

## **EXPRESSION OF INTEREST**

To provide

# Professional Mapping And Design Services

for the

Masteller Coal Company
S-125-82 & S-10-85
Mineral County
West Virginia
DEP16555

Prepared for the

West Virginia Department

of Environmental Protection

Office of Special Reclamation

CTL Engineering of West Virginia, Inc.

733 Fairmont Road Morgantown, WV 26501

510 C Street South Charleston, WV 25303

West Virginia Purchasing Division

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CTL Engineering Of West Virginia, Inc.

733 Fairmont Road, Morgantown, West Virginia 26501

Phone: 304/292-1135 • Fax: 304/296-9302

e-mail: ctlwv@ctleng.com

AN EMPLOYEE OWNED COMPANY



Consulting Engineers • Testing • Inspection Services • Analytical Laboratories

Established 1927

July 17, 2014

West Virginia Department of Environmental Protection
Office of Special Reclamation
105 S. Railroad Street
Philippi, WV 26416-9998

Re: RFQ #DEP 16555 Expression of Interest Design Engineering Services Proposal Masteller Coal Company (S-125-82 & S-10-85)

### Gentlemen:

CTL Engineering of WV, Inc. is very pleased to present this proposal to provide design engineering and related services for the West Virginia Special Reclamation Program. With over 80 years in the business, we feel our firm can provide the professionals and facilities the State of West Virginia is looking for.

CTL has evolved into a recognized leader in the Abandoned Mine Lands Engineering Design and Investigation field. We offer the services necessary to provide a non-subcontract, quality product to support your program. Our capabilities include laboratory facilities, drilling rigs, surveying systems, design equipment, and a qualified staff. We have 12 Professional Engineers, five of which are registered in West Virginia and have direct Special Reclamation and AML Design Experience. Our in-house disciplines of professionals include: Civil & Mining Engineers, CAD Designers, Surveyors, Geologists, Hydrologists and Biologists. We are experienced in completing more than 50 projects annually that require aerial mapping, support surveying with GPS, and final contouring for design.

Our in-house ability reaches beyond simply being an Reclamation design firm. We also have extensive contract administration and management experience with the procedures of the state of West Virginia. Our invoicing procedures and accounting software has been accepted, used, and audited by various state agencies.

CTL's primary staff has over 125 years of experience with mine reclamation engineering on both a national and international level. Our qualifications and facilities are unsurpassed when it comes to Mine Reclamation Design. With offices in Charleston and Morgantown, we can effectively respond to any AML Design tasks throughout West Virginia. In addition, we have six full time design teams available to complete design projects. Our corporation and individual staff members have extensive experience relative to mine and refuse reclamation, mine and refuse fire elimination, site stabilization design, portal seal

Offices: Ohio, Indiana, North Carolina, West Virginia

scope to many of the reclamation design projects we have successfully completed. Attached to this proposal are numerous examples of similar projects successfully designed and completed.

We sincerely appreciate the opportunity to submit this proposal to you for consideration. Should you have any questions or need additional information, please contact our office.

Respectfully submitted,

CTL Engineering of West Virginia, Inc.

Royden L. Loucks

**Director Business Development** 





RFO COPY

733 Fairmont Road Morgantown, WV 26501

TYPE NAME/ADDRESS HERE

CTL Engineering of West Virginia, Inc.

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

### Solicitation

NUMBER DEP16555 PAGE 1

ADDRESS CORRESPONDENCE TO ATTENTION OF:

FRANK WHITTAKER

04-558-2316

ENVIRONMENTAL PROTECTION DEPT. OF OFFICE OF SPECIAL RECLAMATION 105 S. RAILROAD STREET PHILIPPI, WV 26416-9998 304-457-3219

DATE PRINTED 06/24/2014 BID OPENING DATE: BID OPENING TIME 07/22/2014 1:30PM CAT LINE QUANTITY LIOP ITEM NUMBER UNIT PRICE AMOUNT 0001 ĴВ 906-29 MASTELLER DESIGN EXPRESSION OF INTEREST THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL MAPPING AND DESIGN SERVICES AT THE BOND FORFEITED PERMITS OF THE MASTELLER COAL COMPANY \$-125-82 AND S-10-85 IN MINERAL COUNTY, WV PER THE FOLLOWING BID REOUIREMENTS AND ATTACHED SPECIFICATIONS. THIS IS THE END OF REQ DEP16555 \*\*\*\*\* TOTAL:

SIGNATURE QUALT FOR	(304) 292-1135	DATE July 17, 2014
Director Business Development 55-063-1834	A	DDRESS CHANGES TO BE NOTED ABOVE

RFQ No. DEP16555

Purchasing Affidavit (Revised 07/01/2012)

### STATE OF WEST VIRGINIA Purchasing Division

### **PURCHASING AFFIDAVIT**

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

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

#### **DEFINITIONS:**

WITNESS THE FOLLOWING SIGNATURE:

OFFICIAL SEAL

NOTARY PUBLIC STATE OF WEST VIRGINIA KATHLEEN J. O'BRIEN 451 Nuce Rd., Masontown, WY 26542 My Commission Expires January 17, 2020

"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 exceed five percent of the total contract amount.

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

### 

### **CERTIFICATION AND SIGNATURE PAGE**

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

CTL Engineering of W	lest Virginia, Inc.	
(Company)		
1		
(Authorized Signature)		
Patrick E. Gallagher, I	President	
(Representative Name,		
(304) 292-1135	(304) 296-9302	
(Phone Number)	(Fax Number)	
July 17, 2014		
(Date)		

## ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.:

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

	x next to each adden	dum received)						
	Addendum No. 1		Addendum No. 6					
	Addendum No. 2		Addendum No. 7					
	Addendum No. 3		Addendum No. 8					
	Addendum No. 4		Addendum No. 9					
	Addendum No. 5		Addendum No. 10					
I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.								
		CTL	Engineering of West Virginia, Inc.					
Authorized Signature								
		luk	17 2014					
		July	17, 2014 Date					

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

## CTL Engineering of West Virginia, Inc.

An Employee Owned Company

CTL Engineering of West Virginia, Inc. (CTL of WV) is a full service consulting civil engineering, testing, inspection, and analytical services company. CTL Engineering of West Virginia, Inc. was formed in 1981 to service West Virginia, Maryland and Pennsylvania. CTL of WV is part of CTL Engineering, Inc. formerly known as Columbus Testing Laboratory, which was established in Columbus, Ohio in 1927 as an independent engineering testing laboratory serving the local community. During the early years, our expertise focused mainly on soils, foundation engineering, and construction testing and inspection services.

The Engineering News-Record ranked CTL Engineering, Inc. among top 500 architectural and engineering firms in the nation. CTL Engineering maintains a staff of over 200 employees, including registered engineers, architects, chemists, environmental scientists, geologists, hydrologists, wetland scientists and technicians.

CTL of WV provides total Civil Site Design for development projects throughout West Virginia. These designs include site layouts, utility design and interconnections, stormwater management design, parking and roadway design, permit preparation and submittal, and interaction with architects, owners and all interested parties to the projects.

CTL of WV provides all necessary surveying services required of projects including boundary and ALTA surveys, topographic surveys, aerial survey control, GPS surveys, and site construction surveys to assure proper construction and compliance with specifications of the project.

CTL of WV has become an industry leader in geotechnical design and investigations. In the past 5 years, CTL of WV has provided over 1000 geotechnical investigations including drilling, sampling and design for both the public and private sectors. CTL of WV is regularly called upon to provide unique geotechnical engineering design services for projects throughout the United States and Canada.

CTL of WV provides environmental services for developments throughout West Virginia and Maryland. Environmental Services include Phase I and II ESAs, wetland delineation and mitigation plans, State and Federal 401 and 404 Permit submittals, Ms4 Phase II storm water permitting, soil and groundwater sampling, asbestos surveys and sampling, lead based paint testing, mold testing, UST removal oversight, hazardous material identification and remedial design and other environmental services as required

CTL of WV provides construction, material and concrete testing and observation services. CTL of WV has ten field technicians providing dedicated construction observation and compliance testing. CTL's in-house material laboratory provides the much needed prompt turn-around required for projects to be successful.

Additional services provided by CTL include Nondestructive Testing and Inspection, Forensic Science, Accident Re-Construction, Roofing Consulting, Product Testing, Laboratories, Analytical Chemistry and Metallurgy Services.





### Est. 1927

### **Professional Services**

### **Analytical Chemistry**

- Organics
- Metals
- Liquid and Solid Fuels
- Soil and Water
- Oils and Sludge
- Solid & Hazardous Wastes
- Construction Materials

### Computer Technology

- **Drafting Services** 
  - AutoCad
  - Digitizing
  - Microstation
- Software Development
  - Internet & Intranet
  - Application Software

### Construction Administration

- **ODOT LPA Projects**
- County & Municipal Projects
- Daily On-Site Inspections
- Owner's Representative

### **Construction Monitoring**

- Floor Flatness
- Soils, Concrete, Asphalt, Masonry, Fireproofing, and Steel
- Earth and Concrete Dams
- Pavement for Streets and Airports
- Pre and Post Construction Inspection
- Embankments, Fill, and Cut

### **Environmental**

- Phase I & II ESAs
- RCRA Closure & Site Remediation
- Asbestos/Lead/Mold Surveys
- Abatement Design/
- Monitoring Wetlands Delineation,
- Permitting & Mitigation Endangered Species/ **Ecological Surveys**
- Stormwater Management
- Water Resource Engineering
- Underground Storage Tank Management per BUSTR
- Hydrogeologic Studies & Aquifer Characterization

### **Existing Structure Evaluation**

- Delamination Determination
- Bridges/Buildings
- Sonic Velocity Testing
- Half Cell Potential Tests

### **Forensic Science**

- Roofing Failures
- **Building Failures**
- Legal Testimony
- **Product Liability**

### Investigations

- Landslide, Soil and Foundation Failures
- Accident Reconstruction

#### Geotechnical

- Site Selection
- Pavement Design (including CBR Study) Foundation Analysis
- & Design
- Embankment & Earth Dam Analysis
- Slope Stability Analysis
- Subsurface Exploration -**Drilling Services**

### **Ground Penetrating Radar**

- Concrete Inspection & Evaluation
- **Bridge Inspection**
- Utility Detection & Mapping

### **Materials Testing**

- Concrete
- Aggregates
- Soils and Rock
- Clay and Masonry Products
- **Bituminous Materials**
- Petrographic Studies Concrete & Asphalt Mix
- Designs

- Metallurgy
   Metallography
- Failure Analysis
- Fracture Analysis
- Corrosion Studies
- Tensile and Hardness
- Application
- Recommendations

- Mining Engineering

   Mine Plan Design

   Permit Preparation
  - Refuse Disposal Design
  - Mine Reclamation Design
  - **Environmental Monitoring**
  - Subsidence Investigations
  - **Drainage Control**
  - Structures

### **Nondestructive Testing &** Inspection

- Level II Services
- Ultrasonic Inspections
- Liquid Penetrant Inspection
- Magnetic Particle Inspection

### **Pavement Management**

- Budgeting
- Prioritization
- **Deterioration Rates**
- Condition Assessment
- Maintenance &
- Rehabilitation Strategies Network Needs & Long

### Range Goals

### **Product Testing**

- Calibration
- Design Analysis
- Safety Evaluation
- **Hydrostatic Testing**
- Mechanical and Physical **Property Testing**
- Load and Strength Testing

### Roofing Engineering & **Building Envelope Services**

- Infrared & Nuclear Testing
- Air/Water Infiltration
- **Quality Control**
- Roof Surveys Evaluation
- Design & Construction Administration

### **Roof Management System**

- Budgeting
- Prioritization
- **Deterioration Rates**
- Condition Assessment
- Maintenance &
- Rehabilitation Strategies

### Security & Safety Systems

- Design
- Construction
- Paging Systems Video Surveillance
- Intrusion Detection
- Card Access Control **Audio Visual Solutions**
- Digital Video Recording

- Site/Civil Engineering Commercial Land
- Development
- Infrastructure Planning Residential/Community Planning

- Surveying & Mapping Topographic Mapping
- Development Property Surveying &
- Boundary Determination Global Positioning System

### Telecommunication Services

- Design
- Construction
- **Existing Structure Analysis**
- and Maintenance **Lighting Systems**
- Inventory and Warehousing

- Welding & Quality Control
   QA/QC Programs
  - Certified Welding
- Inspection Welding/Brazing
- Qualification Procedure Development

### Office Locations

2860 Fisher Road Columbus, OH 43204 Phone: (614) 276-8123 Fax: (614) 276-6377

4343 Saguaro Trail Indianapolis, IN 46268 Phone: (317) 295-8650 Fax: (317) 295-8395

3085 Interstate Parkway Brunswick, OH 44212 Phone: (330) 220-8900 Fax: (330) 220-8944

3902 New Vision Drive Fort Wayne, IN 46845 Phone: (260) 482-4503 Fax: (260) 482-2002

633 High Street Minford, OH 45653 Phone: (740) 820-8355 Fax: (740) 820-5698

### 510 C Street So. Charleston, WV 25303

Phone: (304) 746-1140 Fax: (304) 746-1143 102 Commerce Dr.

