CTL Engineering Of West Virginia, Inc.
733 Fairmont Road, Morgantown, West Virginia 26501
Phone: 304/292-1135 • Fax: 304/296-9302
e-mail: ctlwv@ctleng.com

AN EMPLOYEE OWNED COMPANY

Consulting Engineers • Testing • Inspection Services • Analytical Laboratories

Established 1927

December 23, 2013

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

Re: RFQ #DEP 16435
Expression of Interest
Design Engineering Services Proposal
Morgantown Airport Subsidence II Design Project

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 AML Design Experience. Our in-house disciplines of professionals include: Civil & Mining Engineers, CAD Designers, Surveyors, Geologists, Hydrologists and Biologists. We are experienced in completing more than 50 projects annually that require aerial mapping, support surveying with GPS, and final contouring for design.

Our in-house ability reaches beyond simply being an AML 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 Abandoned 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 AML design projects. Our corporation and individual staff members have extensive experience relative to subsidence related stabilization and grouting plan design.

CTL Engineering of West Virginia, Inc. has provided geotechnical engineering support and design for two prior subsidence related stabilization projects at the Morgantown Airport. The first project was for a subsurface investigation and design for the grout stabilization program beneath the airport terminal. This project was performed for the WV DEP in 1992.

The second project was performed on behalf of the Morgantown Airport Authority in response to subsidence events adjoining Runway 18 which is the runway that is the subject of this RFQ. Nine holes were bored to determine the mine voids. This information wasa then passed along to the WV DEP AML&R to determine the priority status for this potential project.

CTL has provided subsidence investigation and grout stabilization design for several large projects in the past 5 years. These include the Terra Haute, Indiana Airport, Ohio DOT Route 2 in Ottowa County, Ohio, Fairmont Jackson Addition AML&R Project in 2013, and the stabilization for the new University High School in Monongalia County, near Morgantown. Attached to this proposal are numerous examples of these and 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

CTL ENGINEERING

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

Solicitation

NUMBER	PAGE
DEP16435	1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
FRANK WHITTAKER
304-558-2316

RFQ COPY
TYPE NAME/ADDRESS HERE

VENDOR
CTL Engineering of West Virginia, Inc.
733 Fairmont Road
Morgantown, WV 26501

SHIP TO
ENVIRONMENTAL PROTECTION
DEPARTMENT OF
OFFICE OF AML&R
601 57TH STREET SE
CHARLESTON, WV
25304 304-926-0499

DATE PRINTED
12/03/2013

BID OPENING DATE: 01/02/2014 BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-29		

MORGANTOWN AIRPORT SUBSIDENCE II DESIGN

EXPRESSION OF INTEREST

THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES AT THE MORGANTOWN AIRPORT SUBS. II IN MONONGALIA COUNTY, WEST VIRGINIA PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS.

****** THIS IS THE END OF RFQ DEP16435 ****** TOTAL:

SIGNATURE	TELEPHONE	DATE
	(304) 292-1135	12/26/2013
TITLE: Director Business Development	FEIN: 55-063-1834	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

EXPRESSION OF INTEREST

To provide

Professional Engineering Design Services

and

Construction Monitoring Services

for the

Morgantown Airport Subsidence II

Monongalia County, West Virginia

DEP16435

Prepared for the

West Virginia Department

of Environmental Protection

Office of AML&R

CTL Engineering of West Virginia, Inc.

733 Fairmont Road
Morgantown, WV 26501

510 C Street
South Charleston, WV 25303

Table of Contents

Statement of Qualifications to Provide Professional Engineering Services

Project Management Plan

Our approach to **Morgantown Airport Subsidence II Design Project** will be similar to other CTL AML mine grout 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.

- Office and field review of all mine information and mapping available for the site

- A geotechnical investigation shall be performed to delineate the mine void area and to determine and design the optimum grout stabilization plan for the structures involved. This investigation shall be performed with a focus on safety to insure the safety of the local inhabitants and dwellings as well as the safety of the drilling and geotechnical personnel.

- Should field conditions dictate that additional work or a major modification is required, the project manager will contact the WVDEP representative immediately to confirm the changed conditions.

- Following completion of the surveying and field investigation, 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 grout boring plans and sequential grouting plan;
4. Grout and concrete material recommendation (acceptable to DEP);
5. Site Profiles;
6. Cross Sections;
7. Survey control points;
8. Miscellaneous Site details.

- CTL will also provide all necessary data for 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

Morgantown Airport Subsidence II Design

Project Scope of Work:

Provide drilling services to verify mine void area to be filled to stabilize runway.

Design grout and concrete stabilization plan to fill mine voids beneath the relevant portion of the airport runway to avoid subsidence events.

Provide revegetation plan including soil cover for all areas disturbed during construction

CTL Engineering of West Virginia, Inc.

An Employee Owned Company

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

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

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

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

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

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

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

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

CTL ENGINEERING

FAIRMONT (JACKSON ADDITION) SUBSIDENCE DEP 15594

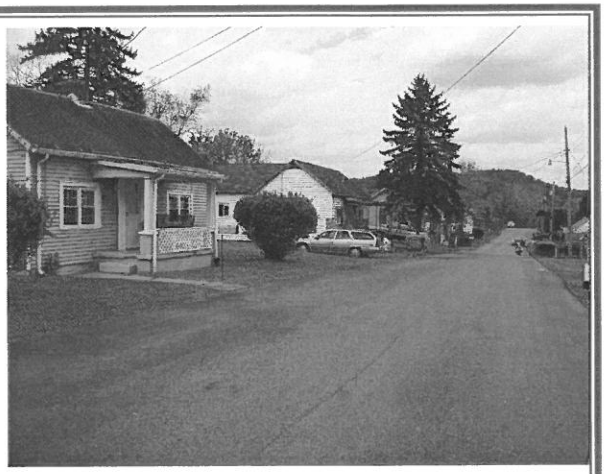
CTL Engineering Inc.

MINE SUBSIDENCE INVESTIGATION & REMEDIATION DESIGN

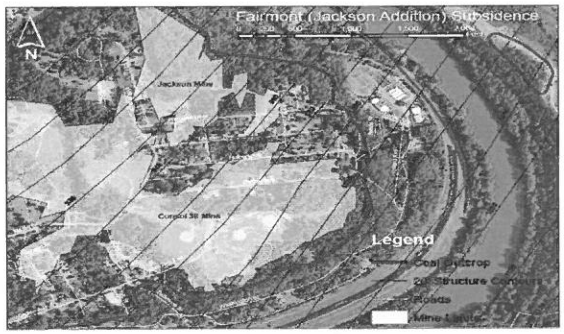
Fairmont, Marion County, West Virginia

CTL Professional Services

- **Surveying**
- **Geotechnical Investigation**
- **Remediation & Grouting Design**
- **Construction Documents**



FAIRMONT (JACKSON ADDITION)
SUBSIDENCE PROJECT
Pittsburgh Seam Structural Contours



Project Background

The 10 square block site consisted of numerous residential and other structures located above undermined areas with shallow cover in the Jackson Addition of Fairmont, WV.

Project Scope

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

- Provide drilling services to verify mine void area to be filled to stabilize residences.
- Design grout and concrete stabilization plan to fill mine voids beneath the relevant structures of this project
- Provide revegetation plan including soil cover for all areas disturbed during construction
- Conditioning and revegetation of any disturbed areas

Client / Contact

WV DEP-AML&R
601 57th Street
Charleston, WV 25304

Design Completion Date

March 2012

Estimated Project Cost

$ 75,000

Boring Locations

Borings performed on behalf of the Morgantown Airport Authority in response to a WV DEP inquiry regarding subsidence events adjoining runway. (2007) CTL Project 07050105MOR

CTL ENGINEERING INC.

0 65 130 260 390 520 Feet

N

PROJECT EXPERIENCE PROFILE

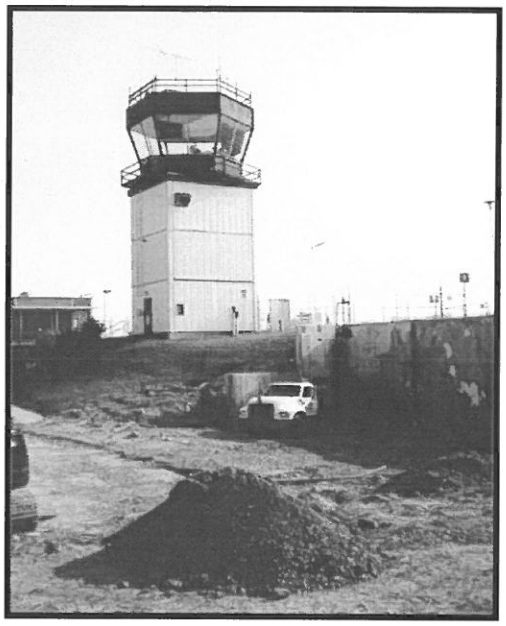
Project:
Morgantown Airport Terminal
Mine Subsidence Stabilization Project

Client:
West Virginia Department of
Environmental Protection

Location:
Morgantown, West Virginia

CTL Project Manager:

Patrick E. Gallagher



Date: 1992
Engineer's Estimate: $750,000.00

PROJECT FEATURES

CTL Engineering completed an extensive subsurface investigation and final design documents for the grout stabilization program beneath the airport terminal. The terminal was approximately 60 feet above an abandoned deep mine complex in the Pittsburgh Coal Seam that historically caused structural damage to the airport buildings.

