

# **EXPRESSION OF INTEREST**

To provide

**Professional Design Services** 

for the

**Mountain View Portals Preston County West Virginia DEP16431** 

Prepared for the **West Virginia Department** of Environmental Protection Office of Abandoned Mine Lands and Reclamation

**CTL Engineering of West Virginia, Inc.** 

1091 Chaplin Road Morgantown, WV 26501 South Charleston, WV 25303

510 C Street

09/21/15 10:39:41 W Purchasing Division

# Table of Contents

# Statement of Qualifications to Provide Professional Engineering Services

- 1. INTRODUCTION
- 2. CORPORATE HISTORY & SERVICES
- 3. PROJECT MANAGEMENT / PROJECT EXPERIENCE
- 4. CCQQ ATTACHMENT "B"
- 5. RPEM ATTACHMENT "C" / RESUMES

CTL Engineering Of West Virginia, inc. 1091 Chaplin Hill Road, Morgantown, WV 26501

Phone: (304) 292-1135 • Fax: (304) 296-9302 e-mail: ctlwv@ctleng.com

AN EMPLOYEE OWNED COMPANY



Established 1927

Jonsulting Engineers · Testing · Inspection Services · Analytical Laboratories

September 18, 2015

West Virginia Department of Environmental Protection Office of Abandoned Mine Lands and Reclamation 601 57th Street, SE Charleston, WV 25304

Re: RFQ #DEP 16431
Expression of Interest
Design Engineering Services Proposal
Mountain View Portals

#### Gentlemen:

CTL Engineering of WV, Inc. is very pleased to present this proposal to provide design engineering and related services for the West Virginia Abandoned Mine Lands and 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 a 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 design and drainage control structures. The Mountain View Portals Project is similar in scope

Offices: Ohio • Indiana • West Virginia • India

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.

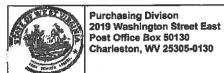
We sincerely appreciate the opportunity to submit this proposal to you for consideration. Should you have any questions or need additional information, please contact our office.

Respectfully submitted,

CTL Engineering of West Virginia, Inc.

Royden L. Loucks

**Director Business Development** 



# State of West Virginia Centralized Expression of Interest 02 — Architect/Engr

Proc Folder: 113847

Doc Description: Expression of Interest Mtn. View Portals DEP16431

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitatio	n No	Version		
2015-08-12	2015-09-22 13:30:00	CEOI	0313 DEP1600000005		1	
i	4					

BED RECEIVENS LCCATION

**BID CLERK** 

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV 25305

US

VENICOR

Vendor Name, Address and Telephone Number:

CTL Engineering of West Virginia, Inc.

1.1091 Chaplin Road

Jrgantown, WV 26501

(304) 292-1135

FOR INFORMATION CONTACT THE BUYER

Beth Collins (304) 558-2157 beth.a.collins@wv.gov

du TT FEIN # 55-063-1834

DATE Sept. 18, 2015

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

Page: 1

FORM ID: WV-PRC-CEOI-001

INVOICE IC.	the American State of the State	Sile to	
/IRONMENTAL PROTE	ECTION	ENVIRONMENTAL PROTE OFFICE OF AML&R	CTION
601 57TH ST SE		601 57TH ST SE	
CHARLESTON	WV25304	CHARLESTON	WV 25304
US		US	

Line	Comm Ln Desc	Qty	Unit issue
1	EOI Engineering Design Services		

Comm Code	Manufacturer	Specification	Model #	4
81100000				

### Extended Description:

<sup>\*</sup>Dates of Service are estimated for bidding purposes only.

	Document Phase	Document Description	Page 3	
DEP1600000005	Final	Expression of Interest Mtn. V iew Portals	of 3	
		DEP16431		

### ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

Rev. 04/14

# State of West Virginia

# **VENDOR PREFERENCE CERTIFICATE**

Certification and application\* is hereby made for Preference in accordance with *West Virginia Code*, §5A-3-37. (Does not apply to construction contracts). *West Virginia Code*, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the *West Virginia Code*. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Vendor Preference, if applicable.

1.	ing the date of this certification; <b>or</b> , Bidder is a partnership, association or corporation re business continuously in West Virginia for four (4) y ownership interest of Bidder is held by another indiv maintained its headquarters or principal place of te preceding the date of this certification; <b>or</b> , Bidder is a population was an affiliate	e for the reason checked: ded continuously in West Virginia for four (4) years immediately preced- esident vendor and has maintained its headquarters or principal place of rears immediately preceding the date of this certification; or 80% of the ridual, partnership, association or corporation resident vendor who has business continuously in West Virginia for four (4) years immediately or subsidiary which employs a minimum of one hundred state residents sipal place of business within West Virginia continuously for the four (4)					
	years immediately preceding the date of this certific	cation; or,					
2.	Application is made for 2.5% vendor preference Bidder is a resident vendor who certifies that, duri working on the project being bid are residents of We immediately preceding submission of this bid; or,	e for the reason checked:  ng the life of the contract, on average at least 75% of the employees est Virginia who have resided in the state continuously for the two years					
3.	affiliate or subsidiary which maintains its headqua	um of one hundred state residents or is a nonresident vendor with an inters or principal place of business within West Virginia employing a fies that, during the life of the contract, on average at least 75% of the apployees are residents of West Virginia who have resided in the state					
<b>4.</b> ✓	Application is made for 5% vendor preference Bidder meets either the requirement of both subdiv	for the reason checked: isions (1) and (2) or subdivision (1) and (3) as stated above; or,					
5.	Application is made for 3.5% vendor preference Bidder is an individual resident vendor who is a veter and has resided in West Virginia continuously for submitted; or,	e who is a veteran for the reason checked: an of the United States armed forces, the reserves or the National Guard r the four years immediately preceding the date on which the bid is					
6.	purposes of producing or distributing the commoditi	e who is a veteran for the reason checked: United States armed forces, the reserves or the National Guard, if, for es or completing the project which is the subject of the vendor's bid and average at least seventy-five percent of the vendor's employees are state continuously for the two immediately preceding years.					
7.	Application is made for preference as a non-ridance with West Virginia Code §5A-3-59 and William Bidder has been or expects to be approved prior to and minority-owned business.	esident small, women- and minority-owned business, in accor- Vest Virginia Code of State Rules. contract award by the Purchasing Division as a certified small, women-					
require against or dedu	Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.						
By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.							
	accurate in all magnesias and that it a contract is it	Code, §61-5-3), Bidder hers that this certificate is true saued to Bidder and the project contained within this certificate otify the Purphasing Division in writing immediately.					
	CTL Engineering of West Virginia, Inc.	Signed:					
Datas	September 11, 2015	Title: President					