Wapakoneta, OH 45895

Phone: (419) 738-1447

Fax: (419) 738-7670 733 Fairmont Road Morgantown, WV 26501 Phone: (304) 292-1135

2105 Schappelle Lane Cincinnati, OH 45240 Phone: (513) 722-8665 Fax: (513) 834-6650

Fax: (304) 296-9302

100 Central Plaza N Canton, OH 44702 Phone: 330-994-1590

Sachina Engineering 407 "B" Block SNS Arcade, Airport Rd Bangalore, India 560017 011-91-80-526-8615

www.ctleng.com

## ENGINEERING &

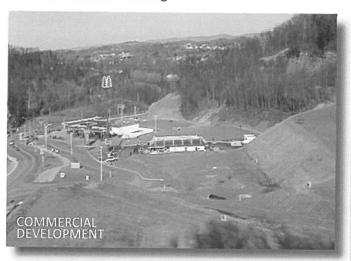
## Site/Civil Engineering



CTL Engineering's in-house staff provides a full array of services, with support from our Site/Civil Department, including mapping and surveying services.

### From a Raw Piece of Property --CTL Engineering Provides Full Site Layout Design.

- Topographic Mapping Development
- Global Positioning Systems (GPS) Services
- Aerial Mapping Layout & Control
- Construction Layout
- Wetlands Delineation / Flood Plain Determination & Certification
- Property Survey & Boundary Determination
- · Micrometer Leveling



### Services Include:

- Commercial Land Development
- · Residential / Community Planning
- Infrastructure Planning & Design
- Pavement Design and Management
- Conceptual Designs / Presentations
- · Recreational Resort / Facility Planning
- Erosion & Sediment Control Design
- Storm Water Management Systems
- Preliminary Cost Estimates / Feasibility Analyses
- Oil & Gas Pad and Pipeline Layout, Design, Survey & Permitting
- As-Built Surveys and Drawings
- Remediation Plans for AML & Emergency Programs
- Permitting for all Project Types
- Site Development, Utilities and Appurenances



## Surveying & Mapping

**ENGINEERING** ≥





CTL Engineering maintains a full service, in-house survey and mapping team, which has extensive experience in performing most common surveying needs.

CTL Engineering has the professional staff and the latest equipment to support (8) full survey crews. Our equipment includes a Global Positioning System and robotic surveying instruments which gives us an added dimension to our surveying and mapping capabilities.

We have performed surveying and mapping on many of our civil/site projects and have supplied construction stakeout and monitoring for many of

### **Professional Services:**

- Property Surveying and Boundary Determination
- Topographic Mapping Development
- Aerial Mapping Layout and Control
- Gas Midstream Development and Construction Surveys
- Construction Layout
- Settlement Plate Monitoring
- Micrometer Leveling
- Flood Plain Determination and Certification
- Wetland Profiling

### **Project Synopsis:**

- · Residential Subdivision Layout
- Commercial Development Layout
- Access Road and Parking Lot Layout
- Bridge Construction Layout and Monitoring
- Elevation Certificates (FEMA)
- Property Survey Projects
- Storm Water Surveillance Mapping
- Water Body Sounding Studies



## Mining Engineering Services

**ENGINEERING** ≥





CTL Engineering has experienced engineers, geologists, and mining technicians to provide the expertise to insure successful mining operations. We provide abandoned mine land reclamation design and project management, mine subsidence evaluations and remediation plans, hydraulic and hydrology studies. hydrogeologic evaluations, mine permitting, preblast surveys, pre and post mining surveys, and coal reserve studies.

The CTL Mining Engineering Group coordinates with our drilling services and various testing departments to provide a full scope of services to the mining industry. Our laboratories are certified to perform the water and overburden analysis prescribed by federal regulatory programs.

CTL Engineering provides drainage control structure design to comply with the regulatory requirements for controlling and treating site damage. Exploration equipment and remote video camera monitoring are used by CTL Engineering to prepare accurate maps for reclamation, subsidence stabilization measures, and mine closures.

We have experienced mechanical and metallurgical engineers on staff to provide mine equipment evaluation and consultation services. CTL Engineering is a proven source for accurate and dependable technical information.

## **CTL Engineering Mining Services**

- Subsidence Investigations and Stabilization Designs
- Abandoned Mine Reclamation Design
- **Permit Preparation**
- Mine Design Plans
- Refuse Disposal Plans
- **Environmental Monitoring**
- Coal, Water, and Overburden Analysis
- **Drainage Control Structure Design**
- Failure Analysis
- Legal Testimony
- Passive Treatment System Design





## ENGINEERING &

## **Geotechnical Services**



CTL Engineering's Geotechnical Department routinely performs subsurface investigations and soil and rock testing. We prepare engineering reports, make recommendations regarding foundation and construction techniques, and perform other geotechnical services, as dictated by a given project.

### **Drilling Services**

CTL Engineering owns and operates its own fleet of drill rigs. Our rigs are capable of Hollow Stem Augering, Rotary Core drilling and Direct Push Sampling. CTL is able to perform in house energy transfer calibrations on all of its automatic drive hammers. In fact, CTL calibrates many of our competitors' drive hammers as well.

CTL has continuously owned and operated drilling equipment since the 1970's. We have the equipment and experience to perform just about any geotechnical or environmental drilling project you may have.

### **Analytical Laboratory**

Our soils laboratory has been accredited by AMRL since 1999. The lab has consolidometers, triaxial and direct shear apparata, permeability devices, soil compaction, soils classification equipment, and other laboratory testing equipment. We routinely perform testing on undisturbed as well as remolded soil samples. We also provide strength and durability testing services on rock samples.

### **Geotechnical Services:**

- Complete Subsurface Exploration Study
- Foundation Analysis
- Pile, Pier, and Caisson Analysis & Inspection
- Embankment & Earth Dam Analysis
- Slope Stability Analysis
- Settlement Analysis
- Pavement Design
- Rock & Mineral Testing
- Hydrogeologic Studies
- Field and Laboratory Testing of Soils and Rock
- Legal Testimony
- Dynamic Pile Testing

## CTL Engineering routinely provides subsurface investigations on the following:

- · Roads and Bridges
- Airport Terminals, Runways, and Taxiways
- Water/Wastewater Treatment Facilities
- Hospitals, Parking Garages, Higher Education, and PK-12 School Buildings
- Energy Facilities
- Telecommunication Towers
- Commercial, Retail, and Industrial Facilities



Drilling in Rugged Terrain



Drilling on Flat Terrain



## **Environmental Services**

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CTL has been providing Environmental Services since 1987 and has successfully completed over 7,100 projects of varying complexities for diversified clients, e.g., Governmental agencies, Universities, Private Banks, Developers, Communication Tower, Pipe-line and Oil & Gas Exploration Companies, etc. Our years of experience have made us aware of the regulatory and technical challenges our clients face when environmental issues arise.

Our clients have come to appreciate our ability to balance regulatory requirements while maintaining projects' feasibility and continuity. With multiple office locations and a knowledgeable staff of geologists, environmental scientists/engineers, wetland scientists, industrial hygienist, and certified HazMat professionals, we can provide a diverse range of environmental services to our local and regional clients. Whether our clients need a Phase I ESA or a full-scale remediation project, CTL's Environmental Department is the single source for your environmental needs.

### Other Environmental Related Services:

### **Real Estate Related Services**

- · Phase I and II ESA's
- Transaction Screenings
- FCC/NEPA Section 106 Reviews

### **Building Evaluation Services**

- Asbestos Hazard Evaluations
- · Asbestos Abatement Design/Monitoring
- Lead-Based Paint Surveys
- Indoor Air Quality Assessments
- · Mold Testing and Remediation

#### **Ecological Services**

- Stream, Wetlands & Jurisdictional Waters of the U.S. - Assessment & Delineation
- 404/401 Wetland Permitting
- Wetland/Stream Mitigation and Monitoring
- Threatened & Endangered Species Habitat Research and Surveys

### **Underground Storage Tank Services**

- UST Removal & Closure
- BUSTR Tiers 1, 2 & 3 Evaluations
- Remedial Investigations and Corrective Actions

### **Hydrogeologic Services**

- Soil Borings & Subsurface Evaluations
- · Ground Water Investigations
- Monitoring Well Installation
- Soil & Ground Water Remediation
- · Groundwater Mapping/ Modeling
- Storm Water Pollution Prevention Plans (SWPPP) Preparation, Design, and Inspections

### Permitting/Compliance

- NPDES Permitting Support
- Solid-Waste Landfill Permitting
- Permit to Install/Operate (PTI & PTO)
- Compliance with Permit Conditions

### **Waste Management Services**

- Hazardous & Non-Hazardous Waste Characterization and Disposal
- · Spill/ Discharge Response Plans
- Effluent Sampling & Analysis
- RCRA Planning and Closure
- Spill Prevention Control & Countermeasure Plans (SPCC)

#### **Geophysical Surveys**

- Ground Penetrating Radar (GPR) survey to detect utilities and orphan USTs.
- Resistivity Testing of soil for grounding system designs.

### **Transportation Related Services**

- Environmental Screening
- CE Documentation Preparation
- BUSTR Site Assessment
- Ecological Investigations



## **Materials Testing**



CTL Engineering is a leader in providing analytical services to the construction industry. We maintain a staff of experienced personnel and accurate equipment to guarantee dependable results. We evaluate all types of construction materials. Additionally, CTL Engineering can prepare and test Portland cement and bituminous concrete mixes for optimization studies to insure the proper mix design for specific jobs.

CTL Engineering offers petrographic examination of construction materials. These specialized microscopic evaluations allow us to closely evaluate concrete quality and determine the causes and extent of failures in concrete, in addition to potential future performance.

In addition to the standard ASTM tests of strength, absorption, dimensions unit weights, etc., CTL Engineering provides several specialty tests on concrete block and brick, including the fire rating test, specified by the BOCA, and efflorescence testing required by many architectural firms.

CTL Engineering also provides complete and thorough analysis of clay products.

## We provide complete testing of the following:

### **Aggregates**

- Component Analysis (sand, gravel, lime stone) – Department of Transportation
- Filter Sand Environmental Protection Agency (EPA)
- Railroad Ballast American Railroad Engineering Association
- Rip-Rap U.S. Soil Conservation Service

### Soils

- Classification
- · Compaction Parameters
- Permeability Tests

### Concrete

- Mix Designs
- Mix Verification Tests to verify strength, air content, consistency, and yield of concrete
- Compression Tests
- Flexural and Split Tensile Strength Tests
- Modulus of Elasticity
- Creep Testing

### **Asphalts**

- Mix Designs
- Nuclear Gauge Calibrations Extraction and Grading
- · Core Testing for Density and Strength

#### Clay-brick, Pipe & Tile

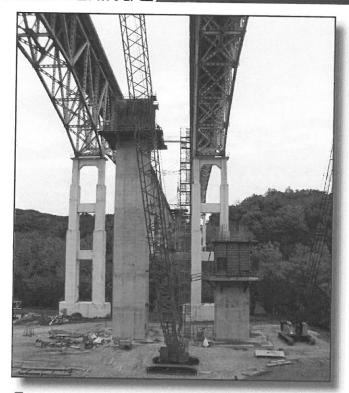
- Compressive Strength
- Absorption
- · Freeze-thaw
- Efflorescence
- Dimensional Analysis
- Acid resistance

In addition to the standard tests that are required by specification, we perform specific tests on construction materials as dictated by the needs of the customer.

## LA L

## Construction Administration & Daily On-Site Inspections

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Federal, State, and Locally funded Construction Projects require a high level of administration and quality control to meet the project's demands. The Counties and Municipalities, through ODOT's LPA Program, as well as private Owners, Developers, and Contractors have selected CTL Engineering for Construction Administration, knowing that we have the experienced staff to be accurate, dependable, and perform these services in a timely manner. Our experienced engineers, inspectors, and technicians are your partners in construction. We help in completing these projects successfully a meeting the specific project requirements.

CTL Engineering's qualified construction inspectors will observe and inspect your construction project and complete the necessary daily documentation required by the Federal, State, and Local funding agencies participating in the project.