CTL ENGINEERING INC

PROJECT EXPERIENCE PROFILE

Project:
Terre Haute Regional Airport
Geotechnical Mine Investigation

Client:
Indiana Department of Natural Resources
AML (Abandoned Mine Land Section)

Location:
Terre Haute, Indiana

Project Manager:
Ali Karaki, P.E.

PROJECT FEATURES

This project is being completed as an investigation into the presence or lack of mine voids beneath the Airport improved property (i.e. Terminal building, Main Runway, Hangers and the proposed Fire Station property). Upon completion of our research, CTL determined that various improved facilities at this airport are above an area-wide abandoned deep mine complex that threatens the surface structures with potential subsidence stresses.

CTL Engineering developed the project scope and implemented the investigation program. CTL Engineering performed fifty-eight (58) test borings at depths ranging from 30.0 feet to 132.0 feet. The test borings were advanced using 3.25 inch, ID hollow stem augers to refusal on rock. The augured boreholes had diameters of 7 to 8 inches. Thereafter, the rock was cored using standard NQ sized (2 inch I.D. rock core barrel) rock coring barrel with wire-line retrieval system. The borings allowed for a down-hole video camera system to inspect the mines, determine their condition and the current state of collapse.

The result of the investigation allowed the IDNR to evaluate the need for stabilization measures to prevent a subsidence collapse of the airport facilities.

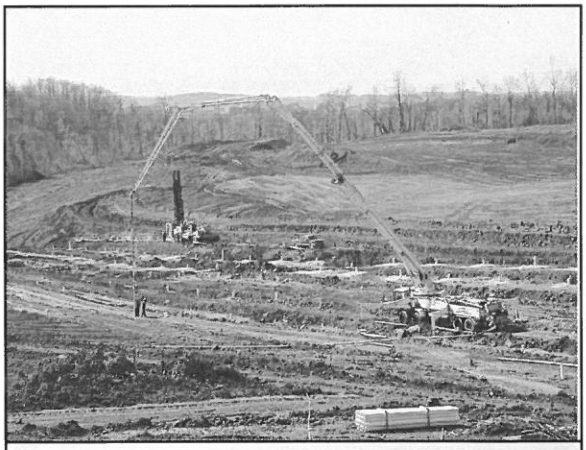
Client Reference:
Marvin Ellis
Indiana Department of Natural Resources
(812) 665-2207

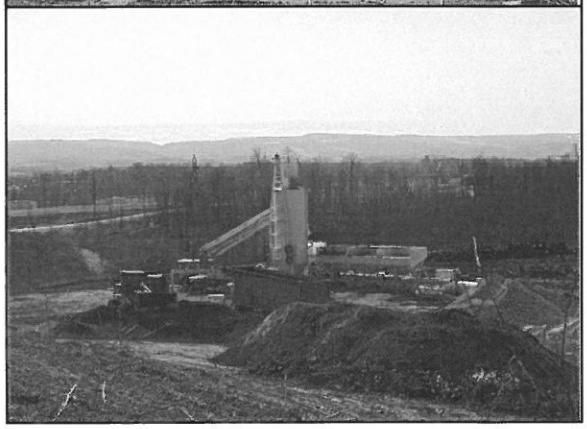
CTL's Fees:
$ 300,000

Project Completion:
2010

CTL ENGINEERING INC

PROJECT EXPERIENCE PROFILE





Project:
New University High School

Owner:
Monongalia County School District

Location:
Morgantown, West Virginia

PROJECT FEATURES

CTL Engineering of West Virginia, Inc. provided a preliminary geotechnical investigation to assess the feasibility of site selection. The study identified the presence of abandoned coal mines within the desired facility location. A foundation design and mine mitigation plan was developed to use grout injection technology and a deep foundation design.

This project involved 29,823 feet of drilling and the injection of 21,045 cubic yards of concrete to stabilize the 8 acre building zone. CTL is also providing construction supervision for the entire school site including earthwork, utilities, and structure.

Client Reference:
Mr. Frank Devano
Monongalia Co. BOE
(304)-291-9210

Project Completion:
Summer 2008

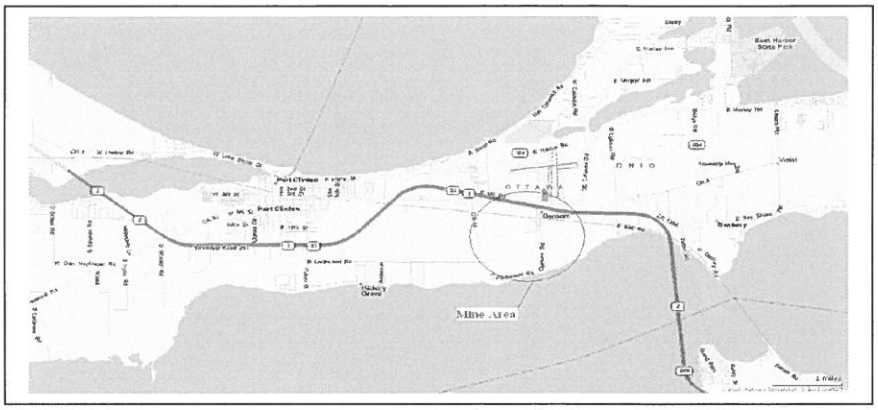
CTL ENGINEERING INC.

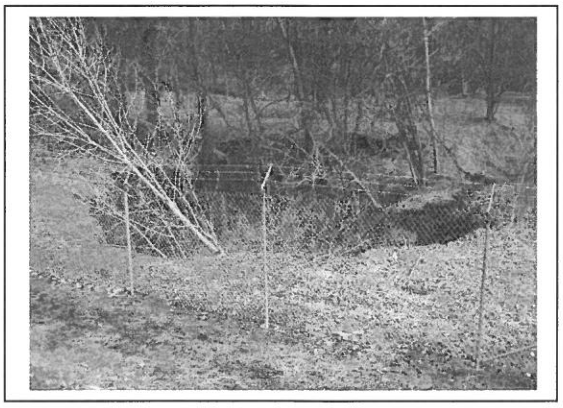
PROJECT EXPERIENCE PROFILE

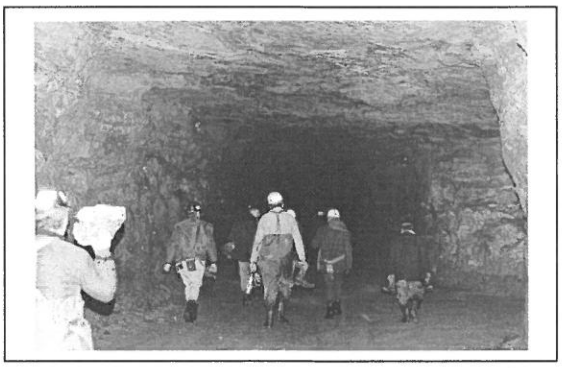
Project:
Ottawa State Route 2
Mine Subsidence Mitigation

Owner:
Ohio Department ot Transportation
(ODOT)

Location:
Port Clinton
Ottawa County, OH







PROJECT FEATURES

Underground mining for gypsum has been active in this area of Ohio for over 100 years. The gypsum seam has been extracted with seam heights up to fifteen feet in height and at depths below surface level of less than 60 feet.

Subsidence features have presented causing failure to highway and highway structures.

CTL Phase 1

In 2005 CTL Engineering was engaged by ODOT to perform a Mine Subsidence Risk Evaluation. Thirty-five test borings were drilled to determine the mine conditions and depth from surface and assess the subsidence risk. The findings of this evaluation had this project site declared as an emergency program.

CTL Phase 2

In 2010 CTL was engaged to design and evaluate a two acre Pilot Project to determine three parameters that would become part of the final remediation and stabilization for the mine area effecting the roadways.
The three parameters, in sequence, were
1. Evaluate different drilling methods to maintain stability of grout injections holes through thick glacial till material.
2. Design and Evaluate different grout mixes to create a solid barrier around the project area that would contain the grout to be used within the mine voids.
3. Design and Evaluate grout mixes that could be injected under water and fill the fifteen foot voids present in the gypsum mines

CTL Phase 3

In 2012 CTL completed the design of the final grouting plan, provided construction documents and specifications for the final mitigation project that will begin in 2013.