RFQ No.	DEP 16431	

# STATE OF WEST VIRGINIA Purchasing Division

### **PURCHASING AFFIDAVIT**

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

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

#### **DEFINITIONS:**

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

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-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.

Vendor's Name: CTL Engineering of West Virgin	nia. Inc.
	Date: Sept. 11, 2015
Authorized Signature:	Date:
State of West Virginia	
County of Monongalia , to-wit:	
Taken, subscribed, and sworn to before me this 11 day	y of September 20 15.
My Commission expires September 2	
	Vande Flail
AFFIX SEAL HERE	NOTARY PUBLIC  Purchasing Affidavit (Revised 07/01/2012)

#### CERTIFICATIONAND SIGNATURE PAGE

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

CTL Engineering of West Virginia, Inc.

(Company)

Petrick E. Gallagher, President

(Authorized Signature) (Representative Name, Title)

(304) 292-1135 / (304) 296-9302 / September 18, 2015

(Phone Number) (Fax Number) (Date)

### ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.: DEP 164361

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.

	umbers Receive x next to each a	ed: addendum recei	ved)						
	Addendum No	o. 1		Adde	endum No.	6			
	Addendum No	o. 2		Adde	endum No.	7			
	Addendum No	o. 3		Adde	endum No.	8			
	Addendum No	o. 4		Adde	endum No.	9			
1	Addendum No	o. 5		Adde	endum 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 Engineer	ing of West Virg	inia, inc.							
Company Ou Authorized Si	In Ja	le.							
With Internet and	grietoro								
September 18,	2015			araven.					
Date									
NOTE: This document proc	_	cknowledgemen	nt shou	ld be	submitted	with	the b	id to	expedite

# Corporate Qualifications

# CTL Engineering, Inc.

Experts in

Fransportation

Building Development

Manufacturing

Telecommunication

Energy

CTI takes ownership in the projects we are assigned. Our dedication to success that server us a catalyst for builting tong standing relationships with our clients. Our choirs continued one CTI, for their brighter may recent because they know we provide nothing should of the builting should of the builting should of the builting should of the builting should.

Ear more information go any or furth stricts or service appealse call to on the Web at



- 87 Years of Engineering Expertise
- Equipment and Personnel to Fully Man 8 Survey Crews
- 9 Geotechnical Drilling Rigs
- Employee Owned Company

CTL Engineering, Inc. is a full service consulting engineering, testing, inspection, and analytical services company. Established in 1927 and formerly known as Columbus Testing Laboratory, CTL focused mainly on soils, foundation engineering, and construction testing and special inspections. The successes, experience, equipment, and expertise gained in these areas led to a natural expansion into the metallurgical, non-destructive testing, mining, roofing, and environmental service industries. CTL Englneering, inc. now has over 200 employees including registered professional engineers, geologists, environmental engineers/scientists. chemists, technicians, surveyors, and design staff. CTL Engineering is an employee comed

**ENGINEERING S** 

company that has the necessary personnel, experience, equipment, and qualifications to provide services in the following disciplines: Geotechnical Engineering, Environmental Services, Civil Site Design, Site Planning, Observation and Testing of Construction Materials and Processes, Mechanical and Metallurgical Analysis, Roofing Design and Inspection, and Structural Steel and Product Testing.

CTL Engineering, Inc. is headquartered in Columbus, Ohio. CTL also operates 10 branch offices throughout Ohio, West Virginia, and Indiana.



# Corporate Qualifications

# CTL Engineering of West Virginia, Inc.



Gateway Development Site: I-79 Exit 155

As part of CTL Engineering, Inc., CTL Engineering of West Virginia, Inc. was founded in 1981 giving us more than 30 years in the state. Our office locations in South Charleston and Morgantown enable CTL to easily provide our services for projects throughout the state as a whole. With approximately 50 employees distributed between our two West Virginia locations, we are well suited to handle projects of all sizes. Our West Virginia staff also includes 5 professional engineers and two professional surveyors.