CTL Engineering also provides in-house testing services such as concrete, asphalt, and sub-grade compaction, as well as daily on-site inspection services.

## CTL Engineering provides the following Construction Administration Services:

- Conduct Pre-Construction Conference
- Project Team Coordination
- Field Reports & Construction Documents' Administration
- · Field Engineering and Inspections
- Material Certification and Shop Drawing Reviews
- Progress Meetings and Schedule Tracking
- · Payments and Reimbursements
- · Change Order Reviews
- · Prevailing Wage Compliance
- EEO/DBE Contract Requirements
- Project Closeout Activities

## CTL Engineering's On-Site Inspector provides and/or participates in the following Daily On-Site Inspection Services:

- Pre-Construction Conference
- Prepare Field Inspection & Quantities Reports
- Prepare Construction Documentation & provide to Construction Administrator
- Field Engineering in conjunction with Construction Administrator
- Observe & verify materials being used for the project
- Observe, identify and notify Construction Administrator of deficiencies
- Provide Construction Administrator with monthly quantities for payment preparation
- Material Testing, i.e., compaction, concrete, asphalt, etc.

## Project Management Plan

Our approach to the *Masteller Coal Company Project* will be similar to other CTL AML drainage and site stabilization projects. The Project Management Plan we have developed for these sites are as follows:

- The project manager will be solely responsible for expedient and accurate completion of each phase of the individual projects performed under this contract. He will review the project sites and discuss the specific scope of work for the project with the project representative from the WVDEP. A cost proposal will be prepared, in accordance with contract unit rates, based upon an estimate of manpower, equipment, and laboratory needs.
- CTL will then mobilize a fully equipped survey crew to set survey control and map the
  project sites. Permanent control monuments will be established to ensure that the
  construction contractor can tie into the necessary baselines. The project manager will
  supervise the surveying tasks and provide budgetary control for this portion of the work.
- A geotechnical investigation shall be performed to determine mine pools and perform slope stabilization analysis in order to optimize grading design and stabilize slide zones on site.
   This investigation shall be performed with a focus on safety to insure the safety of the local inhabitants and dwellings as well as the safety of the drilling and geotechnical personnel.
- Should field conditions dictate that additional work or a major modification is required, the project manager will contact the WVDEP representative immediately to confirm the changed conditions.
- Following completion of the surveying, field investigation. and any material sampling, the
  analytical design work will begin. The Project Manager and Engineer will review the project
  data, evaluate the feasible alternatives and prepare a preliminary set of construction
  documents. The documents will include at a minimum:
- 1. A site map indicating existing conditions;
- 2. A tax map overlay with the parcels identified that may be impacted by the proposed design;
- 3. Proposed grading plans, including excavation, for stabilizing slide zones, including safely dewatering and excavation of any portal sites;



- 4. Design plans and details for optimum mine seals and bat gates relevant to the site;
- 5. Provide Sedimentation and Erosion Control Plan
- 6. Site Profiles:
- 7. Cross Sections;
- 8. Drainage systems and control structures, with details;
- 9. Revegetation plans;
- 10. Soil amendment plans;
- 11. Water treatment systems, active and/or passive for meeting NPDES standards, if required;
- 12. Survey control points;
- 13. Miscellaneous Site details.
- CTL will also provide all necessary data for NPDES permits including S&E Control Plans as required for the site construction and if deemed necessary, perform environmental assessments.
- In addition to preparation of the above-described drawings, a complete set of specifications will be prepared and outlined to describe in detail the scope and methods of work to be accomplished. An estimate of construction costs and the design calculations will also be submitted to the WVDEP for review and future reference.
- Following the submission of the construction documents, a project design review meeting will be coordinated with the WVDEP, CTL, and appropriate individuals to review the proposed plans.
- Recommendations for plan revisions will be discussed and implemented, as necessary, into the final design documents. Upon completion, all final documents, drawings, plans and specifications will be forwarded to the WVDEP for bidding purposes.
- Construction observation will be provided during the construction phase of the projects
- At the request of the WVDEP, CTL will provide construction observation personnel.

Our Project Manager and/or Engineer will coordinate the pre-bid and pre-construction conferences with the WVDEP to address any questions and supply the necessary survey control data. Periodic inspections may be conducted by our Project Manager, as deemed necessary by the WVDEP, to address specific problems that arise during construction. A report will be prepared by CTL following each of these meetings detailing the findings, conclusions, recommendations, and responses to pertinent questions.



## Project Scope / Experience Reference

### <u>Masteller Coal Company (s-125-82 & S-10-85)</u> DEP16555

### Project Scope of Work

To provide drawings, specifications, and engineering design services to prepare construction documents for the following general work items:

- 1. Prepare work areas by clearing and grubbing.
- 2. Install new and refurbish existing drainage controls and erosion protection (sediment ponds, sediment ditches, and diversions).
- 3. Locate, protect, and/or avoid existing utility lines, poles, gas lines, etc. Coordinate with utility companies for locating and relocating existing facilities and/or providing for new utility services.
- 4. Construct new and upgrade existing access roads, and install culverts.
- 5. Install mine seals, and subsurface drains
- 6. Perform blasting designs and pre-blast surveys, if needed for reclamation of site.
- 7. Eliminate existing highwalls by backfilling and regrading with materials available onsite, or designated borrow area sites nearby.
- 8. Install surface water ditches where appropriate to control runoff.
- 9. Repair or eliminate any slip areas on partially backfilled highwalls.
- 10. Regrade/remove sediment ditches when not needed.
- 11. Reshape, and add lime amendments to any potentially toxic coal refuse piles.



- 12. Condition, stabilize, and revegetate disturbed land by plan view acre, based on post-mine land use from permit files and landowners.
- 13. If long term water treatment is anticipated on the site, prepare and regrade areas to accommodate space for structures or facilities.
- 14. Design efficient passive and active water treatment and pumping systems which minimize maintenance and meet NPDES water quality standards.
- 15. Design appropriate sludge handling facilities on site.
- 16. Final site cleanup.

Relevant Project Experience Profiles are provided directly hereafter as referenced under each item of Project Scope.



## Masteller Coal Company (S-125-82 & S-10-85) DEP16555

PROJECT EXPERIENCE PROFILE REFERENCE																	
PROJECT EXPERIENCE	Profile Attached	SPECIFIC PROJECT SCOPE OF WORK ITEMS															
THOSE OF EXPERIENCE	Prof Atta	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
HOPEWELL CHURCH REFUSE & AMD (WV AML '13)	X												N. E.				
MORGANTOWN ANDERSON HIGHWALLS (WV AML '12)	Х																
SCHRAMM - GORDON - EAST FRANKLIN LANDSLIDES (MD AML '12)								PAR S					5.3				
DOUGLAS AVENUE LANDSLIDE (MD AML '12)											1000						
SHINNS RUN PORTALS (WV AML '11)	Х																
REAM REFUSE PILE (WV AML '10)	X																
KENNEL MINE CLOSURE (MD AML '10)						19-51											
FROSTBURG NORTH CLOSURE (MD AML '10)	Х	198															
WILLIAMS REFUSE PILE #2 (Private AML '09)																	
PENINSULA HIGHWALLS (WV AML '09)	Х				and the latest the lat												
ST. CLAIR PORTALS (WV AML '09)	Х																
CHEAT NECK LANDSLIDE (WV AML '09)	X			Jake 1				Economic Services									
COLLINS MINING (ODNR FOR. '09)																	
AARON'S RUN (MD AML '09)	Х														(2008)		
McCOURT LANDSLIDE(ODNR FOR. '08)	Х																
JONES TRUCKING (ODNR FOR. '08)																	
MILLER MINING (ODNR FOR. '08)																	
BELVILLE MINING 1 (ODNR FOR. '08)																	
BELVILLE MINING 2 (ODNR FOR. '08)																	
ZILMAN CLOSURE (MD AML '08)																	
CALDONIA HILL SLOPE STABILITY (MD AML '08)						to the designation of											
VARIOUS WV MINING PERMITS ('95 - '13)													de la citation de la				



## HOPEWELL CHURCH REFUSE & AMD DEP 16074

## MINE PORTALS, COAL REFUSE & MINE DRAINAGE

## CTL Engineering Inc.

### **Preston County, West Virginia**

### **CTL Professional Services**

- Surveying
- Geotechnical
- Civil Site Design
- Construction Documents
- Natural Stream Design

### Project Background

The site consisted of refuse, open portals and mine drainage with impounded water, collapsed mine portals. Foreign materials were present throughout site.

### Project Scope

CTL Engineering of West Virginia, Inc. was retained to provide the following services and design:

- Geotechnical drilling for mine pools
- Surveying
- Clearing & Grubbing Plan
- Mine Seals
- Diversion & Drainage for total site
- Dewater, excavate and seal all portals
- Refuse Reclamation & Removal of all foreign material
- Revegetation Plan including soil cover
- Sedimentation & Erosion Control Plans





### Client / Contact

WV DEP-AML&R 101 Cambridge Place Bridgeport, WV 26501 Design Completion Date 2014

## MORGANTOWN (ANDERSON) PORTALS & HIGHWALLS DEP15609

## MINE PORTALS, HIGHWALLS & FOREIGN MATERIALS



## Monongalia County, West Virginia

### **CTL Professional Services**

- Surveying
- Geotechnical
- Civil Site Design
- Construction Documents

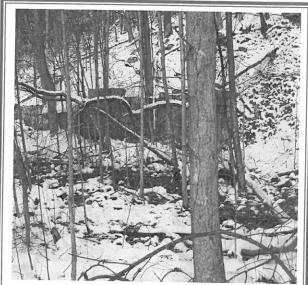
### Project Background

The site consisted of dangerous highwalls, seven or more open or partially open portals and a dangerous scrap yard with potentially dangerous materials.

### Project Scope

CTL Engineering of West Virginia, Inc. was retained to provide the following services and design:

- Geotechnical drilling for mine pools
- Surveying
- Clearing & Grubbing Plan
- Mine Seals
- Diversion & Drainage for total site
- Dewater, excavate and seal all portals
- Refuse Reclamation & Removal of all foreign material
- Revegetation Plan including soil cover
- Sedimentation & Erosion Control Plans





### Client / Contact

WV DEP-AML&R 101 Cambridge Place Bridgeport, WV 26501

Design Completion Date 2013

Estimated Construction Cost \$350,000

### **SHINNS RUN PORTALS & AMD**

## MINE PORTALS, COAL REFUSE, HIGHWALLS & MINE DRAINAGE CTL Engineering Inc.



Shinnston, Harrison County, West Virginia

### **CTL Professional Services**

- Surveying
- Geotechnical
- **Civil Site Design**
- **Construction Documents**
- Natural Stream Design

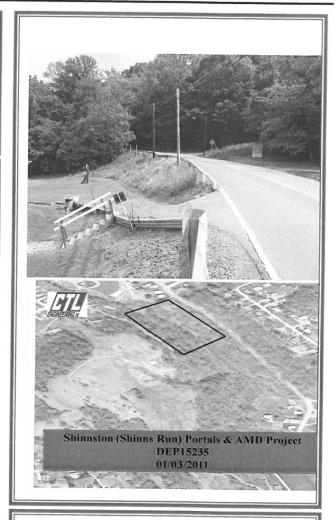
### Project Background

The site consisted of multiple open and collapsed mine portals and highwalls. Requires access road to implement reclamation. Divert mine flow and stabilize streambanks on both sides of Shinns Run. Debris and foreign material on site to be disposed. Mine seals required on both sides of Shinns Run.

### Project Scope

CTL Engineering of West Virginia, Inc. was retained to provide the following design:

- Provide clearing & grubbing plan
- Design for access road
- Design grading plan to excavate, dewater & mine seals for all portals on site
- Design plan for streambank stabilization
- Diversion channels, ditches, underdrains to carry water off site
- Conditioning and revegetation of all disturbed areas



### Client / Contact

WV DEP-AML&R 209 South Main Street Philippi, WV 26416 **Design Completion Date** 

**Estimated Project Cost** \$ 59,000

April 2012

### **REAM REFUSE PILE DEP15004**

## REFUSE PILE REMEDIATION & DRAINAGE



## **McDowell County, West Virginia**

### **CTL Professional Services**

- Surveying
- Geotechnical
- Civil Site Design
- Construction Documents

### Project Background

Project includes two refuse piles, one about 25 acres, brick building, concrete foundations, retaining walls, and coke ovens. One pile needed to be stabilized to keep from eroding into the creek.