Client / Contact
ODOT District Two
Doug A. Rogers, P.E.
419-373-4397
Original Investigation :
2005
Expected Completion Date:
2015
Estimated Construction Cost: $20,000,000

CTL ENGINEERING INC

PROJECT EXPERIENCE PROFILE

Project:
The New Indianapolis International Airport
Geotechnical Engineering
Construction Observation and Testing

Client:
Indianapolis Airport Authority

Location:
Indianapolis, Indiana

Project Manager:
Ali Karaki, P.E.

PROJECT FEATURES

The project involved the design and development of a new $1,000,000,000 Airport.

CTL Engineering provided geotechnical drilling, laboratory testing, site preparation and foundation recommendations for the Aircraft Rescue and Fire Fighting Building, AOC/EOC Building, Airside Storm Sewer, Fuel Storage Facility, Main Parking Lots, Sculpture Mound, Deicing Forcemain and Equalization Facility, Roadway Signage and Bridgeport Sanitary Sewer Interceptor. CTL typically performed test borings, laboratory testing of soils and provided foundation recommendations for the structures.

Also, CTL Engineering provided construction observation and testing services for the Indianapolis Airport Authority. Our duties include inspection and testing of soils, concrete, grout, masonry, floor flatness, structural steel and asphalt concrete material. Our duties also involved providing daily observation reports which included contractor performance and project status.

In addition to the above services and since 2002, CTL Engineering performed detailed peer reviews of geotechnical and construction of the work plan for the New Indianapolis International Airport project.

Client Reference:
Mr. Eric Rolle
Shrewsberry & Associates, Inc.
(317) 487-8557

Project Cost:
$ 1,000,000,000

Project Completion:
November 2008

CTL ENGINEERING INC

AML & Relevant Project Experience (2008 – 2013)

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

REFUSE PILES

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

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

MINE DRAINAGE/STREAM RESTORATION

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

LANDSLIDES

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

WATER SUPPLY REPLACEMENT

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

CTL ENGINEERING www.ctleng.com

Professional Services

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

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

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

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

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

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

Forensic Science
- Roofing Failures
- Building Failures
- Legal Testimony
- Product Liability

Investigations
- Landslide, Soil and Foundation Failures
- Accident Reconstruction

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

Ground Penetrating Radar
- Concrete Inspection & Evaluation
- Bridge Inspection
- Utility Detection & Mapping

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

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

Mining Engineering
- Mine Plan Design
- Permit Preparation
- Refuse Disposal Design
- Mine Reclamation Design
- Environmental Monitoring
- Subsidence Investigations
- Drainage Control Structures

Nondestructive Testing & Inspection
- Level II Services
- Ultrasonic Inspections
- Liquid Penetrant Inspection
- Magnetic Particle Inspection

Pavement Management
- Budgeting
- Prioritization
- Deterioration Rates
- Condition Assessment
- Maintenance & Rehabilitation Strategies
- Network Needs & Long Range Goals

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

Roofing Engineering & Building Envelope Services
- Infrared & Nuclear Testing
- Air/Water Infiltration
- Quality Control
- Roof Surveys Evaluation
- Design & Construction Administration

Roof Management System
- Budgeting
- Prioritization
- Deterioration Rates
- Condition Assessment
- Maintenance & Rehabilitation Strategies

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

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

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

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

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

Office Locations

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

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

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

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

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

510 C Street
So. Charleston, WV 25303
Phone: (304) 746-1140
Fax: (304) 746-1143

102 Commerce Dr.
Wapakoneta, OH 45895
Phone: (419) 738-1447
Fax: (419) 738-7670

733 Fairmont Road
Morgantown, WV 26501
Phone: (304) 292-1135
Fax: (304) 296-9302

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

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

Site/Civil Engineering

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

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

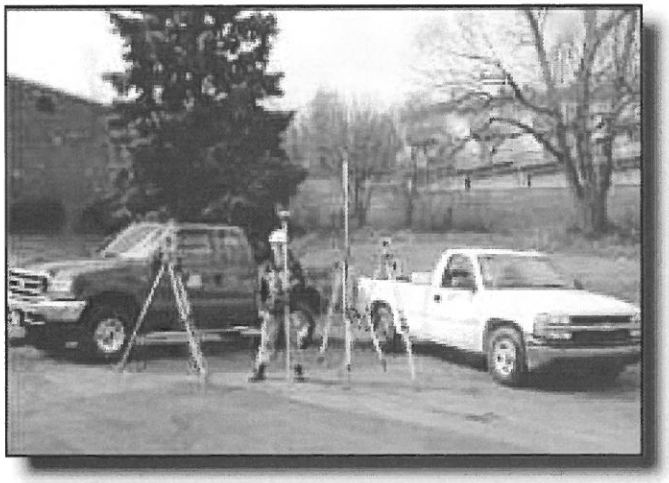
- Topographic Mapping Development
- Global Positioning Systems (GPS) Services
- Aerial Mapping Layout & Control
- Construction Layout
- Wetlands Delineation / Flood Plain Determination & Certification
- Property Survey & Boundary Determination
- Micrometer Leveling

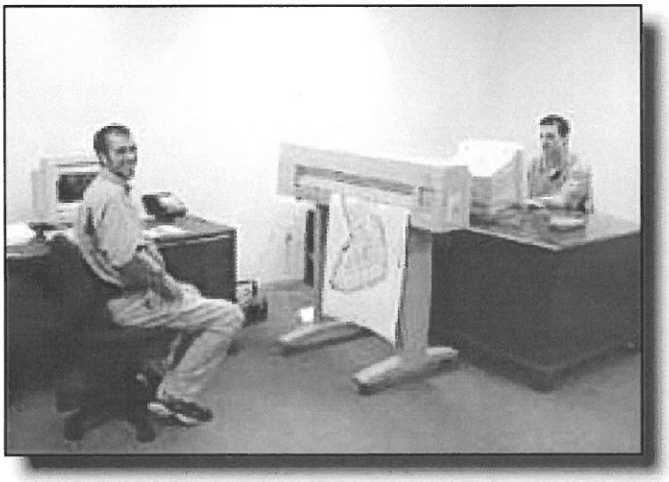
Services Include:

- Commercial Land Development
- Residential / Community Planning
- Infrastructure Planning & Design
- Pavement Design and Management
- Conceptual Designs / Presentations
- Recreational Resort / Facility Planning
- Erosion & Sediment Control Design
- Storm Water Management Systems
- Preliminary Cost Estimates / Feasibility Analyses

CTL ENGINEERING

Surveying & Mapping





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

CTL Engineering has the professional staff and the latest equipment to support (3) full survey crews, including a Global Positioning System (GPS), 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
- Global Positioning System (GPS)
- Construction Layout
- Settlement Plate Monitoring
- Micrometer Leveling
- Flood Plain Determination and Certification
- Wetland Delineations

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

Geotechnical Services

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

Drilling Services

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

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

Analytical Laboratory

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

Geotechnical Services:

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

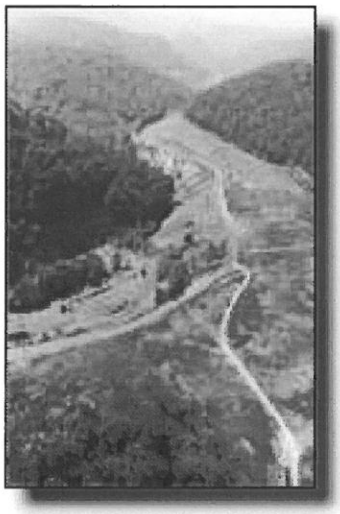
CTL Engineering routinely provides subsurface investigations on the following:

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

Drilling in Rugged Terrain

Drilling on Flat Terrain

CTL ENGINEERING Mining Engineering Services



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

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

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

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

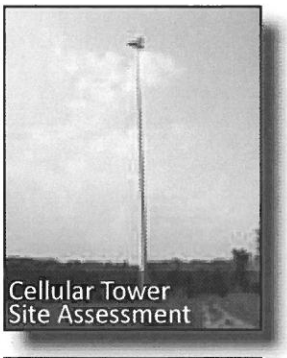
CTL Engineering Mining Services Include:

- 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

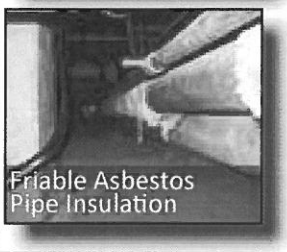
CTL ENGINEERING

Environmental Services


In-Situ Remediation


Cellular Tower Site Assessment


Underground Storage Tank Removal


Friable Asbestos Pipe Insulation

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

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

Other Environmental Related Services:

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

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

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

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

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

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

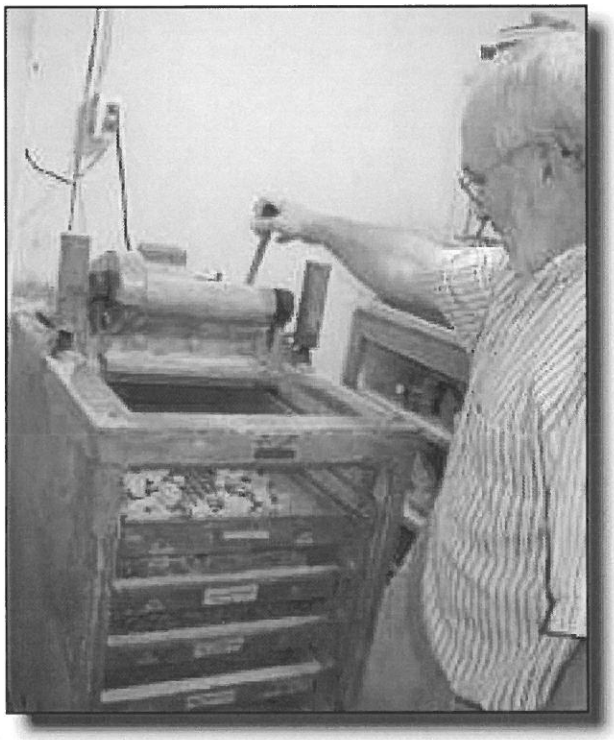
Waste Management Services
- Hazardous & Non-Hazardous Waste Characterization and Disposal
- Spill/ Discharge Response Plans
- Effluent Sampling & Analysis
- RCRA Planning and Closure
- Spill Prevention Control & Countermeasure Plans (SPCC)

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

Transportation Related Services
- Environmental Screening
- CE Documentation Preparation
- BUSTR Site Assessment
- Ecological Investigations

CTL ENGINEERING

Materials Testing



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

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

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

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

We provide complete testing of the following:

Aggregates

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

Soils

- Classification
- Compaction Parameters
- Permeability Tests

Concrete

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

Asphalts

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

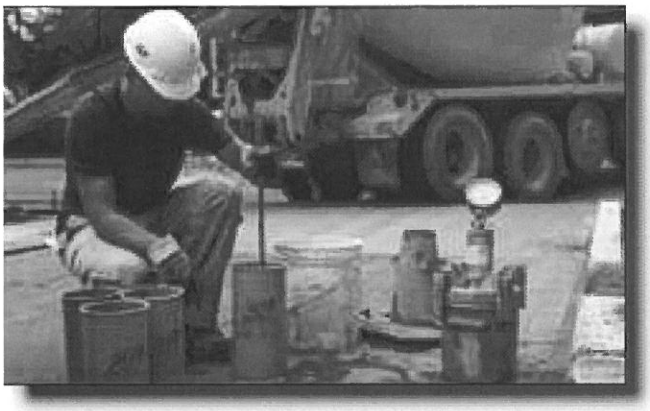
Clay-brick, Pipe & Tile

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

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

Construction Services: Structural Tests and Special Inspections

CTL ENGINEERING



CTL has a solid working knowledge of the Ohio Building Code with respect to Chapter 17, Structural Tests and Special Inspections. We routinely perform these services on many building construction projects. We also communicate regularly with key officials of the Division of Industrial Compliance, Board of Building Standards and Bureau of Building Code Compliance regarding the specific implementation and enforcement requirements of the Code.

A project's construction phase requires reliable testing and inspection services. Building owners, architects, engineers, and contractors choose CTL Engineering for this work, knowing that we are accurate, dependable, and perform our services in a timely manner.

CTL Engineering examines existing structures to evaluate potential problems. Failed structures are analyzed to determine the cause and extent of damage. We evaluate structural integrity during initial construction and at regular intervals after completion. CTL Engineering routinely evaluates metal and concrete pipes.

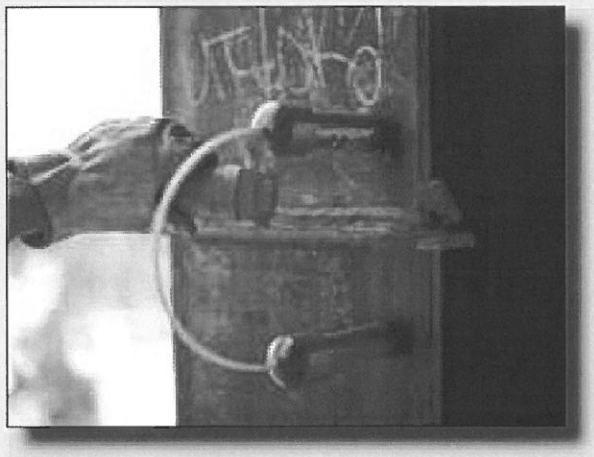
We perform audio/video surveys, sonic velocity testing, x-ray examinations, half-cell potential, and other destructive and nondestructive tests.

CTL Engineering provides testing and inspection of the following:

- Sitework
- Foundations
- Air Barrier Testing
- Reinforced Concrete
- Structural Steel
- Masonry
- Sprayed-on Fire Proofing
- Roofing Systems
- Single & Multi-Story Building Structures
- Bituminous & Portland Cement Concrete Paving
- Highway and Airport Pavements
- Parking Garages & Bridges
- Water & Wastewater Treatment Facilities & Associated Piping Systems

CTL Engineering's technicians maintain the following certifications and/or training:

- ACI (American Concrete Institute) Level I
- NICET Certification, Level I, II, III or IV
- Hazardous Materials Certification
- Confined Space Entry Training
- Radiation Safety Training
- WVDOT, ODOT, and NCDOT Certification



Firm's Equipment

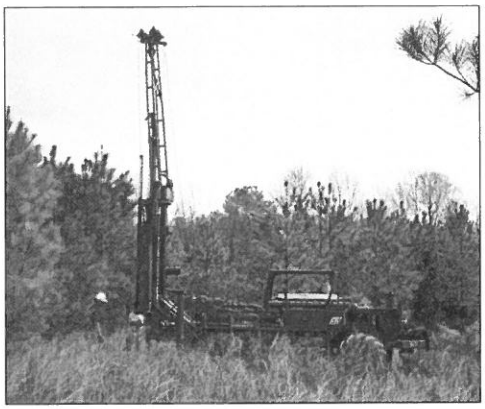
Geotechnical Equipment

CTL Engineering Inc.'s subsurface exploration equipment is adaptable for use of barges or all terrain vehicles (ATV's). CTL can mobilize special equipment or a fleet of drilling rigs to a particular project requiring multiple units. CTL Engineering owns and operates ten (10) drill rigs with a capacity of drilling to a depth of 300 feet. Other equipment includes large diameter soil and rock core sampling equipment, in-situ pressure meters and cone penetrometers.

CTL's drill rigs are rotary drilling rigs equipped to conduct standard split-spoon sampling with the use of hollow-stem augering, casing advancer or mud rotary. The rigs are also equipped with Moyno pumps, wire-line or standard coring equipment for proper and efficient execution of a subsurface investigation program

For field and laboratory materials analysis, CTL is equipped to conduct pressure meter tests, vane shear tests and cone penetrometers tests in the field. The laboratory is equipped with consolidometers, triaxal and direct shear apparata, permeability devices and normal soils classification equipment.

CTL owns and operates a fleet of ten (10) drill rigs



CTL's ATV can drill in rough terrain

Chemistry Laboratory

The chemistry laboratory at CTL is equipped with Atomic Absorption equipment, spectrophotometers and gas chromatography equipment. CTL has the capability of and regularly performs both non-hazardous and hazardous waste tests.

CTL has established a quality control/ quality assurance plan, which is based on The American Council of Independent Laboratory Standards. CTL carries professional liability insurance coverage with a limit of $1,000,00 per occurrence and aggregate.

Computer Resources

Operating efficiency may mean the difference between successful project completion and job overruns. At CTL Engineering, Inc., we effectively utilize computer software programs to assist in project and account management, resource allocation, data transfer, and preparation of plans and specifications. CTL's use of innovative technology sets us apart from the competition.

CADD Capabilities

Project designs and specifications are produced in our Computer Aided Drafting and Design (CADD) section using all releases of ACADD, including Release 2013. AutoCAD allows the user to interact with a wide variety of support software to modify project designs or perform different modeling functions. In addition, many public documents or plans are available in digitized form allowing CTL to directly download surveyed land plots or utility drawings. Successful use of CADD-based documents and/or plans has dramatically increased CTL's project efficiency and performance.

