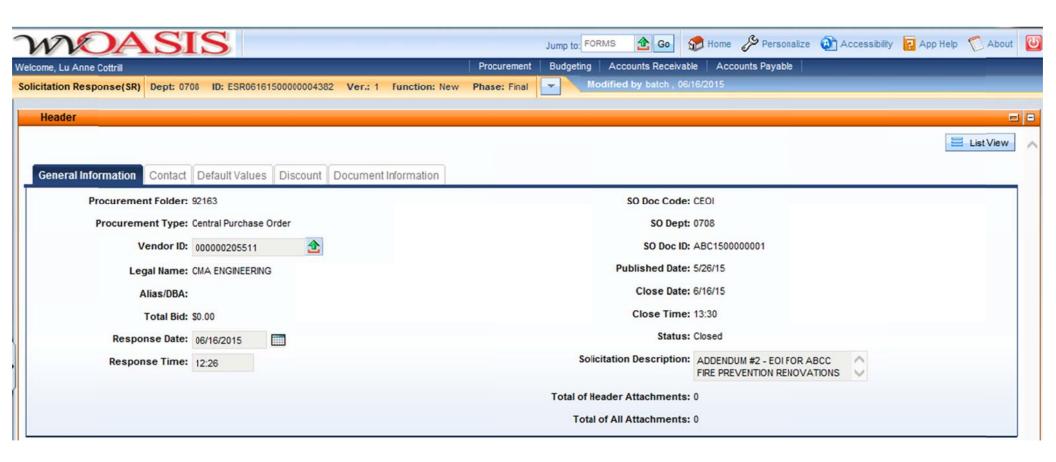


2019 Washington Street, East Charleston, WV 25305 Telephone: 304-558-2306 General Fax: 304-558-6026 Bid Fax: 304-558-3970

The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at *wvOASIS.gov*. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at *WVPurchasing.gov* with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.





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

State of West Virginia Solicitation Response

Proc Folder: 92163

Solicitation Description: ADDENDUM #2 - EOI FOR ABCC FIRE PREVENTION RENOVATIONS

Proc Type: Central Purchase Order

Date issued	Solicitation Closes	Solicitation No	Version
	2015-06-16 13:30:00	SR 0708 ESR06161500000004382	1

VENDOR

000000205511

CMA ENGINEERING

FOR INFORMATION CONTACT THE BUYER

Evelyn Melton (304) 558-7023 evelyn.p.melton@wv.gov

Signature X FEIN # DATE

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

Page: 1 FORM ID: WV-PRC-SR-001

Line	ine Comm Ln Desc		ty Unit Issue Unit Price		Ln Total Or Contract Amount		
1 Architectural/Engineering Design -Fire Prevention Renovation							

Comm Code	Manufacturer	Specification	Model #	
81101508				

Extended Description:

ARCHITECTURAL/ENGINEERING DESIGN FOR THE FIRE PREVENTION RENOVATION OF ABCC WAREHOUSE LOCATED IN NITRO, WV.



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

State of West Virginia Centralized Expression of Interest

Proc Folder: 92163

Doc Description: ADDENDUM #2 - EOI FOR ABCC FIRE PREVENTION RENOVATIONS

Proc Type: Central Purchase Order

 Date Issued
 Solicitation Closes
 Solicitation No
 Version

 2015-05-26
 2015-06-16 13:30:00
 CEOI
 0708 ABC1500000001
 3

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV

25305

US

VENDOR

Vendor Name, Address and Telephone Number:

CMA Engineering

824 Cross Lanes Drive

Charleston, WV 25313

(304) 343-0316

(304) 343-5146 fax

FOR INFORMATION CONTACT THE BUYER

Evelyn Melton (304) 558-7023

evelyn.p.melton@wv.gov

Signature X

,

FEIN# 55-0659239

DATE 6/16/15

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

Page: 1

FORM ID: WV-PRC-CEOI-001

ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.: ABC1500000001

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.

(Check the oox next to each addendum received)						
	[X]	Addendum No. 1	[]	Addendum No. 6
	[x]	Addendum No. 2	[}	Addendum No. 7
	[]	Addendum No. 3	[]	Addendum No. 8
	[]	Addendum No. 4	[]	Addendum No. 9

Addendum Numbers Received:

[] Addendum No. 5

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.

[] Addendum No. 10

CMA Engineering

Company

Authorized Signature

06/16/15

Date

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

Revised 6/8/2012

STATE OF WEST VIRGINIA Purchasing Division

PURCHASING AFFIDAVIT

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

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

DEFINITIONS:

"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.

OFFICIAL SEAL
SEATE OF WEST VINSINIA
MOTARY FUBLIC
OUT BY LIVE OFFICE
GEO CHOOSE LAMES DRIVE
CHAY LEST CHOOSE AND SEATOR
SOMETICAL VIV. 25:13
COMMUNICATION FOR SEATOR OFFI

WITNESS THE FOLLOWING SIGNATURE:



Clingenpeel/McBrayer & Associates, Inc.

Expression of Interest To Provide **Professional Engineering Services** For **ABCC Warehouse Fire Prevention Renovations**



June 16, 2015

Table of Contents

Letter of Interest \mathbb{I} 2 **CMA Corporate Profile** 3 **CMA Resumes** 4 CMA Project Experience

5 Potesta & Associates



Clingenpeel/McBrayer & Associates, Inc.

June 16, 2015

Ms. Evelyn Melton Dept. of Administration-Purchasing Division 2019 Washington Street East Charleston, WV 25305

Re: Expression of Interest—CEOI ABC1500000001

Dear Ms. Melton:

CMA Engineering is pleased to submit, for your consideration, our qualifications and experience in providing engineering services for the upgrade to the water service and fire sprinkler system at the ABCC Warehouse in Nitro, WV.

CMA Engineering has provided mechanical and electrical engineering services on numerous projects during our twentynine years, and we feel this is an excellent opportunity for our firm to assist you in successfully completing this project. Our design professionals are educated in the latest technological and industrial standards and work closely with the owner and contractor from start to finish assuring that the project is completed on time and within budget.

CMA Engineering will act as Prime Consultant on this project and will utilize the professional expertise of Potesta & Associates for any civil engineering design needed.

We appreciate your consideration of our firm and look forward to presenting a more comprehensive statement of our qualifications in a personal interview.