### Project Scope

CTL Engineering of West Virginia, Inc. was retained to provide the following design:

- Design grading plan for all refuse areas.
- Design drainage control channels, ditches and underdrains to carry water safely off site
- Provide plan to demolish and dispose of hazardous equipment and facilities.
- Provide plan for reclamation and revegetation of all disturbed areas



### Client / Contact

WV DEP-AML&R 601 57<sup>th</sup> Street Charleston, WV 25304

Design Completion Date
On-Going 2011

Estimated Construction Cost \$400,000

### MARYLAND DEEP MINE CLOSURES

## DEEP MINE SEALS / BAT GATES & SITE RECLAMATION



## Allegany & Garrett Counties, Maryland

### **CTL Professional Services**

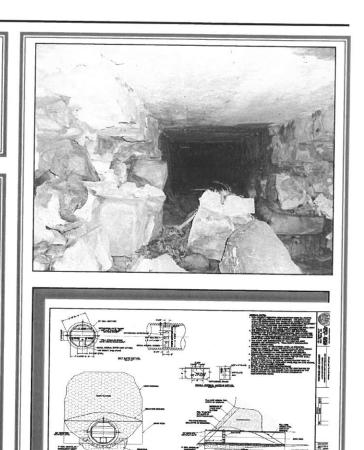
- Surveying
- Geotechnical
- Civil Site Design
- Construction Documents

### **Project Scope**

CTL Engineering of West Virginia, Inc. was retained to provide the following:

Develop detailed engineering design plans and construction plans including; Cost Estimates, Bid Documents, Project Drawings, Maps, Plans & Specifications for the reclamation construction of multiple Mine Mouth Closures.

Design and Plans to include dry and wet mine seals, bat gates, regrading, drainage structures and site reclamation.



### **Client / Contact**

MDE- AML Division
106 South Water Street
Frostburg, MD 21532
Design Completion Date
June 2010

## ST. CLAIR PORTALS DEP 14233

## MINE PORTALS, COAL REFUSE, HIGHWALLS & MINE DRAINAGE CTL Engineering Inc.



Morgantown, Monongalia County, West Virginia

### CTL Professional Services

- Surveying
- Geotechnical
- **Civil Site Design**
- Construction Documents
- **Natural Stream Design**

### Project Background

The site consisted of coal refuse, acid mine drainage with impounded water, collapsed mine portals and highwalls. 17 portals were found along the highwall bench. Three impoundments of approximately 70,000 sq.ft. had water flowing at 300 gpm with a pH value of 3.1 and iron >10 mgl. A 35' to 45' high refuse pile was in the middle of the site as well as scattered refuse throughout the site.

### Project Scope

CTL Engineering of West Virginia, Inc. was retained to provide the following design:

- Excavation and wet seal of at least 17 mine portals
- Dewater three impoundments
- 2000 LF of stream reconstruction
- Regrade and cover of coal refuse and spoil areas on mine bench
- Drainage control channels to carry water off
- Backfill of highwalls using spoil material to original contour
- Conditioning and revegetation of all disturbed areas





### Client / Contact

WV DEP-AML&R 601 57th Street Charleston, WV 25304 **Design Completion Date** March 2010 **Estimated Project Cost** \$1,500,000

### PENINSULA HIGHWALL #1 & #2 DEP 14233

## HIGHWALL & SUBSIDENCE RECLAMATION — MINE SEALS



## Morgantown, Monongalia County, West Virginia

### CTL Professional Services

- Surveying
- Geotechnical
- Civil Site Design
- Construction Documents

### Project Background

This site contained 1,800 LF of vertical to sloughed highwalls 15 to 25 feet high, 7 partially of totally collapsed mine portals, 1 open mine portal, subsidence depressions behind the portals and water present at or flowing from the portals.

### Project Scope

CTL Engineering of West Virginia, Inc. was retained to provide the following design:

- Access road into the site
- Wet seal 2 portals
- Regrade face of 2 portals
- Riprap channel and additional channel to carry water off site
- Backfill of highwalls and subsidence areas
- Restoration of golf path asphalt
- Conditioning and revegetation of all disturbed areas





### Client / Contact

WV DEP-AML&R
601 57<sup>th</sup> Street
Charleston, WV 25304
Design Completion Date
November 2009
Estimated Construction Cost

\$219,000

## CHEAT NECK (LENHART) LANDSLIDE DEP14233

## LANDSLIDE, MINE PORTALS & MINE DRAINAGE



**CTL Engineering Inc.** 

## Morgantown, Monongalia County West Virginia

### **CTL Professional Services**

- Surveying
- Geotechnical
- Civil Site Design
- Construction Documents

### Project Background

Drainage from two collapsed deep mine portals located behind the Lenhart residence created a small landslide. The slide measured about 50' wide and 80' long and the toe was within 20' of the residence and 10' of the LP gas tank.

### Project Scope

CTL Engineering of West Virginia, Inc. was retained to provide the following design:

- Regrade and or removal of the slipping material
- Excavation, dewatering and wet seal of each deep mine portal
- Drainage control channels to carry water off site
- Conditioning and revegetation of all disturbed areas





Client / Contact

WV DEP-AML&R 601 57<sup>th</sup> Street Charleston, WV 25304

Design Completion Date
June 2009

Estimated Construction Cost \$175,000

## **AARON'S RUN AMD PROJECT**

## ACID MINE DRAINAGE TREATMENT SYSTEM



**Location: Garrett County, Maryland** 

### **CTL Professional Services**

Site Review & Reconnaissance
Surveying & Mapping
Civil Site Design
Permiting including USACOE, MDE Wetland,
MDE S&E
Construction Specifications

### **Project Scope**

CTL Engineering of West Virginia, Inc. was retained to provide the following design:

- Multiple AMD Treatment Systems
- 2 SAP Cells
- Slurry Doser
- Settling Ponds
- Natural Wetlands
- Full Site Grading Plans & Drainage Controls
- Access Road & Highway Rated Bridge
- All State & Federal Permitting
- Construction Specifications and Drawings



### Client / Contact

MDE AML Program
160 South Water Street
Frostburg, MD 21532
Design Completion Date

October 2009
Estimated Construction Cost

\$ 450,000

## McCOURT LANDSLIDE ODNR CL-Yc-09-F

## LANDSLIDE STABILIZATION



**CTL Engineering Inc.** 

Location: Yellow Creek Twp., Columbiana County, Ohio

### **CTL Professional Services**

Site Review & Reconnaissance
Surveying & Mapping
Geotechnical Evaluation
Slope Stability
Civil Site Design
Construction Specifications

### Project Scope

CTL Engineering of West Virginia, Inc. was retained to provide the following design:

- Remediate existing landslide area by regarding slopes
- Toe Key Design
- Provide positive drainage from the site
- Provide multiple bonding benches
- Underdrain for site
- Temporary erosion and sedimentation control



### Client / Contact

ODNR - FORFEITURE
2050 East Wheeling Ave.
Cambridge, OH 43725

<u>Design Completion Date</u>

November 2008

<u>Estimated Construction Cost</u>

\$ 101,700

## AML & Relevant Project Experience (2008 – 2013)

### **HIGHWALLS**

- Anderson Highwalls, WVDEP
- Peninsula Highwalls, WVDEP
- St. Clair Portals, WVDEP
- Collins Mining, ODNR
- Miller Mining, ODNR

### **OPEN PITS**

- Shinn's Run Portals, WVDEP
- Jones Trucking, ODNR
- General Clay #1 & #2, ODNR

### **OPEN MINE SHAFTS**

- Kennel Mine Closure, MDE, AMLD
- Frostburg North Closure, MDE, AMLD
- Zilman Closure, MDE, AMLD

### REFUSE PILES

- Hopewell Church & AMD, WVDEP
- Ream Refuse Pile, WVDEP
- Williams Refuse Pile, Private
- Harrison Power Plant, Allegheny Power



### **MINE SUBSIDENCE**

- Fairmont Subsidence, WV DEP
- Lower Consol Road MDE, AMLD
- Terra Haute Airport, IN AML
- Farmington UMC, WV DEP Emergency
- Morningside Baptist, WV DEP Emergency
- Eccles Subsidence, WV DEP
- McArthur Subsidence, WV DEP
- Mark Kempner, NJ Private
- WV BRIM
- OMSIUA

### MINE DRAINAGE/STREAM RESTORATION

- St. Clair Portals, WV DEP
- Aarons Run, MDE, AMLD
- Deckers Creek, WVDEP

### **LANDSLIDES**

- Douglas Avenue Landslide, MDE, AMLD
- Schramm Landslide, MDE, AMLD
- Gordon Landslide, MDE, AMLD
- East Franklin Landslide, MDE, AMLD
- Cheat Neck Landslide, WV DEP
- McCourt Landslide, ODNR
- Caldonia Hill Slope Stability, MDE, AMLD



## WATER SUPPLY REPLACEMENT

- Douglas Avenue Stormwater System Repair, MDE, AMLD
- Bald Knob & Potomas Hollow Water Invsetigations, MDE, AMLD
- Pee Wee Hill Supply Design, MDE, AMLD
- Pee Wee Will Water Feasibility Study, MDE, AMLD
- Fairview Water Feasibility, WV DEP
- Tioga Water Feasibility, WV DEP



WES'	T VIRGIN	IA DEPARTMENT	OF TWVIRONMENTAL PRO	TECTION			
OSR	CONSULTA	NT CONFIDENTIA	AL _ ALIFICATION QUES	STIONNAI	RE "Attachment 1		
PROJECT NAME Masteller Coal Company (S-125-82 85) DEP16555		DATE (DAY, MONTE 17-July-2014		FEIN 55-063-18			
1. FIRM NAME CTL Engineering of West Virginia,	Inc.	2. HOME OFFICE F 2860 Fisher Road Columbus, OH 43		R FIRM NAME Testing Laboratories			
4. HOME OFFICE TELEPHONE	5. ESTABL	LISHED (YEAR)	6. TYPE OWNERSHIP		6a. WV REGISTERED DBE		
(614)276-8123	CTL-1927	CTL-WV 1983	Individual <u>Corpora</u> Partnership Joint-V	Venture	(Disadvantaged Business Enterprise)		
6. PRIMARY OSR DESIGN OFFICE: ADDR 733 Fairmont Road, Morgantown, WV	26501/ 30	04-292-1135/ Patr	rick E. Gallagher, Presid	dent / Mor	EACH OFFICE gantown - 16		
7. NAMES OF PRINCIPAL OFFICERS OR Patrick E. Gallagher, President CK Satyapriya, VP/Sec.	MEMBERS OF	FIRM	8a. NAME, TITLE, & TELE Ali Jamshidi, Treasurer	PHONE NUME: (614) 276	3ER - OTHER PRINCIPALS 5-8123		
9. PERSONNEL BY DISCIPLINE							
5 ADMINISTRATIVE - ARCHITECTS 1 BIOLOGIST 7 CADD DESIGNERS - CHEMICAL ENGINEERS 4 CIVIL ENGINEERS 9 CONSTRUCTION INSPECTORS - DESIGNERS - DRAFTSMEN	3 ENVIROR ESTIMA	IISTS RICAL ENGINEERS NMENTALISTS TORS ISTS/GEOTECH ENG.	- PHOTOGRAMMETRISTS X OTHER, - PLANNERS: URBAN/REGIONAL 3 Geotechnical Drillo				
					47 TOTAL PERSONNEL		
*RPEs other than Civil and M supervise and perform this to	Mining must Type of wor	t provide supporti rk.	ing documentation that q	4 pualifies t	them to		
The TOTAL PERSONNEL number is for	CTL Engine	ering of West Vi	rginia, Inc.				
TOTAL PERSONNEL for CTL Engineering	g, Inc. is	225, which incl	udes CTL Engineering of	West Virgi	inia.		
i							
10. HAS THIS JOINT-VENTURE WORKED	TOGETHER B	EFORE?   YES	□ NO				

	3-CONSULTANTS ANTICIPATED TO BF USED. Attach copy is not on file with AML	"AML Consultant Confidential Qualification
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	No
		WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
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		Yes
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	SI ECIALTT.	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	No WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:		No
VAINE AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
		No

12. A.	Is your firm experienced in Acid Mine Drainage er treatment and remediation?
focused on See attach	YES Description and Number of Projects: CTL Engineering has completed 7 projects in the past 5 years that remediation and system designs for sites requiring AMD treatment and drainage controls in multiple States.  NO  NO
В.	Is your firm experienced in Soil Analysis and coal refuse analyses?
	YES Description and Number of Projects: Our in-house laboratories perform all ASTM mechanical, organic
and in-orga	anic analyses for soils and refuse. Our labs are certified by WVDOH, OEPA and US Corps of Engineers.
I	NO
C.	Is your firm experienced in hydrology and hydraulics for handling mine water discharges on mining sites?
	Each of our site design and AML projects require hydrology &
hydraulic e	evaluations. We estimate that annually, we complete more than 100 projects requiring hydrology design.
[	NO
D.	Does your firm produce its own aerial photography and development of contour mapping?
	YES Description and Number of Projects:
	NO However, we annually complete more than 50 projects requiring aerial photography & mapping. While we
_sub-contra	act the aerial photography, in-house we provide GPS, surveying and develop the contouring as needed.
E.	Is your firm experienced in design of highwall elimination, grading and material handling plans for land reclamation?
	YES Description and Number of Projects: At least 60% of the AML Continue
has complet	ed required highwall elimination, grading and material design and plans for reclamation.
I	