Gateway Development Bite. 1-77 Date 155

CTL Engineering of West Virginia, Inc. provides total civil site design for development projects throughout West Virginia. These designs include site layouts, utility design and interconnections, stomwater management design, parking and roadway design, as well as permit preparation and submittal. CTL will work with the project architects, owners, and all involved parties to play our part in bringing your project to fruition

# **Qualified Team**

- 5 Professional Engineers with diverse backgrounds including geotechnical engineering, civil engineering, and environmental engineering
- Skilled surveying staff equipped with the most up-to-date equipment and GPS units
- Extensive experience working with Federal,
   State, and private entities
- 30+ Years of working in West Virginia
- Working knowledge/understanding of the states geology & geography allowing us to provide custom solutions—we don't just pull plans from a book

#### SERVICES AVAILABLE

Civil Site Design
Surveying/Mapping
Geotechnical Engineering
Construction Observation
Materials Testing
Site Layout
Project Management & Compliance

or more information on any of our products or pervices please used us on the Web of

Our dignits are our livelybood,

and therefore, we make flour

personal objective to achieve

project regardless of size or

Feamwork is a necessity. Not

external perspective. It is imporative that we work together with

stakeholders when taking on a:

In order to provide our chents.

LISTEN. By listening to our

nont questions we are able to

clearly identify what is resided to take on a given project in the

scope

100% crent satisfaction on every



#### **Analytical Chemistry**

- Organics
- Metals
- Liquid and Solid Fuels
- Soll 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 Services**

- Floor Flatness
- Soils, Concrete, Asphalt, Masonry, Fireproofing, and Steel
- Earth and Concrete Dams
- Pavements 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 & Agulfer Characterization

#### **Existing Structure Evaluation**

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

### Forensic Science

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

#### Forensic 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 and Mapping

### **Materials Testing**

- Concrete
- Aggregates
- Soils and Rock
- Clay & 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 Investigation
- **Drainage Control Structures**

#### Nondestructive Testing & Inspection

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

### **Pavement Management**

- Budgeting
- Priortization
- **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 Systems**

- 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

### Telecommunication Services

Global Positioning System

- Design Construction
- Existing Structure Analysis & Maintenance
- Lighting Systems Inventory & 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 Drive Wapakoneta, OH 45895 Phone: (419) 738-1447 Fax: (419) 738-7670

1091 Chaplin Hill Road Morgantown, WV 26501 Phone (304) 292-1135 Fax: (304) 296-9302

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

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

Sachina Engineering 407 "B" Block SNS Arcade, Airport Road Bangalore, India 560017

011-91-80-526-8615

www.ctleng.com



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

### Full Site Layout Design including:

- Topographical 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 SERVICES







CTL Engineering maintains a full service, in-house surveying 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 eight (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 our clients.

### **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





Soil Permeability Testing

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.

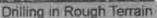
### **Geotechnical Services:**

- 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/Rock
- Legal Testimony
- Dynamic Pile Testing

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

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







Drilling on FlatTerrain

### ENVIRONMENTAL SERVICES





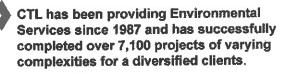












Our clients includes Governmental agencies, Universities, Private Banks, Developers, Communication Tower, Pipeline and Oil & Gas Exploration Companies, etc. Our years of experience have made us aware of the regulatory and technical challenges our clients face when environmental issues arise.

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 certifled 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 Engineering's Environmental Department is the single source for your environmental needs.

### Additional Environmental Related Services:

### Real Estate Related Services

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

#### **Bullding 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

### **Geophysical Surveys**

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

#### **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)

#### Transportation Related Services

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

www.ctleng.com

### MINING ENGINEERING SERVICES







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, pre-blast surveys, pre/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 include:

- 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





### CONSTRUCTION MATERIALS TESTING





# CTL Engineering is a leader in providing analytical servcies to the construcion 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.

# CTL Engineering provides complete testing of the following:

### **Aggregates**

- Component Analysis (sand, gravel, limestone) -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 Extractions and Grading
- Core Testing and Density of 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 client.





# CTL Engineering's Construction Administration Services include On-Site Daily Inspections

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 *Mountain View Portal Project* will be similar to other CTL AML portal seal, refuse reclamation, 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 if deemed necessary to determine mine pools and perform slope stabilization analysis in order to optimize grading design and stabilize refuse 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 major modifications are 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 refuse 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. Re-vegetation plans;
- 10. Soil amendment plans;
- 11. Survey control points;
- 12. 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

# Mountain View Portals DEP16431

### Project Scope of Work

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

- 1. Clearing and grubbing of site.
- 2. Design surface water ditches where appropriate to control runoff.
- 3. Design appropriate mine seals, bat gates and subsurface drains
- 4. Regrade refuse areas by utilizing materials available onsite, or designated borrow area sites nearby.
- 5. Condition, stabilize, and re-vegetate disturbed land.

Preliminary design documents will be due 60 days from issuance of the Purchase Order.



