible for managing and directing the operations of the Abandoned Mine Lands Office. This program is responsible for reclaiming lands damaged due to coal mining that occurred prior to 1977. The Office investigates, plans, designs, bids and oversees construction projects reclaiming these abandoned mines. The budget for the Office is approximately \$66 Million with a staff of nearly 60 employees.

Mr. Coberly has managed projects with ELR which have involved site development, infrastructure planning, water, sewer, geotechnical analysis, abandoned mine reclamation projects, building construction, active surface mining projects, insurance investigations, providing expert witness services and various post mining land use projects.

Mr. Coberly has participated in well over 100 AML project designs.

**Representative Projects**

The following is a sample list of recent projects on which Mr. Coberly has served as Project Manager

- Over 100 West Virginia Department of Environmental Protection Abandoned Mine Lands reclamation projects
- City of Bluefield Commercialization Center - \$2.55 Million
- Greenfield Cabinetry Building Expansion - \$3.64 Million
- Scott Findley Road Waterline Extension Project - \$1.2 Million
- Exchange Road Phase I Waterline Extension - \$3.1 Million

- Putnam Business Park Utility Extension Phase II - \$1 Million
- Kenova Downtown Water System Upgrade - \$1.9 Million
- Kenova Prichard Waterline Replacement and Upgrade Project - \$4.7 Million
- Route 18 South-Snowbird Road Waterline Extension Project - \$969,000
- Big Flint Waterline Extension Project - \$7.8 Million
- Poca Belt Press - \$1.6 Million
- Blue Knob Waterline Extension Project - \$2.3 Million
- Town of Burnsville Sewer Study - \$2.7 Million
- Bergoo Wastewater Collection and Treatment System Project - \$2.7 Million
- Cow Creek Waterline Extension Project - \$815,000
- WVDEP OSR Viking Preston Mining Project - \$2.3 Million

Faheem Ahmad, P.E., P.S.  
Structural Engineer



**Education**

M.S Civil Engineering, Virginia Tech (VPI & SU), 1991  
B.S. Civil Engineering, West Virginia Univ. Institute of Technology, 1988  
M.S Information Systems, Marshall University, 2004



**Registrations**

Registered Professional Engineer in West Virginia, Florida, Virginia, Ohio, Texas, New York, North Carolina, Kentucky, Pennsylvania, Maryland and Delaware

**NCEES**

Registered Professional Surveyor in West Virginia (1678)  
Certified Bridge Safety Inspector – NHI [REDACTED]

Certified Floodplain Manager (CFM)

**Professional Memberships**

American Society of Civil Engineers – Structural Engineering Institute (SEI)

Association of State Floodplain Managers (ASFPM) - Member

Transportation Research Board (TRB)

**Professional Experience**

Mr. Ahmad is an experienced engineering manager with over 30 years' experience in highway and bridge projects. He is a seasoned project manager with a track record of managing and delivering projects within budget and on schedule. He has managed all types of projects including design-bid-build, design-build, and value engineering. Mr. Ahmad has over 14 years of experience in alternative delivery methods such as design-build, public-private-partnerships (PPP) and value engineering (VE).

Mr. Ahmad has implemented Accelerated Bridge Construction (ABC) methodology on multiple projects to reduce construction duration and impacts on traffic.

Mr. Ahmad has thorough knowledge of West Virginia design directives and policies, WVDOH Bridge Design Manual and AASHTO LRFD specifications. He has used Critical Path Analysis and Gantt charts to schedule and manage projects.

He has thorough knowledge of bridge erection techniques, stage construction analysis and analysis for constructability. He has had extensive experience in directing the preparation of the design and on-site construction engineering and inspection of bridges and structural engineering projects.

He has over 27 years of professional experience in Finite Element Modeling (linear and non-linear) for bridge

projects. He has conducted bridge inspections (NBIS, Element Level) and performed load rating evaluations and analysis in accordance with AASHTO Manual for Condition Evaluation of Bridges (now the Manual for Bridge Evaluation – 2nd Edition) of complex highway bridges ranging from thru trusses to curved girder bridges to bascule bridges. Mr. Ahmad has extensive experience in analysis software such as MDX, LUSAS, STAAD PRO, LARSA 4D, MIDAS and ABAQUS.

Mr. Ahmad also has over 22 years of experience with hydraulics engineering projects in West Virginia. Mr. Ahmad is also Certified Floodplain Manager (CFM) from the Association of State Floodplain Managers. Mr. Ahmad is proficient in conducting hydrologic and hydraulic (steady flow/unsteady flow/2D-flow) of rivers and creeks. Representative projects include FEMA flood studies and map revisions, hydrologic studies, floodplain studies, erosion protection design, bridge hydraulics and scour studies. He is also experienced with water resources regulations, and permitting requirements in West Virginia.

Prior to joining ELR, Mr. Ahmad had over six years of professional affiliation with the Structures Divisions of Delaware and Virginia Department of Transportation.

### **Representative Projects**

Corridor H – Kerens to Parsons– Design Build Project, Randolph and Tucker Counties, WV.

Lead Bridge Engineer for the \$ 200 million design build project. This project includes following major bridges/ structures:

- Bridge Over Baldlick Fork is 560 ft long horizontally curved bridge with layout of three continuous spans as follows: 170 ft – 220 ft – 170 ft. The steel plate girders have 86” deep web. Overall deck width is 84’-6”. Pier heights are approximately 94 ft.
- Panther Run Bridge Over Panther Run is a 620 ft long bridge with layout of three continuous spans as follows: 175 ft – 270 ft – 175 ft. The steel plate girders have 93” deep web. Overall deck width is 84’-6”. Pier heights are approximately 77 ft.
- South Branch Haddix Run Bridge Over South Branch Haddix Run is a horizontally curved 780 ft long bridge with layout of three continuous spans as follows: 250 ft – 280 ft – 250 ft. The steel plate girders have 90” deep web. Overall deck width is 84’-6”. Pier heights are approximately 130 ft.
- Bridge Over Tributary of South Branch Haddix Run is 600 ft long bridge with layout of three continuous spans as follows: 180 ft – 240 ft – 180 ft. The steel plate girders have 86” deep web. Overall deck width is 84’-6”. Pier heights are approximately 82 ft.
- Bridge Over US 219 and Haddix Run is 1200 ft long bridge with layout of five continuous spans as follows: 205 ft – 280 ft – 280 ft – 280 ft – 155 ft. The steel plate girders have 100” deep web. Overall deck width is 84’-6”. Pier heights range from 75 ft – 202 ft.
- CR 3 underpass structure is a 230 ft long box cast-in-place concrete single cell box type structure with a 28 ft clear span

Cottagville Bridge: Lead Design Engineer and Lead Bridge Engineer for the design-build project to construct



a new bridge to carry WV 331 over Little Mill Creek in Jackson County. The proposed bridge consists of three spans of 80 ft – 80 ft – 40 ft with a concrete beam superstructure with a composite concrete deck. The substructures consist of integral abutments founded on H-piles and single column piers. Other design features included drainage, maintenance of traffic, signing, pavement markings, environmental permits (404, NPDES) and construction inspection. Cost for the bridge was \$ 1.9 million.

S. Lee Exxon Bridge: Lead Design Engineer and Lead Bridge Engineer for the design-build project to construct a new bridge to carry WV 68 over South Fork Lee in Wood County. The bridge is 190 ft long, bearing to bearing, and 38'-6" out to out. Span 1 is 75 ft long and Span 2 is 115 ft long. The proposed bridge is a two span bridge with a concrete beam superstructure and a cast-in-place concrete deck. The pier is of the two column type with pile caps and driven H-piles supporting each column. Other design features included drainage, maintenance of traffic, signing, pavement markings, environmental permits (404, NPDES) and construction inspection. Cost for the bridge was \$ 2.4 million.

I-77 Bridges: Surface Drive Overpass Bridges: Lead Design Engineer and Lead Bridge Engineer for the design-build project involving renovation of two dual I-77 bridges: Surface Drive Overpass Bridges on I-77 over CR 119/37 and Eden's Fork Interchange Bridges on I-77 over CR 27 in Kanawha County, WV. beams/girders for each of the bridges are made composite by having shear connectors installed on them. Abutments are converted to semi-integral type. Other design features include drainage, maintenance of traffic, signing, pavement markings, environmental permits (404, NPDES) and construction inspection. Cost for the bridges was \$ 5.4 million.