NO

13. PERSONAL HISTORY STATEMENT OF PRINCI	DATA THE ACCOUNT OF THE		
data : keep to essentials)	PALS AND ASSOCIATES SPONSIB	LE FOR AM	L PROJECT DESIGN (Furnish complet
NAME & TITLE (Last, First, Middle Int.)		-	
Gallagher, Patrick E., PE	VEADO OF OOD DECTON EVDEDTENCE.	YEARS	
President, Project Manager	YEARS OF USK DESIGN EXPERIENCE:	36	YEARS OF OSR RELATED DESIGN EXPERIENCE: 36
include marketing, proposal preparation, report preparation. Projects successfully Investigations, Dam Stability Analyses, MReclamation Designs, Failure Investigation EDUCATION (Degree, Year, Specialization) B.S., 1975, Civil Engineering	, client contact, supervision y completed by Mr. Gallagher i	of design	ministration and management responsibilities on personnel, scheduling, budget control, and
B.S., 1975, Equivalent, Geology  MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		DECICTEN	TION (The second
American Society of Civil Engineers Society of Mining Engineers of A.I.M.E. Triangle Fraternity of Engineers, Archite International Society of Soil Mechanics a American Institute of Professional Geolog	ects and Scientists and Foundation Engineers gists	Registere Virginia, Pennsylva Certified	ed Professional Engineer; 1983-West , 1984-Ohio, 1983-Maryland, 1993- ania, 2006-Wyoming, 2006-North Carolina d Professional Geological Scientist - 1984
data but keep to essentials)  NAME & TITLE (Last, First, Middle Int.)	ALS AND ASSOCIATES RESPONSIBL		
Selfridge, Carl G.	VENDO OF OOD DEGICAL EXPEDITANCE		
Department Head, Geotechnical Services	N. Inc.; responsible for the overall administration of the Morgantown, WV office individual engineering projects. His administration and management responsibilities ition, client contact, supervision of design personnel, scheduling, budget control, and fully completed by Mr. Gallagher include: Geotechnical Investigations, Foundation Design ations, and Mining Permits.  IONS  I.E.  Chief the design of the overall administration of the Morgantown, WV office individual engineer; His administration and management responsibilities include: Geotechnical Investigations, Foundation Design ations, Mine and Mining Permits.  IONS  I.E.  Chief the design of the overall administration and management responsibilities include: Geotechnical Investigations, Scheduling, budget control, and the most of the		
analysis & recommendations, program deve for 8 landslide evaluations and remediati EDUCATION (Degree, Year, Specialization)	Responsible for subsurface slopment for investigative and on projects in the past 7 years.	inveation in inveation in investigation investigation in investigation in investigation in investigation investigati	gations, geotechnical reporting, foundation cory analysis. Selfridge has been responsible
B.S., 1996, Civil Engineering, Geotechnic A.S., 1994, Engineering Science	cal and Structural		
A.A.S., 1991, Mechanical Technology - Des MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRAT	TION (Type, Year, State)
Fellow of the American Society of Civil Entitle Timber Framers Guild, Construction Institu	ngineers, The GEO-Institute, ute (ASCE)	Engineeri Level II	ng Intern (EI), 1996, New York Drilling Inspector, 1999, PennDOT

13. PERS HISTORY STATEMENT OF PRINCIP	PALS AND ASSOCIATES SPONSIBLE FOR A	ML PROJECT DESIGN (Furnish comple
data but keep to essentials)		ME PRODUCT DESIGN (FUTTISH COMPLE
NAME & TITLE (Last, First, Middle Int.)	YEARS	S OF EXPERIENCE
Darrah, Timothy A. Civil Site Dept. Mgr., Project Manager	YEARS OF OSR DESIGN EXPERIENCE: 24	YEARS OF OSR RELATED DESIGN EXPERIENCE: 24
scheduling, invoicing and client contact layout. Mr. Darrah's duties include calculations and various other forms of	cts for all surveying projects included drafting, writing of property des surveying and civil engineering rela HEC-1, HEC-RAS and various other each projects for the past 10 years	types of civil engineering projects including lopment projects. He is also responsible for uding topographic, property and construction criptions, hydrology calculations, quantity ted duties. He is also proficient in computer engineering software. He has been the Project
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  13. PERSONAL HISTORY STATEMENT OF PRINCI data but keep to essentials)	REGISTR	ATION (Type, Year, State)
1 1 10001010101	TABS AND ASSOCIATES RESPONSIBLE FUK A	ML PROJECT DESIGN (Furnish complete
NAME & TITLE (Last, First, Middle Int.) Joseph Stanley	YEARS	OF EXPERIENCE
Project/ Staff Engineer	YEARS OF OSR DESIGN EXPERIENCE:	YEARS OF OSR RELATED DESIGN EXPERIENCE: 13
Mr. Stanley is responsible for Reclama Residential Development, Valley Fill Foo Groundwater Inventory. PC Software include Access. He has been involved in the design EDUCATION (Degree, Year, Specialization)	es Hydrologic TP-20 TP EE T	Quantity Calculations, Stability Analysis, veys, Pre-Blast Surveys, Acid Base Accounts, arstad Methods, Word, AutoCADD Land, Quarttro, the past 10 years.
A.S., 2001 Civil -Engineering Technology I	Drafting & Design	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRA	ATION (Type, Year, State)

	CIPALS AND ASSOCIATESSPONSIBLE	FOR AML PROJECT DESIGN (Furnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE
Charles Waltz, P.E.	YEARS OF OSR DESIGN EXPERIENCE:	YEARS OF OSR RELATED DESIGN EXPERIENCE: 12
	and roundation recommendations and	variety of projects including, site development, d road construction.
EDUCATION (Degree, Year, Specialization)		
B.A., Fairmont State, Business Administr B.S., Fairmont State, Civil Engineering Graduate Studies, West Virginia Universi MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	ty, Geotechnical Engineering  REG Reg	GISTRATION (Type, Year, State) gistered Professional Engineer, WV (no.17626), VA o. 37038)
13. PERSONAL HISTORY STATEMENT OF PRINCI data but keep to essentials)		
NAME & TITLE (Last, First, Middle Int.)  Gregory Foreman, P.E.	У	YEARS OF EXPERIENCE
	YEARS OF OSR DESIGN EXPERIENCE: 5	YEARS OF OSR RELATED DESIGN EXPERIENCE: 20
	pedestrian walkways vehicular	civil site design projects including reclamation, services provided include site grading, potable thoroughfares, preparation of permits, project
A.S, Fairmont State, 1989, Drafting & Des A.S., Fairmont State, 1989, Mechanical B.S., Fairmont, 1989, Civil Engineering T MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	Technology	
APMOPUSUILS IN EXOLESSIONAL ORGANIZATIONS	REGI Regi 0141	ISTRATION (Type, Year, State) istered Professional Engineer, 1999, WV (no. 165)

#### OFFICE EQUIPMENT

HP4520 Design Jet Color Plotter

HP Color Scanner

Duplicating equipment, copiers, blueprinting, laser printers, etc.

Facsimile Machine

VCR/Video Recording Equipment

#### DESIGN SOFTWARE

Windows 7 \* Windows 8 based operating systems

Microsoft Office 2010 is used for word processing, spreadsheet creation, data processing, and presentation creation. Alternative software including Corel Suite is available, if necessary Project designs and specifications are produced in our Computer Aided Drafting and Design (CADD) section using all versions of AutoCAD including Release 2015.

#### Civil Engineering Software

AUTOCAD Civil 3D 2015

Profiling

Civilsoft

TR-20 & TR-55

SEDCAD

HEC 1 & 2

HEC-RAS

Arc GIS

ArcPAD

Carlson (Survey)

#### Hydrogeologic Studies

MODFLO

MODPATH

SURFER

CAPZONE

GWPATH

SKUGIS

PHREEOCI

WATEO4F

Groundwater for Windows

#### Geotechnical

GINT

STABL6

SHAFT

WSPRO

SLOPE W

RETAINPRO

Various Other Bridge, Pavement, Retaining Wall, Pile and Foundation Software

#### SURVEY EQUIPMENT

- 4 ſRIMBLE GNSS R-8 Global Positioning System (GPS)
- 3 TRIMBLE GNSS R-10 Global Positioning System (GPS)
- 2 TRIMBLE S6 Robotic Stations
- 2 Total Stations
- NAK Micrometer Level System & Direct Levels
- 4X4 Vehicles
- 2-Way Radios

# SUBSURFACE INVESTIGATION EQUIPMENT

- 3 CME 75 Drilling Rigs, 4-Wheel Drive Truck Mounted
- 2 CME 75 HD Drilling Rigs, 2-Wheel Drive Truck Mounted
- 1 CME 55 HD Drilling Rig, All-Terrain Mounted
- 1 CME 45 Drill Rig, 2-Wheel Drive Truck Mounted
- 1 CME 45 Drill Rig, 2-Wheel Drive Skid Mounted
- 1 Simco 4000 Track Rig
- 4-Wheel Drive Support Vehicles
- Portable barges for water borne drilling (including supply boats w/outboard motors)
- In-situ permeability apparatus
- Single or double ring field infiltrometers for hydraulic conductivity testing
- Down hole temperature gauges
- Color Borehole Camera with 300 foot range
- Ground Penetrating Radar Undisturbed shelby tube sampling devices
- Standard penetration testing equipment (1", 2", 3" split spoons)
- Settlement probes
- Tripod portable drilling equipment for interior drilling with 7 feet of clearance
- CBR equipment
- Hand Augers
- Solid flight augers 4" O.D.
- Hollow stem augers 33", 43", 63" 83" I.D.
- Rotary drilling capability up to 12" O.D.
- Hydro Punch In-situ groundwater monitoring
- $\bullet$  Conventional and wireline coring capabilities (1", 2", 3", & 4")
- Soil-gas survey equipment
- Decontamination Equipment Steam cleaners, drums, generators, etc.
- Electronic Data Loggers
- Field Sampling equipment for soil, water and groundwater
- Nuclear Densometer Soil Compaction
- PID, FID, CGI and various field monitoring equipment
- Groundwater and Soil Remediation Equipment
- Air and chemical stripping of soils and water

# 15. CURRENT TIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED EN EER OF RECORD (AML Projects)

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Open Contract to provide engineering design services throughout the State of Ohio (2 year contract 2014-2015))	OH Department of Natural Resources AML Emergency Program 1855 Fountain Square Court, 2nd Floor Columbus, Ohio 43224	Reclamation Design, geotechnical drilling, mine subsidence, slope stability analysis and design, pressure grout stabilization design, risk assessment, acid mine drainage, burning refuse extinguishment and earthwork calculations	\$75,000 /year Fees	
Open Contract to provide engineering support and design services throughout the State of Maryland.(5 year contract- 2015))	MD Department of Environment-AMLD 160 S. Water St. Frostburg, MD 21532	Reclamation Design, geotechnical drilling, mine subsidence, slope stability analysis and design, pressure grout stabilization design, risk assessment, acid mine drainage, burning refuse extinguishment and earthwork calculations	\$500,000 Fees \$15,000,000+ Const.	65%
Hopewell Church Refuse & Drainage (DEP16074), Preston County, WV	WVDEP - AML 601 57 <sup>th</sup> Street SE Charleston, WV 25304	Draining mine portal remediation design, mine seals, drainage systems, grading design, specifications		Design - Preliminary Review complete. Submittal Dec. 2013
TOTAL NUMBER OF PROJECTS: 4	TOTAL ESTIMATED CONSTRUCTION COSTS: +\$10,000,000			

PROJECT NAME, TYPE AND	NATURE OF FIRMS	NAME AND	TOWN MAD COLUMN								
LOCATION	RESPONSIBILITY	ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION CO							
		•		ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY						
-	×										