# AML & Relevant Project Experience (2008 – 2015)

# **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

- Wolfden Stream Restoration, MDE, AMLD
- George's Creek Sealing Project, MDE, AMLD
- 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 & Potomac Hollow Water Investigations, 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



# **MORGANTOWN (ANDERSON) PORTALS & HIGHWALLS DEP15609**



# MINE PORTALS, HIGHWALLS & FOREIGN MATERIALS

**CTL Engineering Inc.** 

Monongalia County, West Virginia

# **CTL Professional Services**

- Surveyina
- 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

# 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

# **SHINNS RUN PORTALS & AMD**

# MINE PORTALS, COAL REFUSE, HIGHWALLS & MINE DRAINAGE



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** 

April 2012

**Estimated Project Cost** 

\$ 59,000

# 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

# ST. CLAIR PORTALS DEP 14233

# MINE PORTALS, COAL REFUSE, HIGHWALLS & MINE DRAINAGE



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 site
- Backfill of highwalls using spoil material to original contour
- 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** 

March 2010

Estimated Project Cost

\$1,500,000

# CHEAT NECK (LENHART) LANDSLIDE DEP14233

# LANDSLIDE, MINE PORTALS & MINE DRAINAGE



# 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

<u>Estimated Construction Cost</u> \$175,000

# **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

<u>Design Completion Date</u> 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

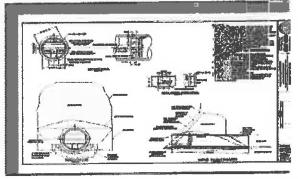
# **Project Scope**

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

# **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

Design Completion Date
November 2008

Estimated Construction Cost \$ 101,700

		TA DEPARTMENT NT CONFIDENTI	ENVIRONMENTAL PRO QUALIFICATION QUE		E "Attachme B"
PROJECT NAME Mountain View Portals, Preston County, WV, DEP16431  DATE (DATE (DATE) 09/11/20			I, YEAR)	FEIN 55-063-18	34
1. FIRM NAME CTL Engineering of West Virginia,	2. HOME OFFICE F 2860 Fisher Road Columbus, OH 43	1	1	FIRM NAME Testing Laboratories	
4. HOME OFFICE TELEPHONE (614)276-8123	CTL-1927	CTL-WV 1983	6. TYPE OWNERSHIP Individual Corpor Partnership Joint-	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES NO	
6. PRIMARY AML DESIGN OFFICE: ADDI 1091 Chaplin Road, Morgantown, WV	RESS/ TELE 26501/ 3	PHONE/ PERSON IN 04-292-1135/ Patr	CHARGE/ NO. AML DESIGN ick E. Gallagher, Presi	PERSONNEL 1 dent / More	EACH OFFICE gantown - 9
7. NAMES OF PRINCIPAL OFFICERS OR Patrick E. Gallagher, President CK Satyapriya, VP/Sec.	MEMBERS O	F FIRM	8a. NAME, TITLE, & TEL Ali Jamshidi, Treasure		
9. PERSONNEL BY DISCIPLINE					
5 ADMINISTRATIVE - ECOLOGISTS - ARCHITECTS - ECONOMISTS 1 BIOLOGIST - ELECTRICAL ENGINEERS 7 CADD DESIGNERS 3 ENVIRONMENTALISTS - CHEMICAL ENGINEERS - ESTIMATORS 4 CIVIL ENGINEERS 3 GEOLOGISTS/GEOTECH ENG 9 CONSTRUCTION INSPECTORS - HISTORIANS - DESIGNERS - DRAFTSMEN		- LANDSCAPE ARCH - MECHANICAL ENG - MINING ENGINEE - PHOTOGRAMMETRI - PLANNERS: URBA 1 SANITARY ENGIN 1 SOILS ENGINEER - SPECIFICATION	1 STRUCTURAL ENGINEERS 10 SURVEYORS/RODMEN - TRAFFIC ENGINEERS X OTHER, 3 Geotechnical Drillers		
TOTAL NUMBER OF WV REGISTER *RPEs other than Civil and supervise and perform this	Mining mus	t provide support		4 qualifies	47 TOTAL PERSONNEL them to
The TOTAL PERSONNEL number is for	CTL Engir	neering of West Vi	rginia, Inc.		
TOTAL PERSONNEL for CTL Engineeri	ng, Inc. i	is 225, which incl	ludes CTL Engineering o	f West Virg	rinia.
				· · · · · · · · · · · · · · · · · · ·	
10. HAS THIS JOINT-VENTURE WORKER	TOGETHER	BEFORE? ☐ YES			

11. C IDE KEY CONSULTANTS/SUB	-CONSULTANTS ANTICIPATED TO USED. Attach	n "AML Consultant Confidential Qualific ion
Ques nnaire for each if	SPECIALTY:	WORKED WITH BE. LE
		Yes
		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	No WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	No WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	No WORKED WITH BEFORE
	or Bornell I.	
		Yes
NAME AND ADDRESS:	SPECIALTY:	No Nopre Mari Perope
man and addition,	SECIALI I.	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	CDECIAL TXX	No No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
		No

Are your firm's personnel experienced in Abando 'Mine Lands Remediation/Mine Reclamation Enginee 'ng? 12. A. Description and Number of Projects: CTL Engineering has completed more than 800 AML related YES projects nationally and internationally. See attached "AML Past Project Experience" for some specific examples. NO Is your firm experienced in Soil Analysis? В. Description and Number of Projects: Our in-house laboratories perform all ASTM mechanical, organic YES and in-organic analyses for soils. Our labs are certified by WVDOH, OEPA and US Corps of Engineers. NO Is your firm experienced in hydrology and hydraulics? C. Description and Number of Projects: Each of our site design and AML projects require hydrology & hydraulic evaluations. We estimate that annually, we complete more than 100 projects requiring hydrology design. NO Does your firm produce its own Aerial Photography and Develop Contour Mapping? D. YES Description and Number of Projects: NO However, we annually complete more than 25 projects requiring aerial photography & mapping. While we sub-contract the aerial photography, in-house we provide GPS, surveying and develop the contouring as needed. Is your firm experienced in domestic waterline design? (Include any experience your firm has in evaluation of aquifer degradation as a result of mining.) Description and Number of Projects: We have completed numerous waterline design projects and our in-house staff has more than 25 years of combined experience with aguifer degradation. NO F. Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design? YES Description and Number of Projects: CTL has developed more than 20 active and passive treatment systems for AMD. More than 50 of our AML Design projects required some form of AMD evaluation and design. NO