Tuppers Creek-Pocatalico Bridges: Lead Design Engineer and Project Manager for the replacement of (3) three replacement of existing dual Tuppers Creek-Pocatalico Bridges (Bridge Nos. 2191, 2192, and 2193) carrying I-77 North and South bound in Kanawha County, West Virginia. The bridges consisted of composite steel plate girders on semi-integral/integral abutments and multi-column bents. The project also included structural inspection of existing bridges, geotechnical investigations and preparation of permits. Construction cost for the project was \$ 9.8 million.

Guyandotte River Bridge: Lead Design Engineer and Project Manager for the Value Engineering of Guyandotte River Bridge (Bridge No. 4971). It carries WV Route 10 over Guyandotte River as a part of the Stollings to Logan Road upgrade in Logan County, WV. The Guyandotte River Bridge is a four (4) spans steel girder bridge with lengths of: 185'-0", 240'-0", 240'-0", and 185'-0". The superstructure consists of six (6) welded steel plate girders with cast-in-place concrete deck which acts composite with the steel girders. The piers consists of pier cap that is supported by two columns, each column is based on drilled caisson with rock socket. The pier heights range from 50 to 75 ft. Prepared VE Plans for the project that included Roadway, Bridge, Geotechnical and Hydraulic Studies for the Value Engineered Bridge and Roadway. Performed Girder Erection and Deck Overhang analyses and prepared plans for the contractor.

I-77 City Beer Overpass Bridge: Lead Design Engineer and Project Manager for the Value Engineering of I-77 City Beer overpass bridge in Wood county. The VE bridge is a three span bridge (56'-0" - 96'-0" - 49'-0") South Bound and (51'-6" - 96'-0" - 62'-0") north bound. The structure has a skew of 57 degrees. The superstructure consists of 6 prestressed AASHTO Type III beams. The bridge substructure consists of two piers and two semi-integral abutments. The abutments are designed with single row of HP 14x73 piles oriented in strong direction and two Wingwalls supported by piles. Due to the severe skew and stage construction, a 3-D finite element model

was developed to capture all the on the semi-integral abutments due to thermal expansion/contraction of the girders and the deck and due to lateral earth pressure. Prepared VE Plans for the project that included Roadway and Bridge plans.

**Madam Creek Bridge:** Lead Design Engineer and Project Manager for the Value Engineering of Madam Creek Bridge (County Route 26) in Summers County. The VE Bridge is a simple span structure with 158'-0" center bearing to center bearing. The superstructure consisted of four lines of plate girders 9'-6" on centers. The superstructure has a 5% vertical slope. The substructure with architectural treatment consists of two integral abutments supported on HP14x73 piles. Prepared VE Plans for the project that included Roadway and Bridge plans.

**Morehead Bridge:** Lead Design Engineer and Project Manager for the Value Engineering of Morehead Bridge (County Route 26) in Wirt County. The VE Bridge is a simple span structure with 130'-0" center bearing to center bearing. The superstructure consisted of five lines of plate girders. The superstructure depth was minimized to meet the hydraulic requirements. Prepared VE Plans for the project that included Roadway, Bridge and Hydraulic Studies for the Value Engineered Bridge and Roadway.

**McQuain Brothers Bridge:** Lead Design Engineer and Lead Bridge Engineer for the design-build project for the construction of dual I-79 bridges over US 119 & Left Hand Creek in Kanawha County, WV. Each of the structures has three span layout with span lengths of 128'-0" – 122'-9" – 91'-0". The bridge has horizontally curved alignment (radius = 2865 ft). The horizontally curved cast in place deck is supported by four lines of straight Type IV-J Prestressed Concrete Beams kinked over the piers with a cast-in-place concrete deck. The beams are simple spans for dead loads and made continuous for live load. Abutment 1 is semi-integral while abutment 2 is integral. The design also involved 3-D slope Stability analysis. Other design features included drainage, maintenance of traffic, signing, pavement markings, environmental permits (404, NPDES) and construction inspection. Cost for the bridges was \$ 7.4 million.

**US35 Design-Build Project (WVDOH) Putnam County, West Virginia:** Served as Bridge Project Manager/ Lead Design Engineer on this design- build project to construct dual 181 ft long single span dual bridges over Hurricane Creek and 110 ft long dual bridges over WV 34.

**Wyoming Truss Bridge:** Lead Bridge Design Engineer and the Project Manager for the Wyoming Truss Bridge Replacement in McDowell County, WV. The spans were 88 feet, 110 feet and 88 feet with a total length of 286 feet. The superstructure consists of HPS70W steel girders. Piers 1 and 2 are hammerhead piers. Piers 1 & 2 are founded on spread foundations. The abutments are semi-integral abutments founded on H-Piles. Estimated construction cost for the bridge is \$ 1,900,000.

**US 35 Over Upper & Lower Fivemile:** Lead Bridge Design Engineer and the Project Manager for the following dual bridges (1) US 35 Over Upper Five Mile Creek and CR 27 (2) US 35 Over Lower Five Mile Creek in Mason County, WV. The spans for US 35 Over Upper Five Mile Creek are 161 feet, 161 feet with a total length of 322 feet. The spans for US 35 Over Lower Five Mile Creek are 145 feet, 145 feet with a total length of 290 feet. The estimated construction cost for the bridges is \$ 7.6 million.

**Blennerhassett Island Bridge:** Lead Bridge Design Engineer and the Project Manager for the Ohio Approach

spans of Blennerhassett Island Bridge over the Ohio River beginning in Washington County, Ohio and Blennerhassett Island. The spans were 171 feet, 179 feet and 139.75 feet with a total length of 489.75 feet. The superstructure consists of hybrid steel girders. Piers 1 and 2 are two column bents with parabolic tendon profile for the post-tensioned cap. Pier 1 is founded on a single caisson with a caisson cap whereas Pier 2 is founded on steel H bearing piles with pile cap.

Corridor H Over Walnut Bottom Run: Lead Bridge Design Engineer and the Project Manager for the Twin Bridges Over Walnut Bottom Run Carrying Corridor H in Hardy County, West Virginia. The bridge consists of single 184 ft long composite welded steel plate girders with integral abutments. Construction Cost for the bridges is \$ 2,388,000.

Buffalo Creek Bridge: Lead Design engineer and the project manager for the deck replacement of the existing WV 10 Buffalo Creek Bridge over CSX RR and Buffalo Creek in Logan County, WV. This bridge has a four (4) span layout as follows: 222'-0" 264'-6" 215'-9" and 117'-9". The superstructure consists of eight (8) welded steel plate girders with cast-in-place concrete deck. Construction cost is \$ 4.3 million.

I-70 Ft. Henry IC Bridge: Lead Design engineer and project manager for the Fort Henry I/C Bridge Over I-70 in Ohio County, West Virginia. The bridge consists of two 140 ft long composite welded steel plate girders with integral abutments and pier, on pile foundations.

Lower Gassaway Bridge: Design Review Engineer and Project manager for the replacement of Lower Gassaway Truss Bridge in Braxton County, WV. The bridge consisted of composite welded steel plate girder (81" deep) on semi-integral abutments on drilled shafts and hammerhead piers on single circular (63.8' high) column supported by deep spread footings. The project also included geotechnical investigations and hydraulic studies.

I-79 Lodgeville Bridges: Design engineer and manager for the replacement and widening of the existing dual I-79 Lodgeville and Simpson Creek Bridges in Harrison County, WV to eight lanes. The Simpson Creek Bridge consisted of curved plate girders on abutments and two-column bents (36' high) on spread footing. The project also included geotechnical investigations and hydraulic studies.