Sincerely,

CMA Engineering

Timothy L. Cox, P.E. Principal

enclosures

Clingenpeel/McBrayer & Associates, Inc.



Clingenpeel/McBrayer & Associates, Inc.

Firm Profile

Services



5 Riddle Court, Morgantown, WV

CMA Engineering is a West Virginia based small business firm, providing services in the areas of HVAC, plumbing, fire protection and electrical engineering. Incorporated in 1986, our firm has always believed that a successful project requires a comprehensive approach. This includes all facets of project development, starting with master planning, working closely with the client, developing the completed construction documents, and working with contractors during the bidding and construction administration phases. However, our depth of expertise goes far beyond the traditional design/bid/build service. CMA Engineering is a proven leader in the design/build delivery method. From developing the performance design criteria for owners to designing the mechanical, electrical and plumbing systems for contractors, CMA has an impressive portfolio of design/build experience.

CMA Engineering maintains its reputation of design and service quality by keeping informed of the latest innovations and technical trends regarding energy-efficiency and sustainability in mechanical, electrical and plumbing design. CMA is the engineer on record for the design/build team for the new West Virginia Consolidated DEP Office Building, the first LEED certified building in the State. Our staff includes an accredited professional for the Leadership in Environmental and Energy Design (LEED) and we incorporate the most efficient and sustainable "green" designs in all of our projects.

History

CMA Engineering has provided engineering design services on numerous projects of varying size and complexity. Clients include architects, industrial companies, governmental agencies, contractors, engineers, developers and private organizations. With offices strategically located in Charleston and Morgantown, our professional staff can provide clients with exceptional hands-on services for planning, meetings, site visits and construction administration without effecting the project's budget.

Experience

For over 29 years, CMA has provided electrical and mechanical design and contract administration services to various State facilities throughout West Virginia. These facilities and projects range from the fire sprinkler upgrades to Boreman Hall at West Virginia University, to the bathroom renovation at the Clarksburg/Weston Armory to the design of the new West Virginia National Guard armories at Moorefield and Elkins. Many times, special site-related issues have complicated design due to remote locations, poor water quality or pressure, unreliable local power systems, etc. CMA has consistently met the challenges and exceeded expectations by customizing design to address all concerns while staying within project schedules and budgets. We are proud of our continued service to the State of West Virginia.

Clingenpeel/McBrayer & Associates, Inc.



Connacti



(top) Ruby Memorial Hospital—Morgantown, WV HVAC Exhaust System

(middle) Memorial Ice Rink—South Charleston, WV Refrigerant Pressure Gages

(bottom) Alderson Federal Correctional Facility—Alderson, WV
Steam Plant

MECHANICAL

CMA Engineering experience includes:

Constant Volume Air Handling Systems

Variable Volume Air Handling Systems

Demand Control Ventilation Systems

Natatorium Dehumidification Systems

Building Energy and Management Control Systems

Industrial Ventilation and Exhaust Systems

Steam and Condensate Systems

Cooling Plants and Distribution

Heating Plants and Distribution

Energy Recovery Systems

Water Source Heat Pump Systems

Low, Medium and High Pressure Air Distribution Systems

Direct Digital, Pneumatic and Hybrid Control Systems

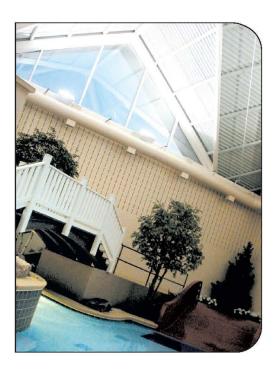
Kitchen Ventilation and Exhaust Systems



Clingenpeel/McBrayer & Associates,Inc.

824 Cross Lanes Drive Charleston, West Virginia 25313 (304) 343-0316 tel (304) 343-5146 fax 5 Riddle Court Morgantown, West Virginia 26505 (304) 598-2558 tel (304) 598-2472 fax

www.cmawv.com





(above) Split Rock Pools—Snowshoe, WV Indirect Lighting System

(below) Memorial Ice Rink—South Charleston, WV Chiller Power and Control Panel

ELECTRICAL

CMA Engineering experience includes:

Underground Ducts and Utility Structures

Intrusion Detection

Closed Circuit Television

Cable and Master Antenna Television

Medium Voltage Distribution and Substations

Secondary Voltage Distribution

Engine Generators and Battery Inverters

Transient Voltage Suppression

Interior Lighting

Exterior Lighting

Sports Lighting

Theatrical Lighting

Lighting Control

Uninterruptible Power Supply Systems

Lightning Protection

Intercommunications Systems

Nurse Call

Voice and Data Systems

Fire Detection Systems



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www.cmawv.com



AUID ONIA



(top) Split Rock Pools—Snowshoe, WV Piping & Pump Room

(middle) Memorial Ice Rink—South Charleston, WV Piping & Chilling

(bottom) Alderson Federal Correctional Facility—Alderson, WV Steam Piping

PLUMBING & PIPING

CMA Engineering experience includes:

Sanitary Sewer Systems

Storm Sewer Systems

Natural Gas Distribution

LP Gas Distribution

Fuel-Oil Distribution

Compressed Air Systems

Vacuum Systems

Chemical Waste Systems

Process Water Systems

Deionized Water Systems

Domestic Water Systems

Helium Distribution Systems

Domestic Water Pumping Systems

Sewage Pumping Systems

Water Heating

Automatic Fire Sprinkler Systems

Standpipe Systems

Fire Pumps, Storage Tanks, Service Mains

Medical Gas Systems



Clingenpeel/McBrayer & Associates,Inc.

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www.cmawv.com





Clingenpeel/McBrayer & Associates, Inc.

Mylan Pharmaceuticals

P.O. Box4310

Morgantown, WV 26505

Contact: Mr. J. J. Dotson

(304) 599-2595

Concord University

P.O. Box 1000

Athens, WV 24712

Contact: Mr. John Ferguson

(304) 384-5233

Yeager Airport

100 Airport Road

Charleston, WV 25311

Contact: Mr. Rick Atkinson

(304) 344-8033

West Virginia University

P.O. Box 0877

Morgantown, WV 26505

Contact: Mr. John Thompson

(304) 293-3625

Davis Memorial Hospital

P.O. Box 1484

Elkins, WV 26241

Contact: Steve Johnson

(304) 637-3129

Kanawha County Schools

3300 Pennsylvania Avenue

Charleston, WV 25302

Contact: Mr. Charles Wilson

(304) 348-6148

State of West Virginia

1900 Kanawha Blvd, East

Bldg. 1, Room MB-60

Charleston, WV 25305

Contact: Mr. Robert Kilpatrick

(304)558-0250

Harrison County Schools

P.O. Box 1370

Clarksburg, WV 26302

Contact: Mr. Neil Quinn

Clingenpeel/McBrayer & Associates, Inc.