Geotechnical Software

CTL's Geotechnical Department utilizes a wide array of computer models to analyze deep foundation design, pavement design, slope stability, hydraulics, and flood hazard evaluation. Our experienced engineers use the following software to develop solutions:

AASHTO - Rigid and Flexible Pavement Design
APILE - Calculation of Load-Settlement
COYLE - Analysis of Axially Loaded Piles
DSS – Dimension Solution Software
ELSYM5 - **Elastic** Layered System Pavement Design and Analysis
GINT – Boring Logs & Lab Testing
HY8 - Culvert Analysis
HY9 - Bridge Scour Analysis
HWY - Asphalt Institute Pavement Design
LPILE - Analysis of Laterally Loaded Piles
NEWNEG - Analysis of Piles Subjected to Negative Skin Friction
RETWALL - Design of Cantilever and Gravity Retaining Walls
SCHMERT - Analysis of Shallow Foundations in Sand
SHAFT - Analysis of Drilled Shafts (Caissons)
STABL6 - Slope Stability Analysis
WEAP - Pile Driving Analysis
WSPRO - Water-surface Profile Computation Model

Civil Engineering Software

Eagle Point Watershed Modeling & Water Surface Profiling
DCA Civil Engineering Design Software
Civilsoft
Groundwater for Windows
TR-55
Swamp
HEC 1 and 2
Survey 3.0

Hydrogeologic Studies

The backbone of many hydrogeologic studies is the determination of ground water properties, flow direction, and effects of local ground water pumping or injection. CTL is experienced in utilizing a wide variety of computer models to predict various properties of ground water and ground water flow to include:

MODFLOW - USGS Finite element ground water model
MODPATH - USGS Particle tracker package for MODFLOW
SURFER - Data contouring package
CAPZONE - Semi-analytical ground water mode
GWPATH - Flowpath tracker for ground water models
SLUGIX - Slug test analysis software
WHPA - Wellhead Protection area delineation

Remediation Models

CTL uses the latest in remediation technologies and computer models when preparing conceptual and full-scale remediation system designs. Today's programs allow our engineers to calculate engineering parameters (e.g., stripper efficiency, total dynamic head, air emissions, etc.) in minutes instead of several hours. This allows us to evaluate multiple technology applications operating at varying parameters. Some of the models CTL uses include:

ShallowTray - low profile aerator evaluation program
Stat - low profile aerator design
HyperVentilate - soil vapor extraction emission model
SoilVent - soil vapor extraction design model
Gast Blower Selection Program

Telemetry

CTL employees are experienced with a variety of remote data acquisition devices. These systems allow us to interface with the remediation systems and remotely operate, collect data, and troubleshoot potential operating problems. Auto dialers alert employees in the event of an emergency. Remote monitoring of the system minimizes system down time and ultimately saves the project money. CTL employees are experienced with:

Telmax II
RealFlex
SiteLink
SiteWindows

Accounting Software

CTL uses Wind2 accounting software for all of the services we provide. The project manager first constructs a budget from the information developed in the site-specific proposal. Critical pathways of construction are identified and individual tasks developed for implementing the proposed work. A project number is assigned and costs tracked to each phase, task, or subtask of the project. Monthly billing review reports are provided to the managers to control and assess the progress of the project.

General

CTL Engineering Inc. utilizes:

Windows based operating systems

Microsoft Office 2007 is used for word processing, spreadsheets creation, data processing, and presentation creation.
Alternative software including Corel Suite is available, if necessary.

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
AML CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE "Attachment 3"

PROJECT NAME	DATE (DAY, MONTH, YEAR)	FEIN
Morgantown Airport Subsidence II Design, Monongalia County, WV	02/01/2014	55-063-1834

1. FIRM NAME	2. HOME OFFICE BUSINESS ADDRESS	3. FORMER FIRM NAME
CTL Engineering of West Virginia, Inc.	**2860 Fisher Road Columbus, OH 43204**	**Columbus Testing Laboratories**

4. HOME OFFICE TELEPHONE	5. ESTABLISHED (YEAR)	6. TYPE OWNERSHIP	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise)
(614)276-8123	**CTL-1927 CTL-WV 1983**	Individual **Corporation** Partnership Joint-Venture	YES **NO**

6. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE
733 Fairmont Road, Morgantown, WV 26501/ 304-292-1135/ Patrick E. Gallagher, President / Morgantown - 9

7. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM	8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS
Patrick E. Gallagher, President CK Satyapriya, VP/Sec.	**Ali Jamshidi, Treasurer (614) 276-8123**

9. PERSONNEL BY DISCIPLINE

5 ADMINISTRATIVE	- ECOLOGISTS	- LANDSCAPE ARCHITECTS	1 STRUCTURAL ENGINEERS
- ARCHITECTS	- ECONOMISTS	- MECHANICAL ENGINEERS	10 SURVEYORS/RODMEN
1 BIOLOGIST	- ELECTRICAL ENGINEERS	- MINING ENGINEERS	- TRAFFIC ENGINEERS
7 CADD DESIGNERS	3 ENVIRONMENTALISTS	- PHOTOGRAMMETRISTS	X OTHER,
- CHEMICAL ENGINEERS	- ESTIMATORS	- PLANNERS: URBAN/REGIONAL	3 Geotechnical Drillers
4 CIVIL ENGINEERS	3 GEOLOGISTS/GEOTECH ENG.	1 SANITARY ENGINEERS	
9 CONSTRUCTION INSPECTORS	- HISTORIANS	1 SOILS ENGINEERS	
- DESIGNERS	- HYDROLOGISTS	- SPECIFICATION WRITERS	
- DRAFTSMEN			

47 TOTAL PERSONNEL

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 4
***RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.**

The TOTAL PERSONNEL number is for CTL Engineering of West Virginia, Inc.

TOTAL PERSONNEL for CTL Engineering, Inc. is 225, which includes CTL Engineering of West Virginia.

10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? ☐ YES ☐ NO

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

NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
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NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No

12. A. Are your firm's personnel experienced in Abando Mine Lands Remediation/Mine Reclamation Enginee g?

YES Description and Number of Projects: CTL Engineering has completed more than 800 AML related projects nationally and internationally. See attached "AML Past Project Experience" for some specific examples.

NO

B. Is your firm experienced in Soil Analysis?

YES Description and Number of Projects: Our in-house laboratories perform all ASTM mechanical, organic and in-organic analyses for soils. Our labs are certified by WVDOH, OEPA and US Corps of Engineers.

NO

C. Is your firm experienced in hydrology and hydraulics?

YES 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

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

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.

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

YES Description and Number of Projects: We have completed numerous waterline design projects and our in-house staff has more than 25 years of combined experience with aquifer 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

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Gallagher, Patrick E., PE **President, Project Manager**	36	36	29

Brief Explanation of Responsibilities

President of CTL Engineering of WV, Inc.; responsible for the overall administration of the Morgantown, WV office along with the management of the individual engineering projects. His administration and management responsibilities include marketing, proposal preparation, client contact, supervision of design personnel, scheduling, budget control, and report preparation. Projects successfully completed by Mr. Gallagher include: Geotechnical Investigations, Foundation Design Investigations, Dam Stability Analyses, Mine Subsidence Evaluations, Mineral Reserve Studies, Landslide Investigations, Mine Reclamation Designs, Failure Investigations, and Mining Permits.

EDUCATION (Degree, Year, Specialization)

B.S., 1975, Civil Engineering
B.S., 1975, Equivalent, Geology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
American Society of Civil Engineers Society of Mining 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	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

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Selfridge, Carl G. **Department Head, Geotechnical Services**	4	4	

Brief Explanation of Responsibilities

Deartment Head Geotechnical Engineering. Responsible for subsurface inveatigations, geotechnical reporting, foundation analysis & recommendations, program development for investigative and laboratory analysis.Selfridge has been responsible for 8 landslide evaluations and remediation projects in the past 5 years.

EDUCATION (Degree, Year, Specialization)

Graduate Studies, 1996-1999, Civil Engineering (Geotechnical)
B.S., 1996, Civil Engineering, Geotechnical and Structural
A.S., 1994, Engineering Science
A.A.S., 1991, Mechanical Technology - Design & Drafting

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
Fellow of the American Society of Civil Engineers, The GEO-Institute, Timber Framers Guild, Construction Institute (ASCE)	Engineering Intern (EI), 1996, New York Level II Drilling Inspector, 1999, PennDOT

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE
Darrah, Timothy A. **Civil Site Dept. Mgr., Project Manager**	21	21	21

Brief Explanation of Responsibilities

Mr. Darrah is presently responsible for Management and Design for various types of civil engineering projects including reclamation design, commercial and residential development projects. He is also responsible for scheduling, invoicing and client contacts for all surveying projects including topographic, property and construction layout. Mr. Darrah's duties include drafting, writing of property descriptions, hydrology calculations, quantity calculations and various other forms of surveying and civil engineering related duties. He is also proficient in computer software including AutoCAD, Civilsoft, HEC-1, HEC-RAS and various other engineering software.He has been the Project Manager for all of the WV, MD and OH AML&R projects for the past 10 years

EDUCATION (Degree, Year, Specialization)

B.S., 1988, Civil Engineering Technology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Stanley, Joseph **Project/ Staff Engineer**	7	7	3

Brief Explanation of Responsibilities

Mr. Stanley is responsible for Reclamation Design, Drafting, Hydrology, Quantity Calculations, Stability Analysis, Residential Development, Valley Fill Footprinting, Surveying, Subsidence Surveys, Pre-Blast Surveys, Acid Base Accounts, Groundwater Inventory. PC Software includes Hydrologic TR-20, TR-55, Excel, Harstad Methods, Word, AutoCADD Land, Quarttro, Access.He has been involved in the design of most of CTL's AML&R Projects for the past 5 years.