### **Representative Hydraulics Projects**

South Branch of Potomac River: Hydraulics and scour Analysis for the Proposed Corridor H Bridge crossing the South Branch of the Potomac River - Hardy County, WV The proposed structure crosses South Branch of the Potomac River and its flood plain. The total length of the bridge is 2200 ft. developed hydraulic models to determine the velocities and flow depths for bridge scour. Evaluated scour potential of piers considering other factors such as river bed changes, instances of historical migration, effect of debris. Prepared hydraulic analysis for the Moorefield Flood Levee freeboard. Additionally, performed hydraulics and scour analysis associated with temporary causeway and access road needed for the construction of the bridge.

Blennerhassett Island Bridge: Hydraulic, scour and erosion countermeasures studies for Proposed Blennerhassett Island Bridge - Wood County, WV and Washington County, OH. The proposed structure consists of a simple span tied arch with a span length of 880 feet (center to center of pier) over the Ohio Channel of the Ohio River. The total length of the bridge is 3985 ft. including approach spans. Developed hydraulic models to determine the velocities and flow depths for bridge scour evaluations. Evaluated scour potential of river piers on the Island

considering other factors such as long term river bed changes, instances of historical migration. An erosion protection system to minimize the impact of barge traffic and bridge scour along the Island shore in the vicinity of Pier 4 was developed. Additionally, performed hydraulics and scour analysis associated with temporary cofferdams, temporary platforms and docks around bridge piers 3, 4, 8, and 9 including for the access roads on the Blennerhassett Island for the duration of construction.

#### **Publications/Presentation**

Published technical papers and made presentations at conferences:

Ahmad, F. and Mongi, A., Accelerated Bridge Construction of Martin Luther King Jr. Memorial Bridge – City of Bluefield, WV - Published in the proceedings of 2014 National Accelerated Bridge Construction Conference.

Ahmad, F. , Zoubi, N. and Mongi, A. Behavior of Integral Abutments with Tall Back walls - Published in the proceedings of 2007 International Bridge Conference

Presentation titled “Steel Spans Made Continuous for Live Loads at the Structures IV seminar by West Virginia Division of Highways – Charleston, WV, November 15, 2005

Ahmad, F. and Zoubi, N. Tension Field Action in the Hybrid Steel Girders for Ohio Approach Spans of Blennerhassett Island Bridge - Published in the proceedings of Third New York City Bridge Conference - Vol 3, No. 1, September 11 – 13, 2005

Co-Presenter on presentation titled “Hydraulic and Scour Analysis of Blennerhassett Island Bridge at the 2002 FHWA Hydraulics Conference – Louisville, KY, September 17-19, 2002



Nasser Al-Zoubi, P.E.  
Structural Engineer



**Education**

Ph.D., Engineering, The University of Akron, 2002

M.S. Structural Engineering, Jordan University of Science and Technology, 1997

B.S. Civil Engineering, Jordan University of Science and Technology, 1994



**Registrations**

Registered Professional Engineer in West Virginia and Ohio

**Professional Memberships**

American Society of Civil Engineers (ASCE)

Transportation Research Board (TRB)

**Professional Experience**

Mr. Al-Zoubi has over 21 years experience in analyzing, designing and finite element modeling using computer-aided analysis for different structural applications and developments. Mr. Al-Zoubi has analyzed and designed structures such as bridge substructure and superstructure, reinforced concrete office buildings, steel pipe support systems, reinforced concrete storage tanks and reinforced concrete pavement.

**Representative Projects**

Design Engineer for Wyoming Truss Bridge Replacement, McDowell County, WV. Three span (88'-110'-88') steel girder-concrete slab bridge. The deck was designed using Empirical LRFD Method. The steel girders were designed using Marlin-Dash software. The substructure consists of two hammerhead Piers and semi-integral Abutments. The Piers were designed using RC-Pier and FB-Pier software. Sap2000 was used to design the Abutments walls and FB-Pier to design Abutments H-Piles. Estimated construction cost for the bridge is \$1,900,000.

Design Engineer for US-60 Bridge over Tennessee River, McCracken / Livingston Counties, KY. The Truss Bridge consists of three spans (500'-900'-400') crossing the Tennessee River. For this project, 3D SAP2000 model of the Piers was used in the analysis and design. The response spectrum taken from a site test was incorporated with the SAP2000 model to account for seismic loading. Estimated construction cost for the bridge is \$75,000,000.

Design Engineer for Buffalo Creek Bridge, Logan County, WV. Four span (222'-264'-216'-118') Horizontally Curved (variable girder spacing) steel girder-concrete slab bridge. A newly mixed Empirical and Traditional method was used to design the new deck.

Superstructure was analyzed using a 3D SAP2000 model to check the bridge components during deck

replacement and stage pouring of the new deck and check the deck stresses in the final stage. Estimated construction cost for the bridge is \$4,300,000.

Design Engineer for Haines Branch I/C Bridge, Kanawha County (WV). A simple span bridge (138 ft) with 35 degrees skewed Abutments and cantilevered Wingwalls. In addition to the typical analysis and design steps, Sap2000 3D model was used to analyze the entire bridge. The model was used to check the deck stresses, girder responses during deck pouring and service, diaphragm responses were also checked. The FB-Pier model was used to design the Abutment Piles.

Design Engineer for WV Rout 85 EDG-Robinson Creek Bridge. A simple span bridge (60 ft) with 40 degrees skewed Abutments. The deck was designed using Empirical LRFD Method. Marlin-Dash (line analysis) was used to design the girders. The effect of lateral bending was checked. FB-Pier finite element program was used to design the Abutment Piles. Sap2000 3D model was used to verify the Wingwall design

Design Engineer for Ohio Approach spans for the Blennerhassett Bridge over the Ohio River. A three span (171'-170'-139') steel girder-concrete slab bridge analyzed and designed using MDX (line and system analysis) and Marlin-Dash (line analysis). Analysis and design of the concrete slab using SAP2000. The analysis and design of post-tensioned (varying section) pier cap for two piers using SAP2000 (a spread sheet was made for the design). The design of the columns using RC-Pier. The design of the drilled shafts using Florida-pier software. Estimated construction cost for the bridge is \$118,000,000.

Design Engineer of substructure for Henry 108 Bridge (Napoleon, Ohio). The design project included front and rear abutments, post-tensioned pier caps, drilled shafts and piles. A three dimensional SAP2000 model was used to analyze the abutments and the caps; special spreadsheet was done to design the post-tensioned beam cap. The bridge was completed only in 9 months. The project recently won awards from PCI, PCA, and PTI. The construction cost for the bridge was \$19,000,000.

### **Computer Skills**

Sap2000, Staad III, ANSYS, ABAQUS, MDX, Merlin-dash, RC - pier, FB-Pier, Brass, AutoCAD, Mathematica and MathCAD. Knowledge of UNIX, DOS and Windows operating systems. Experience in FORTRAN computer language. Proficient in Excel, Power Point, and Word.

**J.D. Kinder, P.E.**  
**Geotechnical Engineer**



**Education**

B.S. Civil Engineering, West Virginia Institute of Technology, 2008

**Registrations**

Registered Professional Engineer West Virginia

**Professional Experience**

Mr. Kinder has over 8 years of experience in many areas of civil engineering including roadway design projects, site development projects, geotechnical investigations, natural gas projects and retain structure design. Additionally, Mr. Kinder has experience in performing slope stability analysis for various roadway fills and bridges.

Prior to joining E.L. Robinson Engineering, Mr. Kinder gained experience in the manufacturing industry supervising various products. His duties included QA/QC testing, product development, estimating, on site installation assistance, inventory, production scheduling, oversight and site layout and design for more than 140 retaining wall projects throughout West Virginia, Ohio and Kentucky.