Education

University of Colorado

Boulder, Colorado

Bachelor of Science in Mechanical Engineering

Registrations/Professional Affiliations

Registered Professional Engineer in WV, VA, MD, KY
Association of Energy Engineers-CBCP
CPD (Certified in Plumbing Engineering)
Member of ASHRAE
American Society of Plumbing Engineers
National Association of Fire Protection Engineers
WV Society of Healthcare Engineers
WV Chapter of A.I.A.

Experience

Timothy Cox, President and Senior Mechanical Engineer of CMA Engineering, brings 32 years of mechanical and plumbing design experience to our clients. Timothy is a Certified Building Commissioning Professional through Association of Energy Engineers.

Timothy L. Cox, P. E., CBCP

President
Mechanical Engineer
(304) 598-2558
tcox@cmawv.com

Project Experience

Design/Build-Criteria Development

Morgantown Events Center
West Virginia University Intermodal Parking
Marshall University Parking Facility
Yeager Airport Facility

Educational Facilities K-12

New Rainelle Elementary School
Salem Middle School Classroom Addition
South Harrison High School HVAC Replacement
South Harrison Middle School HVAC Upgrades

West Virginia University-Open End Contract since 1999

Coliseum Life Safety Renovations New Soccer Stadium New Wrestling Training Facility

Military Experience

New Moorefield Readiness Center
New Elkins Readiness Center
Gassaway Armory Addition & Renovations
St. Albans Armory Addition
Clarksburg/Weston Armory Renovations

Mylan Pharmaceuticals, Morgantown, WV

Various projects including HVAC plumbing, fire sprinkler and controls for new North Plant expansion, office building, fluid bed addition, parking garage and weighing and packaging

Clingenpeel/McBrayer & Associates, Inc.

824 Cross Lanes Drive Charleston WV, 25313 (304) 343-0316 phone (304) 343-5146 fax 5 Riddle Court Morgantown, WV 26505 (304) 598-2558 phone (304) 598-2472 fax



Daniel L. Ellars, P. E., AP BD+C

Principal Electrical Engineer (304) 343-0316 dellars@cmawv.com

Education

West Virginia University Institute of Technology Montgomery, WV Bachelor of Science in Electrical Engineering

West Virginia State University
Institute, WV
Bachelor of Science in Business Administration

Registrations/Professional Affiliations

Registered Professional Engineer in WV, PA Leadership in Energy & Environmental Design-

Accredited Professional-Building Design and Construction

U..S. Green Building Council

Member of ASHRAE

National Fire Protection Association
Institute of Electrical & Electronics Engineers
WV Chapter of A.I.A.

Experience

Daniel Ellars, senior electrical engineer, brings 25 years of electrical design and project management experience to our clients. Mr, Ellars had 17 years of experience with American Electric Power providing advice and coordination for new construction, additions, renovations and energy audits. Dan also served as the project manager for AEP's prime and emergency power systems program to provide on-site power generation to small and large, commercial and industrial customers across AEP's seven state territory.

Project Experience

Military Experience

New Moorefield Readiness Center

New Elkins Readiness Center

St. Albans Armory-Addition and Renovations
Gassaway Armory-Addition and Renovations
Welch Armory-Electrical Upgrades
Bluefield Armory-Electrical Upgrades

Dunbar Armory-Electrical Upgrades

Mylan Pharmaceuticals

New Office Building

North Plan Expansion

Recreational Facilities

Summit Bechtel National Scout Reserve Canaan Valley Ski Resort

WV Department of Transportation

New District 1 Administration Building

New District 8 Administration Building

Interstate Lighting Upgrades

WVDOH-Utility Study for all 10 Districts

Educational Experience

New Talcott Elementary School

New Fairdale Middle School

Chamberlain Elementary-Elevator Addition

Clingenpeel/McBrayer & Associates, Inc.

824 Cross Lanes Drive Charleston WV, 25313 (304) 343-0316 phone (304) 343-5146 fax 5 Riddle Court Morgantown, WV 26505 (304) 598-2558 phone (304) 598-2472 fax



Matthew C. Corathers, P.E.

Mechanical Engineer (304) 598-2558 mcorathers@cmawv.com

Education

West Virginia University

Morgantown, WV

Bachelor of Science in Mechanical Engineering

Registrations/Professional Affiliations

Registered Professional Engineer in WV Member of ASHRAE WV Society of Healthcare Engineers

Experience

Matthew Corathers, mechanical engineer, joined CMA's professional staff in 2008. He has since become registered as a mechanical engineer and has been involved in numerous projects starting from development of fees, design, bidding and construction administration services developing as a complete engineer. He is also cross training between disciplines of plumbing, electrical, and fire sprinkler to provide more complete services to our clients.

Project Experience

West Virginia University

New Daycare and Nursery Facilities

Engineering Science Building—Laboratory Renovations

Hospital Experience

Davis Memorial Hospital-New Addition

Monongalia General Hospital-Renovations to IT Workroom Cooling

United Hospital Center-New MRI facility

VA Hospital, Clarksburg, WV-Renovations to Dental Lab

Mercer County Nursing Home-Addition

Court Houses

Randolph County Courthouse-Mechanical design for completion of two-story addition and modifications of the existing second floor to be used by the Family Court

Monongalia County Family Court-Renovations

Educational Facilities

Harrison County Schools-Fire Alarm replacement at Robert C. Byrd High School, Nutter Fort Elementary and Lost Creek Elementary

University High School-HVAC Upgrades for use as a middle school New Rainelle Elementary School-HVAC Design Aurora Elementary School Addition-Mechanical Design

Military Experience

Elkins Armed Forces Reserve Center Clarksburg/Weston Armory Renovations

Clingenpeel/McBrayer & Associates, Inc.