PROJECT NAME, TYPE	NAME AND ADDRESS	THE DESIGNATED ENGINEER OF RECORD	(AML Proje	ects)
AND LOCATION Peninsula Highwalls, AML	OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Project, Monongalia County,	WVDEP- AML 601 57 <sup>th</sup> Street SE Charleston, WV 25304	\$244,000	2009	YES
t. Clair Portals, AML Project, Monongalia County, WV	WVDEP- AML 601 57 <sup>th</sup> Street SE Charleston, WV 25304	\$1,462,000	2009	YES
hinn's Run Portals & AMD, ML Project, Harrison County, V	WVDEP- AML 601 57 <sup>th</sup> Street SE Charleston, WV 25304	\$1,887,000	2012	YES
ee Wee Hill Water Supply, MD ML Project, arrett County, MD	MD Department of Environment 160 S. Water St. Frostburg, MD 21532	\$650,000	2011	YES
nderson Highwalls, AML roject, Monongalia County, V	WVDEP- AML 601 57 <sup>th</sup> Street SE Charleston, WV 25304	\$1,200,000	2013	YES
erra Haute Airport, IN AMLD, absidence Grouting	Indiana Abandoned Mine Land Division Indianapolis, IN	\$6,500,000	2010	YES
chramm, Gordon & East ranklin (MD) Landslides	MD Department of Environment-AMLD 160 S. Water St. Frostburg, MD 21532	\$1,500,000	2013	On-going

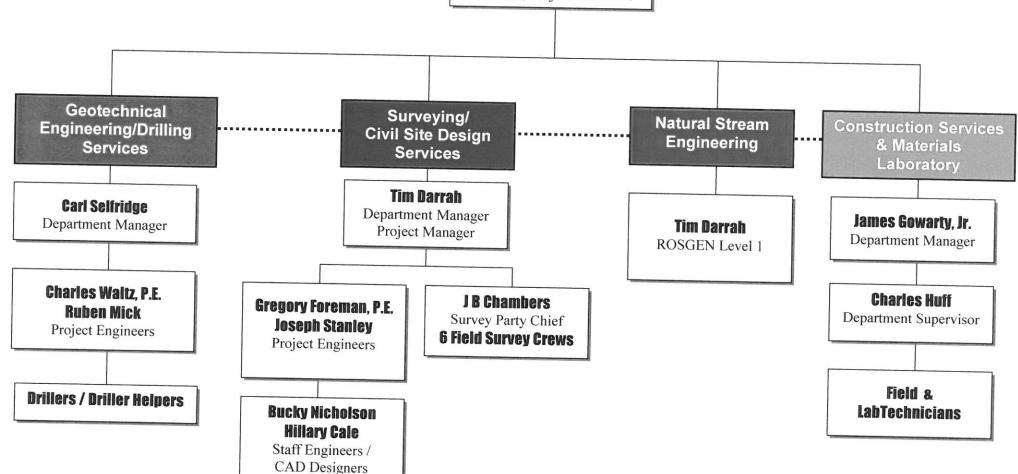
18. COMPJ □TED WOR	KK WITHIN LAST 5 YEARS ON	WHICH VOUR FIRM HAS BEEN A SHE	20110111		
OF K FOR	WHICH YOUR FIRM WAS RESPO	WHICH YOUR FIRM HE BEEN A SUB-	-CONSULT	ANT TO OTHER FIR	RMS (INDICATE PHASE
PROJECT NAME,	NAME AND ADDRESS	ESTIMATED CONSTRUCTION COST	YEAR		
TYPE	OF OWNER	OF YOUR FIRM'S PORTION	1 CAL	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
AND LOCATION		10 of 2000		(IES OR NO)	
			-		
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					. 1
19. Use this space	to provide any additional	l information or description of			
qualifications	to perform work for the V	West Virginia Abandoned Mine La	resourc	es supporting y	our firm's
For the past 25	vears. CTI, has successful	111- dani 1	nas Prog	ram.	
internationally	on a variety of AML prob	blem sites. We have developed a ence Abatement, Mine Fires and B	project.	S. we have work	ked nationally and
development, AM	D Treatment, Mine Subside	ence Abatement, Mine Fires and I stabilization and extinguishment	Highwall	Elimination 1	ave been applied to site
		ence Abatement, Mine Fires and B stabilization and extinguishmen	t.	DITEMPLIACION.	Routinery, CTL is
20. The foregoing i	s a statement of facts.				
Signature:	#				
	ick E. Gallagher, P.E.	Title: President		Date: July 17	7, 2014
	29. 2. Sallagher, F.E.				<u> </u>
			1		

# CTL Engineering of West Virginia, Inc.

# PROJECT ORGANIZATION CHART & KEY PERSONNEL



President, Project Executive



#### Expertise:

Mr. Gallagher serves as President of CTL Engineering of West Virginia, Inc. Projects successfully completed under Mr. Gallagher's direction include: Civil Site Design, Foundation Design, Storm Water Management, Waste Water Design, Roadway design, Parking Lot Design, Geotechnical Investigations & Design, Site Stability Analyses, Mine Subsidence Evaluations, Failure Investigations and Environmental Investigations and Permitting.

Prior to joining CTL Engineering, Mr. Gallagher was the chief of the Abandoned Mine Reclamation Program for the State of Maryland, Department of Natural Resources, and Bureau of Mines. In addition, he was also responsible for overall engineering/geologic support to the Maryland Bureau of Mines Program.

#### Education:

B.S., Civil Engineering, 1975
Virginia Polytechnic Institute and State University, Blacksburg, Virginia
B.S., Geology, 1975
Virginia Polytechnic Institute and State University, Blacksburg, Virginia

### Professional Registration / Certifications:

- Registered Professional Engineer
  - Ohio, #48459; Maryland, #13256; West Virginia, #9297; Pennsylvania, #PE-044930-R;
     Wyoming, #11033; North Carolina, #032503; Kentucky, #24988
- Certified Professional Geological Scientist, #6575
- Professional Surveyor, WV
- Adjunct Professor Civil Engineering Fairmont State College 2001 Present

#### Career Experience:

CTL Engineering, Inc.- 30 years Other – 7 years

#### Relevant Project Experience:

#### Mine Related

**Project:** Morgantown Anderson Highwalls

AML Reclamation Design

Monongalia County, West Virginia

Role: Project Executive Project Year: 2012

**Project:** Schramm – Gordon – East Franklin Landslides

AML Reclamation

Allegany & Garrett Counties, Maryland

Role: Project Executive Project Year: 2012

**Project:** Douglas Avenue Stormwater System

Geotechnical/Hydrologic Allegany County, Maryland

Role: Project Executive Project Year: 2012



**Project:** Fairmont Subsidence

AML Reclamation / Geotechnical Fairmont, Marion County, West Virginia

Role: Project Executive Project Year: 2012

**Project:** Ottawa State Route2 Mine Subsidence

Geotechnical/ Grouting Plan

Ottawa County, Ohio

Role:

Project Executive

Project Year: 2005, 2010, 2012

**Project:** Douglas Avenue Landslide

AML Reclamation/Geotechnical/Hydrologic

Maryland

Role: Project Executive Project Year: 2012

**Project:** Lower Consol Road Subsidence

AML Reclamation/Subsurface Mine Investigation/Geotechnical

Maryland

Role: Project Executive Project Year: 2011

**Project:** Bald Knob Water Supply Study

Hydrologic

Maryland

Role: Project Executive Project Year: 2011

**Project:** Shinns Run Portals

AML Reclamation/Portal Closure/Geotechnical Shinnston, Harrison County, West Virginia

Role: Project Executive Project Year: 2011

**Project:** Terra Haute Airport

AML Reclamation/Hazardous Waste Disposal/Geotechnical

Indiana

Role: Project Executive Project Year: 2010

**Project:** Peninsula Highwalls

AML Reclamation/Hydrology/Geotechnical

West Virginia

Role: Project Executive Project Year: 2009



# **Transportation**

**Project:** Emerson Avenue

Slope Stabilization Investigation & Design

Wood County, West Virginia

Role: Project Executive Project Year: 2010

**Project:** I-81 Martinsburg to Marlowe Interchange

Design Build

Martinsburg, Jefferson County, West Virginia

Role: Project Manager Project Year: 2011

**Project:** Morgantown Municipal Airport

Geotechnical Services

Morgantown, Monongalia County, West Virginia

Role: Project Executive Project Year: 2007

# Primary & Secondary Education

**Project:** New University High School

Various Services

Morgantown, Monongalia County, West Virginia

Role: Project Executive Project Year: 2006 - 2008

**Project:** South Jefferson High School

Various Services

Charles Town, Jefferson County, West Virginia

Role: Project Executive Project Year: 2006

**Project:** Morgantown High School Stadium Renovation

Various Services

Morgantown, Monongalia County, West Virginia

Role: Project Executive Project Year: 2011

**Project:** Huff Consolidated School

Geotechnical Services

Wyoming County, West Virginia

Role: Project Executive Project Year: 2012



### TIMOTHY A. DARRAH

# Civil Site and Survey Department Manager

### Expertise

Mr. Darrah is presently responsible for department management for civil site design and surveying projects including topographic, property and construction layout. Mr. Darrah also serves as project manager on various types of civil engineering projects including residential and commercial developments, and reclamation design projects. Office work includes site designs, hydrology calculations, quantity calculations, and various other forms of engineering related duties.

#### Education

B.S. Civil Engineering Technology, 1988 Fairmont State College, Fairmont, West Virginia

#### Professional Experience

24 Years Experience with CTL Engineering, Inc.

#### Project Experience

A partial listing of Mr. Darrah's relevant project experience includes:

### Mine Related

**Project:** Morgantown (Anderson) Portals and Highwall

AML Reclamation Design

Monongalia County, West Virginia

Role: Project Manager Project Year: 2012

**Project:** Hopewell Church Refuse & AMD

AML Reclamation

Preston County, West Virginia

Role: Project Manager Project Year: 2013

**Project:** Fairmont (Jackson Addition) Subsidence Project

AML Reclamation/Subsidence Investigation/Geotechnical

Fairmont, Marion County, West Virginia

Role: Project Manager Project Year: 2012

**Project:** Shins Run Portals & AMD

AML Reclamation/Geotechnical

Shinnston, Harrison County, West Virginia

Role: Project Manager Project Year: 2011

**Project:** Ream Refuse Piles

AML Reclamation/Mine Refuse & Fire Abatement

McDowell County, West Virginia



# TIMOTHY A. DARRAH

# Civil Site and Survey Department Manager

Project: Cheat Neck (Lenhart) Landslide

Hydrologic Evaluation/Geotechnical Monongalia County, West Virginia

Role: Project Manager Project Year: 2008

**Project:** St. Clair Portals

AML Reclamation/Various Services Monongalia County, West Virginia

Role: Project Manager Project Year: 2008

**Project:** Morning Star Baptist Church Subsidence

Subsidence Investigation/Mitigation Marion County, West Virginia

Role: Timothy Darrah Project Year: 2009

**Project:** Farmington United Methodist Church

Subsidence Investigation/Mitigation
Farmington, Marion County, West Virginia
Role: Civil Site and Surveying Services Manager

Project Year: 2009

**Project:** Eccles & MacArthur Subsidence

Subsidence Investigation/Mitigation Beckley, Raleigh County, West Virginia

Role: Project Manager Project Year: 2008

**Project:** Oakland PSD

Feasibility Study

Hancock County, West Virginia

Role: Civil Site and Surveying Services Manager

Project Year: 2011

**Project:** Peninsula Highwalls

AML Reclamation/Hydrology/Geotechnical

Monongalia County, West Virginia



#### Expertise

Mr. Stanley is a Staff Engineer/CAD Designer in the Morgantown, WV office. His responsibilities include assisting in the planning and design of civil site design projects involving land planning and development aspects. He is familiar with various engineering software programs including AutoCad 2004 and AutoCad Land Desktop 2004, which provide support for the planning and design projects.