EDUCATION (Degree, Year, Specialization)

A.S., 2001 Civil -Engineering Technology Drafting & Design

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
Foreman, Gregory P.E.	YEARS OF AML DESIGN EXPERIENCE: **4**	YEARS OF AML RELATED DESIGN EXPERIENCE: 18	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 18

Brief Explanation of Responsibilities
Mr. Foreman serves as Project Manager and Design Engineer for various civil site design projects including reclamation, water supply, sanitary design for public and private projects. 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 (Degree, Year, Specialization)

A.S, Fairmont State, 1989, Drafting & Design
A.S., Fairmont State, 1989, Mechanical
B.S., Fairmont, 1989, Civil Engineering Technology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
	Registered Professional Engineer, 1999, WV (no. 014165)

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
Waltz, Charles P.E.	YEARS OF AML DESIGN EXPERIENCE: **9**	YEARS OF AML RELATED DESIGN EXPERIENCE: 13	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0

Brief Explanation of Responsibilities
Project Engineer / Staff Engineer providing engineering services for a variety of projects including, site development, geotechnical subsurface investigations and foundation recommendations and road construction.

EDUCATION (Degree, Year, Specialization)

B.A., Fairmont State, Business Administration
B.S., Fairmont State, Civil Engineering
Graduate Studies, West Virginia University, Geotechnical Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
	Registered Professional Engineer, WV (no.17626), VA (no. 37038)

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

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
WATEQ4F
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 EQUIPMENT

- 4 Trimble GPS Systems - 3-R8 Receivers & 1- R10 Receiver
- 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
- 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

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD **(AML Projects)**

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Open Contract to provide engineering design services throughout the State of Ohio (2 year contract 2014-2015))	OH Department of Natural Resources AML Emergency Program 1855 Fountain Square Court, 2nd Floor Columbus, Ohio 43224	Reclamation Design, geotechnical drilling, mine subsidence, slope stability analysis and design, pressure grout stabilization design, risk assessment, acid mine drainage, burning refuse extinguishment and earthwork calculations	$75,000 /year Fees	
Open Contract to provide engineering support and design services throughout the State of Maryland.(5 year contract- 2015))	MD Department of Environment-AMLD 160 S. Water St. Frostburg, MD 21532	Reclamation Design, geotechnical drilling, mine subsidence, slope stability analysis and design, pressure grout stabilization design, risk assessment, acid mine drainage, burning refuse extinguishment and earthwork calculations	$500,000 Fees $15,000,000+ Const.	65%
Hopewell Church Refuse & Drainage (DEP16074), Preston County, WV	WVDEP - AML 601 57th 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. CURR[illegible] ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A S[illegible] CONSULTANT TO OTHERS
(AML Proj[illegible]ts)

PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY

17. COMPLE[illegible] WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS [illegible]E DESIGNATED ENGINEER OF RECORD **(AML Projects)**				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Peninsula Highwalls, AML Project, Monongalia County, WV	WVDEP- AML 601 57th Street SE Charleston, WV 25304	$244,000	2009	YES
St. Clair Portals, AML Project, Monongalia County, WV	WVDEP- AML 601 57th Street SE Charleston, WV 25304	$1,462,000	2009	YES
Shinn's Run Portals & AMD, AML Project, Harrison County, WV	WVDEP- AML 601 57th 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 57th 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

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

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.
For the past 25 years, CTL has successfully designed more than 200 AML projects. We have worked nationally and internationally on a variety of AML problem sites. We have developed unique solutions that have been applied to site development, AMD Treatment, Mine Subsidence Abatement, Mine Fires and Highwall Elimination. Routinely, CTL is involved with highwall and refuse pile stabilization and extinguishment.

20. The foregoing is a statement of facts.

Signature: _____ Title: President Date: 12/19/2013

Printed Name: Patrick E. Gallagher, P.E.

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

AML and RELATED PROJECT EXPERIENCE MATRIX (2008 - 2013)

PROJECT	Exp. Basis C=Corp. P=Personal *	Additional Info Provided in Section (s) **	PROJECT EXPERIENCE REQUIREMENTS														PRIMARY STAFF PARTICIPATION/CAPACITY *** M=Management P=Professional					
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Eval.	Remining Evaluation	Mine Refuse/ Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/ Replacement	Construction Inspection/Management	Water Treatment	Equipment/ Structure Removal	Stream Restoration	Geotechnical/Stability	PATRICK GALLAGHER, PE	TIM DARRAH	GREGORY FOREMAN, P.E.	JOSEPH STANLEY	CARL SELFRIDGE	CHARLES WALTZ, P.E.
FAIRMONT SUBSIDENCE (WV AML '12)	C	Profile		X					X		X						X	MP	MP		P	P	P
MORGANTOWN AIRPORT RUNWAY SUBSIDENCE(Airport Authority '07)	C	Profile		X					X								X	MP					
MORGANTOWN AIRPORT SUBSIDENCE STABILIZATION (WV DEP '1992)	C	Profile		X					X									MP					
TERRA HAUTE AIRPORT (IN AML '10)	C	Profile		X					X		X						X	MP	MP			P	
UNIVERSITY HIGH SCHOOL (Monongalia BOE '08)	C	Profile		X					X		X						X	MP	MP		P		
OTTAWA STATE RT 2 MINE SUBSIDENCE (odot '05,'10,'12)	C	Profile		X					X		X						X	MP				P	
HOPEWELL CHURCH REFUSE & AMD (WV AML '13)	C			X	X	X					X							MP	MP		P		P
MORGANTOWN ANDERSON HIGHWALLS (WV AML '12)	C			X	X	X					X							MP	MP		P		P
SCHRAMM - GORDON -EAST FRANKLIN LANDSLIDES (MD AML '12)	C		X	X							X						X	MP	MP		P	P	P
DOUGLAS AVENUE STORMWATER SYSTEM (MD AML '12)	C					X						X						MP		MP		P	
FAIRMONT SUBSIDENCE (WV AML '12)	C			X					X		X						X	MP	MP		P	P	P
DOUGLAS AVENUE LANDSLIDE (MD AML '12)	C			X		X			X		X						X	MP	MP		P	P	P
LOWER CONSOL ROAD SUBSIDENCE (MD AML '11)	C		X	X					X		X						X	MP	MP		P	P	P
BALD KNOB WATER SUPPLY STUDY (MD AML '12)	C					X						X						MP	MP	P			
SHINNS RUN PORTALS (WV AML '11)	C			X	X												X	MP	MP		P	P	
REAM REFUSE PILE (WV AML '10)	C		X					X										MP	MP		P		
PEE WEE HILL WATER SUPPLY (MD AML '10)	C											X						MP		MP			
KENNEL MINE CLOSURE (MD AML '10)	C		X	X	X						X							MP	MP		P		
FROSTBURG NORTH CLOSURE (MD AML '10)	C		X	X	X						X							MP	MP		P		
PEE WEE HILL WATER FEASIBILITY (MD AML '10)	C											X						MP		MP		P	
WILLIAMS REFUSE PILE #2 (Private AML '09)	C		X			X	X			X	X	X	X	X			X				MP		
PENINSULA HIGHWALLS (WV AML '09)	C		X	X		X			X		X						X	MP	MP		P	P	
ST. CLAIR PORTALS (WV AML '09)	C		X	X	X	X					X					X	X	MP	MP		P	P	
CHEAT NECK LANDSLIDE (WV AML '09)	C				X	X					X						X	MP	MP		P	P	
FARMINGTON UMC (WV DEP EMER. '09)	C								X		X							MP	MP			P	
MORNINGSIDE BAPTIST (WV DEP EMER. '09)	C								X		X							MP	MP			P	
COLLINS MINING (ODNR FOR. '09)	C		X								X							MP	MP		P		
FAIRVIEW WATER FEASIBILITY(WV AML '09)	C											X						MP	MP	P			
AARON'S RUN (MD AML '09)	C		X			X					X	X		X		X		MP	MP		P		
ECCLES SUBSIDENCE (WV AML '08)	C								X		X						X	MP	MP			P	
McARTHUR SUBSIDENCE (WV AML '08)	C								X								X	MP	MP			P	
TIOGA WATER FEASIBILITY (WV AML '08)	C											X						MP	MP	P			
McCOURT LANDSLIDE(ODNR FOR. '08)	C		X			X					X						X	MP	MP		P	P	
JONES TRUCKING (ODNR FOR. '08)	C		X								X							MP	MP		P		
MILLER MINING (ODNR FOR. '08)	C					X					X	X						MP	MP		P		
ZILMAN CLOSURE (MD AML '08)	C			X	X						X							MP	MP		P		
CALDONIA HILL SLOPE STABILITY (MD AML '08)	C		X														X	MP	MP				
WEST VIRGINIA BRIM (2005 - 2012) 42 Projects	C								X								X	MP	MP			P	P
OMSIUA (2005 - 2010) 47 Projects	C								X								X	MP	MP			P	P
(2005 - 2008) 20 Additional AML Projects for WV, MD, OH, PA	C		X	X	X				X		X	X	X				X	MP	MP			P	P

* List whether project experience is corporate or personnel based or both.