824 Cross Lanes Drive Charleston WV, 25313 5 Riddle Court Morgantown, WV 26505 (304) 343-0316 phone (304) 343-5146 fax (304) 598-2558 phone (304) 598-2472 fax



Larry A. Weese

Plumbing Designer (304) 343-0316 lweese@cmawv.com

Education

West Virginia University Morgantown, WV Master of Science, Bachelor of Science-**Division of Forestry**

Professional Development

Various seminars and technical sessions

Experience

Larry Weese brings 25 years of mechanical and plumbing design and project management experience to our clients. Larry brings cross training between electrical, mechanical and plumbing/fire sprinkler systems to provide a more complete and thorough representation to each of our clients' projects.

Project Experience

Military Experience

Elkins Armed Forces Reserve Center Moorefield Readiness Center St. Albans Armory Renovations & Additions Gassaway Armory Renovations & Additions

Emergency Response Facilities

Randolph County 911-New Facility Mason County 911-New Facility Raleigh County 911-New Facility Orchard Manor Fire Station-New Facility ndustrial Experience Standard Laboratories-Laboratory Addition

Dow Process Control-New Facility Diamond Electric-Expansion

Commercial Experience

Bobcat of Advantage Valley-New Facility Allegheny Springs Restaurant

Educational Facilities K-12

New Sissonville Middle School New Lewisburg Elementary School New Talcott Elementary School New Fairdale Elementary School Nitro High School Toilet Renovations

Clingenpeel/McBrayer & Associates, Inc.

824 Cross Lanes Drive Charleston WV, 25313 (304) 343-0316 phone (304) 343-5146 fax

5 Riddle Court Morgantown, WV 26505 (304) 598-2558 phone (304) 598-2472 fax



Moorefield Readiness Center



Project Location: Moorefield, WV

Project Description: CMA Engineering provided design pf HVAC, plumbing, fire alarm and fire sprinkler systems,

and electrical systems for the new 57,100sf armory facility including an on-site, standby emergency power system designed to provide 100% of the overall power requirements to the facility in addition to an electrically- driven fire pump. The building consists of an armory combined with a 911 center. Facility also included a vehicle maintenance bay, a distance learning center and classrooms. Designs included a coordination of the campus's complete underground medium-voltage power and telecommunications systems and

separation of the armory's and 911 center's telecommunication networks.

Project Owner Contact: Major Rocky Hodges

WV Army National Guard

(304) 561-6353

Rocky.Hodges@us.army.mil



Elkins Armed Forces Reserve Center



Project Location: Elkins, WV

Project Description: CMA Engineering provided design pf HVAC, plumbing, fire alarm and fire sprinkler systems,

and electrical systems for the new 54,500sf all-electric armory facility including an onsite, standby emergency power system designed to provided about 40% of the overall power requirements of the facility in addition to an electrically driven fire pump. Plans were provided to allow an additional engine/generator set to be installed to more than double the system's capacity in the future. Designs included a portable on-site, standby emergency power system for the facility's lift station, and coordination of the campus' complete underground medium-voltage power and telecommunications systems.

CMA complied with the latest requirements of the West Virginia Army National Guard to provide door access security at selected entrances including card readers with magnetic locks or electric hinge locks and door contacts for access monitoring. The fire alarm system was interconnected with a mass notification system for customized procedures in response to various emergency and threat conditions. Power and raceway designs were provided to support the Guard's elaborate security systems to safeguard their weapons

vaults.

Project Owner Contact: Major Rocky Hodges

WV Army National Guard

(304) 561-6353

Rocky.Hodges@us.army.mil

Completion Status: Completed in 2012

Clingenpeel/McBrayer & Associates, Inc.



WVDOH-District 9 Administrative Office



Project Location: Lewisburg, WV

Project Description: CMA Engineering provided mechanical, electrical and plumbing design services for the

new three-story, 30,000 square foot office building to serve the WV Division of Highways administrative personnel for one of the ten districts in the State. The construction documents were re-used from an earlier project designed and built ten years earlier in another district, but was updated to reflect recent changes in the Divisions operational requirements and updates in the various applicable codes and standards. Increases in the emergency power system design included service for a fire pump to serve the fire protection sprinkler system needs for the building. During design and development of the site, it was discovered that the available water utility's water service pressure was inadequate for the sprinkler system. The building's emergency power system capacity was increased to provide the required power for the fire pump.

Completion Status: 2010







Project Location: St. Albans, WV

Project Description: CMA Engineering provided mechanical, electrical and plumbing, design services for the

renovation of 16,407 sf of a single story facility and a single story addition of 13,940 sf composed primarily of office space, storage space, a lobby and corridors. The project also included the addition of a free-standing, insulated metal building (approximately 1,760sf) divided into three bays for vehicular storage. A new electric fire pump and associated water storage tank were added to address low water pressure problems at the site.

Construction was accomplished while the facility was fully occupied.







Project Location: Gassaway WV

Project Description: CMA Engineering provided mechanical, electrical and plumbing, design services for the

renovation of 24,170 square feet of a single story structure including a 10,900 square feet drill hall and the addition of a new 4,180 sf single story facility to house lockers, storage space, a lobby, corridors and office space. The design included upgrades to plumbing and electrical utilities as well as new HVAC systems and controls for the addition and renovated areas; new power, lighting and communications design; and modifications to

the fire alarm, fire sprinkler, security and other systems.

Construction was accomplished while the facility was fully occupied.