Gallagher, Patrick E., PE President, Project Manager  Brief Explanation of Responsibilities President of CTL Engineering of WV, Inc.; responsible for the over along with the management of the individual engineering projects. Hi include marketing, proposal preparation, client contact, supervision of report preparation. Projects successfully completed by Mr. Gallagher incl Investigations, Dam Stability Analyses, Mine Subsidence Evaluations, Mines Reclamation Designs, Failure Investigations, and Mining Permits. EDUCATION (Degree, Year, Specialization) B.S., 1975, Equivalent, Geology  MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS American Society of Civil Engineers of A.I.M.E. Triangle Fraternity of Engineers, Architects and Scientists International Society of Soil Mechanics and Foundation Engineers American Institute of Professional Geologists  13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE F data but keep to essentials)  NAME & TITLE (Last, First, Middle Int.) Selfridge, Carl G. Department Head, Geotechnical Services  Brief Explanation of Responsibilities Deartment Head Geotechnical Services  EDUCATION (Degree, Year, Specialization) Graduate Studies, 1996-1999, Civil Engineering (Geotechnical) B.S., 1994, Engineering, Geotechnical and Structural A.S., 1994, Engineering, Geotechnical and Structural A.S., 1994, Engineering, Geotechnical and Structural A.S., 1994, Mechanical Technology - Design & Drafting MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  Fellow of the American Society of Civil Engineers, The GEO-Institute, Engineers,	YEARS OF EXPERIENCE	. /					
Gallagher, Patrick E., PE		: YEARS OF AML RELATED DESIGN EXPERIENCE: 36	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 29				
President of CTL Engineering of WV, along with the management of the indiinclude marketing, proposal preparation report preparation. Projects successful Investigations, Dam Stability Analyses, Reclamation Designs, Failure Investigation EDUCATION (Degree, Year, Specialization B.S., 1975, Civil Engineering	vidual engineering projects., client contact, supervisionly completed by Mr. Gallagher Mine Subsidence Evaluations, ons, and Mining Permits.	His administration and ma n of design personnel, schedu include: Geotechnical Investi	nagement responsibilities ling, budget control, and gations, Foundation Design				
American Society of Civil Engineers Society of Mining Engineers of A.I.M.E. Priangle Fraternity of Engineers, Archi International Society of Soil Mechanics American Institute of Professional Geol	tects and Scientists and Foundation Engineers ogists	REGISTRATION (Type, Year, State) Registered Professional Engineer; 1983-West Virginia, 1984-Ohio, 1983-Maryland, 1993- Pennsylvania, 2006-Wyoming, 2006-North Carolina Certified Professional Geological Scientist - 1984 Professional Surveyor, 1995-West Virginia					
data but keep to essentials)	IPALS AND ASSOCIATES RESPONSI		urnish complete				
Selfridge, Carl G.		YEARS OF EXPERIENCE  NCE: YEARS OF AML RELATED DESIGN EXPERIENCE: 4  WATERLINE DESIGN EXPERIENCE:					
Deartment Head Geotechnical Engineering analysis & recommendations, program de	velopment for investigative	and laboratory analysis.Selfr					
Graduate Studies, 1996-1999, Civil Engi B.S., 1996, Civil Engineering, Geotechn A.S., 1994, Engineering Science A.A.S., 1991, Mechanical Technology - D	neering (Geotechnical) ical and Structural esign & Drafting						
MEMBERSHIP IN PROFESSIONAL ORGANIZATION Fellow of the American Society of Civil	S Engineers, The GEO-Institute	REGISTRATION (Type, Year, State)  Engineering Intern (EI), 1996, New York Level II Drilling Inspector, 1999, PennDOT					