#### Education

A.S., Drafting and Design Fairmont State College; Fairmont, West Virginia, 2001

#### Professional Registrations/ Certifications

Advanced GPS Training Course

#### Career Experience

14 Years with CTL Engineering Inc.

#### Relevant Project Experience:

### Mine Related

**Project:** Fairmont Subsidence

AML Reclamation / Geotechnical Fairmont, Marion County, West Virginia

Role: Project Engineer Project Year: 2012

**Project:** Morgantown Anderson Highwalls

AML Reclamation Design

Monongalia County, West Virginia

Role: Project Engineer Project Year: 2012

**Project:** Shinns Run Portals

AML Reclamation/Portal Closure/Geotechnical

Role: Project Engineer Project Year: 2011

**Project:** Hopewell Church Refuse & AMD

Various Services

Preston County, West Virginia

Role: Project Engineer Project Year: 2013

**Project:** Eccles and MacArthur Subsidence

Geotechnical

Beckley, Raleigh County, West Virginia

Role: Project Engineer



# Staff Engineer

# **JOSEPH STANLEY**

Project Year: 2008

**Project:** Farmington United Methodist Church

Various Services

Farmington, Marion County, West Virginia

Role: Project Engineer Project Year: 2009

**Project:** Peninsula Highwalls

AML Reclamation/Hydrology/Geotechnical

Monongalia County, West Virginia

Role: Project Engineer Project Year: 2008

**Project:** Cheat Neck landslide

Various Services

Monongalia County, West Virginia

Role: Project Engineer Project Year: 2008

# **Transportation**

**Project:** Dorsey Knob Road Improvements

Surveying Services

Morgantown, Monongalia County, West Virginia

Role: Project Engineer Project Year: 2006

**Project:** County Road 5/5 Relocation

Surveying/Mapping

Logan, Logan County, West Virginia

Role: Project Engineer Project Year: 2005

**Project:** Morgantown Airport Alternative Access Road

Geotechnical/Surveying/Mapping

Morgantown, Monongalia County, West Virginia

Role: Project Engineer Project Year: 2008

**Project:** Osage Bridge

Various Services

Morgantown, Monongalia County, West Virginia

Role: Project Engineer Project Year: 2006

### **Education**

**Project:** West Virginia University Child Care Center

Surveying/Mapping



Morgantown, Monongalia County, West Virginia

Role: Project Engineer Project Year: 2008

**Project:** University High School Football Stadium Survey

Surveying

Morgantown, Monongalia County, West Virginia

Role: Project Engineer Project Year: 2009

### Power Plants

Project: Harrison Power Station Phase V Step I

Various Services

Haywood, Harrison County, West Virginia

Role: Project Engineer Project Year: 2012

**Project:** Overland Conveyor Permitting

Permitting

Monongalia County, West Virginia

Role: Project Engineer Project Year: 2008

**Project:** Harrison Power Station CCB Landfill Phase V Step III

Various Services

Haywood, Harrison County, West Virginia

Role: Project Engineer Project Year: 2013

**Project:** Pleasants Power Station

Construction Services/Surveying Pleasants County, West Virginia

Role: Project Engineer Project Year: 2009

# **Building Development**

**Project:** Commercial Development

Various Services

Monongalia County, West Virginia

Role: Project Engineer Project Year: 2010

**Project:** University Park

Site/Civil

Morgantown, Monongalia County, West Virginia

Role: Project Engineer Project Year: 2013



# CHARLES T. WALTZ, P.E.

# Geotechnical Project Manager

#### Expertise:

Mr. Waltz serves as a Project Manager in the Geotechnical Engineering Services Department of CTL Engineering of West Virginia, Inc. Waltz also serves as Project Manager/Engineeer for all of the WV BRIM Projects.

Prior to joining CTL, Mr. Waltz was with Triad Engineering where he was Staff Engineer/Project Engineer and provided engineering services to a variety of projects, including site development, geotechnical subsurface investigations, and road construction. The majority of these projects were performed in West Virginia where concerns for mine subsidence and slope stability were routinely investigated.

#### Education:

B.A., Business Administration Fairmont State University

B.S., Engineering Fairmont State University

Graduate Studies, Geotechnical Engineering West Virginia University

### Professional Registration / Certifications:

Registered Professional Engineer

West Virginia, # 17626; Virginia, # 37038

#### CTL Experience:

3 Years

#### Project Experience

A partial listing of Mr. Waltz's relevant project experience includes:

#### Subsidence Related

**Project:** Windsor Heights Subsidence Claim

Geotechnical

Windsor Heights, Brooke County, West Virginia

Role: Project Manager Project Year: 2011

**Project:** Shinnston Subsidence Claim

Geotechnical

Shinnston, Harrison County, West Virginia

Role: Project Manager Project Year: 2011

Project: Metz Subsidence Claim

Geotechnical

Metz, Marion County, West Virginia



Project: Bruceton Mills Subsidence Claim

Geotechnical

Bruceton Mills, Preston County, West Virginia

Role: Project Manager Project Year: 2013

**Project:** Monongah Subsidence Claim

Geotechnical

Monongah, Marion County, West Virginia

Role: Project Manager Project Year: 2013

**Project:** Eccles Subsidence Claim

Geotechnical

Eccles, Raleigh County, West Virginia

Role: Project Manager Project Year: 2013

**Project:** Fairmont Subsidence Claim

Geotechnical

Fairmont, Marion County, West Virginia

Role: Project Manager Project Year: 2012

**Project:** Whitehall Subsidence Claim

Geotechnical

Whitehall, Marion County, West Virginia

Role: Project Manager Project Year: 2012

# **Transportation**

Project: I-81 Martinsburg to Marlowe Interchange

Design Build

Martinsburg, Jefferson County, West Virginia

Role: Project Engineer Project Year: 2011

**Project:** Benedum Airport Lighting Towers

Geotechnical

Bridgeport, Harrison County, West Virginia

Role: Project Engineer Project Year: 2012



# CHARLES T. WALTZ, P.E.

# Geotechnical Project Manager

# Education

**Project:** Lumberport Middle School

Geotechnical

Shinnston, Harrison County, West Virginia

Role: Project Manager Project Year: 2013

Project: Huff Consolidated School

Geotechnical

Wyoming County, West Virginia

Role: Project Engineer Project Year: 2012

**Project:** Alderson-Broaddus College New Dormitory Buildings

Geotechnical Evaluation

Philippi, Barbour County, West Virginia

Role: Project Engineer Project Year: 2012

**Project:** East Preston School

Geotechnical

Terra Alta, Preston County, West Virginia

Role: Project Engineer Project Year: 2011

**Project:** Davis & Elkins College Hermanson Welcome Center

Geotechnical

Elkins, Randolph County, West Virginia

Role: Project Engineer Project Year: 2013

**Project:** Central Preston Middle School

Geotechnical/Construction Services

Kingwood, Preston County, West Virginia

Role: Project Engineer Project Year: 2011



# CARL G. SELFRIDGE

# Geotechnical & Drilling Services

# Manager

#### Expertise

Annually manages 100+ various geotechnical projects including; education, transportation, commercial development and a variety of public and private clients. Mr. Selfridge is responsible for directing all aspects of the Geotechnical Engineering Department for CTL Engineering of West Virginia, Inc. This includes the management of field drilling activities, field classification of soil and rock, field and laboratory safety procedures, the assignment of a laboratory testing program, and performing geotechnical evaluations. Engineering evaluations include foundation recommendations, settlement analysis, slope stability analysis, earth pressure coefficients and report preparation.

#### Education

A.A.S., Mechanical Technology - Design & Drafting, 1991 Adirondack Community College; Queensbury, NY

A.S., Engineering Science, 1994 Adirondack Community College; Queensbury, NY

B.S., Civil Engineering (Geotechnical & Structural), 1996 Rensselaer Polytechnic Institute; Troy, NY

Graduate Studies, Civil Engineering (Geotechnical), 1996-1999 Rensselaer Polytechnic Institute; Troy, NY

#### Registrations / Certifications

- Engineer Intern (EI): New York, 1996
- Pennsylvania Dept of Transportation Level II Drilling Inspector, 1999

#### Career Experience

CTL Experience – 5 years Other Engineering – 8 years

#### Project Experience

A partial listing of Mr. Selfridge's relevant project experience includes:

#### Mine & Landfill Related

Project: Eccles & MacArthur Subsidence

Subsidence Investigation/Mitigation Beckley, Raleigh County, West Virginia

Role: Geotechnical & Drilling Services Manager

Project Year: 2008



# CARL G. SELFRIDGE

# Geotechnical & Drilling Services

### Manager

Project: Shinns Run Portals & AMD

AML Reclamation/Geotechnical Harrison County, West Virginia

Role: Geotechnical & Drilling Services Manager

Project Year: 2011

**Project:** Tunnel Ridge Slurry Cell A

Piezometer Installations - Geotechnical

Ohio County, West Virginia

Role: Project Manager Project Year: 2011

**Project:** Pine Creek / Omar Landfill

Geotechnical

Logan County, West Virginia

Role: Geotechnical & Drilling Services Manager

Project Year: 2007

**Project:** Marion County Land Fill

Geotechnical

Marion County, West Virginia

Role: Geotechnical & Drilling Services Manager

Project Year: 2007

**Project:** Wheeling Landfill

Geotechnical

Wheeling, Ohio County West Virginia

Role: Geotechnical & Drilling Services Manager

Project Year: 2007

**Project:** Mingo County Landfill

Geotechnical

Mingo County, West Virginia

Role: Geotechnical & Drilling Services Manager

Project Year: 2007

Project: South Charleston Landfill

Geotechnical

South Charleston, West Virginia

Role: Geotechnical & Drilling Services Manager

Project Year: 2007

Project: Buzzard Pond Dam

Geotechnical

Marshall County, West Virginia



# CARL G. SELFRIDGE

# Geotechnical & Drilling Services

Manager

# **Transportation**

**Project:** Benedum Airport Lighting Towers

Geotechnical

Bridgeport, Harrison County, West Virginia

Role: Project Manager Project Year: 2012

**Project:** I-81 Martinsburg to Marlowe Interchange

Design Build

Martinsburg, Jefferson County, West Virginia

Role: Project Engineer Project Year: 2011

**Project:** Hughes Creek Landslide

Geotechnical

Kanawha County, West Virginia

Role: Project Manager Project Year: 2011

**Project:** Dick Henderson Bridge

Geotechnical

Kanawha County, West Virginia

Role: Geotechnical & Drilling Services Manager

Project Year: 2010

**Project:** Morgantown Airport Alternative Access Road

Geotechnical

Morgantown, Monongalia County, West Virginia

Role: Geotechnical & Drilling Services Manager

Project Year: 2008

**Project:** Leon Bridge

Geotechnical

Mason County, West Virginia

Role: Project Manager Project Year: 2009

**Project:** Morgantown Rest Area

Geotechnical Evaluation

Morgantown, Monongalia County, West Virginia

Role: Geotechnical & Drilling Services Manager

Project Year: 2008

**Project:** Veterans Memorial Bridge

Geotechnical

Hancock, West Virginia

Role: Geotechnical & Drilling Services Manager

Project Year: 2008



#### EXPERTISE:

Mr. Foreman serves as Project Manager and Design Engineer for a multitude of civil site design projects for municipal, commercial and private developers. Design services provided include site grading, potable water, sanitary sewer, storm sewer, pedestrian walkways, vehicular thoroughfares, preparation of permits, project specifications, plans and engineering calculations.

#### **EDUCATION:**

B.S., Civil Engineering Technology, 1989 Fairmont State College, Fairmont, West Virginia

A.S., Mechanical Engineering, 1989 Fairmont State College, Fairmont, West Virginia

A.S., Drafting and Design, 1989 Fairmont State College, Fairmont, West Virginia

#### PROFESSIONAL REGISTRATION / CERTIFICATIONS:

Registered Professional Engineer: West Virginia, 1999, No. 014165

#### PROFESSIONAL AFFILIATIONS:

- American Society of Civil Engineers
- The GEO-Institute
- Timber Framers Guild
- Construction Institute (ASCE)

#### CAREER EXPERIENCE:

- CTL Experience 8 years
- Other Engineering 20 years

#### Project Experience

A partial listing of Mr. Foreman's relevant project experience includes:

#### Mine Related

**Project:** Fairview Feasibility Studies

**AML-Feasibility Studies** 

Fairview, Marion County, West Virginia

Role: Project Manager Project Year: 2009

**Project:** Craigsville/Tioga Water Well Study

Hydrologic Studies

Nicholas County, West Virginia

Role: Project Engineer Project Year: 2008



# Project Manager - Water Systems

# Gregory L. Foreman, P.E.

**Project:** Feasibility Study for Oakland PSD

**AML-Feasibility Studies** 

Hancock County, West Virginia

Role: Project Manager Project Year: 2011

**Project:** Morgantown (Anderson) Portals and Highwall

AML Reclamation Design

Monongalia County, West Virginia

Role: Project Engineer Project Year: 2012

### Water/Wastewater Treatment Plants and Water Tanks

**Project:** Palisades Place

Sewage Collection, Treatment & Disposal/Various Other Services

Morgantown, West Virginia

Role: Project Manager Project Year: 2006

**Project:** Fairmont Water Treatment Plant

Various Services

Fairmont, Marion County, West Virginia

Role: Project Engineer Project Year: 2009

# **Building Development**

**Project:** West Minister Apartments – Phase II

Civil Site Design/Permitting/Geotechnical/Environmental/Surveying

Martinsburg, Jefferson County, West Virginia

Role: Project Manager Project Year: 2012

**Project:** University Place

Geotechnical/Surveying/Civil Site/Environmental

Morgantown, West Virginia

Role: Project Engineer Project Year: 2012

**Project:** Canterbury Housing Development

Various Services

Fairmont, Marion County, West Virginia

Role: Project Manager Project Year: 2006

Project: Hornbeck Road Development

Surveying/Stormwater/Testing/Permitting Morgantown, Monongalia County, West Virginia