**Representative Projects**

Mr. Kinder has served as a project engineer for numerous structural projects including the following:

WVDOT Landslide Repairs- Lincoln County (20 sites)

WVDOT Landslide Repairs- Logan County (6 sites)

WVDOT Landslide Repairs- Mingo County (8 sites)

WVDOT WV 4 Clendenin Slip and Slide Repair (11 sites)

WVDOT Corridor H Kerens to U.S. 219 Connector (Geotechnical) - Randolph & Tucker Counties

WVDOT Laurel Creek Girder Bridge (Geotechnical) - Mingo County, WV

WVDOT Arnettsville Arch Bridge (Geotechnical) - Monongalia County, WV

FEMA - Town of Logan - Storm Damage Investigation

Crestwood Pipeline Projects- Doddridge County, WV

City of Williamson Water Treatment Plant Inlet Modification

Tracy Vickers Community Complex

West Edge Warehouse - Huntington, WV





### **Education**

M.S. Geography, Marshall University, 1994

B.S. Geology, Marshall University, 1977

### **Registrations**

Registered Professional Geologist in Virginia and Kentucky

### **Professional Memberships**

Geological Society of America and Association of Engineering Geologist

### **Professional Experience**

Mr. Watts has 40 years of experience in providing consulting services as a senior geologist. He has also served as project manager on numerous projects.

Mr. Watts is primarily an engineering geologist whose range of project experience has encompassed numerous projects concerning geologic investigation, rock and soils engineering, landslides, abandoned mine land reclamation, forensic damage investigations, hydrogeology and the coal industry.

Mr. Watts' AML experience includes over 100 projects spanning more than 33 years. He has served as both Project Manager and Designer for these projects. Further, he is proficient in field reconnaissance and drilling.

He has performed hundreds of slope stability analyses for landslides and other projects involving the design of stable slopes. In addition, he has performed several studies involving landslide prediction to aid clients in land use and safety planning. Projects involving rock slope stability have included high rock cuts for surface mining operations and highways.

Geotechnical experience has included numerous projects involving soils, foundations, landfills and damage studies. These projects have encompassed such areas as pile driving, caisson installation, earth fill placement, subsurface exploration, site reconnaissance, grout and concrete placement and quality control.

### **Representative Projects**

- Huntington Mall, Barboursville, WV
- Best Buy, Barboursville, WV
- Fiesta Bravo Restaurant, Barboursville, WV
- McDonalds, Gilbert, WV
- Numerous Cell Phone Towers Cites

- Wallick Developers - Townhouses, Charleston, WV
- KFC, Beckley, WV
- McDonalds, Lavalette, WV
- King Coal Highway
- Coal Fields Expressway
- Charleston Town Center Mall
- New River Gorge- Cunard Access
- WVDEP - Carswell
- WVDEP - Prenter Road Waterline Feasibility
- WVDEP - Jolo/Paynesville/Wolfpen
- WVDEP - Swiss Drennan Areas, Gauley River
- WVDEP - Coal Mountain Waterline Feasibility
- WVDEP - Hanover Waterline Feasibility
- WVDEP - Brownton Landslide
- Veterans Hospital - Seven Landslides, Huntington, WV
- WVDOH - Five Landslides, Charleston, WV
- WVDOH - I-79 Landslide
- WVDEP - New River Gorge Landslide
- WVDEP - Herndon/Covel/Garwood Waterline
- WVDEP - Spy Rock/Edmond/Flanagan Waterline
- Marshall University - Corbly Hall
- Marshall University - Henderson Center Floor Cracking Study

**Education**

B.S. Civil Engineering, West Virginia University, 1998

**Designing Skills**

Auto CAD, Microstation, COM624-P, Inroads, Hec-Ras, and ELRSoil

**Professional Experience**

Mr. Kelly has more than 19 years of experience as an engineer and principal production person for numerous mine reclamation projects in West Virginia, Ohio and Maryland. He has experience specifically in the design of several abandoned mine land reclamation projects. These projects include large refuse pile grading, hydraulic calculations, design of drainage structures, retaining wall design, permitting (including NPDES, USACOE, Highway Department), and construction cost estimates. Mr. Kelly has assisted in the completion of waterline feasibility studies in various areas. Further, he has worked on waterline extensions and sewer collection systems including providing service to many residential as well as industrial customers.



**Representative Projects**

Mr. Kelly has vast experience in numerous arenas of civil engineering including site development, mine land reclamation, water and sewer extensions, and roadway design.

Specific AML Accomplishments:

WVDEP Mine Reclamation:

Dunloup Creek Complex

Jacobs Fork

Bull Run #27

Gilmer B

Thorpe Refuse

Rhodell Refuse

Milam Ridge Refuse

Brownnton Landslide

Abney Refuse

Gordon C Refuse

West Columbia B

East Bank Emergency

ODNR Mine Reclamation:

Lewis Landslide

Titus

Gouge Landslide

Eskew Subsidence

Athens Burning Refuse

Phalan Landslide

Jefferson Route 26 Landslide

Water and Sewer:

Cooper's Rock Waterline

Davis Water Tank

Rohr Road Waterline

**TODD GARNES**  
**PROJECT DESIGNER**



**Education**

A.A.S. Architectural Drafting Technology  
West Virginia State College, 1999

A.A.S. Computer Aided Drafting and Design  
West Virginia State College, 1999

**Computer Skills**

Civil 3-D, ArcMap 10.1, AutoCAD Map, AutoCAD, MicroStation, Microsoft Office



**Professional Experience**

Mr. Garnes has more than 19 years of experience as a civil draftsman and designer. He is proficient in numerous drafting and mapping software platforms. His proficiency spans multiple areas such as Civil 3D, GIS, construction inspection, waterline planning and design, sanitary sewer planning and design, site development, cathodic protection planning, county-wide planning, infrastructure cataloging, and document preparation.

**Representative Projects**

**WVDOH:**

- City of Charleston - Lee Street Sidewalk Enhancements
- Town of Davis - Tucker County Rocks 2014

Village of Rio Grande Wastewater System Improvements and Wastewater Treatment Plant

Camp Caesar Infrastructure Improvements Project

Doddridge County PSD 2015 County Wide Water Study

Pocahontas County PSD

- Cheat Mountain Water Acquisition
- Dominion Waterline Extension

Village of Cadiz Water System Improvements Project

**WVDNR:**

- Watoga State Park Wastewater Treatment Plant Replacement Project
- North Bend State Park Waterline Extension
- Greenbrier State Forest Waterline Extension

Bluefield Commercialization Station

Rahall Transportation Institute Land Use Master Plans – Boone, Clay, Fayette, Lincoln, Logan, McDowell,

Mercer, Wayne, Wyoming, Raleigh, Upshur, Webster, and Marshall Counties

Webster County PSD Bergoo Wastewater System and Wastewater Treatment Plant Improvements

GIS – Marshall County 10 Year Comprehensive Water and Sewer Study

Town of Gilbert:

- Slabtown, Tamcliff and Paynter Bottom Waterline Extension Project
- Horsepen, Gilbert Creek and Browning Fork Waterline Extension
- River Bend Road Waterline Extension
- Upper Gilbert Creek Waterline Extension

Logan County PSD:

- Upper Little Harts Creek Waterline Extension
- Big Harts Creek Waterline Extension
- Marsh Fork Waterline Extension
- Hidden Valley/Airport Road Waterline Extension
- Ridgeview Sewer – Railroad Permits

Lincoln PSD McCorkle Railroad Crossing

Lincoln EDA Lower Mud River Waterline Extension

Queen Shoals PSD Waterline Extension

Town of Chapmanville Water Upgrade Project

West Virginia American Water:

- Sanderson/Dutch Ridge Waterline Extension
- Miller Mountain Waterline Extension
- Upper Winifrede Waterline Extension

Mingo County Redevelopment Authority:

- King Coal Highway Water and Sewer Project
- Mingo Central High School Water and Sewer Project
- Mingo County Airport Water and Sewer Project

Putnam County Business Park Utilities Extension Project

Norton Harding Jimtown PSD Scott Run/Findley Road Waterline Extension Project

Town of Matewan Red Jacket Sanitary Sewer Upgrade Project

South Charleston Sanitary PSD Corridor G Sanitary Sewer Study

**J. TOM RAYBURN, P.S.**  
**SURVEYING MANAGER**



**Education**

A.S. Mechanical Engineering, West Virginia Institute of Technology, 1970

**Registrations**

Registered Professional Surveyor in West Virginia

**Professional Experience**



Mr. Rayburn currently serves as Manager of Surveying for E.L. Robinson Engineering (ELR) and has more than 30 years of Design Surveying and Construction Surveying experience. The responsibilities include management of surveying and control for various design projects, including highways, buildings, and bridges. In addition, Mr. Rayburn manages and performs work consisting of courthouse research for property ownership resolution for the above mentioned project types. This includes preparation of property resolution maps, deed descriptions for property acquisitions required for project plan preparation. Mr. Rayburn has experience in Geodetic Control Surveys, 3D Laser Scanning, Photogrammetric Control, Topographic Surveys, Cemetery Surveys, Boundary Surveys, Construction Stakeout, Subdivision Surveys, along with Hydrographic surveys of river and lake bottoms. A few of the more notable surveying projects performed by ELR under the supervision of Mr. Rayburn, has been the Blennerhassett Bridge Project, 11 continuous miles of Corridor H design surveys, GPS Control for the West Virginia Statewide Mapping and Addressing PSD Project, 3D Laser Scan and mapping of the CAMC Parking Garage partial collapse, and 3D Laser Scanning of I64/I77 Retaining Wall for Monitoring.