Lewisburg Elementary School



Project Location: Lewisburg, WV

Project Description: CMA Engineering provided HVAC, plumbing, fire sprinkler, fire alarm, communication,

lighting and electrical power design services for new 75,000sf, two-story facility with a gymnasium. Project also included design of an engine driven fire pump. Construction

costs: \$12,899,000.00



Concord University Dormitories



Project Location: Athens, WV

Project Description: CMA Engineering provided mechanical, electrical and plumbing design services for

upgrades to the fire sprinkler systems at North Tower, South Tower, Wilson and

Woodell dormitories. Project included design of a fire pump to serve

Construction costs: \$1,398,000.00

Completion Status: 2007



WVUIT-Old Main Building



Project Location: Montgomery, WV

Project Description: Mechanical, electrical and plumbing engineering services for design of a new fire sprinkler

system, fire pump and fire pump house and renovations to the fire alarm system and

electrical system. Construction costs: \$596,700.00

Completion Status: 2007



CORPORATE PROFILE

Providing Innovative, Timely, Cost-Effective Engineering and Environmental Solutions





Offices in:

CHARLESTON

7012 MacCorkle Avenue, SE Charleston, WV 25304 (304) 342-1400

MORGANTOWN

125 Lakeview Drive Morgantown, WV 26508 (304) 225-2245

WINCHESTER

15 South Braddock Street Winchester, VA 22601 (540) 450-0180

CAMBRIDGE

841 Steubenville Avenue Cambridge, Ohio (740) 432-6555

Company Overview

FIRM HISTORY

Potesta & Associates, Inc. (POTESTA) was founded in 1997 as a full service engineering and environmental consulting firm headquartered in Charleston, West Virginia. We have now expanded to a diverse staff of more than 100 experienced engineers, scientists, and support personnel with branch offices in Morgantown, West Virginia, Winchester, Virginia and Cambridge, Ohio. Our clients include mining, manufacturing and chemical companies; utility companies; waste management companies; colleges/universities; land developers; attorneys; financial institutions; insurance companies; local, state and federal agencies; construction companies and architects.

SERVICES

- Air
- · Biological and Toxicological
- CADD/GIS
- Civil Engineering and Design
- · Coal Supply and Procurement
- Construction Monitoring
- Environmental Site Assessment
- Geotechnical Engineering

- Groundwater
- Hydrology and Hydraulics
- Landfills and Solid Waste
- Litigation Support
- Marcellus Shale
- Mining
- Occupational Safety and Health
- Oil and Natural Gas Consulting
- Permitting
- Remediation
- · Roadway Engineering
- Sampling
- Site Design
- · Surveying and Mapping
- Water and Wastewater
- Wetlands



Experienced Professionals

POTESTA's staff is committed to delivering innovative, cost-effective solutions to meet our client's complex requirements. The firm's environmental department consists of biologists, geologists, chemists, environmental scientists and environmental engineers, many with advanced degrees (Masters and Ph.D. level). POTESTA's engineering department includes civil, geotechnical, environmental, mining and mechanical engineers. Our registered professional engineers have over 300 years experience among them and are supported by a capable team of engineers, designers, surveyors and landscape architect.

Our firm is managed by three principals driving POTESTA forward with their experience and emphasis on exceeding expectations. Ronald R. Potesta, President, is a former Director of the West Virginia Division of Natural Resources and Dr. L. Eli McCoy, Vice President of Environmental, is a former Director of the West Virginia Department of Environmental Protection. Dana L. Burns, P.E., Vice President of Engineering, has more than 30 years experience with civil, geotechnical, mining and environmental engineering projects.

Additional information on our services and capabilities can be found on our corporate website: www.potesta.com.

FIRM HIGHLIGHTS:

Established in 1997

Staff of More Than 100

Corporate Office in Charleston, WV

Regional Offices in Morgantown, WV Winchester, VA Cambridge, OH

Primarily Serve Clients
East of the
Mississippi River

Carry a Full Line of Insurance Coverage

Stringent Internal Quality Control System

POTESTA & ASSOCIATES, INC.

- Construction Monitoring

Potesta & Associates, Inc. (POTESTA) provides construction monitoring and construction management services to assist clients in achieving regulatory and contractual compliance, to document that contractor activities are in compliance with design requirements, and to serve as an extension of clients' staff. POTESTA can provide full-time or part-time field services utilizing one or more engineers or technicians.

Regulatory compliance is often best documented by providing full-time construction monitoring services for a construction project. POTESTA can assist clients in observation of construction activities and documenting compliance. Our typical involvement in such projects includes:

- Conducting a pre-construction review of design and contract documents to identify potential problem areas, and consultation with the owner or client to develop strategies or procedures to avoid anticipated problems.
- Assistance in selection. contractor POTESTA can recommend construction contractors who specialize in the type of work associated with the project and can assist in bid evaluation by reviewing proposed quantities, unit costs, lump sum costs, and any proposed exceptions or qualifiers for the project. POTESTA can conduct pre-bid conferences to help contractors understand project requirements. We can also conduct pre-construction conferences prior to the start of the project to help establish lines of communication, review detailed plans, discuss testing requirements and establish proper reporting procedures.

- POTESTA can provide surveying for construction layout, measurement for payment quantities, and documentation of as-built conditions. Survey results are downloaded to form computer-aided drafting (CAD) drawings allowing the efficient preparation of record drawings and any subsequent evaluations required.
- Construction monitoring can include field testing to document compliance such as field density tests, concrete testing, sampling of materials for laboratory analysis, and documentation of site conditions and work performed on a daily basis or as required.
- Preparation of summary of construction reports, including photographs, videotape documentation, test results, daily construction logs, industrial hygiene monitoring, and other documentation as may be required by the client.
- Preparation of certifications as may be required.



TIMOTHY M. RICE, E.I.T.

Senior Engineer

EDUCATION

B.S. Civil Engineering, 1982 West Virginia University

EMPLOYMENT HISTORY

2014-Present Potesta & Associates, Inc. 2006-2014 Hatch Mott MacDonald CTL Engineering

1070 1007 C E D' 4 8 A

1978-1987 George E. Pigott & Associates

PROFESSIONAL REGISTRATIONS

Engineer in Training - West Virginia

TRAINING/RELEVANT COURSE WORK

Natural Stream Channel Design Levels I-IV

AREAS OF SPECIALIZATION

Civil, environmental, surveying, and geotechnical engineering experience with an emphasis in project coordination environmental management and of permitting/compliance, hydraulic and hydrological analysis, slope stability analysis, geotechnical design, Phase I environmental audits, stormwater management, municipal water and sewer design, civil site design, water resources analysis/design, and construction monitoring/observation.

PROFESSIONAL EXPERIENCE

Civil/Site Design

Senior Engineer/Project Director with experience on numerous civil/site design projects involving various aspects of site development for residential, commercial, and public development projects.

Lake Floyd Homeowners – Senior Engineer on dredging project for remediation of lake sedimentation at Lake Floyd. Project includes wetland and stream delineations, Section 404 Permit, sediment disposal area design, and coordinating bidding and construction phases of project.

American Campus Communities Student Housing – Senior Engineer for civil/site portion of this project at West Virginia University, Morgantown, West Virginia. Project

includes geotechnical investigations, survey, permitting, construction specifications, design drawings, city planning, and project coordination.