Role: Project Engineer Project Year: 2005



# Gregory L. Foreman, P.E.

Project Manager - Water Systems

**Project:** Premier Chevrolet

Site Layout/Design

Morgantown, Monongalia County, West Virginia

Role: Project Engineer Project Year: 2012

**Project:** Mountain State Blue Cross Blue Shield

Civil Site Design

Parkersburg, Wood County, West Virginia

Role: Project Engineer Project Year: 2007

### Other

**Project:** Bridgeport Burger King

Evaluations

Bridgeport, Harrison County, West Virginia

Role: Project Engineer Project Year: 2013

**Project:** Preston County High School Evaluation

Sewage Plant Evaluation/Wetland Delineation

Preston County, West Virginia

Role: Project Manager Project Year: 2012

**Project:** Industrial Avenue Streetscape

Various Services

Morgantown, Monongalia County, West Virginia

Role: Project Engineer Project Year: 2008

**Project:** Dorsey's Knob

Road Improvements

Morgantown, Monongalia County, West Virginia

Role: Project Engineer Project Year: 2006

**Project:** Boyers Avenue

Demolition Plan

Morgantown, Monongalia County, West Virginia



#### Expertise:

As the Construction Services Manager for CTL Engineering of West Virginia Inc., Mr. Gowarty is responsible for supervising field and laboratory technicians. He is also responsible for report writing for field and laboratory testing, project management, client contact, estimating, proposals and invoicing for Construction Services Department. Mr. Gowarty's experience also includes surveying, pre-mining and pre-blast surveys, field supervision of drilling crews, Phase I Environmental Site Assessments and radiation safety officer and corporate safety officer. In addition, Mr. Gowarty is the Construction Materials Testing Supervisor, providing concrete, compaction, and aggregate testing and has over twenty (20) years of experience with Nuclear Gauge Operation.

Mr. Gowarty has been CTL's Corporate Safety Officer since Fall 2008. Mr. Gowarty is CTL's USNRC Safety Officer.

#### Education:

B.S., Civil Engineering Technology, 1990 Fairmont State College; Fairmont, West Virginia

A.S., Mechanical Engineering Technology, 1990 Fairmont State College; Fairmont, West Virginia

### Professional Registrations/ Certifications:

#### Safety

Radiation Safety Training, CPN Corporation
Radiation Safety Officer Training, Troxler Electronics
Principals of Fire Protection, Fairmont State University
Certified Forklift Trainer, Brickstreet Insurance
Drug Free Workplace Employee Trainer, Working Partners
Drug Free Workplace Supervisor Trainer, Working Partners

#### Other

West Virginia DOT Certified Compaction Technician
West Virginia DOT Certified Bituminous Concrete Technician
West Virginia DOT Certified Portland Cement Concrete Technician
West Virginia DOT Certified Aggregate Sampler
NICET Level III Asphalt & Concrete
NICET Level II Soils
Certified Dipfloor Profiler Operator, Face Company

#### Career Experience:

CTL Experience – 24 years



### Project Experience

A partial listing of Mr. Gowarty's relevant project experience includes:

# Energy

**Project:** Harrison Power Station CCB Landfill Phase V Step III

Construction Services

Haywood, Harrison County, West Virginia

Role: Project Manager Project Year: 2010

**Project:** Leer Mine Complex

Construction Services

Grafton, Taylor County, West Virginia

Role: Project Manager Project Year: 2013

**Project:** Tunnel Ridge Coal

Construction Services

Wellsburg, Ohio County, West Virginia

Role: Project Manager Project Year: 2011

**Project:** Refuse Testing

**Testing Services** 

Wellsburg, Ohio County, West Virginia

Role: Project Manager Project Year: 2011

**Project:** Kammer – Mitchell Run Dam Raising Project

Construction Services

Marshall County, West Virginia

Role: Project Manager Project Year: 2008

# **Building Development**

**Project:** University Place – Morgantown, West Virginia

Construction Services/Survyeing/Geotechnical/Environmental/Site Civil

Morgantown, Monongalia County, West Virginia



# JAMES P. GOWARTY, JR.

# Construction Services Manager

Project: Downtown Panera Bread

Various Services

Morgantown, Monongalia County, West Virginia

Role: Project Manager Project Year: 2013

**Project:** Hazelton Federal Corrections Institution

Various Services

Hazelton, Preston County, West Virginia

Role: Project Manager Project Year: 2010

**Project:** U.S. Department of Energy Facility

Geotechnical/Construction Services/Surveying Morgantown, Monongalia County, West Virginia

Role: Project Manager Project Year: 2008

# Primary/Secondary Schools

Project: Central Preston Middle School

Various Services

Kingwood, Preston County, West Virginia

Role: Project Manager Project Year: 2012

**Project:** East Preston School

Geotechnical/ Construction Services Terra Alta, Preston County, West Virginia

Role: Project Manager Project Year: 2012

**Project:** Bruceton Mills School

Various Services

Bruceton Mills, Preston County, West Virginia

Role: Project Manager Project Year: 2013

**Project:** New University High School

Construction Services/Geotechnical/Grout Plan Development

Morgantown, West Virginia

Role: Construction Services Manager

Project Year: 2006 - 2008



# JAMES P. GOWARTY, JR.

# Construction Services Manager

# **Higher Education**

**Project:** West Virginia University Health Sciences Center Animal Facility Annex

Surveying/Geotechnical/Construction Services

Morgantown, West Virginia

Role: Project Manager Project Year: 2012

**Project:** West Virginia University AERB

Construction Services

Morgantown, Monongalia County, West Virginia

Role: Project Manager Project Year: 2013

**Project:** Alderson-Broaddus College New Football Field

Surveying/Materials Testing

Philippi, Barbour County, West Virginia

Role: Construction Services Manager

Project Year: 2011

# **Transportation**

**Project:** I-81 Martinsburg to Marlowe Interchange

Design Build

Martinsburg, Jefferson County, West Virginia

Role: Construction Services Manager

Project Year: 2011

**Project:** Mileground Roundabout

Construction Services

Morgantown, Monongalia County, West Virginia

Role: Project Manager Project Year: 2013

**Project:** Fairmont Airport

Various Services

Fairmont, Marion County, West Virginia

Role: Project Manager Project Year: 2012

**Project:** Benedum Airport

Geotechnical/Construction Services

Bridgeport, Harrison County, West Virginia



# JAMES P. GOWARTY, JR.

# Construction Services Manager

**Project:** Jackson County Airport

Construction Services

Ravenswood, Jackson County, West Virginia

Role: Construction Services Manager

Project Year: 2009

# **Hospitals**

**Project:** Ambulatory Care Center

Geotechnical/Construction Services

Morgantown, Monongalia County, West Virginia

Role: Project Manager Project Year: 2013

**Project:** New Preston Memorial Hospital

Various Services

Kingwood, Preston County, West Virginia

Role: Project Manager Project Year: 2013

**Project:** Mon General Hospital Roadway

Materials Testing

Morgantown, Monongalia County, West Virginia

Role: Project Manager Project Year: 2011

# Municipal Infrastructure

**Project:** Water Treatment Plant Corrective Action Design

Geotechnical/Construction Services Fairmont, Marion County, West Virginia

Role: Construction Services Manager

Project Year: 2009

**Project:** Water Treatment Facility Expansion

Various Services

Morgantown, Monongalia County, West Virginia

Role: Construction Services Manager

Project Year: 2007



# **EXPRESSION OF INTEREST**

Masteller Coal Company
DEP16555

OSR and RELATED PROJECT EXPERIENCE MATRIX																									
						PRO	JEC	TEX	PER	ENC	E RE	QUIR	ЕМЕ	NTS					PRIMARY STAFF PARTICIPATION/CAPACITY *** M=Management P=Professional						
PROJECT	Exp. Basis C=Corp. P=Personal	Additional Info Provided in Section (s)	Forfeited Surface Mine Reclamation	Forfeited Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Eval.	Remining Evaluation	Mine Refuse/ Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/ Replacement	Construction Inspection/Management	Water Treatment	Equipment/ Structure Removal	Stream Restoration	Geotechnical/Stability	NPDES/Stormwater Preparation	PATRICK GALLAGHER, PE	TIM DARRAH	GREGORY FOREMAN, P.E.	JOSEPH STANLEY	CARL SELFRIDGE	CHARLES WALTZ	
HOPEWELL CHURCH REFUSE & AMD (WV AML '13)	С	Profile		x	x				х		х						х		MP	MP		Р			
MORGANTOWN ANDERSON HIGHWALLS (WV AML '12)	С	Profile		х	x	x		х			х						х		MP	MP		Р	Р		
SCHRAMM-GORDON0EAST FRANKLIN LANDSLIDES (MD AML '12)	С		х			x		x			х						х		MP	MP		Р	Р	Р	
DOUGLAS AVENUE STORMWATER SYSTEM (MD AML '12)	С											х							MP	MP		Р	Р		
FAIRMONT SUBSIDENCE (WV AML '12)	С								х		х						х		МР	MP		Р	Р	Р	
DOUGLAS AVENUE LANDSLIDE (MD AML '12)	С					x			х		х						х		МР	MP		Р	Р	Р	
LOWER CONSOL ROAD SUBSIDENCE (MD AML '11)	С								х		х						х		МР	MP		Р	Р	Р	
BALD KNOB WATER SUPPLY STUDY (MD AML '12)	С					x						х							МР	MP	Р				
SHINNS RUN PORTALS (WV AML '11)	С	Profile			х												х		МР	MP		Р	Р		
REAM REFUSE PILE (WV AML '10)	С	Profile						х											MP	MP		Р			
PEE WEE HILL WATER SUPPLY (MD AML '10)	С											х							МР	MP					
TERRA HAUTE AIRPORT (IN AML '10)	С				x				x		х						х		MP	MP			Р		
KENNEL MINE CLOSURE (MD AML '10)	С	100			х	1					х								MP	MP		Р			
FROSTBURG NORTH CLOSURE (MD AML '10)	С	Profile			x						x								MP	MP		Р			
PEE WEE HILL WATER FEASIBILITY (MD AML '10)	С											х							MP	MP			Р		
WILLIAMS REFUSE PILE #2 (Private AML '09)	С					×	х			x	х	x	x	х			х								
PENINSULA HIGHWALLS (WV AML '09)	С	Profile				x			х		х						х		MP	MP		Р	Р		
ST. CLAIR PORTALS (WV AML '09)	С	Profile			х	х					х					х	х		MP	MP		Р	Р		
CHEAT NECK LANDSLIDE (WV AML '09)	С	Profile			х	х					х						x		MP	MP		Р	Р		
FARMINGTON UMC (WV DEP EMER. '09)	С								х		x								MP	МР			Р		
MORNINGSIDE BAPTIST (WV DEP EMER. '09)	С								х		х								MP	МР			Р		
COLLINS MINING (ODNR FOR. '09)	С		х								x								MP	MP		Р			
FAIRVIEW WATER FEASIBILITY(WV AML '09)	С											х							MP	МР					
AARON'S RUN (MD AML '09)	С	Profile				x					х	x		х		х			MP	MP		Р			
ECCLES SUBSIDENCE (WV AML '08)	С								x		x						х		MP	MP			Р		
McARTHUR SUBSIDENCE (WV AML '08)	С								x								х		MP	MP			Р		
TIOGA WATER FEASIBILITY (WV AML '08)	С											х							МР	MP					
McCOURT LANDSLIDE(ODNR FOR. '08)	С	Profile	x			х					x						х		МР	MP		Р	Р		
JONES TRUCKING (ODNR FOR. '08)	С		х								x								MP	MP		Р			
MILLER MINING (ODNR FOR. '08)	С		х			х					х	х							MP	МР		P			
BELVILLE MINING 1 (ODNR FOR. '08)	С		x			x					х	x							MP	МР		Р			
BELVILLE MINING 2 (ODNR FOR. '08)	С		x			х					х	х							MP	MP		Р			
ZILMAN CLOSURE (MD AML '08)	С				x					33 020	х								MP	MP		Р			
CALDONIA HILL SLOPE STABILITY (MD AML '08)	С																x		MP	MP					
WEST VIRGINIA BRIM (2005 - 2014) 52 Projects	С								х								x		MP	МР				Р	
OMSIUA (2005 - 2010) 47 Projects	С		1						x								х		МР	MP			Р		