**Representative Projects**

**Design Surveys:**

Corridor H (WVDOT) Hardy County, WV: Lead Surveyor for Design Surveys, Right of Way Staking, etc. for approximately 11 miles of Corridor H in Hardy County, WV. This was for Sections 6 & 7 of Corridor H, both Sections of which are now under construction. Estimated construction cost of \$150 million dollars.

WV Route 10 (WVDOT) Logan to Man WV, Logan County, WV: Lead Surveyor for Design Surveys for a section approximately five miles in length from Man, WV, to Rita, WV, including the Man Bridge. Also provided control surveying for the entire project length of approximately 12 miles. The approximate five miles section of roadway is now under construction at an estimated cost of \$51 million dollars.

Blennerhassett Bridge, Corridor D (WVDOT), Wood County, WV: Lead Surveyor for Design Surveys for this landmark Bridge Project which is now under construction at an estimated cost of \$120 million dollars.

James Ramsey Bridge (WVDOT) Potomac River, Shepardstown, WV: Lead Surveyor for Design Surveys for this Bridge Project which is now completed at an estimated cost \$15.5 million dollars. This project involved working in an environmentally historic area, which adjoined a National Park.



US Route 35 (WVDOT) Mason County, WV: Lead Surveyor for Design Surveys for two Design Sections each approximately 2.5 miles in length from Lower Five Mile Road to Upper Nine Mile Road. Also provided control surveying for the entire US 35 design project length of approximately 22 miles.

I64/US 35 (WVDOT) I64 to US 34 Crooked Creek, Putnam County, WV: Lead Surveyor for Design Surveys, Right of Way Staking, etc. for approximately four miles of US 35 including Interstate 64 Ramps and Flyovers in Putnam County, WV. This included the I64 Bridges and Flyovers, which is now under construction.

ATB-Parrish Road (ODOT) Ashtabula County, Ohio: Project Design Surveyor for rail grade separation project. Project involved roadway realignment, 900' new bridge, new waterline, storm and sanitary sewers. Project is currently under construction. Estimated construction cost: \$8.6 million.

PIC-23-3.21 and Various (ODOT) Pickaway County, Ohio: Project Design Surveyor for ODOT Project PIC-23-3.21 and Various. Project involves deck replacements along 11 miles of US 23 in Pickaway County. Project includes large diameter culvert liner, interchange upgrade that includes mainline profile correction, ramp reconstruction, and addition of barrier wall and storm drainage. Project is currently under design (90%). Project scheduled for construction in 2007. Estimated construction cost: \$12 million.

ATB-90-22.06 (ODOT) Ashtabula County, Ohio: Project Design Surveyor for Interstate Reconstruction Project. Project includes total pavement replacement, bridge widening, and contra – crossover maintenance of traffic, culvert replacements and storm sewer rehabilitation and sign replacements. Project is currently under design (50%) and scheduled for construction in 2011. Estimated construction cost: \$36 million.

#### Construction Surveys:

Corridor D (WVDOT) Wood County, WV: Lead Surveyor for Highway/Bridge Construction Monitoring surveys for the following segments of Corridor D and related relocation projects:

Godbey Athletic Field Relocation Construction

Godbey Colt Field and Soccer Field Construction

West WV 47-East WV 47 Highway/Bridge Construction

East Buckeye-West Little Kanawha River Highway/Bridge Construction

Interstate I-79 Widening and Median Barrier (WVDOT) Harrison County, WV: Lead Surveyor for construction layout surveys for the widening of I-79 from the Meadowbrook Exit, north to the Jerry Dove Exit approximately three miles in length, as a subcontractor to the prime contractor.

CAMC 33rd Street Relocation and Building Expansion, Charleston, WV: Lead Surveyor for construction layout surveys for 33rd Street relocation along with ancillary items including sidewalks, drainage and utilities. Also layout surveys for building expansion project.



J. TOM RAYBURN, P.S.  
(CONTINUED)



Saturn Dealership, Hurricane, WV: Lead Surveyor for Saturn Dealership site development and access roads at Hurricane Interchange of Interstate 64.

Arch Coal WV Mining Operations: Lead Surveyor as a subcontractor to Arch Coal operations for Valley Fill Construction (Up to 27 million cubic yard fills), mine haul road layout, drill line staking, and dragline pit layout.

**Professional Memberships**

American Congress on Surveying and Mapping

The American Association for Geodetic Surveying (AAGS)

Member Organization of ACSM.

Cartography and Geographic Information Society (CaGIS)

Geographic and Land Information Society (GLIS)

National Society of Professional Surveyors (NSPS)

West Virginia Association of Land Surveyors, Inc.

### **Education**

High School Diploma, Sissonville High School, 1978

### **Professional Experience**

Mr. Williams has been employed at ELR since 1978. Mr. Williams has had primary responsibility for the inspection of water, wastewater, and gas line construction and drilling projects.

Waterline projects he has inspected include: Cooper's Creek, Oak Hill, Uneeda/Quinland, Town of Danville, Southern PSC, South Putnam PSD, Kanawha Orchard PSD, Webster County Commission, Kanawha County's 1997 Water Extension projects and most recently RDA 1999 water extension projects.

He has also inspected the construction of sanitary sewer installation for the City of Charleston, Greater St. Albans PSD and South Putnam PSD.

Mr. Williams has inspected the construction of storm sewers for the City of Charleston and the City of Parkersburg. He has also inspected the relocation of gas lines for the Southern PSC and Consumer's Gas.

Mr. Williams has been involved both as a surveyor and inspector on all major projects performed by ELR. Mr. Williams has performed extensive courthouse research on numerous survey projects and is responsible for the field work associated with the AML projects.

### **Representative Projects**

Sewer Installation for the Town of Delbarton

Sewer Installation for the City of Gilbert

Sewer Installation for the City of Weston

Highway Construction Inspection on Corridor D in Parkersburg, WV

Construction of water and sewer lines for South Putnam PSD on Teays Valley RD+1 and 34 Widening in Scott Depot

Inspected replacement of sewage treatment plant at Holly River State Park

Inspected construction of a storm sewers in Charleston and Parkersburg

Inspected relocations of gas and waterlines for Southern PSD for the construction of U.S. 119 in Holden

Inspected relocation of gas lines for Consumers Gas on Docks Creek, Whites Creek and Harrisville