Davis and Elkins College – Senior Engineer for civil site project at Davis and Elkins College in Elkins, West Virginia for the site development and permitting associated with a proposed amphitheater on campus.

Cirrus Energy Group – Project Director responsible for coordination and oversight of field and office activities associated with risk assessment study, environmental permitting, preliminary engineering studies, and conceptual planning for a 1,100 acre data center complex in Fox and Horton Townships in Elk County, Pennsylvania.

Harrison County Planning Commission - Project Director responsible for the coordination and design of Phases 1 – 3 of the Rail Trail project in Harrison County, West Virginia. Project included engineering design, modeling, permitting, and construction observation services.

Construction Monitoring

Project Manager/Senior Engineer with an understanding of construction observation on public, private and government construction projects.

Camp Dawson – Quality Control Manager for the construction of the Student Training Facility at Camp Dawson, Kingwood, West Virginia. The project included all quality control and construction monitoring for the six building facility along the airstrip at Camp Dawson.

University Place, LLC – Senior Engineer responsible for coordination of the construction monitoring and testing of the concrete and soils at this parking garage at West Virginia University, Morgantown, West Virginia.

Oil & Gas

Project Director for shale gas and pipeline projects in West Virginia, Ohio, and Pennsylvania. Projects include facility pad designs, access road design, impoundment design, geotechnical, slope stability issues, surveying, permitting, and environmental compliance services.

Dominion Transmission, Inc. - Clarington Project in West Virginia and Ohio - Project Manager for the

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environmental tasks associated with the additional compression at two existing compressor station sites, upgrade at an existing meter station, and one new meter station. This FERC regulated project includes preparation of resource reports 1 through 12, stream/wetland/T&E field surveys, wetland delineation reports, and earth disturbance permits.

Columbia Gas Transmission, LLC – Rockport Efficiency Project – Project manager responsible for the engineering and design services, including construction drawings and specifications for 13 different sites. These sites include the plugging and abandonment at existing wells, valve replacement, access road modifications, and well pad construction.

Williams Northeast G&P – Grassy Run Pipeline Project – Project Director responsible for oversight of the environmental field and permitting activities associated with a 6,447 feet proposed gas line installation, to include: RTE species review, Cultural Resources review, wetland/stream delineations, soil sampling, Chapter 105 permit application, ESCGP-2 permit application, E&S controls and inspection, and hydrostatic test permit application in Fayette County, Pennsylvania.

Consol Energy – Well Assessment Study – Project Director responsible for oversight of approximately 400 existing gas and oil well assessments to determine the Greenhouse Gas inventory and general environmental condition of the well sites in West Virginia and Pennsylvania.

Stream/Wetland Delineation, Permitting and Mitigation

Dominion Transmission, Inc. – Post Wetland Monitoring and Reporting – Project Director responsible for the oversight of the post wetland monitoring services for five FERC-certified projects sites in West Virginia and Pennsylvania for three years to measure the revegetation success of wetlands impacted during the construction of natural gas pipeline in the area.

Pennsylvania General Energy – Project reviewer responsible for various wetland/stream delineations, US Army Corps, Chapter 105 permit application, ESCGP-2 permit application, Erosion & Sediment controls and inspections for the Fisk Hollow Pipeline Project in Porter County, Pennsylvania.

Cabot Oil & Gas – Project engineer on Superior Modular Site responsible for U.S. Army Corps of Engineers 401 permitting, WV Public Lands permit, and WVDNR Stream Enhancement plan utilizing Natural Stream Design techniques.

Consol Energy – Stream Mitigation and Remediation – Project Manager responsible for coordination and oversight of field and office activities associated with the mitigation of approximately 55,000 linear feet of streams affected by longwall mining in Greene County, Pennsylvania. Responsibilities include mitigation planning, construction management, permitting, and augmentation plans. This project utilized shallow low-pressure grouting and minimal stream modifications necessary to improve flow characteristics and stream stability.

US Steel – Project liaison responsible for assembling the in-house team and initial client negotiations for a 500 acre Palisades Wetlands banking project in Duluth, Minnesota.

J.F. Allen Company – Stream Restoration – Project Engineer responsible for WVDEP permitting associated with a stream restoration plan utilizing natural stream design techniques in Bowden, West Virginia.

Mining

Project Director/Project Manager for surface and deep mining activities associated with coal and aggregate mining facilities. Projects include civil site design, geotechnical, surveying, environmental compliance, permitting, stream monitoring, and mitigation services.

Consol Energy – Project director responsible for oversight of approximately 400 existing gas and oil wells assessments to determine the Greenhouse Gas inventory and general environmental condition of the well sites in West Virginia and Pennsylvania.

Consol Energy – Impoundment Mitigation – Project Manager responsible for the coordination and oversight of field and office activities associated with the mitigation of an existing private impoundment affected by longwall mining in Wetzel County, West Virginia. This project included dewatering of the existing impoundment, shallow low-pressure grouting within the dewatered area and placement of a bentonite liner on the bottom of the impoundment to control the impacts of mine subsidence.

Consol Energy – Stream Monitoring and Regulatory Compliance – Project Manager for monitoring and regulatory compliance of areas above longwall coal mining operations in Greene County, Pennsylvania. This project included monitoring and data collection of surface and ground water using sub-foot Trimble GPS units, Marsh McBirney Flo-mate 2000 flow meters, and digital cameras. This project also included the management of data to determine trends, historical frequencies, and predictive modeling.

Shannopin Materials, LLC – Shannopin Dock Site, Dilliner – Project Manager responsible for the PADEP permitting necessary for the re-opening of an abandoned stockpile area, dock site, and rail load-out facility in Greene County, Pennsylvania.

Dana Mining Company – 4-West Mine, Eisenhower Shaft Site – Project Manager responsible for PADEP permitting, necessary for the installation of a mine shaft at the 4-West Deep Mine in Mt. Morris, Greene County, Pennsylvania.

Dana Mining Company – Prime No. 1 Deep Mine – Project Manager responsible for PADEP permit revisions necessary for an extension of the mining limits and effected area of an existing deep mine facility in Mt. Morris, Greene County, Pennsylvania.