12 DEDCC I HICHODY CONTRIBUTE OF PRINCIPLE	DATE AND ACCOURAGE TOPOSTOR	E HOD NAT DOOTHOR DESTRUCTOR (T	
data c keep to essentials)	THE MIN ASSOCIATES SPONSIBL	E FOR AME PROJECT DESIGN (FUY	nish comple
NAME & TITLE (Last, First, Middle Int.)	A Switz	VEXDS OF PYDESTENSE	
Darrah, Timothy A.	YEARS OF AMI, DESTAN EYDEDIENCE.		VEARS OF DOMPSTIC
Civil Site Dept. Mgr., Project Manager	YEARS OF AML DESIGN EXPERIENCE: YEARS OF AML RELATED DESIGN WATERLINE DESIGN EXPERIENCE: 21  ties ble for Management and Design for various types of civil engineering projects int desidential development projects. He is also responsible for scheduling, invoicing projects including topographic, property and construction layout. Mr. Darrah's perty descriptions, hydrology calculations, quantity calculations and various other grelated duties. He is also proficient in computer software including AutoCAD, Civ- engineering software.He has been the Project Manager for all of the WV, MD and Of  Zation)  PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete  YEARS OF EXPERIENCE  YEARS OF EXPERIENCE  YEARS OF AML DESIGN EXPERIENCE: YEARS OF AML RELATED DESIGN (WATERLINE DESIGN EXPERIENCE: 3  ties  Reclamation Design, Drafting, Hydrology, Quantity Calculations, Stability An Fill Footprinting, Surveying, Subsidence Surveys, Pre-Blast Surveys, Acid Base Acte includes Hydrologic TR-20, TR-55, Excel, Harstad Methods, Word, AutoCADD Land, Que te design of most of CTL's AMLER Projects for the past 5 years.	WATERLINE DESIGN	
Brief Explanation of Responsibilities	1		
Mr. Darrah is presently responsible for reclamation design, commercial and resid client contacts for all surveying proje include drafting, writing of property desor of surveying and civil engineering related HEC-1, HEC-RAS and various other engineer projects for the past 10 years	dential development projects. ects including topographic, prescriptions, hydrology calculated duties. He is also proficie	He is also responsible for s roperty and construction layo ations, quantity calculations ent in computer software inclu	cheduling, invoicing and out. Mr. Darrah's duties and various other forms ding AutoCAD, Civilsoft,
EDUCATION (Degree, Year, Specialization)			
B.S., 1988, Civil Engineering Technology			•
MEMBERGYER IN PROPERCY ONLY OR CANTER MEDICAL	· - · · · · · · · · · · · · · · · · · ·	T2-2	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, St.	ate)
in the second se			
13 DEDGOVAY VICTORY OF BELLEVIEW OF DELICATION			
data but keep to essentials)	PALS AND ASSOCIATES RESPONSIBL	LE FOR AML PROJECT DESIGN (Fur	mish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Stanley, Joseph			1
Project/ Staff Engineer			WATERLINE DESIGN
Brief Explanation of Responsibilities		.1	<u> </u>
Residential Development, Valley Fill Fo Groundwater Inventory. PC Software inclu	otprinting, Surveying, Subsic des Hydrologic TR-20, TR-55,	dence Surveys, Pre-Blast Surv Excel, Harstad Methods, Word,	evs, Acid Base Accounts.
EDUCATION (Degree, Year, Specialization)			
A.S., 2001 Civil -Engineering Technology	Drafting & Design		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, St	ate)
a de la companya de l			
9-2 3 1 1 2 1 5 5 5 5 5 1 5 1 5 1 5 1 5 1 5 1			

THE PERSON

13. SONAL HISTORY STATEMENT OF PRINCI data t keep to essentials)	PALS AND ASSOCIATE ESPONSIB	LE FOR AML PROJECT DESIGN (Fu	rnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Foreman, Gregory P.E.	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 18
Brief Explanation of Responsibilities Mr. Foreman serves as Project Manager a water supply, sanitary design for publi water, sanitary sewer, storm sewer, p specifications, plans and engineering cal	lc and private projects. Des pedestrian walkways, vehicul	ign services provided includ	e site grading, potable
EDUCATION (Degree, Year, Specialization)			
A.S, Fairmont State, 1989, Drafting & Des A.S., Fairmont State, 1989, Mechanical B.S., Fairmont, 1989, Civil Engineering T MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, Sta	ate)
		Registered Professional Engin	
	· ,		
13. PERSONAL HISTORY STATEMENT OF PRINCI	IPALS AND ASSOCIATES RESPONSIE	BLE FOR AML PROJECT DESIGN (Fu	rnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Waltz, Charles P.E.	YEARS OF AML DESIGN EXPERIENCE: 9	YEARS OF AML RELATED DESIGN EXPERIENCE: 13	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilities Project Engineer / Staff Engineer provi geotechnical subsurface investigations a	ding engineering services for nd foundation recommendations	r a variety of projects incl and road construction.	uding, site development,
EDUCATION (Degree, Year, Specialization)			
B.A., Fairmont State, Business Administra B.S., Fairmont State, Civil Engineering Graduate Studies, West Virginia Universi	ty, Geotechnical Engineering		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, St Registered Professional Engi (no. 37038)	

DESIGN TERVICES.

#### OFFICE EQUIPMENT

3 HP Color Plotters

HP Color Scanner

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

Facsimile Machine

#### DESIGN SOFTWARE

Windows XP & 2000 based operating systems

Microsoft Office 2000 & 2002 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 2013.

Hydrogeologic Studies

MODFLO

MODPATH

SURFER

CAPZONE

GWPATH

SKUGIS

PHREEQCI

WATEO4F

Groundwater for Windows

Civil Engineering Software

Civil 3D 2013 (AutoCADD) - 13 Seats

Profiling

Civilsoft

TR-20 & TR-55

SEDCAD

HEC 1 & 2

HEC-RAS

Arc GIS

ArcPAD

Carson Software

Geotechnical

GINT

STABL6

SHAFT

WSPRO

Various Bridge, Pavement, Pile and Foundation Software

#### SURVEY UIPMENT

- 1 Trimble GPS Systems 3-R8 Receivers & 1- R10 Leiver
- 6 Total Stations ( 1- Robotic)
- NAK Micrometer Level System & Direct Levels
- 4X4 Vehicles, including ATV for off-road use
- 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
- o Conventional and wireline coring capabilities = (1", 2", 3", & 4")
- Soil-gas survey equipment
- Pump testing 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
- Mobile activated carbon system
- Air and chemical stripping of soils and water

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 chroughout 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			

16. CURRY ACTIVITIES OF							
PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CON	STRUCTION COST		
		OWNER		ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY		
	•						
		······································					