AML and RELATED PROJECT EXPERIENCE MATRIX

PROJECT	Experience Basis Corporate-C Personal-P	Additional Information in Section	PROJECT EXPERIENCE														Primary Staff Participation M-Manager P-Participant							
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrological/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	Ed Robinson, P.E.	Eric Coberly	Tim Cart, P.E.	Richard W. Watts, P.G.	Mark McGettigan, P.E.	John Kelly E.I.	Gary A. Workman, CADD
			Jacob's Fork Complex	C	YES	X	X	X					X					X	X	M	P			P
Rhodell Refuse & Portals	C	YES	X	X	X					X					X	X	M	P			P	P		
Glimer B Sites 3-8	C	YES	X	X	X					X					X	X	M	P			P	P		
Morrisvale/Cameo/Big Horse Creek Waterline Feasibility Study	C	YES															M	P			P	P		
Camp Creek Waterline Feasibility Study	C	YES															M	P			P	P		
Lick Creek Waterline Feasibility Study	C	YES															M	P			P	P		
Ragland Waterline Feasibility Study	C	YES															M	P			P	P		
Beech Creek and Ben II Waterline Feasibility Study	C	YES															M	P			P	P		
Dingess Waterline Feasibility Study	C	YES															M	P			P	P		
Sharon Heights Waterline Feasibility Study	C	YES															M	P			P	P		
Amherstdale Water Feasibility Study	C	YES															M	P			P	P		
Mercer County Commission Danese PSD Waterline Feasibility Study	C	YES															M	P			P	P		
New Haven Waterline Feasibility	C	YES															M	P			P	P		
Nubbin Ridge/Camp Creek Waterline Feasibility Study	C	YES															M	P			P	P		
Bramwell Hill Waterline Feasibility Study	C	YES															M	P			P	P		
Coaldale and Coaldale Mountain Waterline Feasibility Study	C	YES															M	P			P	P		
Jennie Creek Waterline Feasibility Study	C	YES															M	P			P	P		
Beech Creek and Ben Areas Waterline Feasibility Study	C	YES															M	P			P	P		
Blair/Sharples Area Waterline Feasibility Study	C	YES															M	P			P	P		
Brown's Creek #10	C	YES	X	X	X	X	X			X							M	P						
Bull Run #35	C	YES	X	X	X	X	X			X	X						M	P						
Socorro Mine Drainage	C	YES	X	X	X	X	X			X		X	X	X	X		M	P					P	
Fickey Run	C	YES	X	X	X	X	X			X	X				X		M	P					P	
Ven's Run	C	YES	X	X	X	X	X			X					X		M	P					P	
Bull Run #27	C	YES	X	X	X	X	X			X	X				X	X	M	P					P	
Riffe Branch	C	YES	X	X	X	X	X			X					X	X	M	P					P	
Hot Coal	C	YES	X	X	X	X	X			X					X	X	M	P					P	
Mindon Refuse Pile	C	YES	X	X	X	X	X			X					X	X	M	P					P	
Jeffrey Mine Complex	C	YES	X	X	X	X	X			X					X	X	M	P					P	
Pigeon Creek Waterline	C	YES				X				X	X	X				X	M	P					P	

AML and RELATED PROJECT EXPERIENCE MATRIX

PROJECT	Experience Basis Corporate-C Personal-P	Additional Information in Section	PROJECT EXPERIENCE															Primary Staff Participation <small>All Rights</small>						
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrological/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	Ed Robinson, P.E.	Eric Coberly	Tim Carr, P.E.	Richard W. Watkins, P.G.	Mark McGettigan, P.E.	John Kelly, E.I.	Gary A. Workman, CADD
Red Jacket, Macon, Ga.	C	YES				X				X	X						M		P		P	P		
Newtown Waterline	C	YES				X				X	X						M		P		P	P		
Marrowbone Waterline	C	YES				X				X	X						M		P		P	P		
Mount Zion Waterline	C	YES				X				X	X						M		P		P	P		
Coopers Rock, Plisgeh, and Laurel Run Waterline	C	YES				X				X	X						M		P		P	P		
Davis Water Tank	C	YES				X				X	X						M		P		P	P		
Whittington Hill (Walker)Slide	C	YES		X	X	X				X	X						M		P		P	P		
Maidesville Landslide	C	YES	X							X						X	M	P/M	P					
Rich Fork Landslide	C	YES	X	X						X						X	M	P	P		P	P		
Tuppers Creek Landslide	C	YES	X	X						X						X	M	P	P		P	P		
Glen Rogers Waterline	C	YES				X				X	X						M	P	P		P	P		
Gooney Otter Refuse	C	YES	X	X	X	X	X			X							M	P	P		P	P		
Chapmanville Mine Blowout	C	YES				X				X						X	M	P	P		P	P		
Charleston Romeo Landslide	C	YES		X	X	X				X						X	M	P	P		P	P		
Big Creek C Refuse	C	YES		X						X						X	M	P	P		P	P		
North Matewan Sipple	C	YES		X	X	X				X						X	M	P	P		P	P		
Moran Subsidence	C	YES		X						X						X	M	P	P		P	P		
Lewis Landslide	C	YES		X					X	X						X	M	P	P		P	P		
Roush Landslide	C	YES		X						X						X	M	P	P		P	P		
Jefferson 26 Landslide	C	YES		X						X						X	M	P	P		P	P		
Titus Road Landslide	C	YES	X	X		X				X						X	M	P	P		P	P		
Imboden Landslide	C	YES	X	X						X						X	M	P	P		P	P		
Balsden Subsidence	C	YES		X						X						X	M	P	P		P	P		
Parsons Landslide	C	YES		X						X						X	M	P	P		P	P		
Treadway Landslide	C	YES	X	X		X				X						X	M	P	P		P	P		
Phalen Landslide	C	YES		X						X						X	M	P	P		P	P		
Adkins Landslide	C	YES	X	X		X				X						X	M	P	P		P	P		
Goetz Subsidence	C	YES		X						X						X	M	P	P		P	P		
Lavender Refuse Fire	C	YES		X						X							M	P				P	P	
Cox Refus Fire	C	YES		X						X							M	P				P	P	
Toney Fork Landslide	C	YES		X		X				X							M	P	P		P	P		
Athens Rt. 13 Refuse Fire	C	YES		X						X							M	P	P		P	P		
McAdams Subsidence Emer	C	YES		X						X							M	P	P		P	P		
Rodgers Subsidence	C	YES		X						X							M	P	P		P	P		
Brown Landslide	C	YES		X						X							M	P	P		P	P		
Town Run	P	NO								X							M	P	P		P	P		
Witcher Creek	P	NO																						
Pond Gap, Hittop & Spangler	P	NO																						
Elk City	P	NO																						
Little Fork Refuse Pile	P			X			X	X																
OSM-Tackett Fork	P		X	X	X		X																	
OSM-Ironton	P			X			X																	
OSM-Williamson LS	P			X			X																	
OSM-Ray Landslide	P			X			X																	
OSM-Spenca Landslide	P			X			X																	
OSM-Ratiff Landslide	P			X			X																	
OSM-Pigeon Roost LS	P			X			X																	
OSM-Oak Hill Subsidence	P			X	X	X				X														