Coresco, LLC – Cobra Refuse Dump #4 – Project Manager responsible for the PADEP permitting necessary for the development and operation of a coarse coal refuse disposal site in Greene County, Pennsylvania. This site also included the land application of alkaline material.

Abandoned Mine Lands

Project Director/Senior Engineer for 80 abandoned mine lands projects in West Virginia, Maryland, Ohio, and Pennsylvania. These projects include: reclamation design, mine fire and burning refuse pile extinguishment, impoundments, slope stability, mine sealing, acid mine drainage abatement, subsidence investigations and stabilization plans, landslides, water feasibility studies, and watershed studies. These services also included detailed design drawings and specifications for construction, as well as assisting with the bidding and any construction issues of each individual project.

West Virginia Department of Environmental Protection – Project Manager responsible for reclamation design and stream remediation of an abandoned surface mine in Pendleton Creek Strip, Thomas, Tucker County, West Virginia. Geosynthetic liners and Natural Stream Design techniques were used to prevent headwater base flows from entering an abandoned deep mine through mine voids and subsidence features. Existing wetlands were protected utilizing staged culvert and low water crossings. This project also included ARRI reforestation techniques and riparian habitat replacement.

West Virginia Department of Environmental Protection – Taylor Creek Impoundment – Project Manager responsible for reclamation of a 120-acre burning refuse pile and a 24-acre impoundment in Clay County, West Virginia. This work involved the reclamation and extinguishment of the burning refuse pile, dewatering of the impoundment, subsurface investigation of burning material to depths of approximately 110 feet and the design and reconstruction of approximately 3,400 feet of Taylor Creek.

West Virginia Department of Environmental Protection – Blackwater River Beaver Creek Treatment Project – Project Manager responsible for the rehabilitation of an existing concrete dam, the installation of rotating drums, and a limestone slurry treatment facility on the Blackwater River in Tucker County, West Virginia. This was a cooperative project with WVDEP and WVDNR, and has been recognized by "Trout Unlimited" and "Outdoor Life". This project has successfully transformed a formerly dead section of the Blackwater River into a high quality trout fishery and was recognized by the US Department of Interior, Office of Surface Mining, as the 1999 Appalachian Region Award Winner.

West Virginia Department of Environmental Protection – Decker's Creek Watershed Study, Monongalia and Preston County, WV - Project Manager responsible for a comprehensive study of the watershed to determine if improvements can produce a sustainable fishery. Graphic Information Systems (GIS), stream invertebrate data, water quality data, and in-stream limestone sand test sites were used to complete the investigation. The Decker's Creek Watershed has a 60 square mile drainage area impacted by both abandoned surface and abandoned deep mines causing the upper reaches of the stream to be net acidic, with elevated concentrations of iron.

West Virginia Department of Environmental Protection – Brushy Fork Waterline Feasibility Study – Project Manager for the hydrologic study of a mine-impacted watershed for the design of a public waterline extension

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to serve the rural community in Harrison County, West Virginia. The study included documentary, field assessment, and laboratory review of conditions to determine eligibility.

West Virginia Department of Environmental Protection – Amigo Smokeless Refuse Pile – Project Manager for the stabilization of a 300 foot high coal slurry impoundment and refuse pile in Wyoming County, West Virginia. This pile was placed using an aerial tram and consisted mainly of coarse refuse. The primary drainage structures had failed and the slope was deteriorating. A number of residences and active railroads were within the breach zone.

West Virginia Department of Environmental Protection – Moundsville Water Supply Study – Project Manager responsible for an investigative study of the fresh water well field for the City of Moundsville situated along the Ohio River in Wood County, West Virginia. Increasing levels of manganese contamination were deteriorating the quality of this aquifer. A site investigation study was performed to determine the location and effects of mining activities on the local groundwater aquifers. Existing mine maps, geologic information, and background data were reviewed. Geotechnical investigations and aquifer testing were performed to determine the location, depth, and extent of the potential contaminants.

Maryland Department of the Environment – Shallmar Limestone Doser – Project Manager responsible for the design of an AquaFix doser treating AMD runoff from a reclaimed surface mine discharging to the Potomac River basin in Garrett County, Maryland. Design included silo, foundation, and maintenance provisions for this water-driven doser.

Maryland Department of the Environment – Jackson Mountain Mine Fire – Project included engineering design services and construction documents necessary to determine the location and characteristics of a mine fire and then design of an excavated cutoff barrier to prevent the crop line fire from encroaching on the roadway and an existing high pressure gas line in Alleghany County, Maryland. Additional services included the stabilization of an existing landslide that had occurred as a result of the mine fire.

Maryland Department of the Environment – Kingsland Mine Pool Investigation – This project included an engineering assessment of the existing conditions of a flooded, abandoned deep mine and its blowout potential as related to public safety concerns of the local residents in Alleghany County, Maryland.

Water Lines, Water Storage Tanks, and Water Treatment Plants

Preston County Public Service District No.1 – Nine County Roads Waterline Extension Project – Project Director responsible for the coordination and oversight of a waterline extension project in Arthurdale, Preston County, West Virginia. Project included permitting, design, bidding, and construction coordination.

Short Line Public Service District – Tenmile Waterline Extension Project – Project Director responsible for the coordination and oversight of a waterline extension project in Harrison County, West Virginia. This project also included the initial stages of cost analysis and feasibility evaluations, and system improvement analysis to help minimize water losses.



PROFESSIONAL REGISTRATION

Registered Professional Engineer

- West Virginia, Pennsylvania, Maryland, and Ohio

PROFESSIONAL CERTIFICATION

- 40 hour Hazardous Waste Site Operations and Superfund Worker Protection Training
- Troxler Nuclear Densometer Certification
- American Red Cross Standard First Aid and CPR Training

EDUCATIONAL BACKGROUND

M.S. Civil Engineering, 1995 West Virginia University

B.S. Civil Engineering, 1993 West Virginia University

EMPLOYMENT HISTORY

2003-Present Potesta & Associates, Inc. 2000-2003 CTL Engineering, Inc. 1997-2000 Potesta & Associates, Inc. 1994-1997 Terradon Corporation

HONORS

- Chi Epsil on Civil Engineering Honorary
- American Society of Civil Engineers -Associate Member and Former Outstanding Senior Civil Engineering Student

PUBLICATIONS

Burns, Dana; Hemme, James; and Sharp, David; (1997), "Geogrid Reinforced Slope Design Provides Unique Solution for Landfill Expansion," <u>Geotechnical News</u>, vol.15, pp.25-29

AREAS OF SPECIALIZATION

Involved with many aspects of civil engineering with a special interest in the geotechnical/environmental aspects. Responsibilities have included projects involving Civil Site Design, Geotechnical Design; Solid Waste Management Facility Design including geosynthetic applications; hydrologic, hydraulic design; transportation/highway projects, including geotechnical and right-of-way plans; and municipal water and wastewater projects.