** Use this area to provide specific sections or pages if needed for reference.

*** List Primary Design personnel and their functional capacity for the projects listed.

Attachment "C"

CTL Engineering of West Virginia, Inc.

PROJECT ORGANIZATION CHART & KEY PERSONNEL

Patrick Gallagher, P.E., CPGS,WV PS
President, Project Executive

Geotechnical Engineering/Drilling Services

Carl Selfridge
Department Manager

Charles Waltz, P.E.
Ruben Mick
Project Engineers

Drillers / Driller Helpers

Surveying/ Civil Site Design Services

Tim Darrah
Department Manager
Project Manager

Gregory Foreman, P.E.
Joseph Stanley
Project Engineers

Bucky Nicholson
Hillary Cale
Staff Engineers / CAD Designers

J B Chambers
Survey Party Chief
6 Field Survey Crews

Natural Stream Engineering

Tim Darrah
ROSGEN Level 1

Construction Services & Materials Laboratory

James Gowarty, Jr.
Department Manager

Charles Huff
Department Supervisor

Field & LabTechnicians

CTL ENGINEERING

PATRICK E. GALLAGHER, P.E., C.P.G.S. *President*

Expertise:

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

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

Education:

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

Professional Registration / Certifications:

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

Career Experience:

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

Relevant Project Experience: (Project Profiles Provided)

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

PATRICK E. GALLAGHER, P.E., C.P.G.S. *President*

Project: Fairmont Subsidence
AML Reclamation / Geotechnical
Fairmont, Marion County, West Virginia
Role: Project Executive
Project Year: 2012

Project: Ottawa State Route2 Mine Subsidence
Geotechnical/ Grouting Plan
Ottawa County, Ohio
Role: Project Executive
Project Year: 2005, 2010, 2012

Project: Douglas Avenue Landslide
AML Reclamation/Geotechnical/Hydrologic
Maryland
Role: Project Executive
Project Year: 2012

Project: Lower Consol Road Subsidence
AML Reclamation/Subsurface Mine Investigation/Geotechnical
Maryland
Role: Project Executive
Project Year: 2011

Project: Bald Knob Water Supply Study
Hydrologic
Maryland
Role: Project Executive
Project Year: 2011

Project: Shinns Run Portals
AML Reclamation/Portal Closure/Geotechnical
Shinnston, Harrison County, West Virginia
Role: Project Executive
Project Year: 2011

Project: Terra Haute Airport
AML Reclamation/Hazardous Waste Disposal/Geotechnical
Indiana
Role: Project Executive
Project Year: 2010

Project: Peninsula Highwalls
AML Reclamation/Hydrology/Geotechnical
West Virginia
Role: Project Executive
Project Year: 2009

PATRICK E. GALLAGHER, P.E., C.P.G.S. *President*

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

PATRICK E. GALLAGHER, P.E., C.P.G.S. *President*

Expertise:

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

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

Education:

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

Professional Registration / Certifications:

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

Career Experience:

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

Relevant Project Experience: (Project Profiles Provided)

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

PATRICK E. GALLAGHER, P.E., C.P.G.S. *President*

Project: Fairmont Subsidence
AML Reclamation / Geotechnical
Fairmont, Marion County, West Virginia
Role: Project Executive
Project Year: 2012

Project: Ottawa State Route2 Mine Subsidence
Geotechnical/ Grouting Plan
Ottawa County, Ohio
Role: Project Executive
Project Year: 2005, 2010, 2012

Project: Douglas Avenue Landslide
AML Reclamation/Geotechnical/Hydrologic
Maryland
Role: Project Executive
Project Year: 2012

Project: Lower Consol Road Subsidence
AML Reclamation/Subsurface Mine Investigation/Geotechnical
Maryland
Role: Project Executive
Project Year: 2011

Project: Bald Knob Water Supply Study
Hydrologic
Maryland
Role: Project Executive
Project Year: 2011

Project: Shinns Run Portals
AML Reclamation/Portal Closure/Geotechnical
Shinnston, Harrison County, West Virginia
Role: Project Executive
Project Year: 2011

Project: Terra Haute Airport
AML Reclamation/Hazardous Waste Disposal/Geotechnical
Indiana
Role: Project Executive
Project Year: 2010

Project: Peninsula Highwalls
AML Reclamation/Hydrology/Geotechnical
West Virginia
Role: Project Executive
Project Year: 2009

PATRICK E. GALLAGHER, P.E., C.P.G.S. *President*

Transportation

Project: Emerson Avenue
Slope Stabilization Investigation & Design
Wood County, West Virginia
Role: Project Executive
Project Year: 2010

Project: I-81 Martinsburg to Marlowe Interchange
Design Build
Martinsburg, Jefferson County, West Virginia
Role: Project Manager
Project Year: 2011

Project: Morgantown Municipal Airport
Geotechnical Services
Morgantown, Monongalia County, West Virginia
Role: Project Executive
Project Year: 2007

Primary & Secondary Education

Project: New University High School
Various Services
Morgantown, Monongalia County, West Virginia
Role: Project Executive
Project Year: 2006 - 2008

Project: South Jefferson High School
Various Services
Charles Town, Jefferson County, West Virginia
Role: Project Executive
Project Year: 2006

Project: Morgantown High School Stadium Renovation
Various Services
Morgantown, Monongalia County, West Virginia
Role: Project Executive
Project Year: 2011

Project: Huff Consolidated School
Geotechnical Services
Wyoming County, West Virginia
Role: Project Executive
Project Year: 2012

TIMOTHY A. DARRAH *Civil Site and Survey Department Manager*

Expertise

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

Education

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

Professional Experience

24 Years Experience with CTL Engineering, Inc.

Project Experience

A partial listing of Mr. Darrah's relevant project experience includes: *(Project Profile Provided)*

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
Role: Project Manager
Project Year: 2010

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
Role: Project Manager
Project Year: 2008

JOSEPH STANLEY

Staff Engineer

Expertise

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

Education

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

Professional Registrations/ Certifications

Advanced GPS Training Course

Career Experience

14 Years with CTL Engineering Inc.

Relevant Project Experience: (Project Profile Provided)

Mine Related

Project: Fairmont Subsidence
AML Reclamation / Geotechnical
Fairmont, Marion County, West Virginia
Role: Project Engineer
Project Year: 2012

Project: Morgantown Anderson Highwalls
AML Reclamation Design
Monongalia County, West Virginia
Role: Project Engineer
Project Year: 2012

Project: Shinns Run Portals
AML Reclamation/Portal Closure/Geotechnical
Role: Project Engineer
Project Year: 2011

Project: Hopewell Church Refuse & AMD
Various Services
Preston County, West Virginia
Role: Project Engineer
Project Year: 2013

Project: Eccles and MacArthur Subsidence
Geotechnical
Beckley, Raleigh County, West Virginia
Role: Project Engineer

JOSEPH STANLEY

Staff Engineer

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

JOSEPH STANLEY

Staff Engineer

Expertise

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

Education

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

Professional Registrations/ Certifications

Advanced GPS Training Course

Career Experience

14 Years with CTL Engineering Inc.

Relevant Project Experience: (Project Profile Provided)

Mine Related

Project: Fairmont Subsidence
AML Reclamation / Geotechnical
Fairmont, Marion County, West Virginia
Role: Project Engineer
Project Year: 2012

Project: Morgantown Anderson Highwalls
AML Reclamation Design
Monongalia County, West Virginia
Role: Project Engineer
Project Year: 2012

Project: Shinns Run Portals
AML Reclamation/Portal Closure/Geotechnical
Role: Project Engineer
Project Year: 2011

Project: Hopewell Church Refuse & AMD
Various Services
Preston County, West Virginia
Role: Project Engineer
Project Year: 2013

Project: Eccles and MacArthur Subsidence
Geotechnical
Beckley, Raleigh County, West Virginia
Role: Project Engineer

CTL ENGINEERING

JOSEPH STANLEY

Staff Engineer

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

Gregory L. Foreman, P.E.