AML and RELATED PROJECT EXPERIENCE MATRIX

PROJECT	Experience Basis Corporate-C Personal-P	Additional Information in Section	PROJECT EXPERIENCE														Primary Staff Participation M-Mgr/II							
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrological/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	Ed Robinson, P.E	Eric Coberly	Tim Cart, P.E	Richard W. Watts, P.G.	Mark McGettigan, P.E.	John Kelly E.I	Gary A. Workman, CADD
OSM-Little Prater Creek	P			X			X																	
OSM-Hamilton II Landslide	P			X			X																	
Tuppers Creek B	P		X	X	X	X										X				P	P	P		
Big Sandy Refuse	P			X			X																	
Leslie (Nelson)	P	2002	X	X	X		X	X								X				P	P	P		
Swiss Drennan	P	2002								X	X	X											P	
Minden C	P	2002	X	X	X	X	X				X												P	
Weston	P	2002									X			X									P	
Parlette	P	2002									X												P	
East Dupont Ave Landslide	P	2003		X	X	X	X				X												P	
Skin Creek Phase II	P	2003	X				X				X												P	
Witcher Creek	P	2001		X	X	X	X				X			X	X	X	X						P	
Crane Creek	P	2004	X		X	X	X	X			X				X	X	X						P	
Yoursco	P	2004	X	X	X						X	X				X	X						P	
Carswell	P	2004	X			X	X				X	X				X	X	X					P	
Craigmoor	P	2004				X					X			X	X	X	X						P	
Downey Pierpont	P	2006									X						X						P	
Arnes (Clare) Landslide	P	2007		X					X								X						P	
Lorado	P	1995	X	X	X	X					X						X						P	
Madeline Refuse	P	1995	X	X	X	X	X				X	X	X		X		X						P	
Rocklick	P	1995	X	X	X	X	X				X			X	X	X	X						P	
Wahoo	P	1996	X			X	X				X					X	X						P	
Meadowbrook	P	1996	X	X	X	X	X	X			X	X			X	X	X						P	
Jumping Branch	P	1996									X				X		X						P	
Beard's Fork	P	1997	X	X	X	X	X	X			X												P	
Turkey Willow	P	1997	X	X	X	X	X	X			X			X									P	
Osago	P	1997	X	X	X	X	X				X						X						P	
Miller	P	1997	X	X	X	X	X				X			X			X						P	
Whitby	P	1998	X	X	X	X					X	X											P	
Barker	P	1999	X	X	X	X					X	X		X	X	X	X						P	
Gauley River Road	P	1999									X	X											P	
Skin Creek	P	2000	X	X	X	X	X				X	X			X	X	X						P	
Jolo	P	2001									X												P	
Tioga	P	2001									X												P	
Turkey Gap	P	2001	X	X	X	X					X	X											P	
Big Sandy	P	1987	X						X					X	X								P	
Marfrance	P	1988	X	X	X	X			X					X									P	
New Hill Ballpark	P	1988	X	X	X	X					X	X								P	P	P		
Jones Run	P	1988	X	X	X	X	X				X	X											P	
Chapmanville Landslide	P	1989		X	X	X			X					X			X						P	
Wharcliff Landslide	P	1989		X	X	X					X						X						P	
Joyce Sturm	P	1990		X	X	X					X	X											P	
Marlenna Refuse	P	1991	X			X	X				X			X									P	
Cedar Grove	P	1991		X	X	X	X				X	X				X							P	
Eskdale	P	1991		X	X	X	X				X	X		X	X	X							P	
Hodgesville	P	1991	X	X	X	X					X	X		X	X								P	
Newsome Branch	P	1992	X	X	X	X	X				X	X		X			X						P	
Morrison	P	1992		X	X	X	X				X	X			X		X						P	
Snake Island	P	1993	X			X	X	X			X	X					X						P	
Orchard Branch	P	1994	X	X	X	X	X				X	X		X	X	X	X						P	

AML and RELATED PROJECT EXPERIENCE MATRIX

PROJECT	Experience Basis Corporate-C Personal-P	Additional Information in Section	PROJECT EXPERIENCE														Primary Staff Participation <small>(# Abbrev)</small>							
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrological/Hydraulic Design/Eval.	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation Mitigation	Hezardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/Replacement	Construction Inspection/Management	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Ed Robinson, P.E	Eric Coberly	Tim Cart, P.E	Richard W. Watts, P.G.	Mark McGettigan, P.E	John Kelly E.I	Gary A. Workman, CADD
Beckley Lsyrne	P	1994		X	X	X				X	X					X							P	P
Quimwood Booth	P	1994		X	X	X				X	X					X							P	P
Little Fork	P	1983	X	X	X	X	X	X		X	X												P	P
Elkridge Refuse	P	1984	X	X	X	X	X	X		X	X				X	X							P	P
Lando Mines	P	1984	X	X	X	X	X	X		X	X			X	X								P	P
West Vamey	P	1984		X	X	X	X	X		X	X				X	X							P	P
Bethel Portals	P	1985		X	X	X	X	X		X	X				X	X							P	P
Mammoth Landslide	P	1985		X	X	X	X	X		X	X				X	X							P	P
Cheyenne	P	1985	X							X	X		X	X		X							P	P
Mudlick A Landslide	P	1985	X		X	X				X	X		X	X		X							P	P
Nelson Landslide	P	1985	X	X	X	X				X	X				X	X							P	P
Mudlick B Refuse	P	1985	X	X	X	X	X			X	X			X	X								P	P
Bluff Mountain	P	1985	X	X	X	X	X			X	X				X	X							P	P
Montgomery Drainage	P	1986		X	X	X	X			X	X			X	X								P	P
Mayors Drainage	P	1986		X	X	X	X			X	X			X	X								P	P
Ridgeview A & B	P	1987	X	X	X	X	X	X		X	X		X	X		X							P	P
Tupper Valley	P	1987	X	X	X	X	X	X		X	X		X	X		X							P	P
Airport Bottom	P	1987		X	X	X	X	X		X	X		X	X		X							P	P
Manilla Creek	P	1987	X	X	X	X	X	X		X	X		X	X		X							P	P
McAlpin	P	2008								X	X		X	X		X							P	P
Robey	P	2009	X	X	X	X				X	X				X	X							P	P
Katy Lick	P	2009	X			X				X	X				X	X							P	P
Clear Fork	C	2009								X	X				X	X							P	P
Coal Mountain	C	2009									X						M	M					P	P
Naugatuck/East Kernit	C	2009									X						M	M					P	P
Prenter	P	2008									X												P	P
Hanover	P	2009									X												P	P
Lower Dempsey	P	2009		X	X	X					X					X							P	P
Island Creek #18	C	2009		X	X	X					X					X							P	P
Brownlon Landslide	C	2009		X	X	X					X			X		X							P	P
East Bank Emergency	C	2009									X					X							P	P
Duntoup Creek	C	2010	X	X	X	X					X			X	X								P	P
Otsego/Pierpoint/Maben	C	2010									X					X							P	P
Barkers Ridge/Basin	C	2010									X												P	P
Hemdon/Coval/Garwood	C	2010									X												P	P
Bud/Alpoca/Mill Branch	C	2010									X												P	P
Keystone (Avery)	C	2010									X												P	P
Keystone (Emergency)	C	2010									X												P	P
Cane Branch	C	2010									X												P	P
Spy Rock/Edmond/ Flanagan Mountain	C	2010									X												P	P
Wilderness PSD	C	2010									X												P	P
Gordon C	C	2010		X	X	X					X					X							P	P
Keaton Branch	C	2010		X	X	X					X					X							P	P
Vamer Grimmatt Burning Refuse	C	2010							X		X												P	P
Shinnston-Lumberport	C	2011									X												P	P
Newtown-Kinder	C	2011		X	X	X			X		X					X							P	P
Dan's Branch Emergency	C	2011		X	X	X					X					X							P	P
Cartright Branch	C	2011		X	X	X					X					X							P	P

AML and RELATED PROJECT EXPERIENCE MATRIX			PROJECT EXPERIENCE														Primary Staff Participation							
PROJECT	Experience Basis Corporate-C Personal-P	Additional Information in Section	Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrological/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	Ed Robinson, P.E.	Eric Coberly	Tim Cart, P.E.	Richard W. Watts, P.G.	Mark McGettigan, P.E.	John Kelly, E.I.	Gary A. Workman, CADD
Thorpe Refuse Fire	C	2011		X	X	X					X						X							
Glen Rogers Emergency	C	2012		X	X						X													
Abney Refuse Piles	C	2012		X	X	X					X													
Milam Ridge Refuse	C	2012		X	X	X					X						X							
West Columbia "B"	C	2012		X	X	X					X						X							
Coburn Invest.	P			X					X		X						X							
Gouge Landslide	P		X			X			X								X			P				
Adamsville	P		X	X	X	X			X		X		X				X			P				
Mount Pisgah	P		X			X			X				X							P				
Pfessant Valley Church	P			X	X	X					X		X							P				
Hodgesville B	P			X	X	X					X		X							P				
Lynch Chapel	P			X	X	X					X		X		X		X			P				
Snider Portals	P			X	X	X					X		X			X				P				
Wash Run	P			X	X	X					X		X							P				
Junior Sewage Plant	P		X	X	X	X					X		X							P				
Shavers Fork/Stonecoal	P			X	X	X					X	X	X		X					P				
Vargo Drainage	P			X	X	X					X	X	X							P				
Fairhills Plaza Subsidence	P			X	X				X		X		X							P				
Karen Vance AMD	P		X	X	X	X			X		X		X							P				
Leroy Willmoth Drainage	P			X	X	X					X		X							P				
Big Knob Acid Mine Drainage	P		X	X	X	X					X	X	X	X						P				
Matthew Smith Subsidence	P			X		X			X		X		X	X						P				
Worthington Portals	P		X	X	X	X					X		X							P				
Red Rock Drainage	P		X	X	X	X					X		X							P				
Blackwater Manor	P		X	X	X	X	X				X	X	X							P				
Buckhannon River Refuse	P			X	X	X					X	X	X	X	X					P				
Hutcheson AMD	P			X	X	X					X		X		X					P				
Nutter Fort Trestle -7th	P			X	X	X					X		X							P				
East Bank Portals - A#2	P			X	X	X					X		X							P				
Manilla Creek - A#2	P			X	X	X					X		X							P				
Big Creek C	P			X	X	X					X		X				X			P				
Covey Creek Refuse	P			X	X	X					X		X							P				
Omar Drainage G2	P			X	X	X					X		X							P				
Crooked Ck Refuse & Portals	P			X	X	X					X		X		X					P				
Jims Br. (Tyree) LS	P			X	X	X					X		X							P				
Galloway Mine Portal/Refuse	P			X	X	X					X		X							P				
Newtown (Harmon) Drainage	P			X	X	X					X		X			X	X			P				
Whitman Ck. (Williams) VO	P			X	X	X					X		X							P				
Coal Branch (Cantrell)	P			X	X	X					X		X							P				
Jordanville Tipple/Refuse	P		X			X			X		X		X							P				
Helzer Creek A Maintenance	P			X	X	X				X		X		X						P				
Orlando Mining Facility	P		X			X				X		X		X						P				
Verdunville Drainage	P			X	X	X					X		X		X					P				
Holden Portals	P			X	X	X					X		X							P				
Molinar Subsidence	P			X		X			X		X		X							P				
Smith Landslide	P		X	X	X	X			X		X		X				X			P/M				
Lutz Vertical Opening	P			X	X	X					X		X				X			P/M				
Swiger Mine Blowout	P			X	X	X					X		X			X				P/M				