PROFESSIONAL EXPERIENCE

Miscellaneous Foundation Projects

Engineer responsible for performing subsurface investigations, preparation of geotechnical reports, coordinating laboratory analysis programs, providing recommendations for lateral earth pressures, bearing capacities, modulus of subgrade reactions, settlements, and construction specifications for multi-story structures. Foundations considered have included steel H-piles, auger-cast piles, drilled piers, spread footings, and mat foundations.

- WVU Potomac State Building Addition, Keyser, West Virginia
- West Run Student Housing, Morgantown, West Virginia
- Fairmont Federal Credit Union, Bridgeport, West Virginia
- Morgantown Waterfront Marina, Morgantown, West Virginia
- WVU Engineering Sciences, East Wing Addition, Morgantown, West Virginia
- Residence Inn, Morgantown, West Virginia
- Suncrest Executive Office Plaza and Parking Garage, Morgantown, West Virginia
- WVU Luxury Box for Mountaineer Field, Morgantown, West Virginia
- WVU Research Park, Morgantown, West Virginia
- View at the Park Apartment Complex, Morgantown, West Virginia
- Three 3-story Apartment Complex, Morgantown, West Virginia
- Baptist Church, Morgantown, West Virginia
- Marriott Hotel, Morgantown, West Virginia
- Bucks Tavern, Morgantown, West Virginia
- Stouts Run United Methodist Church Addition, Parkersburg, West Virginia
- Fairfield Inn Hotel, Fairmont, West Virginia
- Wendy's Restaurant, Morgantown, West Virginia
- Sunoco Service Station, Robinson Township, Pennsylvania
- Numerous Residential Geotechnical Projects, Morgantown and Charleston, West Virginia
- St. Stephens Baptist Church, Morgantown, West Virginia
- Islamic Center, South Charleston, West Virginia
- Oak Hill Public Library, Oak Hill, Ohio
- Westside High School, Oceana, West Virginia
- WVARNG Readiness Center, Summersville, West Virginia
- Library/Information Center, Student Center Addition, Jomie Jazz Center, and Child Care Center - Marshall University, Huntington, West Virginia
- U.S. Equipment Distributors, Huntington, West Virginia
- PC WV #2 and #3, Pace Carbon Fuels, Summersville and Eckman,

- West Virginia
- Mid-Ohio Valley Center, Marshall University, Point Pleasant, West Virginia
- Student Housing Facility and Parking Garage, Marshall University, Huntington, West Virginia
- Arbor Terrace Assisted Living Facility, Charleston and Huntington, West Virginia

Laurita Excavating, Inc., Morgantown, West Virginia

Engineer responsible for the structural design of a temporary soldier beam and lagging retaining wall to be utilized during the installation of a storm sewer as part of the construction activities being performed for the Star City/Osage roadway project for the West Virginia Department of Transportation.

Miscellaneous Slope Stability Projects

Responsible for the coordination of subsurface investigation, laboratory testing program, slope stability analysis and preparation design documents associated with the repair of landslide at various site throughout West Virginia. Representative designs have included soldier beam and lagging retaining walls, gabion basket retaining walls, segmental block retaining walls, rock toe keys and buttresses, and drainage improvements. The following provides a list of representative projects:

- Columbia Gas Transmission, Well #7331 Slide Repair, Elkview, West Virginia
- Cline Tower Landslide, Winfield, West Virginia
- Wellford Tower Landslide, Clendenin West Virginia
- Massie Ridge Tower Landslide, Camp Creek, West Virginia
- Fisher Landslide, Elkview, West Virginia
- Kennawa Landslide, Charleston, West Virginia
- Burlew Landslide, Charleston, West Virginia
- Lee Landslide, South Charleston, West Virginia
- Fairmont North Tower Landslide, Fairmont, West Virginia
- 6th Street Tower Landslide, Huntington, West Virginia
- Joyce Landslide, Chesapeake, Ohio
- WVAML Tuppers Creek Emergency Landslide, Tuppers Creek, West Virginia
- Schmidt Landslide, Gallipolis, Ohio
- Disposal Service, Inc. Landslide, Hurricane, West Virginia
- Ferguson, Sammons, Olivero, and Paraschos, Lavalette, West Virginia
- Wellston High School Landslide Repair, Wellston, Ohio

Geotechnical Projects for Department of Transportation

Involved with the layout of the boring plan, staking borings in the field, preparation of the boring contract documents, soliciting bids, awarding drilling contracts, monitoring of drilling operations, coordination of laboratory testing programs, preparation of boring diagrams, and preparation of subsurface exploration report foundation recommendations and slope reviews for various West Virginia Department of Transportation Projects:

- Platinum Drive Urban Connector, Bridgeport, West Virginia
- Segment of WV State Route 2, Moundsville, West Virginia
- Segment of National Road, Wheeling, West Virginia
- Segment of North Bridgeport Bypass, Bridgeport, West Virginia
- Corridor H, Section IV, Davis, West Virginia
- Sulphur Springs Bridge, Hundred, West Virginia
- Dry Run Interchange, Martinsburg, West Virginia

 Interstate 81 Hainesville, Bessemer & Tuscorora Creek Bridges, Martinsburg, West Virginia

Materials Testing Laboratory Manager

Served as the Manager responsible for equipping and staffing a fully operational soils and concrete material testing laboratory to be used in support of construction observation projects. The laboratory became validated by the U.S. Army Corps of Engineers to perform approximately 45 ASTM test methods will under Mr. Sharp's direct supervision. Representative test methods included standard and modified proctors, Atterburg limits, grain size determination, aggregate sieve analysis, specific gravity, organic matter, lightweight particles, soil classification, compressive strength, and moisture content determinations. Establishment of the laboratory also included the preparation of a site specific quality systems manual in accordance with ASTM guidelines.