17. COMPLE WORK WITHIN LAST	5 YEARS ON WHICH YOUR FIRM WAS	E DESIGNATED ENGINEER OF RECORD	(AML: Proje	icts)
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR CONST.	(YES OR NO)
Hopewell Church Refuse & Drainage (DEP16074), Preston County, WV	WVDEP - AML 601 57 <sup>th</sup> Street SE Charleston, WV 25304			
Peninsula Highwalls, AML Project, Monongalia County, WV	WVDEP- AML 601 57 <sup>th</sup> Street SE Charleston, WV 25304	\$244,000	2009	YES
St. Clair Portals, AML Project, Monongalia County, WV	WVDEP- AML 601 57 <sup>th</sup> Street SE Charleston, WV 25304	\$1,462,000	2009	YES
Shinn's Run Portals & AMD, AML Project, Harrison County, WV	WVDEP- AML 601 57 <sup>th</sup> Street SE Charleston, WV 25304	\$1,887,000	2012	YES
Pee Wee Hill Water Supply, MD AML Project, Garrett County, MD	MD Department of Environment 160 S. Water St. Frostburg, MD 21532	\$650,000	2011	YES
Anderson Highwalls, AML Project, Monongalia County, WV	WVDEP- AML 601 57 <sup>th</sup> Street SE Charleston, WV 25304	\$1,200,000	2013	YES
Terra Haute Airport, IN AMLD, Subsidence Grouting	Indiana Abandoned Mine Land Division Indianapolis, IN	\$6,500,000	2010	YES
Schramm, Gordon & East Franklin (MD) Landslides	MD Department of Environment-AMLD 160 S. Water St. Frostburg, MD 21532	\$1,500,000	2013	On-going

			*1				
	K WITHIN LAST 5 YEARS ON		BEEN A SUB-	CONSULTAN	IT TO OTHER FIR	MS (INDICATE PH	Ŧ.
OF V 'K FOR	WHICH YOUR FIRM WAS RESPO		7)			<u> </u>	S
PROJECT ME,	NAME AND ADDRESS		TION COST	YEAR	CONSTRUCTED	FIRM ASSOC1	D WITH
TYPE	OF OWNER	OF YOUR FIRM'S	PORTION		(YES OR NO)		
AND LOCATION							
			;	Ì			
				ļ			
				[			
				1		}	
				1			
		1					
-							
					1		
				į			
	j						
		İ					
				Į			
				i		_	
	to provide any addition					our firm's	
	to perform work for the						
For the past 2	5 years, CTL has success:	fully designed more	than 200 AMI	L project	s. We have wor	ked nationally	and
	y on a variety of AML pro						
	MD Treatment, Mine Subsi				Elimination.	Routinely, CTL	is
involved with	highwall and refuse pile	*tabilization and	extinguishmer	nt.			· · · · · · · · · · · · · · · · · · ·
20. The foregoing	a statement of facts.						
			_				
Signature:		Title	: President		Date: _09/11	L/2015_	
Printed Name: Pai	rick P. Gallagher 2.2.						

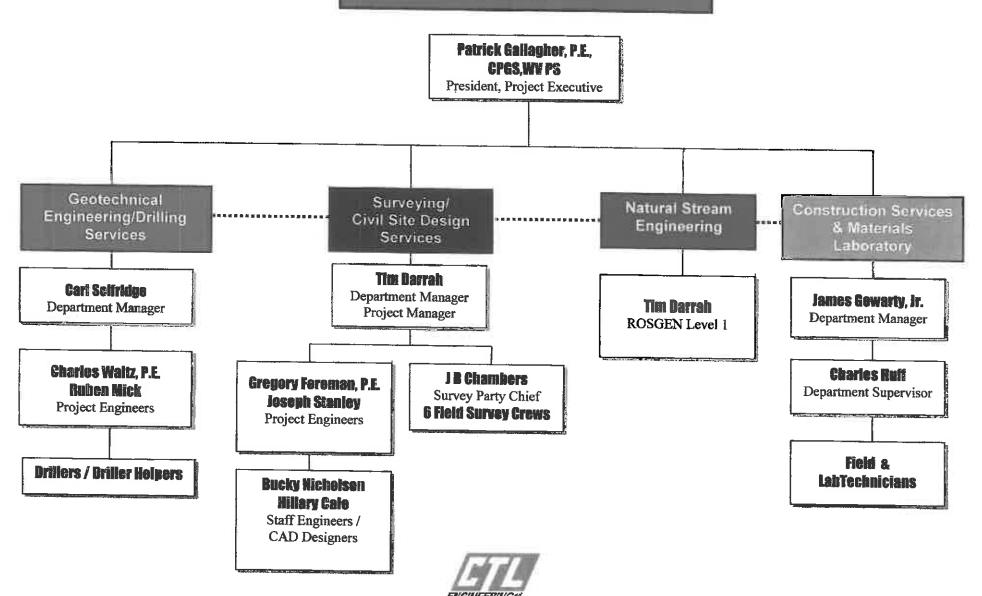
NOTE: THIS EXCUMENT WILL BECOME VOID AFTER DECEMBER 31 IN CALENDAR YEAR OF DATE HEREON.