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Blair Waste Subsidence	P			X				X		X		X						PM								
Lake (Winkler) Phase II	P			X		X				X								PM								
Preston County PSD #4	C															X										
Marsh Run Portals	C		X	X	X	X				X	X								P	P	P	P	P	P		
Dorine Thom HW	C		X	X	X	X				X	X					X		P	P	P	P	P	P	P		
Vickers Branch Drainage	C		X	X	X	X				X	X							P	P	P	P	P	P	P		
Morgan HW	C		X							X	X					X	M	P	P	P	P	P	P	P		
Sugarcamp Run Burning Ref	C		X			X		X		X	X						M	P	P	P	P	P	P	P		
Glen White-Trap Hill PSD	C							X		X	X					X	M	P	P	P	P	P	P	P		
North Matewan Akers LS	C				X	X				X	X						M	P	P	P	P	P	P	P		
Fairview Laurel Run Shaft	C			X	X	X				X	X					X	M	P	P	P	P	P	P	P		
McGraws Shaft	C			X	X	X				X	X					X	M	P	P	P	P	P	P	P		
Meadow Creek PSD	C									X	X						M	P	P	P	P	P	P	P		
Squires Creek (Moets) Portal and Refuse	C		X	X	X	X				X	X						M	P	P	P	P	P	P	P		
Red Warrior Gob & Slide	C			X	X	X					X					X	M	P	P	P	P	P	P	P		
Glen Alum Complex	C			X	X	X					X						M	P	P	P	P	P	P	P		
West Columbia "B"	C		X	X	X	X					X						M	P	P	P	P	P	P	P		
Milem Ridge	C		X	X	X	X					X						M	P	P	P	P	P	P	P		
Carson One Special Rec	C			X	X	X					X						M	P	P	P	P	P	P	P		
Preston Energy/Rockville/ Viking Coal Spec Rec	C		X	X	X	X					X		X				M	P	P	P	P	P	P	P		
Branchland (Blankenship) Landslide	C			X	X	X											M	P	P	P	P	P	P	P		
Coburns Creek Landslide	C		X		X	X										X	M	P	P	P	P	P	P	P		
New Cumberland Mine Blowout	C			X	X	X											X	M	P	P	P	P	P	P		
Whitehall Mine Fire	C			X		X		X										P	P	P	P	P	P	P		
Sauls Run Landslide	C		X	X	X	X			X							X	M	P	P	P	P	P	P	P		
Missouri Fork Landslide	C			X	X	X											M	P	P	P	P	P	P	P		
Worthington (Hess) Landslide	C			X	X	X											X	M	P	P	P	P	P	P		
Capen Road Landslide	C			X	X	X												P	P	P	P	P	P	P		
Lynch Run Mine Blowout	C		X	X	X	X											X	M	P	P	P	P	P	P		
Dans Branch (Dillon) Landslide	C			X	X	X												M	P	P	P	P	P	P		

West Virginia Ethics Commission  
Disclosure of Interested Parties to Contracts

(Required by W. Va. Code § 6D-1-2)

Name of Contracting Business Entity: E.L. Robinson Engineering Address: 5088 Washington St. W  
Charleston, WV 25313

Name of Authorized Agent: Eric J. Coberly Address: 5088 Washington St. W Charleston, WV  
25313

Contract Number: 1900000005 Contract Description: Richard Mine Drainage Access

Governmental agency awarding contract: WVDEP

Check here if this is a Supplemental Disclosure

List the Names of Interested Parties to the contract which are known or reasonably anticipated by the contracting business entity for each category below (attach additional pages if necessary):

1. Subcontractors or other entities performing work or service under the Contract

Check here if none, otherwise list entity/individual names below.

2. Any person or entity who owns 25% or more of contracting entity (not applicable to publicly traded entities)

Check here if none, otherwise list entity/individual names below.

3. Any person or entity that facilitated, or negotiated the terms of, the applicable contract (excluding legal services related to the negotiation or drafting of the applicable contract)

Check here if none, otherwise list entity/individual names below.

Signature: [Signature]

Date Signed: 10/8/18

Notary Verification

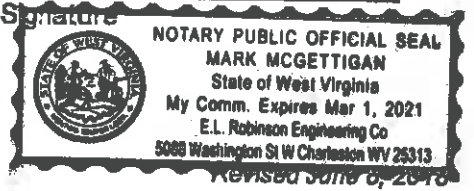
State of West Virginia, County of Kanawha:

I, Eric J. Coberly, the authorized agent of the contracting business entity listed above, being duly sworn, acknowledge that the Disclosure herein is being made under oath and under the penalty of perjury.

Taken, sworn to and subscribed before me this 8th day of October, 2018

[Signature]  
Notary Public's Signature

To be completed by State Agency:  
Date Received by State Agency: \_\_\_\_\_  
Date submitted to Ethics Commission: \_\_\_\_\_  
Governmental agency submitting Disclosure: \_\_\_\_\_



STATE OF WEST VIRGINIA  
Purchasing Division

# PURCHASING AFFIDAVIT

**CONSTRUCTION CONTRACTS:** Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

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

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

**DEFINITIONS:**

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

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

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

**AFFIRMATION:** By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, 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: E.L. ROBINSON ENGINEERING

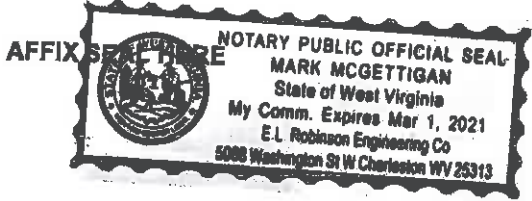
Authorized Signature: [Signature] Date: 10/8/19

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 8th day of October, 2018.

My Commission expires March 1, 2021.



NOTARY PUBLIC [Signature]

**DESIGNATED CONTACT:** Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Eric J. Coblerly, Project manager

(Name, Title)

(Printed Name and Title)

5088 Washington St. W Charleston, WV 25313

(Address)

304-776-7433 / 304-776-6426

(Phone Number) / (Fax Number)

ecoblerly@elrobinson.com

(email address)

**CERTIFICATION AND SIGNATURE:** By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated 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.

El Robinson Engineering

(Company)

Eric J. Coblerly PROJECT MANAGER

(Authorized Signature) (Representative Name, Title)

Eric J. Coblerly, Project manager

(Printed Name and Title of Authorized Representative)

10/8/18

(Date)

304-776-7433 / 304-776-6426

(Phone Number) (Fax Number)