Project Manager – Water Systems

EXPERTISE:

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

EDUCATION:

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

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

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

PROFESSIONAL REGISTRATION / CERTIFICATIONS:

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

PROFESSIONAL AFFILIATIONS:

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

CAREER EXPERIENCE:

- CTL Experience – 8 years
- Other Engineering – 20 years

Project Experience

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

Mine Related

Project: Fairview Feasibility Studies
AML-Feasibility Studies
Fairview, Marion County, West Virginia
Role: Project Manager
Project Year: 2009

Project: Craigsville/Tioga Water Well Study
Hydrologic Studies
Nicholas County, West Virginia
Role: Project Engineer
Project Year: 2008

Project: Feasibility Study for Oakland PSD
AML-Feasibility Studies
Hancock County, West Virginia
Role: Project Manager
Project Year: 2011

Project: Morgantown (Anderson) Portals and Highwall
AML Reclamation Design
Monongalia County, West Virginia
Role: Project Engineer
Project Year: 2012

Water/Wastewater Treatment Plants and Water Tanks

Project: Palisades Place
Sewage Collection, Treatment & Disposal/Various Other Services
Morgantown, West Virginia
Role: Project Manager
Project Year: 2006

Project: Fairmont Water Treatment Plant
Various Services
Fairmont, Marion County, West Virginia
Role: Project Engineer
Project Year: 2009

Building Development

Project: West Minister Apartments – Phase II
Civil Site Design/Permitting/Geotechnical/Environmental/Surveying
Martinsburg, Jefferson County, West Virginia
Role: Project Manager
Project Year: 2012

Project: University Place
Geotechnical/Surveying/Civil Site/Environmental
Morgantown, West Virginia
Role: Project Engineer
Project Year: 2012

Project: Canterbury Housing Development
Various Services
Fairmont, Marion County, West Virginia
Role: Project Manager
Project Year: 2006

Project: Hornbeck Road Development
Surveying/Stormwater/Testing/Permitting
Morgantown, Monongalia County, West Virginia
Role: Project Engineer
Project Year: 2005

Project: Premier Chevrolet
Site Layout/Design
Morgantown, Monongalia County, West Virginia
Role: Project Engineer
Project Year: 2012

Project: West Run Apartments Flood Plain
Surveying/Mapping
Morgantown, Monongalia County, West Virginia
Role: Project Engineer
Project Year: 2013

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

CARL G. SELFRIDGE

Geotechnical & Drilling Services

Manager

Expertise

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

Education

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

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

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

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

Registrations / Certifications

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

Career Experience

CTL Experience – 5 years
Other Engineering – 8 years

Project Experience

A partial listing of Mr. Selfridge's relevant project experience includes: *(Project Profile Provided)*

Mine & Landfill Related

Project: Eccles & MacArthur Subsidence
Subsidence Investigation/Mitigation
Beckley, Raleigh County, West Virginia
Role: Geotechnical & Drilling Services Manager
Project Year: 2008

CARL G. SELFRIDGE

Geotechnical & Drilling Services

Manager

Project: Shinns Run Portals & AMD
AML Reclamation/Geotechnical
Harrison County, West Virginia
Role: Geotechnical & Drilling Services Manager
Project Year: 2011

Project: Tunnel Ridge Slurry Cell A
Piezometer Installations - Geotechnical
Ohio County, West Virginia
Role: Project Manager
Project Year: 2011

Project: Pine Creek / Omar Landfill
Geotechnical
Logan County, West Virginia
Role: Geotechnical & Drilling Services Manager
Project Year: 2007

Project: Marion County Land Fill
Geotechnical
Marion County, West Virginia
Role: Geotechnical & Drilling Services Manager
Project Year: 2007

Project: Wheeling Landfill
Geotechnical
Wheeling, Ohio County West Virginia
Role: Geotechnical & Drilling Services Manager
Project Year: 2007

Project: Mingo County Landfill
Geotechnical
Mingo County, West Virginia
Role: Geotechnical & Drilling Services Manager
Project Year: 2007

Project: South Charleston Landfill
Geotechnical
South Charleston, West Virginia
Role: Geotechnical & Drilling Services Manager
Project Year: 2007

Project: Buzzard Pond Dam
Geotechnical
Marshall County, West Virginia
Role: Project Manager
Project Year: 2011

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

CHARLES T. WALTZ, P.E. *Geotechnical Project Manager*

Expertise:

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

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

Education:

B.A., Business Administration
Fairmont State University

B.S., Engineering
Fairmont State University

Graduate Studies, Geotechnical Engineering
West Virginia University

Professional Registration / Certifications:

Registered Professional Engineer
- West Virginia, # 17626; Virginia, # 37038

CTL Experience:

3 Years

Project Experience

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

Subsidence Related

Project: Windsor Heights Subsidence Claim
Geotechnical
Windsor Heights, Brooke County, West Virginia
Role: Project Manager
Project Year: 2011

Project: Shinnston Subsidence Claim
Geotechnical
Shinnston, Harrison County, West Virginia
Role: Project Manager
Project Year: 2011

Project: Metz Subsidence Claim
Geotechnical
Metz, Marion County, West Virginia
Role: Project Manager
Project Year: 2013

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

JAMES P. GOWARTY, JR. *Construction Services Manager*

Expertise:

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

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

Education:

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

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

Professional Registrations/ Certifications:

Safety

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

Other

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

Career Experience:

CTL Experience – 24 years

JAMES P. GOWARTY, JR. *Construction Services Manager*

Project Experience

A partial listing of Mr. Gowarty's relevant project experience includes: (Profile Provided)

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
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

Project: Morgan Place Development
Various Services
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: Morgantown High School Football Stadium
Surveying/Geotechnical/Construction Services
Morgantown, West Virginia
Role: Project Manager
Project Year: 2012

Project: New University High School
Construction Services/Geotechnical/Grout Plan Development
Morgantown, West Virginia
Role: Construction Services Manager
Project Year: 2006 - 2008

JAMES P. GOWARTY, JR. *Construction Services Manager*

Higher Education

Project: West Virginia University Health Sciences Center Animal Facility Annex
Surveying/Geotechnical/Construction Services
Morgantown, West Virginia
Role: Project Manager
Project Year: 2012

Project: West Virginia University AERB
Construction Services
Morgantown, Monongalia County, West Virginia
Role: Project Manager
Project Year: 2013

Project: Alderson-Broaddus College New Football Field
Surveying/Materials Testing
Philippi, Barbour County, West Virginia
Role: Construction Services Manager
Project Year: 2011

Transportation

Project: I-81 Martinsburg to Marlowe Interchange
Design Build
Martinsburg, Jefferson County, West Virginia
Role: Construction Services Manager
Project Year: 2011

Project: 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
Role: Project Manager
Project Year: 2011

Project: Jackson County Airport
Construction Services
Ravenswood, Jackson County, West Virginia
Role: Construction Services Manager
Project Year: 2009

RFQ No. DEP 16435

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.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: CTL Engineering of West Virginia, Inc.

Authorized Signature: _____ Date: 12/26/2013

State of West Virginia

County of Monongalia, to-wit:

Taken, subscribed, and sworn to before me this 26th day of December, 2013.

My Commission expires January 17, 2020.

AFFIX SEAL HERE

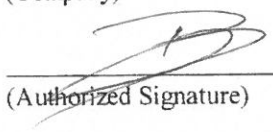
NOTARY PUBLIC Kathleen J. O'Brien

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

CERTIFICATION AND SIGNATURE PAGE

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

CTL Engineering of West Virginia, Inc.
(Company)


(Authorized Signature)

Patrick E. Gallagher, President
(Representative Name, Title)

(304) 292-1135 (304) 296-9302
(Phone Number) (Fax Number)

12/26/2013
(Date)

ADDENDUM ACKNOWLEDGEMENT FORM

SOLICITATION NO.: DEP16435

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.

Addendum Numbers Received:
(Check the box next to each addendum received)

☐ Addendum No. 1	☐ Addendum No. 6
☐ Addendum No. 2	☐ Addendum No. 7
☐ Addendum No. 3	☐ Addendum No. 8
☐ Addendum No. 4	☐ Addendum No. 9
☐ Addendum No. 5	☐ Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

CTL Engineering of West Virginia, Inc.
Company

Authorized Signature

12/26/2013
Date

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