						PRO	JEC	T EX	PER	IENĊ	E RE	QUIR	EME	NTS				*** [	PARTI	CIPAT	RY 817 TON/C Int P	APAC	ine L
PROJECT	Exp. Basis G«Garp. P«Personal	Additional Info Provided In Section (4)	Abendoned Surface Who Recisementon	Abandonal Deep Man Recknowless	Pertuitibul Cleans	Hydrologioritystnesic Design/filest.	Bassishy Evelvation	Mine Rafesel Fine Abeliannet	Substdence Investigation SCigation	Hazardous Wasta Disposal	Project Specifications	Water Quality Post action/Williams Replacement	Construction	Water Theatment	Expelyment/ Specifics Fernand	Strays Nastocation	Geotechnical/Statemy	PRINCH CHE LASKER, PE	THE DAPPAR	CRESCORY FORSILLA, P.E.	JOHNH STANLEY	CANL SIS PRIDGE	
WOLFDEN STREAM RESTORATION (MD AML '15)	G					x					x	×				x		MP	9				I
UPPER GEORGES CREEK STREAM SEALING ( MD AML '16)	С					x			X		x	×						МР	P				
ARONS RUN ROAD LANDSLIDE, EVAL AND DESIGN ( MD AML '14)	c		_	×	x				×		x		x				х	MP	P		P		
HOPEWELL CHURCH REPUSE & AMD (WY AML 18)	c	Profile		ж	x	x					x							мР	MP		P		
MORGANTOWN ANDERSON HIGHWALLS (MY AHL 12)	c	Profile		х	x	x					x							МР	MP		Р		1
CHRAHM - GORDON -EAST FRANKLIN LANDSLIDES (MD AML '12)	c		x	x		11	П				x						X	MP	MP		P	р	1
DOUGLAS AVENUE STORMWAYER SYSTEM (MD AML 12)	G			- 1 ·		X						х						MP		MP		P	ļ
FAIRMONT SUBSIDENCE (WV AML 12)	c	Profito		x			1		×		×						x	MP	MP		P	P	
DOUGLAS AVENUE LANDSLIDE (MD AML 112)	С			х		x			x		×						x	MP	MP		4	P	
LOWER COMBOL ROAD BUBBIDENCE (RID AML '11)	G		x	x					X		×						x	MP	MP		P	P	
BALD KNOS WATER SUPPLY STUDY (MD AML 12)	c					×						х						MP	6400	P			
SHINKS RUN PORTALS (WV AML '11)	С	Profile		x	×												x	MP	SEP.		P	Р	-
REAM REPUSE PILE (NV AML "10)	С		x					x										MP	Milb		P		1
PRE WEE HELL WATER SUPPLY (MD AML '19)	c		ļ <u>-</u>									×						MP		MP			1
TERRA HAUTE AIRPORT (IN AML *10)	c	Profile		x	x				x		x						x	MP	MP			P	1
KENNEL MINE CLOSURE (ND AM. 16)	c	Profile	х	×	х						x							MÞ	МР		P		1
FROSTBURG NORTH CLOSURE (MD AML 40)	G	Profile	х	x	×						x							MP	MP		P		ļ
PEE WEE HILL WATER FEASIBILITY (ND ANL '10)	c											×						188		MP		Р	
WILLIAMS REPLISE PILE 52 (Private AML '09)	c		х		17.5	x	X			×	x	x	×	x			x				MP		
PENINGULA HIGHWALLS (WV ANL. '96)	c	Profite	×	X		x		Ī .	×		х						×	MP	MP		Р	P	1
ST. CLAIR PORTALS (WV AM. '09)	¢	Profile	×	К	x	x					x					X	K	MP	MP		P	P	1
CHEAT NECK LANDSLIDE (WV AML '98)	0				×	x	Γ.				×						×	MP	MP		Р	P	1
FARMINGTON UNIC (WV DEP EMER. '09)	0		T						x		×							MP	МР		L	P	1
MORNINGSHOE BAPTIST (WV DEP EMER. '09)	C			_					x		x							MP	MP			P	]
COLLINS MINING (ODNR FOR. '09)	c		x								×							MP	MP		Р	L	1
FARVIEW WATER FEASIBILITY(WY AMI. 78)	C						Γ					X						MP	MP	P	<u></u>		[
AARON'S RUN (NO AML '99)	C		x			x					x	×		X		x		MP	MP		P		
WEST VIRGINIA BRIM (2005 - 2012) 42 Projects	0		Γ-			11117			×								х	Mp	MP			P	
OMBRIA (2008 - 2010) 47 Proposts	G					Γ			x								X	МР	MP			P	1



# CTL Engineering of West Virginia, Inc.

# PROJECT ORGANIZATION CHART & KEY PERSONNEL



#### 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, Maryland, West Virginia, Pennsylvania, Wyoming, Worth Carolina, Kentucky,
- Certified Professional Geological Scientist,
- 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

AMI. 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 CIL 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 CIL Engineering Inc.

#### Relevant Project Experience:

#### Mine Related

**Project:** Fairmont Subsidence

AMI. Reclamation / Geotechnical Fairmont, Marion County, West Virginia

Role: Project Engineer Project Year: 2012

Project: Morgantown Anderson Highwalls

AMI. 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



## 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



#### 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, N



### PROFESSIONAL AFFILIATIONS:

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

#### CAREER EXPERIENCE:

- CIL 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

AMI - 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

"ole: Project Engineer oject 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

Hairmont, 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: 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

Role: Project Manager Project Year: 2013

## Project Manager - Water Systems



# CARL G. SELFRIDGE Manager

## Geotechnical & Drilling Services

#### 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 / Oniar 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 Dain

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. 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,

Virginia, #

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



#### 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, Pairmont 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



## Construction Services Manager

#### 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



## 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



## 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



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



